Detailed Site Investigation

2-4 Brownlee Street, Ourimbah NSW

NEW23P-0208-ABv3 22 November 2024



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Executive Summary

Qualtest Laboratory NSW Pty Ltd (Qualtest) has carried out a Detailed Site Investigation (DSI) for Central Coast Industry Connect Limited (CCIC) for the site located at 2-4 Brownlee Street, Ourimbah NSW (the Site).

The site is approximately 1.8 ha and comprised Lot 3 DP612071 and part Lot 42 DP1237817, within the Central Coast Council. The site is currently zoned E4 General Industrial and C2 Environmental Conservation along Bangalow Creek. The site is proposed to be developed into a Food Manufacturing Hub with associated roads and services in the northern portion of the site. Portions of the site will be retained as riparian zone and/or vegetated landscape. No development or vegetation clearing is proposed in these areas, other than weed management under a Vegetation Management Plan (VMP).

Qualtest completed a Preliminary Site Investigation (PSI) on the site, ref: NEW23P-0208-AA, dated 24 November 2023 (Qualtest, 2023). The PSI identified four Areas of Environmental Concern (AECs) for the site relating to: 1. Former sawmill/recycling depot; 2. Former use of Lot 42 as Council depot; 3. Abandoned dwelling on Lot 42; and, 4. Fill materials. Based on the site history and observations during the site walkover, it was recommended that a Detailed Site Investigation was carried out.

The purpose of this DSI is to support the DA submission to Central Coast Council for the proposed development.

It is noted that the assessment was carried out in two stages, with sampling in November 2023 and October 2024. The sampling in November 2023 was carried out in conjunction with a geotechnical assessment for the site, ref: NEW23P-0208-AC.

The objectives of the DSI were to:

- Assess the presence of soil contamination (if any) within the AECs previously identified at the site by Qualtest (2023);
- Update the Conceptual Site Model for the site based on the findings of the DSI; and
- Provide recommendations on the need for further assessments, remediation and/or management, as required.

In order to achieve the above objectives, Qualtest carried out the following scope:

- Excavation of 28 test pits, and collection of soil samples from 24 test pit locations, and 19 surface soil locations;
- Laboratory analysis of soil samples for identified contaminants of potential concern; and,
- Data assessment and preparation of this DSI Report.

Based on the results of the DSI, it is considered the site can be made suitable for the proposed development, provided the following recommendations are implemented:

- Preparation and implementation of a Remediation Action Plan (RAP) for remediation of the identified ACM contamination.
- Preparation and implementation of an Asbestos Management and Removal Control Plan (AMRCP) would be required for the handling and disposal of ACM or ACM impacted soils.
- Preparation and implementation of an Unexpected Finds Procedure. It is recommended that an environmental scientist is present during vegetation clearing and excavations for the proposed detention basin and associated drainage lines.

Provided the recommendations made within this report are implemented, it is considered that the site could be rendered suitable, from a contamination point of view, for the proposed Manufacturing Food Hub development.

This report was prepared in general accordance with the relevant sections of the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Land and the National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra (referred to as ASC NEPM 2013). This report comprises a stage 2 detailed site investigation as described in SEPP (Resilience and Hazards) 2021, Chapter 4).

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1.0 Introduction

Qualtest Laboratory NSW Pty Ltd (Qualtest) has carried out a Detailed Site Investigation (DSI) for Central Coast Industry Connect Limited (CCIC) for the site located at 2-4 Brownlee Street, Ourimbah NSW (the Site). The site location is shown on Figure 1, Appendix A.

The site is approximately 1.8 ha and comprised Lot 3 DP612071 and part Lot 42 DP1237817, within the Central Coast Council. The site is currently zoned E4 General Industrial and C2 Environmental Conservation along Bangalow Creek. The site is proposed to be developed into a Food Manufacturing Hub with associated roads and services in the northern portion of the site. Portions of the site will be retained as riparian zone and/or vegetated landscape. No development or vegetation clearing is proposed in these areas, other than weed management under a Vegetation Management Plan (VMP). A copy of the proposed development plan is included in Appendix A.

Qualtest completed a Preliminary Site Investigation (PSI) on the site, ref: NEW23P-0208-AA, dated 24 November 2023 (Qualtest, 2023). The PSI identified four Areas of Environmental Concern (AECs) for the site relating to: 1. Former sawmill/recycling depot; 2. Former use of Lot 42 as Council depot; 3. Abandoned dwelling on Lot 42; and, 4. Fill materials. Based on the site history and observations during the site walkover, it was recommended that a Detailed Site Investigation was carried out.

The purpose of this DSI is to support the DA submission to Central Coast Council for the proposed development.

It is noted that the assessment was carried out in two stages, with sampling in November 2023 and October 2024. The sampling in November 2023 was carried out in conjunction with a geotechnical assessment for the site, ref: NEW23P-0208-AC. The sampling in October 2024 was carried out following minor weed clearance for access and a revised site boundary.

This report was prepared in general accordance with the relevant sections of the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Land and the National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra (referred to as ASC NEPM 2013). This report comprises a stage 2 detailed site investigation as described in SEPP (Resilience and Hazards) 2021, Chapter 4.

1.1 Objectives

The objectives of the DSI were to:

- Assess the presence of soil contamination (if any) within the AECs previously identified at the site by Qualtest (2023);
- Update the Conceptual Site Model for the site based on the findings of the DSI; and
- Provide recommendations on the need for further assessments, remediation and/or management, as required.

1.2 Scope of Works

In order to achieve the above objectives, Qualtest carried out the following scope:

- Excavation of 27 test pits, and collection of soil samples from 23 test pit locations, and 19 surface soil locations;
- Laboratory analysis of soil samples for identified contaminants of potential concern; and,
- Data assessment and preparation of this DSI Report.

2.0 Site Description

2.1 Site Identification

General site information is provided below in Table 2.1. The site location is shown in Figure 1, Appendix A.

Site Address:	2-4 Brownlee Street, Ourimbah NSW
Approximate site area and dimensions:	Approx. 1.8ha. Approx. 170m long (north-south) by 220m wide (east-west) at its widest and longest points.
	Development area is approx. 0.9ha. Approx. 100m long (north-south) by 125m wide (east-west) at its widest and longest points.
Title Identification Details:	Lot 3 DP612071 and part Lot 42 DP1237817, within the Central Coast local government area.
Current Zoning	E4 – General Industrial C2 – Environmental Conservation along Bangalow Creek
Current Ownership:	Central Coast Council
Current Occupier:	Central Coast Council
Previous and Current Landuse:	Sawmill Council depot Residential
Proposed Landuse:	Commercial/Industrial (food manufacturing hub)
Adjoining Site Uses:	North – Sports fields East – Bangalow Creek and vacant land South – Brownlee Street, and residential and commercial/industrial properties West – Brownlee Street, and rail corridor
Site Coordinates for approx. north-western corner of site:	33°21'24.68 \$ 151°22'13.04 E

Table 2.1: Summary of Site Details

2.2 Proposed Development

The site is an irregular shape, with a triangular shaped portion located to the north-west of Bangalow Creek, and a second triangular shape mostly located to the south-east of Bangalow Creek.

The northern portion of the site is proposed to be site is proposed to be developed into a Food Manufacturing Hub with associated roads and services. Remaining areas of the site will be retained as a riparian zone and/or vegetated landscape. No development or vegetation clearing is proposed in these areas, other than weed management under a Vegetation Management Plan (VMP). These areas include:

- A 20m wide strip of land along the north-western side of Bangalow Creek;
- An approximately 650m² portion in the north-eastern corner of the site; and,
- An approximately 3,750m² portion in the south-eastern corner of the site.

A copy of the proposed development plan is included in Appendix A.

2.3 Topography and Drainage

Reference to the NSW Land and Property Information Spatial Information Exchange website (<u>https://six.nsw.gov.au/wps/portal/</u>) indicated the elevation of the site was approximately 20m AHD. A plan provided by Council indicates the site elevation ranges from 16m to 19m AHD.

During the site walkover, the site was observed to be generally level with the north-eastern portion slightly sloping towards the east-southeast, and the south-western portion sloping towards the north-northeast towards Bangalow Creek.

Rain falling on the site would be expected to infiltrate into surface soils, with excess surface water run-off entering stormwater systems along Brownlee Street, located along the western boundary of the site or Bangalow Creek which forms the eastern boundary of the northern portion of the site, and the western boundary of the southern portion of the site. Bangalow Creek drains north and discharges to Ourimbah Creek about 3.3km north of the site.

2.4 Regional Geology

The Central Coast 1:100,000 coastal quaternary geological map (<u>https://minview.geoscience.nsw.gov.au/</u>) shows that the site is underlain by Quaternary floodplain: silt, clay, fluvial sand gravel.

2.5 Hydrogeology

Groundwater beneath the site is anticipated to be present in an unconfined and/or semiconfined aquifer in alluvial soils within 5m below ground surface (bgs). Groundwater flow direction is anticipated to follow the surface topography and flow towards Bangalow Creek which forms the eastern boundary of the northern portion of the site, and the western boundary of the southern portion of the site. Bangalow Creek drains north and discharges to Ourimbah Creek about 3.3km north of the site.

It should be noted that groundwater conditions can vary due to rainfall and other influences including regional groundwater flow, temperature, permeability, recharge areas, surface condition, and subsoil drainage.

A search of the NSW Department of Primary Industries (Office of Water) registered groundwater bores located within a 500m radius of the site was undertaken. The search revealed that there were 13 bores within this radius. A copy of the search was provided in the PSI (Qualtest, 2023).

Bore ID	Installation Date	Purpose	Approx. Distance, Direction and Gradient from Site	Final Depth (m)	Water Bearing Zones (m)	SWL	
GW080803	17/11/2004	Town Water Supply	180m N, down- gradient	-	-		
GW200559	18/06/2004	Irrigation	130m S, up- gradient	80.00	44.00-48.00 51.00-59.00 65.00-69.00 71.00-76.00	6.10	
GW200593 to GW200597	19/09/2001	Test Bore	230m to 250m S- SW, up to cross- gradient	6.00 to 7.00	-	-	
GW200604 to GW200607	12 to 13/07/2006	Monitoring Bore	60m to 120m E and S-SE, up- gradient	6.10	-	3.10 to 3.80	
GW200098	No work order summary report available						

2.6 Acid Sulfate Soils

Reference to the Acid Sulfate Soil online database from State of NSW and Department of Planning, Industry and Environment, 2021 (https://espade.environment.nsw.gov.au) indicates no data is available for the site. This usually indicates that the site is located in an area of no known occurrence of ASS.

Soils characteristic of ASS were encountered during investigations, and an ASS Management Plan (ASSMP) was prepared for the site, ref: NEW23P-0208-AD dated 3 July 2024.

3.0 Previous Reports

Qualtest carried out a Preliminary Site Investigation (PSI) for the site (Qualtest 2023).

The objectives of the PSI were to provide an assessment of the likelihood for contamination to be present on the site from past uses and activities, and provide recommendations on the need for further assessment, management and/or remediation (if required).

In order to achieve the above objective, Qualtest carried out the following scope:

- Desktop study and site history review;
- Site walkover; and
- Data assessment and preparation of a PSI Report.

The site history review showed the northern portion of the site (Lot 3) has operated as a saw mill from at least 1905 (possibly early as 1898) to 1996. The southern portion of the site has contained a residential dwelling since at least the 1960s. In 1984, Council purchased the southern portion (Lot 42) of the site, then later purchased the northern portion (Lot 3) in 1991. Council leased the site from 1991 to 1996, and it had not been used as a sawmill since that time. The northern portion of the site (Lot 3) appears to have been used as a recycling depot during that time, and potentially until the early 2000's. In 2017 the infrastructure associated with the saw mill was removed/demolished from site, leaving mostly vacant bushland.

The southern portion of the site (Lot 42) appeared to be used for residential purposes from at least the 1960s until 2019 when it became vacant. Waste materials (corrugated PACM sheeting, general rubbish/waste) were stored under and around the residential dwelling. Anecdotal information indicated that in recent years, Council used Lot 42 for the storage of equipment/machinery and stockpiling materials. A photograph from 2022 showed materials/waste scattered around the shed, however these had been removed by 2023. A fill area (~760m²) was observed south to south east of the dwelling, with anthropogenic waste materials embedded within surface soils.

Four areas of Environmental Concern (AECs) were identified based on the site history and site observations. The AECs related to: 1. Former sawmill and recycling depot; 2. Former use of Lot 42 as Council depot; 3. Abandoned dwelling on Lot 42; and, 4. Fill materials.

The Conceptual Site Model (CSM) indicated that should contamination exist on the site, then a potential exposure pathway could exist to current and future site users and the environment.

Based on the site history and observations made during the site walkover, it was recommended that a Detailed Site Investigation was carried out.

4.0 Preliminary Conceptual Site Model

Based on the results of the PSI, a Preliminary Conceptual Site Model (CSM) was developed, and is shown below in Table 4.1. Note, AEC 1 was split into three parts to better represent the potential contamination types.

Table 4.1 – Preliminary Conceptual Site Model

AEC	COPC	Likelihood of Contamination	Mechanism of Contamination	Potentially Affected Media	Human & Ecological Receptors	Potential Mechanisms of Exposure	Potential & Complete Exposure Pathways
 1A. Former sawmill and recycling depot on Lot 3: Main workshop area – use of oils/fuels in machinery; Former oil store – storage of oils. 	TRH, BTEX, PAH	• Medium to High	 Top-down leaks/spills of oils/fuels onto soil. Leaching of soil contaminants to surface water and groundwater. 	 Soils Surface water Groundwater 	 Site users Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of contaminated soil (as dust) Inhalation of hydrocarbon vapours Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek 	 Potentially complete exposure pathway for site users. Potentially complete exposure pathway for soil contaminants to leach to on-site surface water, if contamination present. Likely incomplete exposure pathway for soil contaminants to leach to groundwater, given top- down nature of contaminant sources, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.
 1B. Former sawmill and recycling depot on Lot 3: Former office and amenities buildings– use of ACM, potential for lead paints. 	Metals, Asbestos	Medium to High	 Flakes of paint/metals from office building. Leaching of soil contaminants to surface water and groundwater. 	 Soils Surface water Groundwater 	 Site users Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek 	 Potentially complete exposure pathway for site users. Potentially complete exposure pathway for soil contaminants to leach to on-site surface water, if contamination present. Likely incomplete exposure pathway for soil contaminants to leach to groundwater, given top- down nature of contaminant sources, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.

AEC	COPC	Likelihood of Contamination	Mechanism of Contamination	Potentially Affected Media	Human & Ecological Receptors	Potential Mechanisms of Exposure	Potential & Complete Exposure Pathways
 1C. Former sawmill and recycling depot on Lot 3: Waste area – disposal of waste timber, and potentially other wastes; Storage of materials of unknown quality for recycling, particularly in eastern portion of Lot 3. 	TRH, BTEX, PAH Metals, Asbestos	• Medium to High	 Leaks/spills of oils/fuels. Flakes of paint/metals. Leaching of soil contaminants to surface water and groundwater. 	 Soils Surface water Groundwater 	 Site users Soil biota/plants and transitory wildlife Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Inhalation of hydrocarbon vapours Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek 	 Potentially complete exposure pathway for site users. Potentially complete exposure pathway for ecological receptors. Potentially complete exposure pathway for soil contaminants to leach to on-site surface water, if contamination present. Likely incomplete exposure pathway for soil contaminants to leach to groundwater, given top- down nature of contaminant sources, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.
 2. Former Council depot on Lot 42: Storage and maintenance of equipment and machinery; Storage of materials of unknown type and quality. 	TRH, BTEX, PAH Metals, Asbestos, OCPs, PCBs	• Medium	 Top-down leaks/spills of oils/fuels onto soil. Stockpiling of potentially contaminated materials Leaching of soil contaminants to surface water and groundwater. 	 Surface soils Surface water Groundwater 	 Site users Onsite surface water Bangalow Creek located along the eastern boundary of the northern portion of the site, and cross through the eastern side of the southern portion of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek. 	 Potentially complete exposure pathway for site users. Potentially complete exposure pathway for soil contaminants to leach to on-site surface water, if contamination present. Likely incomplete exposure pathway for soil contaminants to leach to groundwater, given top- down nature of contaminant sources, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.

AEC	COPC	Likelihood of Contamination	Mechanism of Contamination	Potentially Affected Media	Human & Ecological Receptors	Potential Mechanisms of Exposure	Potential & Complete Exposure Pathways
 3. Abandoned dwelling on Lot 42: Potential use of hazardous building materials (i.e. lead paint, asbestos); Storage of hazardous building materials and waste under and around building; Potential use of pesticides/insecticides. 	Metals, Asbestos, OCPs	• Medium	 Top-down flakes/fibres from building materials; Top-down spray application of pesticides. Leaching of soil contaminants to surface water and groundwater. 	 Surface soils Surface water Groundwater 	 Site users Onsite surface water Bangalow Creek located along the eastern boundary of the northern portion of the site, and cross through the eastern side of the southern portion of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek. 	 Potentially complete exposure pathway for site users. Likely incomplete exposure pathway for soil contaminants to leach to on-site surface water, given distance from dwelling to Bangalow Creek, and localised nature of potential contamination. Likely incomplete exposure pathway for soil contaminants to leach to groundwater, given top-down nature of contaminant sources, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.
 4. Fill material: Potential use of contaminated fill 	TRH, BTEX, PAH, Metals, Asbestos, OCPs, PCBs	Medium to High	 Import/use of contaminated fill. Leaching of fill contaminants to surface water and groundwater. 	 Fill soils Soils underlying fill Surface water Groundwater 	 Site users Soil biota/plants and transitory wildlife Onsite surface water Bangalow Creek located along the eastern boundary of the northern portion of the site, and cross through the eastern side of the southern portion of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek. 	 Potentially complete exposure pathway for site users. Potentially complete exposure pathway for ecological receptors. Potentially complete exposure pathway for soil contaminants to leach to on-site surface water, if contamination present. Likely incomplete exposure pathway for soil contaminants to leach to groundwater, given top- down nature of contaminant sources, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.

Notes: TRH = Total Recoverable Hydrocarbons; BTEX = Benzene, Toluene, Ethylbenzene, Xylenes; PAH = Polycyclic Aromatic Hydrocarbons; Metals = arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury; OCPs = Organochlorine Pesticides; PCBs = Polychlorinated Biphenyls

5.0 Data Quality Objectives

5.1 Step 1 – State the Problem

There is a potential for soil contamination to exist from past land use. Should contamination exist the site may not be suitable for the intended use without remediation and/or management.

Four Areas of Environmental Concern (AECs) were identified based on the site history and site observations. The AECs are shown in Table 4.1 above.

5.2 Step 2 – Identify the Decisions

The decisions to be made based on the contamination assessment are:

- Is the site characterisation sufficient to provide adequate confidence in the above decisions?
- Are the concentrations of COPCs above the adopted landuse criteria?
- Do potential risks associated with contamination exist, and if so, what are they?
- Will the site require remediation, and if so, what level and type of remediation will be required to make the site suitable for the proposed land use, from a contamination perspective?

5.3 Step 3 – Identify the Inputs to the Decisions

Inputs into the decision are:

- Have samples been collected in the required areas of the site (the identified AECs)?
- Have samples been collected at the required frequencies and adequately represent the conditions on site?
- Is the data set adequate to perform statistical analysis, if required (i.e. calculate 95% UCL)?
- Have the samples been analysed for the COPCs identified?
- Have concentrations exceeding the adopted criteria been reported in the samples?
- If concentrations exceeding adopted criteria have been reported, will these areas require remediation and/or management?

The informational inputs into the decision are:

- Field observations and field screening results;
- Laboratory results (concentrations of contaminants in soil);
- QA/QC documentation and data;
- Adopted assessment criteria (see Section 7); and,
- Relevant NSW EPA endorsed Guidelines.

The media to be sampled and analysed is:

• Soil.

5.4 Step 4 – Define the Study Boundaries

The study boundary is defined laterally as the site boundary, Lot 3 DP612071 and part Lot 42 DP1237817, within the Central Coast local government area. The site is located at 2-4 Brownlee Street, Ourimbah NSW (refer to Figure 1, Appendix A). The site area is about 1.8ha, with the proposed development area about 0.9ha. Vertically, the study boundary will be defined by the depth of soil contamination. It is anticipated the vertical boundary would be a maximum of 3m bgs.

Temporally the study boundary is the dates of sampling, 1 November 2023 and 25 October 2024.

5.5 Step 5 – Develop an Analytical Approach

The analytical approach can be defined as: -

- If the laboratory quality assurance/ quality control data are within the acceptable ranges, the data will be considered suitable for use;
- If the COPCs are reported above the adopted criteria and/or at elevated levels (where no criteria are available) then it will be considered whether further assessment, remediation and/or management measures are required;
- Where practical and/or appropriate, the 95% Upper Confidence Limit (UCL) of the validation samples will be calculated. If the 95% UCL is above the adopted criteria, then it will be considered whether further assessment, remediation and/or management measures are required; and,
- Where concentrations are below the assessment criteria, then no further assessment, remediation and/or management of that contaminant, in that area, in that media, is required. This is provided samples have been collected at the required frequencies (as per NSW EPA guidelines) and adequately represent the conditions on site, if not, additional sampling may be required.

5.6 Step 6 – Specify Acceptable Limits on Decision Errors

There are two types of errors:

- Type 1 finding that the site is contaminated, when it is not;
- Type 2 finding that the site is uncontaminated, when it is.

To reduce the potential for errors, the following will be applied:

- Appropriate field sampling methodologies and collection of field data (including sampling frequency);
- Robust QA/QC assessment of field procedures and laboratory data;
- Appropriate sampling and analytical density;
- Use of statistics (i.e. 95% UCL) to assess arithmetic average of COPCs. Use of statistics will also take into account:
 - No sample should report a concentration more than 250% of the adopted criteria; and,
 - The standard deviation of a sample population should not exceed 50% of the adopted criteria.

The adopted criteria are shown in Section 7.

5.7 Step 7 – Optimise the Design for Obtaining Data

The methodologies presented in this report are designed to meet the nominated DQOs. Optimisation of the data collection process will be achieved by:

- Working closely with the analytical laboratories and sampling equipment suppliers so that appropriate procedures and processes are developed and implemented prior to and during the field work and that sampling, handling, and transport to, and processing by, the analytical laboratories is appropriate.
- Conduct sampling in accordance with industry best practice and Standard Operating Procedures (SOPs) for the type of sampling being conducted.

6.0 Field and Laboratory Investigations

6.1 Sampling Plan

The site is about 1.8ha in area, with the proposed development area approximately 0.9ha. The NSW EPA (2022) Sampling Design Part 1 – Application recommends a minimum of 20 sampling locations to characterise a site of 0.9ha, on a square grid with no specific source areas to target.

As part of the DSI the following sampling activities were completed:

- 1 November 2023 Excavation of 11 test pits (TP01 to TP06 and TP08 to TP12). Soil samples were collected from 8 of the test pits (TP01, TP04, TP05, and TP08 to TP12). Note, proposed TP07 location was inaccessible, and therefore TP07 was not excavated;
- 1 November 2023 Surface soil samples were collected from 18 locations (SS1 to SS18);
- 25 October 2024 Excavation of 16 test pits (TP101 to TP116), and collection of soil samples from each test pit; and,
- 25 October 2024- Surface soil sample was collected from one location (SS117). Note, a test pit was proposed in this area, but the area was inaccessible by machine, therefore a surface soil sample was collected.

The sampling locations in relation to the identified AECs is shown in Table 6.1 below. The sampling locations are shown on Figures 4 and 5, Appendix A.

AEC	Samples Collected 1/11/2023	Samples Collected 25/10/2024
1 – Former Sawmill Main Workshop (~2,000m²)	TP01, TP04, TP08 to TP09, SS4 to SS6	-
1 – Former Sawmill Oil Store (~6m²)	SS1 to SS3	TP104
1 – Former Sawmill Office (~40m²)	Inaccessible	TP101
1 – Former Sawmill Amenities Building (~10m²)	SS7 to SS9	-

Table 6.1 AECs and Sampling Locations

AEC	Samples Collected 1/11/2023	Samples Collected 25/10/2024
1 – Former Covered Timber Storage Rack	SS15	-
1 - Former Sawmill Waste Area (~900m²)	Inaccessible	TP105 to TP113
1 – Former Sawmill Storage Shed (~20m²)	Inaccessible	TP103
2 – Former Council Depot (~1,000m²)	TP05, TP10 to TP12, SS14, SS16 to SS18	-
3 – Dwelling on Lot 42 (240m²)	SS10 to SS13	-
4 – Potential Use of Fill on Whole Site	Accessible areas covered by sampling listed above	TP102, TP114 to TP116 SS117

6.2 Soil Sampling

On 1 November 2023, 11 test pits (TP01 to TP06, TP08 to TP12) were excavated using a 2.7 tonne excavator, to approximate depths of between 2.8m and 2.9m bgs. Soil samples were collected from test pits TP01, TP04, TP05 and TP08 to TP12 in fill materials and the top of underlying natural materials. The samples were collected directly from the excavator bucket, using a clean pair of nitrile gloves per sample.

On 1 November 2023, 18 surface soil samples (SS1 to SS18) were collected using the excavator. The surface samples were collected directly from the soil loosened by the spade or excavator using a pair of clean disposable nitrile gloves.

On 25 October 2024, 16 test pits (TP101 to TP116) were excavated using a 5 tonne excavator, to approximate depths of between 0.5m and 1.0m bgs. Soil samples were collected from each test pit in fill materials and the top of underlying natural materials. The samples were collected directly from the excavator bucket, using a clean pair of nitrile gloves per sample.

On 25 October 2024, one surface soil sample (SS117) was collected by hand. directly from the soil using a pair of clean disposable nitrile gloves. It is noted that this sample was collected from the creek edge, as the creek bank was eroded up to the boundary of the Council depot (and the site boundary), and the soil was saturated at the time of sampling.

Surface soil samples SS1 to SS18 and fills samples from test pits TP01, TP04, TP05, TP08 to TP12, and TP101 were assessed using the gravimetric method, comprising of collection of a 10L sample, screening through a 6.7mm sieve, and weighing of potential ACM fragments retained on the sieve (if any).

Re-useable sampling equipment was decontaminated between sampling locations using a phosphate free detergent and potable water.

The soil samples were placed into 250mL laboratory supplied glass jars and zip locked bags for laboratory analysis. Each soil sample was placed directly into an ice-chilled esky and remained chilled during fieldwork and transportation to the laboratory.

6.3 Laboratory Analysis

The samples were dispatched to NATA-accredited Eurofins laboratory under chain of custody conditions. Soil samples were selected for analysis based on field observations, and providing representative sampling across the site. The samples were analysed for the following:

AEC	Samples Collected	Analysis
1 – Former Sawmill Main Workshop (~2,000m²)	TP01, TP04, TP08 to TP09, SS4 to SS6	TRH, BTEX, PAH - 8 primary samples Metals – 8 primary samples Asbestos – 5 primary samples
1 – Former Sawmill Oil Store (~6m²)	SS1 to SS3, TP104	TRH, BTEX, PAHs – 4 primary samples
1 – Former Sawmill Office (~40m²)	TP101	Metals, Asbestos – 1 primary sample
1 – Former Sawmill Amenities Building (~10m²)	SS7 to SS9	Metals – 3 primary samples Asbestos – 2 primary samples
1 – Former Covered Timber Storage Rack	SS15	Metals - 1 primary sample OCPs, PCBs – 1 primary sample
1 - Former Sawmill Waste Area (~900m²)	TP105 to TP113	TRH, BTEX, PAHs – 13 primary samples Metals - 13 primary samples Asbestos – 8 primary samples OCPs, PCBs – 4 primary samples
1 – Former Sawmill Storage Shed (~20m²)	TP103	TRH, BTEX, PAHs – 10 primary samples Metals - 10 primary samples Asbestos – 9 primary samples OCPs, PCBs – 6 primary samples
2 – Former Council Depot (~1,000m²)	TP05, TP10 to TP12, SS14, SS16 to SS18	TRH, BTEX, PAHs – 10 primary samples Metals - 10 primary samples Asbestos – 8 primary samples OCPs, PCBs – 6 primary samples
3 – Dwelling on Lot 42 (240m²)	SS10 to SS13	Metals – 4 primary samples Asbestos – 4 primary samples
4 – Potential Use of Fill	November 2023 - accessible areas covered by sampling listed above	Listed above
on Whole Site (~1.3ha)	October 2024 - TP102, TP114 to TP116, SS117	TRH, BTEX, PAHs – 5 primary samples Metals - 5 primary samples Asbestos – 4 primary samples

7.0 Investigation Criteria

7.1 Health and Ecological Levels

To assess whether the site was suitable for the proposed development (Food Manufacturing Hub), the laboratory results were compared to the health and ecological investigation levels for soil, presented in the National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra (referred to as ASC NEPM 2013).

ASC NEPM (2013) provides health and ecological investigation and screening levels for different exposure scenarios based on a proposed land use. They are adopted as concentrations of a contaminant above which either further appropriate investigation and/or evaluation will be required, or development of an appropriate management strategy (including remediation).

Health Investigation Levels (HILs) and Health Screening levels (HSLs) are applicable for assessing human health risk via relevant exposure pathways. The HILs were developed for a broad range of metals and organic substances. These are generic to all soil types. The HSLs have been developed for selected petroleum compounds and fractions and are applicable to assessing human health risk via inhalation and direct contact with soil and groundwater. The HSLs depend on specific soil physicochemical properties, building configurations, land use scenarios and the depth that groundwater is encountered.

Based on the proposed site the investigation and screening levels for commercial/industrial land use have been adopted, and are shown in Table 7.5 below.

7.2 Ecological Investigation and Screening Levels

Section 3.5.1 of Schedule 5a of NEPM states that the aim of the EILs is that varying levels of protection will be provided to the following ecological receptors at all sites:

- 'Biota supporting ecological processes including microorganisms and soil invertebrates
- Native flora and fauna
- Introduced flora and fauna
- Transitory or permanent wildlife.'

Further, NEPM states: 'Commercial and industrial land, particularly in long-established industrial areas, is often heavily contaminated by past activities or fill materials used to level the area. In these cases, jurisdictions may determine that HILs are the most appropriate soil quality criteria and that EILs are not applicable. In many cases, the only generic ecological value for this land use will be 'transitory wildlife'.' The site has over 100 years of commercial/industrial land use. The proposed development area (~0.9ha) includes buildings and pavements covering the majority of the site. Therefore, there will be very limited access to site soils for flora and fauna.

The remainder of the site will comprise riparian zone and/or vegetated landscape.

Based on the above, Ecological Investigation and Screening Levels (ELS / ESLs) have not been adopted for the development area in the north-west portion of the site. ELS and ESLs for commercial/industrial land use have been adopted, and are shown in Table 7.5 below.

It is noted the ESLs for benzo(a)pyrene (ASC NEPM, 2013) were adopted from Canadian Soil Quality Guidelines (SQGs) presented in Environment Canada (2004), and were noted to have a low-reliability. The ESLs for benzo(a)pyrene in ASC NEPM (2013) were based on a review of Canadian SQGs by Dr Michael Warne, who completed the review in February 2010. Since the completion of Warne (2010) (which are included in the publication of ASC NEPM, 2013), the Canadian SQGs for benzo(a)pyrene were revised later in 2010 (CCME 2010a,b). Therefore, CRC Care Technical Note 39 assesses the benzo(a)pyrene ESL derivation, and derives a higher reliability ESL for benzo(a)pyrene in the Australian setting. The ESLs for benzo(a)pyrene derived by CRC Care (2017) are 33mg/kg for residential and open space land uses and 172mg/kg for commercial/industrial land uses. These have been considered where benzo(a)pyrene concentrations exceed the ESL, but do not exceed the HIL, to mitigate against unwarranted remediation that is driven by low-reliability ESLs.

7.3 Asbestos Materials in Soil

The assessment of known and suspected asbestos contamination in soil is based on:

- ASC NEPM (2013); and
- WA DoH (2009) Guidelines of the assessment and management of asbestos contaminated sites in Western Australia, WA Department of Health and Department of Environment and Conservation.

Schedule B1, Section 4 ASC NEPM (2013) provides guidance on the assessment of both friable and non-friable forms of asbestos in soil. This guidance is based on the WA DoH (2009) Guidelines that presented risk based screening levels for asbestos in soil under various landuse scenarios.

For the purpose of assessing asbestos impacts in soil, three groups are recognised:

- Asbestos Containing Material (ACM) which is in sound condition although possibly broken or fragmented and the asbestos is bound in a matrix. This is restricted to material that cannot pass through a 7mm x 7mm sieve;
- Fibrous asbestos (FA) friable asbestos material, such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products;
- Asbestos fines (AF) includes free fibres of asbestos, small fibre bundles and also ACM fragments that pass through a 7mm x 7mm sieve.

The health screening levels for asbestos in soil for commercial/industrial use have been adopted.

7.4 Management Limits

The purpose of the Management Limits is to 'avoid or minimise' potential effects of petroleum hydrocarbons. NEPM (1999, amended 2013) Schedule B(1) provides these as effects as:

- Formation of observable Light Non-Aqueous Phase Liquid (LNAPL);
- Fire and explosive hazards; and,
- Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services by hydrocarbons.

Management limits were derived by Canada-Wide Standard for Petroleum Hydrocarbons (CWS-PHC) in Soil (2008) where the lowest limiting value for each effect became the Recommended Management Limit. Based on site specific information, the applicability of management limits as soil investigation levels for the site was reviewed, and is discussed further in Table 7.4 below.

Table 7.4 discusses the derivation of the revised management limits. These management limits will be applied to all soils at any depth. As described in the ASC NEPM (2013) the magnitude of an exceedance will be considered in the context of whether the exposure pathways are plausible and whether exposure will result in harm. Depending on the level of the exceedance further qualitative or quantitative risk assessment may be required.

TRH Fraction	Basis of Recommended Management Limits (coarse soils)	Appropriateness of Recommended Management Limits for Adopted Criteria
F1 (C6-C10)	Formation of free phase NAPL 700mg/kg	The limiting value of 700mg/kg for formation of free phase NAPL is considered appropriate.
	Effects on Workers in Trenches 1,000mg/kg Fire/Explosion Risk 1,400mg/kg	The value for effects on workers is not considered relevant as HSLs have been derived for Australian conditions and considered to be more appropriate.
F2 (C10-C16)	Effects on Workers in Trenches 1,000mg/kg Formation of free-phase Total F1 to F3 10,000mg/kg Fire/Explosion Risk 5,200mg/kg	'Effects on Workers in Trenches' is not appropriate for adoption as a criterion. These values are based on occupational exposure limits for gasoline and jet fuel, as there is no relevant acute toxicity endpoints available. CRC Care (2011) has established HSLs for 'Intrusive Maintenance Worker' for both vapour intrusion and direct contact of 'Not Limiting' and 20,000mg/kg respectively. HSLs are considered more appropriate for Australian conditions and the robustness in which they are derived.
		explosion risk to intrusive maintenance workers is considered appropriate.
F3 (C16-C34)	Effectiveness of bioremediation 3,500mg/kg Formation of free phase NAPL Total F1 to F3 10,000mg/kg	'Effectiveness of bioremediation' is not appropriate as a validation criteria, rather more of a guide for assessing whether bioremediation may be a viable option. It should be noted that this criterion was developed based on Canadian conditions, where bioremediation may not be as accelerated compared to the generally warmer Australian climate.
		The limiting value of 10,000mg/kg for formation of free phase NAPL is considered appropriate.
F4 (C34-C40)	Formation of free phase NAPL 10,000mg/kg	The limiting value of 10,000mg/kg for formation of free phase NAPL is considered appropriate.

Table 7.4 - Site Specific	Applicability of	f Management Limits
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7.5 Adopted Soil Criteria

The adopted assessment criteria are listed in Table 7.5 below.

Contaminant	HIL 1/ HSL ² ^ D EIL / ESL		Management Limits ⁴	
Arsenic	3,000	160	-	
Cadmium	900	-	-	
Chromium VI	3,600	-	-	
Chromium III	-	1,200*	-	
Copper	240,000	270*	-	
Lead	1,500	1,800	-	
Nickel	6,000	210*	-	
Zinc	400,000	680*	-	
Mercury	730	-	-	
Benzene	4	95	-	
Toluene	NL	135	-	
Ethylbenzene	NL	185	-	
Xylenes	NL	95	-	
Naphthalene	NL	370	-	
TRH C6-C10	-	215	700	
TRH C6-C10 minus BTEX	310	-	-	
TRH >C10-C16	-	170	5200	
TRH >C10-C16 minus naphthalene	NL	-	-	
TRH >C16-C34	NL	2,500	10,000	
TRH >C34-C40	NL	6,600	10,000	
Benzo(a)pyrene	-	172	-	
Benzo(a)pyrene TEQ	40	-	-	
Total PAHs	4,000	-	-	
DDD+DDT+DDE	3,600	-	-	
DDT	-	640	-	

Contaminant	HIL 1/ HSL2A D	EIL / ESL ³ D	Management Limits ⁴
Aldrin & dieldrin	45	-	-
Chlordane	530	-	-
Endosulfan	2,000	-	-
Endrin	100	-	-
Heptachlor	50	-	-
Hexachlorobenzene	80	-	-
Methoxychlor	2,500	-	-
Mirex	100	-	-
Toxaphene	160	-	-
Total PCBs	8	-	-
Asbestos	Detected	-	-
Bonded ACM %	0.05	-	-
FA and AF %	0.001	-	-
All forms of asbestos	No visible evidence for surface soil (top 10cm)	-	-

Notes:

^ Based on a pH of 7.4, CEC of 8.6meq/100g and clay content of 60% and using Ambient Background Concentration obtained from Olszowy et al (1995) using urban soils, old suburbs with high traffic , 50% percentile.

NL – Not limiting

1 – ASC NEPM (2013) - Health Investigation Levels- HIL D

2 - ASC NEPM - Soil Health Screening Levels for Vapour Intrusion, Commercial/Industrial, Clay 0m to <1m

3 - ASC NEPM (2013) - Ecological Investigation and Screening Levels, Commercial/Industrial, fine texture

4 - ASC NEPM (2013) Management limits for TRH fractions F1-F4 in soil (adjusted as described in Section 7.4, above)

5 – Benzo(a)pyrene ESL derived by CRC CARE (2017)

8.0 Quality Assurance/Quality Control

Sampling activities were undertaken in accordance with normal, industry accepted practices and standards. The assessment of field and laboratory quality assurance / quality control (QA / QC) procedures is provided below, and a data validation report is presented in Appendix D.

In order to assess field quality assurance / quality control (QA/QC) procedures, the following quality control samples were collected and analysed:

QC Sample	Туре	Lab	Analysis
T.1.11.23	Triplicate of TP10_0.0-0.2	SGS	TRH, BTEX, PAHs, Metals, OCPs
D.1.11.23	Duplicate of TP10_0.0-0.2	Eurofins	TRH, BTEX, PAHs, Metals, OCPs
D.25.10.24	Duplicate of TP113_0.0-0.1	Eurofins	TRH, BTEX, PAHs, Metals
D2.25.10.24	Duplicate of TP101_0.0-0.1	Eurofins	Metals

Primary and intra lab duplicate samples were analysed by the NATA-accredited Eurofins laboratory. Triplicate samples were analysed by the NATA-accredited SGS laboratory.

Table 7, Appendix B, presents the relative percentage differences (RPDs) between the primary, duplicate and triplicate samples. A review of the Qualtest QA / QC results indicates that RPDs were within the acceptable range with the exception of:

- Duplicate pair TP10_0.0-0.2/D1.11.23 for lead (53%) and zinc (58%);
- Triplicate pair TP10_0.0-0.2/T.1.11.23 for lead (70%) and zinc (76%); and,
- Duplicate pair TP101_0.0-0.1/D2.25.10.24 for lead (64%) and zinc (42%).

These RPDs are considered to be due to the heterogeneous distribution of metal contaminants in surface soils adjacent to buildings, and is not considered to affect the data representativeness and usability. It is noted that low concentrations can exaggerate the percentage differences with respect to small total concentrations, therefore where results for primary and duplicate sample were less than 10 times the LOR, the RPDs have been disregarded.

The laboratory internal QA/QC reports indicated that the appropriate laboratory QA / QC procedures and rates were undertaken for contamination studies, and that:

- Laboratory blank samples were free of contamination;
- Matrix spike recoveries were within the control limits with the exception of a variety of OCPS and zinc in Batch SE256312. For OCPS, the lab quoted code 9 which states "Recovery failed acceptance criteria due to sample heterogeneity". For zinc, the lab quoted code 5 which states "Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level)". Based on this, the recoveries are unlikely to affect the data usability. The matrix spike recoveries could mean that concentrations are theoretically higher or lower than that reported, however as OCPs were reported <LOR, and zinc concentrations were well below the adopted criteria, this does not affect the outcome of the assessment;
- Laboratory duplicate RPDs were recorded within the control limits. For copper the lab quoted code Q15 which states: "The RPD reported passes Eurofins Environment Testing's QC
 Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report." Based on this, the RPD is acceptable;
- Surrogates and laboratory control samples were within the laboratories acceptable range.

Based on the above, and the data validation report in Appendix D, it is considered that the field and laboratory methods for soil sampling are appropriate and that the data obtained is

usable and considered to reasonably represent the concentrations at the sampling points at the time of sampling.

9.0 Results

9.1 Subsurface Conditions

The soils observed during test pitting, respective geotechnical units and surface soils are summarised in Table 9.1, 9.2, and 9.3. below. The borehole logs are presented in Appendix C.

Unit	Soil Type	Description		
	FILL -	Gravelly Clayey SAND / Clayey SAND – fine to coarse grained (mostly fine to medium grained), brown to dark grey-brown, fine to medium grained sub-angular to angular gravel, fines of low plasticity, with some glass, steel, brick, tile, and sticks in places, root affected.		
1A	TOPSOIL	Gravelly Silty SAND / Sandy Silty GRAVEL – fine to coarse grained, dark grey to black, fine to coarse grained angular gravel, fines of low plasticity, root affected.		
		Gravelly Sandy CLAY – low to medium plasticity, dark brown, fine to coarse grained angular to sub-angular gravel, root affected.		
		GRAVEL – fine to coarse grained (mostly medium to coarse grained), angular to sub-angular, brown to dark brown and red-brown with some black, with some fine to coarse grained sand, with some fines of low plasticity, trace possible coal tar.		
1B FILL – OTH	FILL - OTHER	MIXTURE OF SOIL and COBBLES / BOULDERS – Gravelly Sandy CLAY – medium plasticity, pale brown and grey-brown, fine to coarse grained (mostly fine to medium grained) sand, fine to coarse grained angular to sub-angular gravel, cobbles generally up to about 300mm in diameter, root affected.		
		Gravelly CLAY / Gravelly Sandy CLAY – medium to high plasticity, pale grey to pale grey-brown, and pale orange-brown / red-brown, fine to coarse grained (mostly fine to medium grained) sand, fine to coarse grained (mostly medium to coarse grained) angular gravel, trace cobbles.		
		Asphaltic concrete layer (~30mm thick) encountered at TP11 location, and layer of bricks located at TP12.		
2 B TC	BURIED	Silty Sandy CLAY – low to medium plasticity (generally low plasticity), dark grey-brown to grey-brown, fine to medium grained (mostly fine grained) sand, weakly cemented in places.		
		Clayey SAND / Sandy CLAY – fine to medium grained (mostly fine grained), dark grey-brown, fines of low plasticity, weakly cemented.		

Table 9.1 – Summary of Soil Profile

Unit	Soil Type	Description
		Silty Sandy CLAY – low to medium plasticity (generally medium plasticity), grey-brown to pale brown, fine to coarse grained (mostly fine grained) sand, weakly cemented in places.
3A COLLUVIUM	Sandy CLAY – medium to high plasticity, orange-brown to pale orange-brown with some pale grey to white, fine grained sand, trace fine to coarse grained angular to sub-angular gravel.	
		Silty Sandy CLAY / Clayey SAND – low to medium plasticity, grey, fine to medium grained sand.
3B ALLUVIUM	SAND / Clayey SAND – fine to medium grained, brown to grey- brown, fines of low plasticity.	
		CLAY / Sandy CLAY – medium to high plasticity (generally high plasticity), grey with some orange-brown, fine to medium grained sand, trace fine to coarse grained angular to sub-angular gravel.
4	residual Soil	Sandy CLAY – medium to high plasticity, pale grey to white, trace orange-brown, fine to medium grained sand.

Location	Unit 1A Fill – Topsoil	Unit 1B Fill	Unit 2 Buried Topsoil	Unit 3A Colluvium	Unit 3B Alluvium	Unit 4 Residual
			Dept	h (m)		
TP01	0.0 – 0.1	0.1-0.4	0.4 - 0.8	0.8 – 1.6	1.6 – 2.8	-
TP02	-	0.0 - 0.6	0.6 - 0.9	0.9 – 2.6	2.6 – 2.8	-
TP03	0.0 - 0.2	-	-	0.2 – 2.0	2.0 – 2.8	-
TP04	0.0 – 0.15	-	-	0.15 – 1.7	1.7 – 2.8	-
TP05	0.0 – 0.3	-	0.3 – 0.85	0.85 – 2.0	2.0 - 2.8	-
TP06	-	0.0 – 0.7	-	0.7 – 1.7	1.7 – 2.8	-
TP08	0.0 – 0.2	-	0.2 – 0.5	0.5 – 1.5	1.5 – 2.8	-
TP09	0.0 – 0.3	-	-	0.3 – 1.6	1.6 – 2.8	-
TP10	0.0 – 0.35	-	-	0.35 – 2.6	-	2.6 - 2.8
TP 1 1	0.0 – 0.05	0.05 – 0.7	-	0.7 – 2.9	_	-
TP12	0.0 – 0.2	0.2 - 0.9	0.9 – 1.3	1.3 – 2.6	2.6 – 2.8	-
TP101	0.0 - 0.2	_	-	-	0.2 – 0.7	_
TP102	_	0.0 - 0.2	-	-	0.2 – 0.7	-
TP103	0.0 - 0.3	-	-	_	0.3 - 0.7	_

Table 9.2 – Summary of Geotechnical Units for Each Test Pit Location

Location	Unit 1A Fill – Topsoil	Unit 1B Fill	Unit 2 Buried Topsoil	Unit 3A Colluvium	Unit 3B Alluvium	Unit 4 Residual
			Dept	h (m)		
TP104	0.0 – 0.3	-	-	-	0.3 – 0.7	-
TP105	-	0.0 - 0.4	-	-	0.4 - 0.7	-
TP106	0.0 – 0.05	0.05 – 0.6	-	-	0.6 – 1.0	-
TP107	0.0 – 0.1	0.1 – 0.8	-	-	0.8 – 1.0	-
TP108	0.0 – 0.2	-	-	0.2 – 0.5	-	-
TP109 (Stockpile)	-	0.0 – 0.8	0.8 – 1.0	_	_	_
TP110	0.0 – 0.2	-	_	0.2 – 0.5	-	-
TP111(Stockpile)	-	0.0 – 0.8	0.8 – 1.0	-	-	-
TP112	0.0 - 0.4	_	-	0.4 – 0.7	-	-
TP113	0.0 – 0.2	-	-	0.2 – 0.6	-	-
TP114	0.0 - 0.4	_	-	0.4 - 0.8	_	-
TP115	0.0 - 0.2	-	-	-	0.2 – 0.5	_
TP116	0.0 – 0.2	-	-	-	0.2 – 0.5	-

Sample ID	Material Description
SS1	Clayey Sandy GRAVEL – fine to coarse grained angular gravel, brown to dark brown with dark grey, fines of low plasticity, fine to coarse grained sand.
SS2 to SS6	Gravelly Clayey SAND – fine to coarse grained, brown to dark brown, fines of low plasticity, fine to coarse grained angular gravel, trace glass, plastic, metal.
SS7 to SS9, SS14	Clayey Gravelly SAND – fine to coarse grained, dark brown, fine to coarse grained sub-rounded to sub-angular gravel, fines of low plasticity.
SS10 to SS11, SS16 to SS18	Gravelly Clayey SAND – fine to coarse grained, pale brown to brown with some pale orange, fines of low plasticity, fine to medium grained sub-rounded to sub-angular gravel.
SS12 to SS13	Sandy CLAY – low to medium plasticity, dark brown to brown, fine to coarse grained sand, with some fine to medium grained angular gravel.
SS15	Gravelly Sandy CLAY – low to medium plasticity, orange brown, fine to coarse grained sub-rounded gravel.
SS117	Silt/Organic Matter – brown, saturated.

Table 9.3 – Summary of Soils in Surface Samples

No odours or stained soils were observed during sampling. Anthropogenic materials were observed during sampling as described below:

- TP04 0.0-0.15m trace fragments of bricks, glass, metal and plastic materials
- TP10 0.0-0.35m trace fragments of bricks, glass, metal and plastic materials
- SS2 to SS6 trace fragments of bricks, glass, metal and plastic materials
- TP12 0.5m a layer of bricks
- TP101 0.0-0.2 glass, plastic, PVC, timber. Potential asbestos containing material (ACM) was observed at TP101 at the surface, in the form of bonded fibre cement that could not be crushed with hand pressure. The gravimetric testing results (%w/w ACM) are presented in Table 3, Appendix B.
- TP103 0.0-0.3 trace fragments of timber, plastic, brick
- TP104 0.0-0.3 trace fragments of timber, plastic, brick
- TP106 0.05-0.6 trace fragments of charcoal, brick, timber
- TP107 0.1-0.8 trace fragments of charcoal, brick, timber
- TP108 0.0-0.2 trace fragments of glass, brick
- TP109 0.0-0.8 trace fragments of timber, metal, charcoal, glass
- TP111 0.0-0.8 trace fragments of timber, metal, glass, charcoal
- TP114 0.0-0.4 trace fragments of timber, metal

9.2 Laboratory Results

Soil analytical results are summarised in Tables 1 to 3, Appendix B. The laboratory analytical reports are also included in Appendix E.

The soil laboratory results were compared to the investigation levels described in Section 7. The analytical results reported concentrations of contaminants below the adopted criteria, with the exception of:

- ACM was visible on the site surface at location TP101_0.0-0.1m, below the adopted HSL. ASC NEPM (2013) states "no visible evidence for surface soil (top 10cm)" is permitted for all types of asbestos. The ACM comprised chrysotile asbestos in bonded fibre cement fragments that could not be crushed by hand pressure (non-friable);
- Copper exceeded the EIL (270mg/kg) in sample TP111_0.0-0.1m (2,300mg/kg); and,
- Zinc exceeded the EIL (680mg/kg) in sample TP108_0.0-0.1m (700mg/kg).

For concentrations of zinc exceeding the adopted investigation level, the 95% Upper Confidence Limits (UCLs) of the average concentrations were calculated. Calculations used ProUCL in accordance with the procedures discussed in ASC NEPM (2013) Schedule B2 Section 13.

NEPM (2013) Schedule B1, Section 3.2.1 states that:

- "At the very least, the maximum and 95%UCL of the arithmetic mean contaminant concentration should be compared to the relevant Tier 1 screening criteria"
- "The implications of localised elevated values (hotspots) should also be considered. The results should also meet the following criteria:
 - The standard deviation of the results should be less than 50% of the relevant investigation or screening level, and
 - No single value should exceed 250% of the relevant investigation or screening level."

The results for zinc in the waste area (TP05 to TP113) were used in the calculation. The 95% UCL was not calculated for copper, as the exceedance is a hotspot (>2.5 times the criteria).

Calculation sheets for data statistics, including average, standard deviation and 95%UCL of the average, are attached in Appendix B. ProUCL calculates the UCL comparing a number of different methods, including normal distribution, lognormal distribution, gamma distribution and nonparametric. ProUCL then recommends an appropriate method for the data set.

The 95% UCL calculations showed:

Parameter	Zinc
No. of samples	11
Average	176.3
Standard Deviation	193.3
95% UCL	281.9
EIL (mg/kg)	680

Based on the above, the 95% UCL of the zinc results were below adopted criteria.

10.0 Discussion

Copper was identified above the EIL in sample TP111_0.0-0.1m. TP111 was located in the former sawmill waste area, where test pits encountered timber, bricks and metals, and the copper is likely due to a fragment of metal and is considered to be localised. The waste area is largely located within the riparian zone and vegetated areas of the proposed development, which are densely vegetated and no signs of vegetation stress were observed. These areas are not proposed to be developed, or excavated, with the only activity in these areas for the proposed development comprising clearing of weeds.

Based on this, it is considered that the copper does not pose a risk to ecological receptors. In addition, it is considered that remediation of the copper would pose a net adverse environmental impact, as it would require clearing of vegetation, and excavation and disposal of soils to landfill.

11.0 Conceptual Site Model

Based on the results of the detailed site investigation, including sampling and analysis, carried out on the site, the Conceptual Site Model (CSM) has been updated and presented in Table 10.1.

AEC	COPC	Mechanism of Contamination	Potentially Affected Media	Human & Ecological Receptors	Potential mechanisms of exposure	Sampling Completed
 1A. Former sawmill and recycling depot on Lot 3: Main workshop area – use of oils/fuels in machinery; Former oil store – storage of oils; Former sawmill storage shed. 	TRH, BTEX, PAH	 Top-down leaks/spills of oils/fuels onto soil. Leaching of soil contaminants to surface water and groundwater. 	 Soils Surface water Groundwater 	 Site usersSurface water Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of contaminated soil (as dust) Inhalation of hydrocarbon vapours Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek 	TP01, TP04, TP08 to TP09, TP103 to TP104 SS1 to SS6
 1B. Former sawmill and recycling depot on Lot 3: Former office and amenities buildings, and former storage shed – use of ACM, potential for lead paints. 	Metals, Asbestos	 Top-down flakes of paint/metals from office building. Leaching of soil contaminants to surface water and groundwater. 	 Soils Surface water Groundwater 	 Site usersSurface water Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek 	TP101, TP103

Potential & Complete Exposure Pathways

- Incomplete exposure pathway for site users, as no contamination identified.
- Incomplete exposure pathway for soil contaminants to leach to on-site surface water, as no contamination identified.
- Incomplete exposure pathway for soil contaminants to leach to groundwater, as no contamination identified, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.

- Complete exposure pathway for site users due to ACM fragments present on site surface.
- Incomplete exposure pathway for soil contaminants to leach to on-site surface water, as no contamination identified.
- Incomplete exposure pathway for soil contaminants to leach to groundwater, as no contamination identified, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.

AEC	COPC	Mechanism of Contamination	Potentially Affected Media	Human & Ecological Receptors	Potential mechanisms of exposure	Sampling Completed
 1C. Former sawmill and recycling depot on Lot 3: Waste area – disposal of waste timber, and potentially other wastes; Storage of materials of unknown quality for recycling, particularly in eastern portion of Lot 3. 	TRH, BTEX, PAH Metals, Asbestos	 Leaks/spills of oils/fuels. Flakes of paint/metals. Leaching of soil contaminants to surface water and groundwater. 	 Soils Surface water Groundwater 	 Site users Soil biota/plants and transitory wildlife Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Inhalation of hydrocarbon vapours Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek 	TP05 to TP113
 2. Former Council depot on Lot 42: Storage and maintenance of equipment and machinery; Storage of materials of unknown type and quality. 	TRH, BTEX, PAH Metals, Asbestos, OCPs, PCBs	 Top-down leaks/spills of oils/fuels onto soil. Stockpiling of potentially contaminated materials. Leaching of soil contaminants to surface water and groundwater. 	 Soils Surface water Groundwater 	 Site users Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems. 	 Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Inhalation of hydrocarbon vapours Leaching of soil contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek 	TP05, TP10 to TP12, SS14, SS16 to SS18

Potential & Complete Exposure Pathways

- Incomplete exposure pathway for site users, as no contamination identified.
- Likely incomplete exposure pathway for ecological receptors, as copper exceeding the EILs is localised, and no signs of vegetation stress. Exceedance doesn't warrant remediation, as discussed in Section 10.
- Incomplete exposure pathway for soil contaminants to leach to on-site surface water, as copper exceeding the EILs is localised, as discussed in Section 10.
- Incomplete exposure pathway for soil contaminants to leach to groundwater, as contamination source is top-down, likely depth of groundwater (>5m bgs), and likely clayey nature of sub-soils.
- Incomplete exposure pathway for site users, as no contamination identified.
- Incomplete exposure pathway for Bangalow Creek, as no contamination identified to date.
- Incomplete exposure pathway for soil contaminants to leach to groundwater, as no contamination identified.

AEC	COPC	Mechanism of Contamination	Potentially Affected Media	Human & Ecological Receptors	Potential mechanisms of exposure	Sampling Completed	Pot	
 3. Abandoned dwelling on Lot 42: Potential use of hazardous building materials (i.e. lead paint, asbestos); Potential use of pesticides/insecticides. 	Metals, Asbestos, OCPs	 Top-down flakes/fibres from building materials. Top-down spray application of pesticides. Leaching of soil contaminants to surface water and groundwater. 	 Surface soils Surface water Groundwater 	 Site users Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems 	 Site users Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems 	 Site users Surface water – Bangalow Creek located along the eastern boundary of the site. Groundwater dependent ecosystems Direct dermal contact with contaminated soil Ingestion of contaminated soil Inhalation of asbestos fibres or contaminated soil (as dust) Leaching of soil 	SS10 to SS13	•
 4. Fill material: Potential use of contaminated fill 	TRH, BTEX, PAH, Metals, Asbestos, OCPs, PCBs	 Import/use of contaminated fill. Leaching of fill contaminants to surface water and groundwater. 	 Fill Soils Underlying Soils Surface water Groundwater 		 contaminants to surface water and/or groundwater Surface water and groundwater discharge to Bangalow Creek. 	TP01 to TP06, TP08 to TP12, TP102, TP114 to TP116 SS1 to SS18, SS117	•	

tential & Complete Exposure Pathways

- Incomplete exposure pathway for site users, as no contamination identified.
- Incomplete exposure pathway for Bangalow Creek, as no contamination identified to date.
- Incomplete exposure pathway for soil contaminants to leach to groundwater, as no contamination identified.
- Incomplete exposure pathway for site users, as no contamination identified.
- Incomplete exposure pathway for Bangalow Creek, as no contamination identified.
- Incomplete exposure pathway for soil contaminants to leach to groundwater, as no contamination identified, top-down nature of potential contaminant sources (including in accessible areas), likely depth of groundwater (>5m bgs), and clayey nature of sub-soils.

12.0 Conclusions and Recommendations

Based on the results of the DSI, it is considered the site can be made suitable for the proposed development, provided the following recommendations are implemented:

- Preparation and implementation of a Remediation Action Plan (RAP) for remediation of the identified ACM contamination.
- Preparation and implementation of an Asbestos Management and Removal Control Plan (AMRCP) would be required for the handling and disposal of ACM or ACM impacted soils.
- Preparation and implementation of an Unexpected Finds Procedure. It is recommended that an environmental scientist is present during vegetation clearing and excavations for the proposed detention basin and associated drainage lines.

Provided the recommendations made within this report are implemented, it is considered that the site could be rendered suitable, from a contamination point of view, for the proposed Manufacturing Food Hub development.

This report was prepared in general accordance with the relevant sections of the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Land and the National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), NEPC 2013, Canberra (referred to as ASC NEPM 2013). This report comprises a stage 2 detailed site investigation as described by State Environmental Planning Policy (Resilience and Hazards) 2021 Chapter 4.

13.0 Limitations

This report has been prepared by Qualtest for Central Coast Industry Connect Limited based on the objectives and scope of work list in Sections 1.1 and 1.2. 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 its applicability and, where necessary, should seek expert advice in relation to their particular situation.

The opinions, conclusions and recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. Qualtest has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

In preparing this report Qualtest has relied on information contained in searches of government websites and has not independently verified or checked the data contained on these websites.

In preparing this report, current guidelines for assessment and management of contaminated land were followed. The conclusions reached in this report are dependent on the limitations inherent in all subsurface investigations where horizontal and vertical variation in contaminant concentrations can occur. No subsurface assessment can accurately predict the contaminant concentration at all points.

Site conditions may change after the date of this Report. Qualtest does not accept responsibility arising from, or in connection with, any change to the site conditions.

14.0 References

NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Land.
NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), Canberra (ASC NEPM 2013).

NSW EPA (2022) Sampling Design Part 1 – Application, Contaminated Land Guidelines

WA DoH (2009) Guidelines for the assessment and management of asbestos contaminated sites in Western Australia, WA Department of Health and Department of Environment and Conservation

WA DoH (2021) Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia, WA Department of Health and Department of Environment and Conservation

SEPP (Resilience and Hazards) 2021, Chapter 4

Qualtest (2023) Preliminary Site Investigation, ref: NEW23P-0208-AA dated 24 November 2023

APPENDIX A:

Figures



LEGEND:

Site Location

Client:	Central Coast Industry Connect Pty Ltd	Drawing No:	FIGURE 1
Project:	Detailed Site Investigation	Project No:	NEW23P-0208-ABv2
Location:	2-4 Brownlee Street, Ourimbah	Scale:	N.T.S.
Title:	Site Location Plan	Date:	29/10/2024

Image obtained from Sixmpas





Sawmill Building Footprints plan (Ecotecture, 2002)



Client:	Central Coast Industry Connect Pty Ltd	Drawing No:	FIGURE 3
Project:	Detailed Site Investigation	Project No:	NEW23P-0208-ABv2
Location:	2-4 Brownlee Street, Ourimbah	Scale:	N.T.S.
Title:	Sawmill Building Footprints Plan Overlaid on Google Earth Image	Date:	8/11/2022



Approximate Site Boundary

Image sourced from Nearmaps



Client:	Central Coast Industry Connect Pty Ltd	Drawing No:	FIGURE 4A
Project:	Detailed Site Investigation	Project No:	NEW23P-0208-ABv2
Location:	2-4 Brownlee Street, Ourimbah	Scale:	N.T.S.
Title:	Sample Plan - Northern Portion	Date:	29/10/2024



Image sourced from Nearmaps



Client:	Central Coast Industry Connect Pty Ltd	Drawing No:	FIGURE 4B
Project:	Detailed Site Investigation	Project No:	NEW23P-0208-ABv2
Location:	2-4 Brownlee Street, Ourimbah	Scale:	N.T.S.
Title:	Sample Plan - Southern Portion	Date:	29/10/2024



Approximate Site Boundary

Image sourced from Nearmaps



Client:	Central Coast Industry Connect Pty Ltd	Drawing No:	FIGURE 5
Project:	Detailed Site Investigation	Project No:	NEW23P-0208-ABv2
Location:	2-4 Brownlee Street, Ourimbah	Scale:	N.T.S.
Title:	Identified Contamination	Date:	29/10/2024









· · —	SITE BOUNDARY	
	BOUNDARY SETBACK	
	ZONING BOUNDARY	
	FLOOD EXTENTS 1 IN 100 YEARS	
	EXISTING WATER MAIN	
	RELOCATED WATER MAIN	
	20M RIPARIAN ZONE: TOP OF BANK OFFS	SET
	HARDSTAND	3334 sqm
	SERVICES	1837 sqm
	SERVICES ACCESS	48 sqm
<u>ାଶ</u> ପ	LANDSCAPE	
 (2) (2)	EXISTING EXOTIC VEGETATION	
	20M RIPARIAN ZONE. REFER LANDSCAPI ARCHITECTS DETAIL	E
	20M TOP OF BANK OFFSET	
\supset	EXISTING EXOTIC TREES TO BE KEPT	
\bigcirc	EXISTING EXOTIC TREES TO BE REMOVE	ED

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APPENDIX B:

Tables

					Field ID	TP01 0.0-0.2	TP01 0.4-0.5	TP04 0.0-0.2	TP08 0.0-0.2	TP09 0.0-0.2	SS4	SS5	SS6	SS1	SS2	SS3	TP104 0.0-0.1	SS7	SS8	SS9
					Date	1/011/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	25/10/2024	1/11/2023	1/11/2023	1/11/2023
					AEC			1.	Former Sawmill	Main Workshop					1. Former Sav	vmill Oil Store	•	1. Forme	er Amenities B	uilding
										-									I	
Analytes		Units	LOR	HIL/HSL D ¹	Mgmt Limits															
	Arsenic	mg/kg	2	3000		14	< 2	5.8	4	7.5	23	10	3	-	-	-	-	6.7	9.2	4.8
	Cadmium	mg/kg	0.4	900		< 0.4	< 0.4	1.4	< 0.4	0.4	1	1.2	0.6	-	-	-	-	< 0.4	< 0.4	< 0.4
	Chromium	mg/kg	5	3600		51	10	19	21	16	23	33	11	-	-	-	-	12	14	12
Motolo	Copper	mg/kg	5	240000		17	6.6	100	44	55	62	41	39	-	-	-	-	15	46	19
wetais	Lead	mg/kg	5	1500		57	15	90	48	68	140	320	74	-	-	-	-	24	30	19
	Mercury	mg/kg	0.1	730		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	< 0.1	< 0.1	< 0.1
	Nickel	mg/kg	5	6000		< 5	< 5	16	15	11	24	15	6.5	-	-	-	-	7.9	14	7.5
	Zinc	mg/kg	5	400000		120	24	1300	320	800	1000	2500	320	-	-	-	-	67	95	73
	Acenaphthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Acenaphthylene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Anthracene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Benz(a)anthracene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7	-	-	-
	Benzo(a)pyrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	-	-	-
	Benzo(a)pyrene TEQ (med bound)	mg/kg	0.6	40		0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	1.7	-	-	-
	Benzo(b&j)fluoranthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	< 0.5	< 0.5	< 0.5	< 0.5	1	-	-	-
	Benzo(g.h.i)perylene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	-	-	-
DALLS	Benzo(k)fluoranthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	< 0.5	< 0.5	< 0.5	< 0.5	1.2	-	-	-
PARS	Chrysene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5	0.9	-	-	-
	Dibenz(a.h)anthracene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Fluoranthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1	< 0.5	< 0.5	< 0.5	< 0.5	1.4	-	-	-
	Fluorene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Indeno(1.2.3-cd)pyrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Naphthalene	mg/kg	0.5	NL		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Phenanthrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	Pyrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 0.5	< 0.5	1.4	-	-	-
	Total PAH	mg/kg	0.5	4000		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	5.1	< 0.5	< 0.5	< 0.5	< 0.5	8.5	-	-	-
	Benzene	mg/kg	0.1	4		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-
DTEV	Toluene	mg/kg	0.1	NL		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-
DIEA	Ethylbenzene	mg/kg	0.1	NL		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-
	Xylenes - Total	mg/kg	0.3	NL		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	-	-	-
	Naphthalene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-
	TRH C6-C10	mg/kg	20		700	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	-	-	-
три	TRH C6-C10 less BTEX (F1)	mg/kg	20	310		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	-	-	-
	TRH >C10-C16	mg/kg	50		5200	69	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	-	-	-
	TRH >C10-C16 less Naphthalene (F2)	mg/kg	50	NL		69	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	-	-	-
	TRH >C16-C34	mg/kg	100		10000	3900	120	950	310	210	210	170	< 100	200	250	200	100	-	-	-
	TRH >C34-C40	mg/kg	100		10000	1200	< 100	500	220	< 100	< 100	< 100	< 100	150	120	150	< 100	-	-	-

NLNot limitingResultConcentration exceeds adopted health investigation/screening levelResultConcentration exceeds adopted management limits



					Field ID	SS15	TP101 0.0-0.1	TP102 0.0-0.1	TP114 0.0-0.1	TP115 0.0-0.1	TP116 0.0-0.1	SS117	TP103 0.0-0.1	TP105 0.0-0.1	TP106 0.0-0.1	TP107 0.0-0.1	TP107 0.4-0.5	TP107 0.8-0.9	TP108 0.0-0.1	TP109 0.0-0.1
					Date	1/11/2023	25/10/2025	25/10/2025	25/10/2025	25/10/2025	25/10/2025	25/10/2025	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
					AEC	1. Timber Storage Rack	1. Office		1. Site	Coverage / Poter	ntial Fill	•	1. Storage Shed		•			•		1. Waste Area
Analytes		Units	LOR	HIL/HSL D ¹	Mgmt Limits															
	Arsenic	mg/kg	2	3000		11	4.4	4.1	4.5	< 2	2.1	6	6.7	< 2	5.2	4.4	3.6	< 2	5.6	5.1
	Cadmium	mg/kg	0.4	900		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	0.8	< 0.4	1.1	< 0.4	< 0.4	< 0.4	1.5	< 0.4
	Chromium	mg/kg	5	3600		69	18	22	14	5.8	6	12	15	< 5	17	12	11	6.4	18	20
	Copper	mg/kg	5	240000		19	15	16	30	15	14	22	61	8.7	28	25	17	6.7	48	27
Wetals	Lead	mg/kg	5	1500		31	160	20	35	11	12	24	75	20	39	26	26	37	160	33
	Mercury	mg/kg	0.1	730		< 0.1	0.2	< 0.1	0.1	< 0.1	0.1	< 0.1	0.1	< 0.1	0.1	0.1	< 0.1	< 0.1	0.1	< 0.1
	Nickel	mg/kg	5	6000		9	< 5	13	20	< 5	< 5	8.1	9	< 5	15	8.1	< 5	< 5	14	7.6
	Zinc	mg/kg	5	400000		340	780	70	240	15	12	67	850	310	130	150	49	34	700	110
	Acenaphthene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Acenaphthylene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Anthracene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benz(a)anthracene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(a)pyrene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(a)pyrene TEQ (med bound)	mg/kg	0.6	40		-	-	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	Benzo(b&j)fluoranthene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(g.h.i)perylene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
DALLA	Benzo(k)fluoranthene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
PARS	Chrysene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Dibenz(a.h)anthracene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Fluoranthene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Fluorene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Indeno(1.2.3-cd)pyrene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Naphthalene	mg/kg	0.5	NL		-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Phenanthrene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Pyrene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Total PAH	mg/kg	0.5	4000		-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzene	mg/kg	0.1	4		-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
DTEV	Toluene	mg/kg	0.1	NL		-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
DIEA	Ethylbenzene	mg/kg	0.1	NL		-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Xylenes - Total	mg/kg	0.3	NL		-	-	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Naphthalene	mg/kg	0.5			-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	TRH C6-C10	mg/kg	20		700	-	-	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
три	TRH C6-C10 less BTEX (F1)	mg/kg	20	310		-	-	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
ікп	TRH >C10-C16	mg/kg	50		5200	-	-	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	TRH >C10-C16 less Naphthalene (F2)	mg/kg	50	NL		-	-	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	TRH >C16-C34	mg/kg	100		10000	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	190	< 100	< 100
	TRH >C34-C40	mg/kg	100		10000	-	-	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	130	< 100	< 100

NLNot limitingResultConcentration exceeds adopted health investigation/screening levelResultConcentration exceeds adopted management limits



					Field ID	TP109 0.4-0.5	TP110 0.0-0.1	TP111 0.0-0.1	TP111 0.4-0.5	TP112 0.0-0.1	TP113 0.0-0.1	TP05 0.0-0.2	TP10 0.0-0.2	TP11 0.0-0.2	TP11 0.4-0.5	TP11 0.9-1.0	TP12 0.4-0.5	SS14	SS16	SS17	SS18
					Date	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023
					AEC						•				•	2. Former Counc	il Depot				
Analytes		Units	LOR	HIL/HSL D ¹	Mgmt Limits																
	Arsenic	mg/kg	2	3000		4.4	< 2	4.1	4.4	< 2	< 2	4.2	2.7	2.8	3.7	5.1	2.8	6.9	2.5	2.6	5.3
	Cadmium	mg/kg	0.4	900		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1.7	0.4	0.4	< 0.4
	Chromium	mg/kg	5	3600		13	< 5	10	9.5	< 5	< 5	17	28	14	15	12	16	25	11	23	17
Motols	Copper	mg/kg	5	240000		25	10	2300	20	9.1	15	23	32	37	35	18	13	150	31	46	5.1
wetais	Lead	mg/kg	5	1500		30	190	220	32	15	21	25	170	70	120	45	18	200	82	83	11
	Mercury	mg/kg	0.1	730		< 0.1	0.2	< 0.1	< 0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Nickel	mg/kg	5	6000		6	< 5	16	5.2	< 5	< 5	13	33	21	8.8	7.7	< 5	21	10	32	< 5
	Zinc	mg/kg	5	400000		110	69	320	210	37	150	110	290	100	160	81	27	2300	160	160	34
	Acenaphthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Acenaphthylene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Anthracene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benz(a)anthracene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(a)pyrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(a)pyrene TEQ (med bound)	mg/kg	0.6	40		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	Benzo(b&j)fluoranthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(g.h.i)perylene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5
	Benzo(k)fluoranthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
гапз	Chrysene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Dibenz(a.h)anthracene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Fluoranthene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Fluorene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Indeno(1.2.3-cd)pyrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Naphthalene	mg/kg	0.5	NL		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Phenanthrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Pyrene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Total PAH	mg/kg	0.5	4000		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5
	Benzene	mg/kg	0.1	4		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
BTEX	Toluene	mg/kg	0.1	NL		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
DILA	Ethylbenzene	mg/kg	0.1	NL		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Xylenes - Total	mg/kg	0.3	NL		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Naphthalene	mg/kg	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	TRH C6-C10	mg/kg	20		700	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
трц	TRH C6-C10 less BTEX (F1)	mg/kg	20	310		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	TRH >C10-C16	mg/kg	50		5200	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	TRH >C10-C16 less Naphthalene (F2)	mg/kg	50	NL		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	TRH >C16-C34	mg/kg	100		10000	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	180	140	< 100	< 100	340	130	520	< 100
	TRH >C34-C40	mg/kg	100		10000	< 100	< 100	< 100	< 100	< 100	< 100	< 100	110	180	150	< 100	< 100	160	120	550	< 100

NLNot limitingResultConcentration exceeds adopted health investigation/screening levelResultConcentration exceeds adopted management limits



					Field ID	SS10	SS11	SS12	SS13
					Date	1/11/2023	1/11/2023	1/11/2023	1/11/2023
					AEC		3. Dweling	g on Lot 42	
Analytes		Units	LOR	HIL/HSL D ¹	Mgmt Limits				
	Arsenic	mg/kg	2	3000		3.8	2.9	4	2.3
	Cadmium	mg/kg	0.4	900		< 0.4	< 0.4	< 0.4	< 0.4
	Chromium	mg/kg	5	3600		13	13	11	13
N 4 a t a l a	Copper	mg/kg	5	240000		15	24	< 5	10
Wetals	Lead	mg/kg	5	1500		75	80	30	57
	Mercury	mg/kg	0.1	730		< 0.1	< 0.1	< 0.1	< 0.1
	Nickel	mg/kg	5	6000		< 5	7.2	< 5	< 5
	Zinc	mg/kg	5	400000		91	77	37	80
	Acenaphthene	mg/kg	0.5			-	-	-	-
	Acenaphthylene	mg/kg	0.5			-	-	-	-
	Anthracene	mg/kg	0.5			-	-	-	-
	Benz(a)anthracene	mg/kg	0.5			-	-	-	-
	Benzo(a)pyrene	mg/kg	0.5			-	-	-	-
	Benzo(a)pyrene TEQ (med bound)	mg/kg	0.6	40		-	-	-	-
	Benzo(b&j)fluoranthene	mg/kg	0.5			-	-	-	-
	Benzo(g.h.i)perylene	mg/kg	0.5			-	-	-	-
DALLS	Benzo(k)fluoranthene	mg/kg	0.5			-	-	-	-
PARS	Chrysene	mg/kg	0.5			-	-	-	-
	Dibenz(a.h)anthracene	mg/kg	0.5			-	-	-	-
	Fluoranthene	mg/kg	0.5			-	-	-	-
	Fluorene	mg/kg	0.5			-	-	-	-
	Indeno(1.2.3-cd)pyrene	mg/kg	0.5			-	-	-	-
	Naphthalene	mg/kg	0.5	NL		-	-	-	-
	Phenanthrene	mg/kg	0.5			-	-	-	-
	Pyrene	mg/kg	0.5			-	-	-	-
	Total PAH	mg/kg	0.5	4000		-	-	-	-
	Benzene	mg/kg	0.1	4		-	-	-	-
BTEN	Toluene	mg/kg	0.1	NL		-	-	-	-
DILA	Ethylbenzene	mg/kg	0.1	NL		-	-	-	-
	Xylenes - Total	mg/kg	0.3	NL		-	-	-	-
	Naphthalene	mg/kg	0.5			-	-	-	-
	TRH C6-C10	mg/kg	20		700	-	-	-	-
трц	TRH C6-C10 less BTEX (F1)	mg/kg	20	310		-	-	-	-
ікп	TRH >C10-C16	mg/kg	50		5200	-	-	-	-
	TRH >C10-C16 less Naphthalene (F2)	mg/kg	50	NL		-	-	-	-
	TRH >C16-C34	mg/kg	100		10000	-	-	-	-
	TRH >C34-C40	mg/kg	100		10000	-	-	-	-

NLNot limitingResultConcentration exceeds adopted health investigation/screening levelResultConcentration exceeds adopted management limits



				Field ID	TP05 0.0-0.2	TP10 0.0-0.2	TP11 0.0-0.2	TP12 0.0-0.2	SS14	SS15	SS17	TP106 0.0-0.1	TP108 0.0-0.1	TP111 0.0-0.1	TP113 0.0-0.1
				Date	28/02/2023	28/02/2023	28/02/2023	28/02/2023	28/02/2023	28/02/2023	28/02/2023	25/10/2024	25/10/2024	25/10/2024	25/10/2024
Analytes		Units	LOR	HIL D ¹											
	4.4'-DDD	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	4.4'-DDE	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	4.4'-DDT	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	a-HCH	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Aldrin	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	0.18	< 0.05	< 0.05
	Aldrin and Dieldrin (Total)*	mg/kg	0.05	45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	0.18	< 0.05	< 0.05
	b-HCH	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Chlordanes - Total	mg/kg	0.1	530	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	DDT + DDE + DDD (Total)*	mg/kg	0.05	3600	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	d-HCH	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Dieldrin	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Endosulfan I	mg/kg	0.05	2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
OCPs	Endosulfan II	mg/kg	0.05	2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Endosulfan sulphate	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Endrin	mg/kg	0.05	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.07	< 0.05	< 0.05	< 0.05
	Endrin aldehyde	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Endrin ketone	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	g-HCH (Lindane)	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Heptachlor	mg/kg	0.05	50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Heptachlor epoxide	mg/kg	0.05		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Hexachlorobenzene	mg/kg	0.05	80	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Methoxychlor	mg/kg	0.05	2500	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05
	Toxaphene	mg/kg	0.5	160	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 0.5	< 0.5	< 0.5	< 0.5
	Vic EPA IWRG 621 OCP (Total)*	mg/kg	0.1		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	0.18	< 0.1	< 0.1
	Vic EPA IWRG 621 Other OCP (Total)*	mg/kg	0.1		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	Aroclor-1016	mg/kg	0.05		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	Aroclor-1221	mg/kg	0.05		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
PCBs	Aroclor-1232	mg/kg	0.05		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	Aroclor-1242	mg/kg	0.05		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	Aroclor-1248	mg/kg	0.05		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	Aroclor-1254	mg/kg	0.05		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	Aroclor-1260	mg/kg	0.05		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
	Total PCB*	mg/kg	0.1	8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	< 0.1	< 0.1	< 0.1

Result

Concentration exceeds adopted health investigation level 1 ASC NEPM (2013) - Table 1A(1): Health Investigation Levels, commercial/industrial



				Field ID	SS7	SS8	SS9	TP114 0.0-0.1	TP115 0.0-0.1	TP116 0.0-0.1	SS117	TP107 0.0-0.1	TP107 0.4-0.5	TP107 0.8-0.9	TP108 0.0-0.1	TP109 0.0-0.1	TP109 0.4-0.5	TP110 0.0-0.1	TP111 0.0-0.1	TP111 0.4-0.5	TP112 0.0-0.1
				Date	1/11/2023	1/11/2023	1/11/2023	25/10/2025	25/10/2025	25/10/2025	25/10/2025	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
				AEC	1. Form	er Amenities B	uilding		1. Site	Coverage	, ,		, ,	, ,		, ,	1. Waste Area	, ,			
Analytes		Units	LOR	EIL/ESL D ¹																	
	Arsenic	mg/kg	2	160	6.7	9.2	4.8	4.5	< 2	2.1	6	4.4	3.6	< 2	5.6	5.1	4.4	< 2	4.1	4.4	< 2
	Cadmium	mg/kg	0.4		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1.5	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	Chromium	mg/kg	5	1200*	12	14	12	14	5.8	6	12	12	11	6.4	18	20	13	< 5	10	9.5	< 5
Motolo	Copper	mg/kg	5	270*	15	46	19	30	15	14	22	25	17	6.7	48	27	25	10	2300	20	9.1
wetais	Lead	mg/kg	5	1800	24	30	19	35	11	12	24	26	26	37	160	33	30	190	220	32	15
	Mercury	mg/kg	0.1		< 0.1	< 0.1	< 0.1	0.1	< 0.1	0.1	< 0.1	0.1	< 0.1	< 0.1	0.1	< 0.1	< 0.1	0.2	< 0.1	< 0.1	< 0.1
	Nickel	mg/kg	5	210*	7.9	14	7.5	20	< 5	< 5	8.1	8.1	< 5	< 5	14	7.6	6	< 5	16	5.2	< 5
	Zinc	mg/kg	5	680*	67	95	73	240	15	12	67	150	49	34	700	110	110	69	320	210	37
	Acenaphthene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Acenaphthylene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Anthracene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benz(a)anthracene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(a)pyrene	mg/kg	0.5	172	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(a)pyrene TEQ (med bound)	mg/kg	0.6		-	-	-	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	Benzo(b&j)fluoranthene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzo(g.h.i)perylene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
DAHe	Benzo(k)fluoranthene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
FAIIS	Chrysene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Dibenz(a.h)anthracene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Fluoranthene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Fluorene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Indeno(1.2.3-cd)pyrene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Naphthalene	mg/kg	0.5	370	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Phenanthrene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Pyrene	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Total PAH	mg/kg	0.5		-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Benzene	mg/kg	0.1	95	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
BTEX	Toluene	mg/kg	0.1	135	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
DILX	Ethylbenzene	mg/kg	0.1	185	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Xylenes - Total	mg/kg	0.3	95	-	-	-	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Naphthalene	mg/kg	0.5	370	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	TRH C6-C10	mg/kg	20	215	-	-	-	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
ТРН	TRH C6-C10 less BTEX (F1)	mg/kg	20		-	-	-	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	TRH >C10-C16	mg/kg	50	170	-	-	-	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	TRH >C10-C16 less Naphthalene (F2)	mg/kg	50		-	-	-	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	TRH >C16-C34	mg/kg	100	2500	-	-	-	< 100	< 100	< 100	< 100	< 100	< 100	190	< 100	< 100	< 100	< 100	< 100	< 100	< 100
	TRH >C34-C40	mg/kg	100	6600	-	-	-	< 100	< 100	< 100	< 100	< 100	< 100	130	< 100	< 100	< 100	< 100	< 100	< 100	< 100

*

EIL based on average pH of 7.4, a CEC of 8.6meq/100g and clay content of 60%, and using Ambient Background Concentration obtained from Olszowy et al (1995) using urban soils, old suburbs with high traffic (site on a hghway), 25% percentile. Not analysed

Result

Concentration exceeds adopted ecological investigation/screening levels

ASC NEPM (2013) Ecological Investigation/Screening Levels, commercial/industrial, fine



					19115 0.0-0.1	1911 0.0-0.2	1911 0.4-0.5	1911 0.9-1.0	1912 0.4-0.5	3317	33
					25/10/2024	1/11/2022	1/11/2022	1/11/2022	1/11/2022	1/11/2022	1/11
					23/10/2024	1/11/2023	1/11/2023	2 Formor Cour	1/11/2023	1/11/2023	1/11
				AEC				2. Former Cour			
Analytes		Units	LOR	EIL/ESL D ¹							
	Arsenic	mg/kg	2	160	< 2	2.8	3.7	5.1	2.8	2.6	5
	Cadmium	mg/kg	0.4		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	0.4	<
	Chromium	mg/kg	5	1200*	< 5	14	15	12	16	23	1
Matala	Copper	mg/kg	5	270*	15	37	35	18	13	46	5
wetais	Lead	mg/kg	5	1800	21	70	120	45	18	83	1
	Mercury	mg/kg	0.1		0.1	< 0.1	0.2	< 0.1	< 0.1	< 0.1	<
	Nickel	mg/kg	5	210*	< 5	21	8.8	7.7	< 5	32	<
	Zinc	mg/kg	5	680*	150	100	160	81	27	160	3
	Acenaphthene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Acenaphthylene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Anthracene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Benz(a)anthracene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Benzo(a)pyrene	mg/kg	0.5	172	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Benzo(a)pyrene TEQ (med bound)	mg/kg	0.6		0.6	0.6	0.6	0.6	0.6	0.6	C
	Benzo(b&j)fluoranthene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Benzo(g.h.i)perylene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	<
DALLe	Benzo(k)fluoranthene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
РАПЗ	Chrysene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Dibenz(a.h)anthracene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Fluoranthene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Fluorene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Indeno(1.2.3-cd)pyrene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Naphthalene	mg/kg	0.5	370	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Phenanthrene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Pyrene	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	Total PAH	mg/kg	0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	<
	Benzene	mg/kg	0.1	95	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<
DTEV	Toluene	mg/kg	0.1	135	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<
DIEA	Ethylbenzene	mg/kg	0.1	185	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<
	Xylenes - Total	mg/kg	0.3	95	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	<
	Naphthalene	mg/kg	0.5	370	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<
	TRH C6-C10	mg/kg	20	215	< 20	< 20	< 20	< 20	< 20	< 20	<
трц	TRH C6-C10 less BTEX (F1)	mg/kg	20		< 20	< 20	< 20	< 20	< 20	< 20	<
ткп	TRH >C10-C16	mg/kg	50	170	< 50	< 50	< 50	< 50	< 50	< 50	<
	TRH >C10-C16 less Naphthalene (F2)	mg/kg	50		< 50	< 50	< 50	< 50	< 50	< 50	<
	TRH >C16-C34	mg/kg	100	2500	< 100	180	140	< 100	< 100	520	< 1
	TRH >C34-C40	mg/kg	100	6600	< 100	180	150	< 100	< 100	550	< 2

*

EIL based on average pH of 7.4, a CEC of 8.6meq/100g and clay content of 60%, and using Ambient Background Concentration obtained from Olszowy et al (1995) using urban soils, old suburbs with high traffic (site on a hghway), 25% percentile. Not analysed

Result

Concentration exceeds adopted ecological investigation/screening levels

ASC NEPM (2013) Ecological Investigation/Screening Levels,

commercial/industrial, fine



-																				
	Sample ID	TP01_0.0-0.2	TP01_0.4-0.5	TP04_0.0-0.2	TP04_0.4-0.5	TP05_0.0-0.2	TP05_0.4-0.5	TP05_0.9-1.0	TP08_0.0-0.2	TP08_0.4-0.5	TP09_0.0-0.2	TP09_0.4-0.5	TP10_0.0-0.2	TP10_0.4-0.5	TP11_00.2	TP11_0.4-0.5	TP11_0.9-1.0	TP12_0.0-0.2	TP12_0.4-0.5	TP12_0.9-1.0
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil												
	Sample Date	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023
	HIL/HSL D																			
ACM weight (g)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ACM weight (kg)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil density (kg/L)		1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Soil Volume (L)		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Asbestos Content (%)		15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
%w/w ACM in Soil	0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
%w/w FA/AF in Soil	0.001	<0.001%	-	-	-	<0.001%	-	-	<0.001%	-	<0.001%	-	<0.001%	-	<0.001%	<0.001%	-	-	<0.001%	-

	Sample ID	SS1	SS2	SS3	SS4	SS5	SS6	SS7	SS8	SS9	SS10	SS11	SS12	SS13	SS14	SS15	SS16	SS17	SS18	TP101 0.0-0.1
	Matrix	Soil																		
	Sample Date	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	1/11/2023	25/10/2024
_	HIL/HSL D																			
ACM weight (g)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45.5
ACM weight (kg)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0455
Soil density (kg/L)		1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Soil Volume (L)		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Asbestos Content (%)		15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
%w/w ACM in Soil	0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04
%w/w FA/AF in Soil	0.001	-	-	-	<0.001%	-	<0.001%	<0.001%	-	<0.001%	<0.001%	<0.001%	<0.001%	<0.001%	<0.001%	-	<0.001%	-	<0.001%	<0.001%

	Sample ID	TP101 0.0-0.1	TP101 0.0-0.1	TP102 0.0-0.1	TP103 0.0-0.1	TP104 0.0-0.1	TP105 0.0-0.1	TP106 0.0-0.1	TP106 0.4-0.5	TP107 0.0-0.1	TP107 0.4-0.5	TP108 0.0-0.1	TP109 0.0-0.1	TP109 0.4-0.5	TP110 0.0-0.1	TP111 0.0-0.1	TP111 0.4-0.5	TP112 0.0-0.1	TP113 0.0-0.1	TP114 0.0-0.1
	Matrix	Fragment	Soil																	
	Sample Date	25/10/2025	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
	HIL/HSL D																			
ACM weight (g)		-	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ACM weight (kg)		-	0.045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil density (kg/L)		-	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Soil Volume (L)		-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Asbestos Content (%)		-	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
%w/w ACM in Soil	0.05	-	0.0375	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
%w/w FA/AF in Soil	0.001	-	<0.001%	<0.001%	<0.001%	-	<0.001%	<0.001%	-	<0.001%	-	<0.001%	<0.001%	-	<0.001%	<0.001%	-	<0.001%	<0.001%	<0.001%
Asbestos																				
presence/absence	Detect	Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Sample ID	TP115 0.0-0.1	TP116 0.0-0.1
	Matrix	Soil	Soil
	Sample Date	25/10/2024	25/10/2024
	HIL/HSL D		
ACM weight (g)		0	0
ACM weight (kg)		0	0
Soil density (kg/L)		1.8	1.8
Soil Volume (L)		10	10
Asbestos Content (%)		15	15
%w/w ACM in Soil	0.05	0	0
%w/w FA/AF in Soil	0.001	<0.001%	<0.001%
Notes:			

%w/w asbestos in soil calculated using: % asbestos content x bonded ACM (kg) / soil volume (L) x soil density (kg/L)

Result Exceeds adopted criteria

Result ACM detected on surface below HSL

Criteria from ASC NEPM (2013) Table 7 - Health Screening Level (HSL) for Asbestos, Commercial/Industrial



																_		
		Sam	ple ID	TP10_0.0-0.2	D1.11.23		TP10_0.0-0.2	T.1.11.23		TP113 0.0-0.1	D25.10.24		TP101 0.0-0.1	D2.25.10.24				TB.25.10.24
			Date	1/11/2023	1/11/2023	RPD %	28/01/2023	28/02/2023	RPD %	25/10/2024	25/10/2024	RPD %	25/10/2024	25/10/2024	RPD %			25/10/2024
			Туре	Primary	Duplicate		Primary	Triplicate		Primary	Duplicate	1	Primary	Duplicate				Trip Blank
Analytes		Soil Units	LOR													Water Units	Water LOR	
	Arsenic	mg/kg	2	2.7	2.1	25	2.7	2	30	< 2	< 2	0	4.4	9.6	74	mg/L	0.001	-
	Cadmium	mg/kg	0.4	< 0.4	< 0.4	0	< 0.4	< 0.3	29	< 0.4	< 0.4	0	< 0.4	0.5	22	mg/l	0.0002	-
	Chromium	mg/kg	5	28	34	19	28	15	60	< 5	< 5	0	18	31	53	mg/l	0.001	-
	Copper	mg/kg	5	32	30	0	32	22	37	15	15	0	15	23	42	mg/L	0.001	-
Metals	Lead	mg/kg	5	170	90	52	170	92	70	21	21	0	15	25	42	mg/L	0.001	
	Morcury	mg/kg	5	170 < 0.1	3 3		< 0.1	62	67	0.1	< 0.1	0		0.1	04	mg/L	0.001	-
	Niekol	mg/kg		< 0.1 22	< 0.1	0	< 0.1 22	< 0.03	20	0.1	< 0.1	0	< 0.2	0.1	0	mg/L	0.0001	-
		mg/kg	5	33	41	8	33	27	20	< 5	< 5	0	< 5	15	100	mg/L	0.001	-
		mg/кg	5	290	160	58	290	130	76	150	150	0	780	1200	42	mg/L	0.005	-
	Acenaphthene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Acenaphthylene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Anthracene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Benz(a)anthracene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Benzo(a)pyrene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Benzo(a)pyrene TEQ (medium bound)	mg/kg	0.6	0.6	0.6	0	0.6	<0.2	0	0.6	0.6	0	-	0.6	-	mg/L	0.001	-
	Benzo(b&j)fluoranthene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Benzo(g.h.i)perylene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
DALL	Benzo(k)fluoranthene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
PAHS	Chrysene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Dibenz(a.h)anthracene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Fluoranthene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Fluorene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	_	< 0.5	-	mg/L	0.001	< 0.001
	Indeno(1 2 3-cd)pyrene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0	_	< 0.5	-	mg/l	0.001	< 0.001
	Nanhthalene	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0		< 0.5		mg/L	0.001	< 0.001
	Phenonthrone	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1	0	< 0.5	< 0.5	0		< 0.5		mg/L	0.001	< 0.001
	Dyropo	mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.1 0.1	0	< 0.5	< 0.5	0	_	< 0.5	-	mg/L	0.001	< 0.001
		mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
		mg/kg	0.5	< 0.5	< 0.5	0	< 0.5	<0.8	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.001	< 0.001
	Benzene	mg/kg	0.1	< 0.1	< 0.1	0	< 0.1	< 0.1	0	< 0.1	< 0.1	0	-	< 0.1	-	mg/L	0.001	< 0.001
BTEX	Toluene	mg/kg	0.1	< 0.1	< 0.1	0	< 0.1	< 0.1	0	< 0.1	< 0.1	0	-	< 0.1	-	mg/L	0.001	< 0.001
	Ethylbenzene	mg/kg	0.1	< 0.1	< 0.1	0	< 0.1	< 0.1	0	< 0.1	< 0.1	0	-	< 0.1	-	mg/L	0.001	< 0.001
	Xylenes - Total	mg/kg	0.3	< 0.3	< 0.3	0	< 0.3	< 0.3	0	< 0.3	< 0.3	0	-	< 0.3	-	mg/L	0.003	< 0.003
	Naphthalene	mg/kg	0.5	< 0.5	< 0.5	0	<0.5	<0.1	0	< 0.5	< 0.5	0	-	< 0.5	-	mg/L	0.01	< 0.01
	TRH C6-C10	mg/kg	20	< 20	< 20	0	< 20	<25	0	< 20	< 20	0	-	< 20	-	mg/L	0.02	< 0.02
трц	TRH C6-C10 less BTEX (F1)	mg/kg	20	< 20	< 20	0	< 20	<25	0	< 20	< 20	0	-	< 20	-	mg/L	0.02	< 0.02
	TRH >C10-C16	mg/kg	50	< 50	< 50	0	< 50	<25	0	< 50	< 50	0	-	< 50	-	mg/L	0.05	< 0.05
	TRH >C10-C16 less Naphthalene (F2)	mg/kg	50	< 50	< 50	0	< 50	<25	0	< 50	< 50	0	-	< 50	-	mg/L	0.05	< 0.05
	TRH >C16-C34	mg/kg	100	< 100	< 100	0	< 100	<90	0	< 100	130	26	-	< 100	-	mg/L	0.1	< 0.1
	TRH >C34-C40	mg/kg	100	110	< 100	10	110	<120	9	< 100	< 100	10	-	< 100	-	mg/L	0.1	< 0.1
	4.4'-DDD	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	_	_	-	-	-	-	-	-	-
	4 4'-DDF	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	_	_	_	_	_	-	-	_	_
	4 4'-DDT	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	_	_		-		-		-
		mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	_				_				
	Aldrin	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	_			-	_		-		
	Aldrin and Dialdrin (Tatal)*	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	-
		ma/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.2	0	-	-	-	-	-	-	-	-	
		mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	-
		mg/kg	0.1	<1	< 1	0	<1	<0.1	0	-	-	-	-	-	-	-	-	
	DDI + DDE + DDD (Total)*	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	-
	d-HCH	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	-
	Dieldrin	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.2	0	-	-	-	-	-	-	-	-	
OCPs	Endosulfan I	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.2	0	-	-	-	-	-	-	-	-	-
	Endosulfan II	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.2	0	-	-	-	-	-	-	-	-	-
	Endosulfan sulphate	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	
	Endrin	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.2	0	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	-
	Endrin ketone	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	-
	g-HCH (Lindane)	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	-	0	-	-	-	-	-	-	-	-	-
	Heptachlor	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	- 1	-	-	-	-
	Hexachlorobenzene (HCB)	mg/kg	0.1	< 0.5	< 0.5	0	< 0.5	-	0	-	-	-	-	- 1	-	-	-	-
	Methoxychlor	mø/kø	0.1	< 0.5	< 0.5	0	< 0.5	<0.1	0	-	-	-	-	<u> </u>	-	-	-	-
	Toxaphene	mø/kø	0.5	< 10	< 10	0	< 10	-	0	-	-	-	-	<u> </u>	-	-	-	-
		01.10	1			ı ~		1	1 ×		1	1					1	1

*RPDs have only been considered where a concentration is greater than 10 times the EQL. **High RPDs are in bold (Acceptable RPD range is 30% (>10 x EQL))



	А	В	С	D	E	F	G	Н	I	J	К	L
1					UCL Statis	ics for Unc	ensored Full	Data Sets				
2												
3		User Selec	cted Options									
4	Date	/Time of Co	omputation	ProUCL 5.2	31/10/2024	9:52:13 AN	Л					
5			From File	WorkSheet.	.xls							
6		Full	Precision	OFF								
7	С	onfidence (Coefficient	95%								
8	Number of	Bootstrap C	Operations	2000								
9												
10												
11	Zinc											
12												
13						General	Statistics					
14			Total N	Number of Ol	oservations	11			Number	of Distinct O	bservations	9
15									Number o	of Missing O	bservations	0
16					Minimum	34					Mean	176.3
17					Maximum	700					Median	110
18					SD	193.3				Std. Er	ror of Mean	58.28
19				Coefficient	of Variation	1.097					Skewness	2.322
20												
21						Normal (GOF Test					
22			Sh	apiro Wilk Te	est Statistic	0.717			Shapiro Wi	k GOF Tes	t	
23			1% Sha	apiro Wilk Cr	itical Value	0.792		Data Not	Normal at 1	% Significa	nce Level	
24				Lilliefors Te	est Statistic	0.281			Lilliefors	GOF Test		
25			1%	6 Lilliefors Cr	itical Value	0.291		Data appea	ar Normal at	1% Signific	ance Level	
26				Data a	ppear Appro	oximate No	rmal at 1% S	Significance	e Level			
27												
28					Ass	uming Nori	mal Distribut	ion				
29			95% No	ormal UCL	-			95%	UCLs (Adju	sted for Ske	wness)	
30				95% Stud	ent's-t UCL	281.9		95	% Adjusted	-CLT UCL (Chen-1995)	315.7
31								9	5% Modified	I-t UCL (Joh	inson-1978)	288.7
32												
33						Gamma	GOF Test					
34				A-D Te	est Statistic	0.384		Anders	son-Darling	Gamma GC	OF Test	
35				5% A-D Cr	ritical Value	0.745	Detected	data appear	Gamma Di	stributed at	5% Significar	nce Level
36				K-S I	est Statistic	0.183		Kolmogo	prov-Smirno	v Gamma C	OF Test	
37				5% K-S Cr	itical Value	0.26	Detected	data appear	Gamma Di	stributed at	5% Significar	nce Level
38				Detected d	ata appear	Gamma Di	stributed at	o% signific	ance Level			
39						Comme	Statistics					
40						Gamma	Statistics		14			1.045
41				Th - 44	k nat (MLE)	1.354			K St	ar (blas corr		1.045
42				Ineta	a hat (MLE)	130.2			I heta st	ar (bias corr	ected MLE)	168.7
43				nu E Maran (hiar	u nat (IVILE)	29.78				nu star (bia:	s corrected)	22.99
44			ML	E Mean (blas	s corrected)	1/6.3		A	N	/ILE Sd (bias	s corrected)	1/2.4
45			د م:ام ۸	od Lovel of C	lanificante	0 0070		Ap	proximate (value (0.05)	11.09
46			Adjust	eu Level Of S	synncance	0.0278			Adj	usied Chi So	luare value	11.00
47					^		ma Diatriku	tion				
48			050/ 4	provinceta O	ASS		inia distribu	uon	050		amme LIOI	2/1 1
49			95% Ap	proximate G	amma UCL	309.7			95%	Aujusted G	amma UCL	341.1
50						1.0000						
51			01-		oot Quotionia		GOFIEST	Char!	ro Mille Lan	normal CO	F Toct	
52			Sh 1004 Cl			0.961		Snapi				1
53			10% Sha	apiro Wilk Cr	TRICAL Value	0.876	D	ata appear	∟ognormal a	at 10% Signi	incance Leve	1

	А		В	С	D	E	F	G	Н	I	J	K	L
54					Lilliefors T	est Statistic	0.12		Lill	iefors Logno	ormal GOF	⊺est	
55				10%	Lilliefors C	ritical Value	0.231	E	Data appear	Lognormal a	at 10% Sign	ificance Leve	el
56					D	ata appear l	.ognormal a	at 10% Sign	ificance Le	vel			
57													
58							Lognorma	I Statistics					
59				Ν	linimum of L	ogged Data	3.526				Mean of	logged Data	4.759
60				M	aximum of L	ogged Data	6.551				SD of	logged Data	0.926
61													
62						Assu	ming Logno	ormal Distril	oution				
63						95% H-UCL	413.6			90% C	hebyshev (l	MVUE) UCL	320.6
64				95% C	hebyshev (l	MVUE) UCL	388.7			97.5% C	hebyshev (l	MVUE) UCL	483.3
65				99% C	hebyshev (l	MVUE) UCL	669						
66													
67						Nonparame	ric Distribu	tion Free U	CL Statistic	s			
68						Data appear	to follow a	Discernible	e Distributio	n			
69													
70						Nonpara	ametric Dis	tribution Fre	e UCLs				
71					95	% CLT UCL	272.1			9	5% BCA Bo	otstrap UCL	319.9
72				95% S	Standard Bo	otstrap UCL	268.4				95% Boo	tstrap-t UCL	441.6
73				95	% Hall's Bo	otstrap UCL	701.7			95% Pe	ercentile Bo	otstrap UCL	275.7
74				90% Che	byshev(Me	an, Sd) UCL	351.1			95% Che	byshev(Me	an, Sd) UCL	430.3
75				97.5% Che	byshev(Me	an, Sd) UCL	540.2			99% Che	byshev(Me	an, Sd) UCL	756.1
76													
77							Suggested	UCL to Use	9				
78					95% Stu	dent's-t UCL	281.9						
79													
80		Т	he calcı	ulated UCLs	are based	on assumpti	ons that the	e data were	collected i	n a random	and unbias	ed manner.	
81					Please	e verify the d	ata were co	llected fron	n random lo	cations.			
82				lft	the data we	re collected	using judgr	nental or of	ther non-rar	ndom metho	ds,		
83					the	n contact a s	tatistician t	o correctly	calculate U	CLs.			
84													
85				When a	data set fol	lows an appi	oximate dis	stribution pa	ssing only c	one of the GO	OF tests,		
86				it is sugg	ested to use	e a UCL base	ed upon a d	istribution p	assing both	GOF tests in	n ProUCL		
87													
88	N	ote: S	Suggestic	ons regarding	the selecti	on of a 95%	UCL are pro	ovided to he	elp the user	to select the	e most appr	opriate 95% l	JCL.
89		F	Recomme	endations are	e based upo	n data size,	data distrib	ution, and s	kewness us	ing results fi	rom simulat	ion studies.	
90	How	vever,	, simulat	ions results v	vill not cove	r all Real Wo	orld data se	ts; for additi	onal insight	the user ma	want to c	onsult a statis	stician.
91													

APPENDIX C:

Test Pit Logs



CLIENT:CENTRAL COAST INDUSTRY CONNECT LTDPROJECT:PROPOSED RESIDENTIAL DEVELOPMENTLOCATION:2-4 BROWNLEE ROAD, OURIMBAH

TEST PIT NO:

PAGE:

DATE:

JOB NO:

LOGGED BY:

TP01 1 OF 1

NEW23P-0208

EC TE	QUIPMENT TYPE: EST PIT LENGTH: Drilling and Samplir			2.7 TC 2.0 m	NNE E	EXCA	VATOR	SURFACE RL:					
	Drill	ing and Sam	nling	2.0 m			Material description and profile in				Field	d Tost	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil ty characteristics,colour,minol	rpe, plasticity/particle components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
						SC	FILL-TOPSOIL: Gravelly Claye	y SAND - fine to					FILL - TOPSOIL
		E 0.20m 0.40m		-		GP	FILL: GRAVEL - fine to coarse medium to coarse grained, brown to cark brown and red-b brown to dark brown and red-b ut some fine to coarse grained	sub-angular to / ticity, root affected. / grained (mostly gular to sub-angular, rown with some black, d sand, with some	D - M				FILL
		E (0.50m)		0. <u>5</u> -		CL	Ifines of low plasticity. TOPSOIL: Sandy CLAY - low to dark grey-brown, fine to mediur grained) sand.) medium plasticity, n grained (mostly fine	M > w _P		HP	110	BURIED TOPSOIL / POSSIBLE COLLUVIUM
		0.90m E (1.00m 1.10m		- 1. <u>0</u>			Sandy CLAY - medium plasticit brown, fine grained sand.	y, grey-brown to pale			HP	130	COLLUVIUM / POSSIBLE ALLUVIUM
		CBR & U50 1.40m ASS (1.50m		- - 1.5_		CI			$M \sim w_{\rm P}$	St	HP	110	
	Slow Inflow (<1L/min)	2.00m ASS 2.10m				CL	1.60m Sandy CLAY / Clayey SAND - I plasticity, grey, fine to medium	ow to medium grained sand.	M > W _P	F / Fb	HP	80	ALLUVIUM
		2.50m ASS (2.60m)		- 2.5_			2.60m CLAY - high plasticity, grey with	some orange-brown.		VSt	HP	230	
				-	<u></u>		Hole Terminated at 2.80 m Due to limit of reach of excavat	ion					
	GEND: ter (Dat – Wat ■ Wat ata Cha	er Level te and time sh er Inflow er Outflow anges	iown)	Notes, Sa U ₅₀ CBR E ASS B Eield Toor	mples a 50mm Bulk s Enviro (Glass Acid S (Plasti Bulk S	nd Tes Diame ample i nmenta a jar, se culfate \$ c bag, ample	ts ter tube sample for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled)	Consisten VS Ve S Soo F Fir St Sti VSt Ve H Ha Fb Fb	ery Soft oft rm iff ery Stiff ard iable		25 25 50 20 20 20	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 400	Moisture Condition D Dry M Moist W Wet Wp, Plastic Limit WL Liquid Limit
	Strata Changes E Gradational or Fie transitional strata F Definitive or distict DC strata change H				Photoi Dynan Hand I	onisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ymeter test (UCS kPa)		V L ME D VD	D Vi D Vi	ery Lo pose ediun ense ery Do	n Dense ense	Density Index < 15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



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	EQ TES	UIPM ST PI	IENT TYPI T LENGTH	E: 1:	2.7 TC 2.0 m	DNNE I W	EXCA	VATOR 0.5 m	SURF	ACE RL: M:					
F		Drilli	ing and Sam	npling				Material description a	nd profile information				Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPT characteristics,c	TON: Soil type, plasticity solour,minor components	/particle s	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
					- - - - - -		GP	FILL: GRAVEL - me blue-grey, trace fine fines of low plasticity	edium to coarse grained, to medium grained san , root affected.	angular, d, trace	D				FILL - STOCKPILE
					-		CL	TOPSOIL: Sandy C fine grained sand, w	LAY - low plasticity, grey veakly cemented.	brown,					
		þé			1. <u>0</u> -		CL	Sandy CLAY - low p coarse grained sand	olasticity, grey-brown, find	e to			ΗP	>600	COLLUVIUM
	ш	Vot Encountere	1.40m		- 1.5			1.40m Sandy CLAY - medi grained sand.	um plasticity, pale browr	- <u></u> 1, fine	1 < W _P		ΗP	>600	
22023 13:02 10:03:00:03 Daiger La		2	<u>1.55m</u>					J				Η	HP	>600	
UGS.GPJ < <drawingfile>> 13/1</drawingfile>					-						~ Wp		HP	380	
1 1141631 - 0020-4620							— — - СН	2.60m CLAY - high plasticit	 ty, grey with some orang	 je-brown.	M > W _P	VSt	HP	360	
					-			Hole Terminated at Due to limit of reach	2.80 m of excavation						
	LEG Wate	END: er (Dat (Dat Wate Wate ta Cha	er Level e and time sh er Inflow er Outflow anges	iown)	<u>Notes, Sa</u> U₅ CBR E ASS B	mples a 50mm Bulk s Enviro (Glass Acid S (Plasti Bulk S	nd Test n Diame ample f onmenta s jar, se Sulfate S ic bag, a Sample	<u>s</u> ter tube sample or CBR testing I sample aled and chilled on site) ioil Sample air expelled, chilled)		ConsisterVSVSSFFStSVStVHHFbF	ncy ery Soft oft irm tiff ery Stiff ard riable		U <2 25 50 10 20 >2	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 400	Moisture Condition D Dry M Moist W Wet W _p Plastic Limit W _L Liquid Limit
MI LID 1.1.9LD LC		Strata Changes E Gradational or Fin transitional strata Definitive or distict Dof strata change			Field Tes PID DCP(x-y) HP	<u>ts</u> Photo Dynar Hand	ionisatio nic pene Penetro	n detector reading (ppm) etrometer test (test depth inte meter test (UCS kPa)	rval shown)	<u>Density</u>	V L D VD	Ve Lc D D Ve	ery Lo bose ediun ense ery Do	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



CLIENT:CENTRAL COAST INDUSTRY CONNECT LTDPROJECT:PROPOSED RESIDENTIAL DEVELOPMENTLOCATION:2-4 BROWNLEE ROAD, OURIMBAH

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E	EQUIPMENT TYPE: TEST PIT LENGTH:			2.7 TC	DNNE	EXCA	VATOR	SURFACE RL:					
Т	EST P	IT LENGT	H:	2.0 m	w	IDTH:	0.5 m	DATUM:			1		
	Dril	ling and San	npling				Material description and profile infor	mation			Fiel	d Test	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type characteristics,colour,minor co	plasticity/particle mponents	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
				-		SM	FILL-TOPSOIL: Gravelly Silty SAN GRAVEL - fine to coarse grained, fine to coarse grained angular gra 0.20m plasticity, root affected.	D / Sandy Silty dark grey to black, /el, fines of low	D				FILL - TOPSOIL
				- - 0. <u>5</u>		CL	Sandy CLAY - low to medium plas fine grained sand, weakly cemente Earthenware pipe located at 0.5m	iicity, pale grey, id. BEGL.			HP	>600	COLLUVIUM
		0.70m		-			0.65m	ale brown, fine	-		HP	>600	
		CBR 1.00m		- 1. <u>0</u>							ΗP	>600	
5	ountered			-		CI			M < W		HP	>600	
	Not End			- 1. <u>5</u> - -						Н	HP	>600	
				- 2. <u>0</u> -		SP	2.00m SAND - fine to medium grained, b grey-brown.		D				ALLUVIUM — — — — — — — — — — — — — — — — — — —
				- 2.5		СН	2.40m CLAY - high plasticity, grey with so with some fine to medium grained	me orange-brown, sand.	M < w _p		HP	>600 >600	
				-	-		Hole Terminated at 2.80 m Due to limit of reach of excavation						
	EGEND: ater Wa (Da → Wa → Wa rata Ch	ter Level te and time sl ter Inflow ter Outflow anges	hown)	Notes, Sa U ₅₀ CBR E ASS B	imples a 50mm Bulk s Enviro (Glass Acid S (Plast Bulk S	nd Tesi n Diame ample f onmenta s jar, se Sulfate S ic bag, a Sample	ter tube sample ter tube sample or CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled)	Consiste VS V F F St S VSt V H F Fb F	Very Soft Soft Firm Stiff Very Stiff Hard Friable		U 25 50 10 20	CS (kP 25 5 - 50 0 - 100 00 - 200 00 - 400 400	a) Moisture Condition D Dry M Moist W Wet W _p Plastic Limit W _L Liquid Limit
	trata Changes Gradational or transitional strata Definitive or distict strata change			Field Test PID DCP(x-y) HP	<u>ts</u> Photo Dynar Hand	ionisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) meter test (UCS kPa)	Density	V L ME D VE	V La D M D D V	ery Lo bose ediur ense ery D	oose n Dense <u>ense</u>	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



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	EQI	EQUIPMENT TYPE: EST PIT LENGTH: Drilling and Sampling			2.7 TC 2.0 m	ONNE W	EXCA	VATOR 0.5 m	SURF/ DATU	ACE RL: M:					
-		Drilli	ing and San	nplina				Material descriptio	on and profile information				Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCR characteristic	IPTION: Soil type, plasticity, s,colour,minor components	/particle	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
			E				sc	FILL-TOPSOIL: (grained, dark gre	Clayey SAND - fine to media ey-brown, fines of low plastic	um city, with	D - M				FILL - TOPSOIL
			0.20m		-		 CL	Sandy CLAY - lo medium grained	w to medium plasticity, grey sand, weakly cemented.	, fine to			HP	>600	COLLUVIUM
			E & U50		- 0. <u>5</u>			Sandy CLAY - m orange-brown, fir	edium plasticity, pale brown ne grained sand.	n to pale	-		ΗP	>600	
			0.90m E		- - 1.0_						M < Wp		HP	>600	
	ш	lot Encountered	<u>(1.00m</u>)				CI					н		>600	
טט.טש וטמושט בעוי		Z			-			Brown to pale or	ange-brown. 		M ~ W _P		HP	>600	
100001 20021 02027			2.00m		2.0			CLAY - medium orange-brown, tr	to high plasticity, grey with s ace fine grained sand.	some			HP	410	RESIDUAL SOIL
71/01 //20			ASS 2.10m		-								HP	330	
EW20F-0200 - 1501511 FOCOO 0 1000			2.50m ASS 2.60m		- - 2.5_ -		СН	2.80m			M > Wp	VSt	HP	280	
					-	-		Hole Terminated Due to limit of rea	at 2.80 m ach of excavation						
		END: Wate (Dat Wate Wate ta Cha	er Level e and time sl er Inflow er Outflow inges radational or	hown)	Notes, Sa U₅₀ CBR E ASS B Field Tes PID	mples a 50mm Bulk s Enviro (Glass (Glass Acid S (Plast Bulk S bulk S	nd Tes n Diame cample f conmenta s jar, se Sulfate \$ ic bag, s Sample ionisatio	ter tube sample for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled)		Consister VS V S S F Fi St S VSt V H H Fb Fi Density	h <u>cy</u> ery Soft oft tiff ery Stiff ard riable V L	Ve	U <2 25 50 10 20 >2 ery Lo pose	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 400 pose	I) Moisture Condition D Dry M Moist W Wet W _p Plastic Limit W _L Liquid Limit Density Index <15% Density Index 15 - 35%
. רום ויויכ	transitional strata Definitive or distict strata change				DCP(x-y) HP	Dynar Hand	nic pen Penetro	etrometer test (test depth i ometer test (UCS kPa)	interval shown)		– ME D VD) M De Ve	lediun ense ery De	n Dense ense	Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



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	EQL TES	JIPN T PI	IENT TYP T LENGTI	E: H:	2.7 TC 2.0 m	DNNE W	EXCA I DTH :	VATOR 0.5 m	SURFACE RL: DATUM:					
		Drill	ing and San	npling				Material description and profile i	nformation			Fiel	d Test	
	MEIHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil t characteristics,colour,mino	/pe, plasticity/particle r components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
			E 0.20m		-		sc	FILL-TOPSOIL: Gravelly Claye Sandy GRAVEL - fine to coars some orange-brown, fine to mu to sub-angular gravel, fines of affected in top 0.2m.	y SAND / Clayey e grained, brown with dium grained angular ow plasticity, root	М				FILL - TOPSOIL
			0.40m E (0.50m		- 0. <u>5</u> -		CL	TOPSOIL: Sandy CLAY - low t dark grey-brown, fine grained s	and.		VSt	HP	280	BURIED TOPSOIL
			0.90m E & CBR 1.10m		- 1. <u>0</u> -			0.85m Sandy CLAY - low to medium p brown with some pale orange l grained (mostly fine grained) s	lasticity, pale grey rown, fine to medium and.	M ~ W		HP	190	
19:03 10:03:00:09 Datger Lap and in Silv 1001	ш		1.40m E (1.50m)		- 1.5_ - -		CL	Pale grey to white.			St	HP	140	
W23F-0208 - 1ESTP11 EUGS.GPJ < <drawingfiie>> 13/12/23</drawingfiie>	D	Very Slow Inflow (<1L/min)			2. <u>0</u> - - - - - - - - - - - - - - -		сн	2.00m Sandy CLAY - medium to high orange-brown to pale orange- grey to white, fine grained sand grained angular to sub-angular	plasticity, rown with some pale I, trace fine to coarse gravel.	M > Wp	VSt St	- HP	310	COLLUVIUM/POSSIBLE RESIDUAL SOIL
					-			Hole Terminated at 2.80 m Due to limit of reach of excava	ion					
	Water Notes, Sal Water U _{so} Water Level CBR (Date and time shown) E Water Inflow ASS Water Outflow B Strata Changes B Gradational or transitional strata PID Definitive or distict DCP(x-y) HP HP				Notes, Sa U₅₀ CBR E ASS B Field Test PID DCP(x-y)	mples a 50mm Bulk s Enviro (Glass Acid S (Plast Bulk S Bulk S S Photo Dynar	nd Tes n Diame sample f ponmenta s jar, se Sulfate S ic bag, a Sample ionisation nic pen-	ts ter tube sample for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled) on detector reading (ppm) etrometer test (test depth interval shown)	Consiste VS S S St St St VSt H H Fb	ency Very Soft Soft Firm Stiff Very Stiff Hard Friable V L ME		U <2 25 50 10 20 20 20 20 20 20 20 20 20 20 20 20 20	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 00 - 400 00 00 00 00 00 00 00 00	Moisture Condition D Dry M Moist W Wet Wp, Plastic Limit WL Liquid Limit Density Index <15%
ч С		strata change HP Hand Penetrometer test (UCS kPa)							VC		ery D	ense	Density Index 85 - 100%	



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EQUIPMENT TYPE:			2.7 TC		EXCA	VATOR	SURFACE RL:								
	res		T LENGT	H:	2.0 m	w	DTH:	0.5 m							
		Drilli	ng and San	npling			_	Material descri	ption and profile information		, i		Field	d Test	
METUOD		WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DES character	CRIPTION: Soil type, plasticity istics,colour,minor component	//particle s	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
					- - - 0. <u>5</u> -		CI	FILL: MIXTUF COBBLES/BC CLAY - mediu brown, fine to grained) sand medium to co gravel, boulde	RE OF SOIL (70%) AND DULDERS (~30%): Gravelly S um plasticity, pale brown and g coarse grained (mostly fine to d, fine to coarse grained (most parse grained) angular to sub- ar size <300mm, root affected	andy grey o medium ly angular	M < w _p				FILL
			1.00m		-		CL	Sandy CLAY fine grained s	- low to medium plasticity, gre and, weakly cemented.	y-brown,		н	ΗP	>600	COLLUVIUM / POSSIBLE BURIED TOPSOIL
al Lado anto In Silu 1001 □	ц	Not Encountered	U50 1.15m		1. <u>0</u> - - 1.5_		CI	Sandy CLAY fine to mediur	- medium plasticity, pale orang n grained (mostly fine grained	ge-brown,) sand.	$M \sim w_{\rm P}$	St / Fb	HP	190	
JU.US LIAIGE			1.70m		-			1.70m					ΗP	160	
00.01 60.81 620271/01 -			ASS <u>1.80m</u>		- 2.0_		SP	SAND - tine to grey-brown.	o medium grained, pale brown	i to pale	D - M				ALLUVIUM
seurawingr lie s					-		sc	Clayey SAND to pale grey-b	- fine to medium grained, pale rown, fines of low plasticity.	e brown	М				
123P-0200 - 1E31P11 LUGG GFU			2.40m ASS 2.50m		- 2. <u>5</u> -		СН	CLAY - mediu orange-brown sand.	um to high plasticity, grey with n, with some fine to medium gr	some rained	M > w _P	VSt	HP HP	230 240	
				<u> </u>	-			Hole Termina Due to limit of	ted at 2.80 m f reach of excavation						
	LEGEND: <u>Water</u> Water Level (Date and time shown) Water Inflow Water Outflow <u>Strata Changes</u> Gradational or				Notes, Sa U ₅₀ CBR E ASS B Field Tes	mples a 50mm Bulk s Enviro (Glass Acid S (Plasti Bulk S	nd Tes Diame ample f nmenta jar, se ulfate \$ c bag, ample	ter tube sample for CBR testing al sample aled and chilled on site Soil Sample air expelled, chilled)	e)	Consiste VS V S S F F St S VSt V H F Fb F Density	ncy /ery Soft Soft Stiff /ery Stiff lard riable V	Ve	U <2 25 50 10 20 >4	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 400	Moisture Condition D Dry M Moist W Wet Wp, Plastic Limit WL Liquid Limit
		tra – De str	nsitional stra finitive or dis ata change	ata stict	PID Photoionisation detector reading (ppm) DCP(x-y) Dynamic penetrometer test (test depth interval shown) HP Hand Penetrometer test (UCS kPa)				om) pth interval shown)		L MD D VD	Lo M De Ve	oose edium ense ery De	n Dense ense	Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



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E			≣: •	2.7 TONNE EXCAVATOR				SURF	ACE RL:					
Ľ		ling and Som	1 .	2.0 m	Material description and profile information							d Tost		
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESC characteri	CRIPTION: Soil type, plasticity istics,colour,minor component	//particle s	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
		E 0.20m 0.40m E 0.50m,		- - - - - - - -		CL CL CL	FILL-TOPSOI medium plasti (mostly fine to 0.20m grained angula Sandy CLAY - brown, fine gra 0.50m Sandy CLAY - grey-brown to cemented.	L: Gravelly Sandy CLAY - low icity, dark brown, fine to coarse medium grained) sand, fine t ar to sub-angular gravel, root - low to medium plasticity, dark ained sand, weakly cemented - low to medium plasticity, dark grey-brown, fine grained sand	to e grained o coarse affected. k grey d, weakly	M < Wp	VSt - H	HP	390 420	FILL - TOPSOIL
		ASS & U50		- 1. <u>0</u> - - -		СІ	Sandy CLAY - orange-brown fine grained) s	- medium plasticity, pale brown , fine to medium grained sand sand.	n to pale I (mostly		St	HP HP	160 180	
	Slow Inflow (<1L/min)	1.50m ASS (1.60m ASS (2.10m)		1.5_ - - 2.0_ - - 2.5_ -		СН	1.50m Sandy CLAY some pale ora	- medium to high plasticity, gre ange-brown, fine grained sand	ay with	M > Wp	VSt	HP HP HP	350 320 380 390 370	ALLUVIUM
	EGEND: Aater (Da (Da (Da (Da (Da (Da (Da (Da	ter Level te and time sh ter Inflow ter Outflow anges iradational or ansitional stra efinitive or dis trata change	nown) ta tict	Notes, Sa U ₅₀ CBR E ASS B Field Test PID DCP(x-y) HP	mples a 50mm Bulk s Envirc (Glass Acid S (Plast Bulk S Bulk S S Photo Dynar Hand	nd Test Diame ample f ponmenta s jar, se Sulfate S ic bag, a Sample ionisationic peno Penetro	Hole Terminat Due to limit of ter tube sample or CBR testing al sample aled and chilled on site Soil Sample air expelled, chilled) on detector reading (pp etrometer test (test dep immeter test (UCS kPa)	ted at 2.80 m reach of excavation) m) th interval shown)	Consister VS V S S F F St S VSt V H H Fb F Density	ncy ery Soft oft tiff ard riable V L D VE		U 22 50 10 20 20 20 20 20 20 20 20 20 20 20 20 20	CS (kPa 25 5 - 50 00 - 200 00 - 200 00 - 400 400 pose n Dense ense	 Moisture Condition D Dry M Moist W Wet W_p Plastic Limit W_L Liquid Limit Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



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EQUIPMENT TYPE: TEST PIT LENGTH:					2.7 TONNE EXCAVATOR 2.0 m WIDTH: 0.5 m			VATOR 0.5 m	SURFACE RL: DATUM:						
F		Drill	ing and San	nplina		Material description and profile information							Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DE characte	SCRIPTION: Soil type, plastici ristics,colour,minor componer	ty/particle Its	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
			E 0.20m		-		CL	TOPSOIL: S dark grey br	andy CLAY - low to medium p own, fine grained sand, root af	lasticity, fected.					TOPSOIL
			0.40m E 0.50m /		- 0. <u>5</u> -		CL	0.30m Sandy CLAY grey-brown 1	/ - low to medium plasticity, da to grey-brown, fine grained sar	 rk nd.	M < W				COLLUVIUM / POSSIBLE TOPSOIL
			0.80m CBR & E & U50 1.00m		- - 1. <u>0</u> -		СН	Sandy CLA to pale oran (mostly fine	/ - medium to high plasticity, p ge-brown, fine to medium grain grained) sand.	ale brown ned	M > W _P	VSt	HP	290	COLLUVIUM
Dalgel Lav anu in onu i voi	ш				- 1. <u>5</u>			1.60m	/ev SAND - fine to medium ara				HP	260	
60'00'00'01 00'01 0707/71/01 -			2.10m		- - 2. <u>0</u>		SP	brown, some	e fines of low plasticity.		M - M				
יובטורייטייואיישרר טרטטטטרו ורטטטט יובטייטיי		Very Slow Inflow (<1L/min)	ASS 2.20m		- - 2. <u>5</u> -		СН	CLAY - high Grey to dark	plasticity, grey to red-brown.		M > Wp	St	HP	110	
					-			Hole Termin Due to limit o	ated at 2.80 m of reach of excavation						
	LLEGEND: Note Water U _{so} ✓ Water Level (Date and time shown) E ✓ Water Outflow ✓ Water Outflow Strata Changes B					otes, Samples and Tests U ₅₀ 50mm Diameter tube sample BR Bulk sample for CBR testing E Environmental sample (Glass jar, sealed and chilled on SS Acid Sulfate Soil Sample (Plastic bag, air expelled, chilled B Bulk Sample			te)	Consistence VS Ver S Sof F Firr St Stiff VSt Ver H Har			U <2 25 50 10 20 >2	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 400	Moisture Condition D Dry M Moist W Wet Wp Plastic Limit WL Liquid Limit
		Gi tra Do st	radational or ansitional stra efinitive or dis rata change	les B Bulk Sample lational or Field Tests PID Photoionisation detector reading ittional strata DCP(x-y) Dynamic penetrometer test (test a change HP Hand Penetrometer test HUCS k HID HID HID				on detector reading (p etrometer test (test de ometer test (UCS kPa	opm) epth interval shown) ı)	<u>Density</u>	V L MD VD	Vi La D D Vi	ery Lo bose lediun ense ery De	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



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	EQ TES	UIPN ST PI	IENT TYP	E: H:	2.7 TC 2.0 m	DNNE W	EXCA IDTH:	VATOR 0.5 m	SURF/ DATU	ACE RL: M:					
F		Drill	ing and Sar	npling				Material descrip	tion and profile information				Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESC characteris	RIPTION: Soil type, plasticity tics,colour,minor components	/particle s	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
			E 0.20m		-		SC	FILL-TOPSOIL grained, dark g fine to medium glass, and con	.: Clayey SAND - fine to medi rrey-brown, fines of low plastic grained angular gravel, trace crete.	ium city, trace ∍ brick,	D - M				FILL - TOPSOIL
			0.40m E (0.50m		- 0. <u>5</u> -		CI	Gravelly Sandy to coarse grain sand, fine to co	y CLAY - medium plasticity, bi led (mostly fine to medium gra parse grained angular gravel.	rown, fine ained)	M ~ w _P	VSt / Fb			
			0.80m ASS & U50 1.05m		- - 1. <u>0</u>			Gravelly Sandy orange-brown grained sand, 1 sub-rounded g	y CLAY - medium plasticity, to pale orange-brown, fine to fine to coarse grained sub-an ravel.	medium gular to			HP	500	
) and In Situ 100	ш	Vot Encountered					CI				M < W	VSt - H	HP	410	
9:03 10.03.00.09 Datgel La		2	1.70m ASS (1.80m		-			1.60m Sandy CLAY / plasticity, pale orange-brown, fine grained an	Clayey SAND - low to mediur grey to white with some pale fine to medium grained sand gular gravel.	– – – – – – m I, trace			HP	280	
J < <drawingfile>> 13/12/2023 1</drawingfile>					2. <u>0</u> -		CL				M ~ Wp	VSt / Fb	HP	300	
08 - IESIPII LOGSGP					- 2. <u>5</u> -			Floater in fill (a 2.60m Sandy CLAY -	pproximately 150mm in diamo medium to high plasticity, pal	eter). e grey to	WP		-		
EST PII NEWZ3P-UZ					-		СН	2.80m Hole Terminate Due to limit of r	ange-brown, time to mealum g ed at 2.80 m reach of excavation	jrained	~ W	VSt	HP	210	
	LEG	END:	I		Notes, Sa	mples a	nd Tes	<u>is</u>		Consister	ncy	<u> </u>	U	CS (kPa	a) Moisture Condition
CKEHC	Wate	<u>er</u>	erlevel		U₅₀ CBR	50mm Bulk s	n Diame ample f	ter tube sample or CBR testing		VS V S S	ery Soft oft		<2 25	25 5 - 50	D Dry M Moist
	-	(Dat	te and time s	hown)	Е	Enviro (Glass	onmenta s jar, se	al sample aled and chilled on site)		F F St S	irm tiff		50 10) - 100)0 - 200	W Wet W _n Plastic Limit
IDD-NC		Wat Wat	er Inflow		ASS	Acid S	Sulfate S	Soil Sample		VSt V	′ery Stiff lard		20)0 - 400 100	W _L Liquid Limit
NC RO	<u>Stra</u>	ta Cha	anges		B	Bulk S	Sample			Fb F	riable	14	onula		Density Index <15%
9 P.		G tra	radational or ansitional stra	ata	PID	Photo	ionisatio	on detector reading (ppn	n)	Density	V L	Lc	ery LC Dose	JUSE	Density Index < 15% Density Index 15 - 35%
Definitive or distict strata change					n interval snown)		MD D	, M De	ediun ense	Dense	Density Index 35 - 65% Density Index 65 - 85%				
3		strata change								VD	Ve	ery D	ense	Density Index 85 - 100%	



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-	EQ TES	UIPN ST PI	IENT TYPE	:: :	2.7 TC 2.0 m	NNE I W	EXCA	VATOR 0.5 m	SURF	ACE RL: M:					
ŀ		Drill	ing and Sam	pling				Material descript	ion and profile information				Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESC characterist	RIPTION: Soil type, plasticity tics,colour,minor component	//particle s	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
			E 0.20m 0.40m E 0.50m 0.70m		- - - 0.5_ -		GM SC	0.05m FILL-TOPSOIL medium grained pale grey brown low plasticity, rc ASPHALTIC CC FILL: MIXTURE COBBLES/BOU SAND - fine to medium grained plasticity, fine to	: Silty Sandy GRAVEL - fine d, angular to sub angular, pa n, fine to coarse grained san oot affected. ONCRETE (~30mm thick) E OF SOIL (~70%) AND ULDERS (~30%): Clayey Gra coarse grained (mostly fine t d), pale brown, fines of low to o coarse grained angular gra	to ale grey to d, fines of avelly o o medium vel.	M	D - VD			FILL - TOPSOIL ASPHALT FILL FILL
			E & CBR 1.00m		- - 1. <u>0</u>		CL	Earthenware pi	ped sand, weakly cemented.	1110	$M \sim W_p$	H / Fb	ΗP	500	TOPSOIL
ESI PII NEWZ3P-0208 - IESIFII LUGS.GPJ <	E	Not Encountered	<u>1.40m</u> E (1.50m		- - 1.5		СН	2.90m Hole Terminate	medium to high plasticity, pai to orange-brown, fine to med	le ium	M > Wp	VSt	HP HP HP	310 270 210 260	COLLUVIUM 7 POSSIBLE RESIDUAL SOIL
	LEG Wat	END: FEND: Wat (Dat Wat Wat Wat Wat	er Level te and time sho er Inflow er Outflow anges radational or ansitional strat	own)	I Notes, Sa U ₅₀ CBR E ASS B Field Test PID	mples a 50mm Bulk s Envirc (Glass Acid S (Plasti Bulk S S Photo	nd Tes Diame ample i onmenta s jar, se Sulfate \$ ic bag, cample	ts ts for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled) pn detector reading (ppm	3)	ConsisterVSVSSFFStSVStVHHFbFDensity	L ery Sof oft tiff ery Stiff ard riable V L	t f Ve	U 25 50 10 20 >2 ery Lo	CS (kPa CS (kPa 5 - 50 5 - 50 0 - 100 00 - 200 00 - 400 400 400 5 - 50 5 - 200 5 - 2	Moisture Condition D Dry M Moist W Wet Wp Plastic Limit WL Liquid Limit Density Index <15%
AL LIB 1.1.(— D st	efinitive or dist rata change	tict	PID Photoionisation detector reading (ppm) DCP(x-y) Dynamic penetrometer test (test depth interval shown) HP Hand Penetrometer test (UCS kPa)					MI D VE	D M De D Ve	ediun ense ery Do	n Dense ense	Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%	



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EC			E: 4·	2.7 TC	NNE I	EXCA	VATOR	SURF	ACE RL:					
<u> </u>	Drill	ling and Sam	nolina	2.0 11			Material description a	nd profile information				Fiel	d Test	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPT characteristics,c	ION: Soil type, plasticity olour,minor components	/particle s	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
		E 0.20m		-		SC	FILL-TOPSOIL: Grav coarse grained (mos grey-brown, fine to n 0.20m sub-rounded gravel,	velly Clayey SAND - fine stly fine to medium grain nedium grained sub-ang fines of low plasticity, ro	e to led), dark gular to pot	D - M				FILL - TOPSOIL
		0.40m E 0.50m		- 0. <u>5</u>		СН	\affected	/ - medium to high plasti varse grained (mostly m ular gravel, trace fine to	city, edium to coarse	M < w _p	н	HP	>600	FILL
		0.00m		-		CI	FILL: Gravelly Sand grey to pale grey-bro orange-brown, fine to medium grained) sai (mostly medium grai gravel, trace cobbles 200mm in diameter)	y CLAY - medium plastic own, and trace pale o coarse grained (mosti nd, fine to coarse graine ined) angular to sub-ang s (generally less than or	y fine to d gular equal to	M ~ Wp	VSt	HP HP	230 200	
5	tered	E (1.00m)		- 1. <u>0</u> -		sc	TOPSOIL: Clayey S, medium grained (mc grey-brown, fines of	AND / Sandy CLAY - fin ostly fine grained), dark low plasticity, weakly ce	e to	м	D			BURIED TOPSOIL
	Not Encoun	1.40m E & ASS \1.50m		- 1. <u>5</u> -			Sandy CLAY - mediu fine to medium grain	um to high plasticity, pal led (mostly fine grained)	e brown,) sand.			HP	210	COLLUVIUM
		1.90m ASS 2.00m		- 2. <u>0</u> -		СН				M > w _P	St - VSt	HP	190	
				- 2.5_			2.60m				St	HP HP	160 200	
		2.70m ASS		-		SP	SAND - fine to media low plasticity.	um grained, brown, trac	e fines of					ALLUVIUM
				-			Hole Terminated at 2 Due to limit of reach	2.80 m of excavation						
	LEGEND: No. Water CE ✓ Water Level (Date and time shown) E ► Water Inflow ▲ Water Outflow Strata Changes E - Gradational or transitional strata Fill				mples a 50mm Bulk s Enviro (Glass Acid S (Plasti Bulk S ts Photo	nd Tes Diame ample f onmenta s jar, se Sulfate S ic bag, a Sample ionisatio	ts ter tube sample for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled) on detector reading (opm)		Consiste VS V S S F F St S VSt V H H Fb F Density	ncy /ery Soft irm atiff /ery Stiff lard riable V L	Vi	U 25 50 10 20 20 20 20 20 20 20 20 20 20 20 20 20	<u>CS (kPa</u> 25 5 - 50 0 - 100 00 - 200 00 - 400 400 pose	Moisture Condition D Dry M Moist W Wet W _p Plastic Limit U Liquid Limit Density Index <15% Density Index 15 - 35%
transitional strata Definitive or distict strata change					CP(x-y) Dynamic penetrometer test (test depth interval shown) HP Hand Penetrometer test (UCS kPa)					– ME D VD) M D V	lediun ense ery D	n Dense ense	Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CLIENT: CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

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EQUIPMENT TYPE: TEST PIT LENGTH:					5.5 To 2.0 m	onne E W	xcava IDTH :	tor with 450mm Bucket 0.5 m	SURFACE R DATUM:	L:				
F		Drill	ing and Sam	npling				Material description and pro	file information			Fiel	d Test	
	MEIHUU	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: S characteristics,colour,	Soil type, plasticity/particle minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
			E 0.10m		-		CL	FILL-TOPSOIL: Sandy CL brown, fine to coarse grain plastic, cemented asbesto (ACM), pvc, timber.	AY - low plasticity, dark aed sand, trace glass, s containing materials					FILL - TOPSOIL
	ш	Not Encountered	E 0.30m		0. <u>5</u>		CI	0.20m Silty CLAY - Iow to mediur dark brown, trace fine grai	n plasticity, dark grey to ned sand.	M > wp				ALLUVIUM/POSSIBLE COLLUVIUM
		END: Er Wat Qat Wat a Cha	er Level te and time sh er Inflow er Outflow anges radational or	iown)	Notes, Sa U ₅₀ CBR E ASS B Field Tes	- - - - - - - - - - - - - - - - - - -	nd Tes n Diame ample f sjar, se ic bag, a Sample	Hole Terminated at 0.70 n	n VS S F St VSt H Fb Densit	stency Very Soft Soft Firm Stiff Hard Friable ¥ V		U <: 22 50 10 22 50 22 50 10 22 50 10 22 50 10 22 50 10 22 50 10 22 50 10 22 50 10 22 50 10 22 50 10 22 50 10 10 10 10 10 10 10 10 10 10 10 10 10	CS (kP2 25 5 - 50 0 - 100 00 - 2000 400	 Moisture Condition D Dry M Moist W Wet Wp. Plastic Limit WL Liquid Limit Density Index <15%
	Gradational or transitional strata Definitive or distict strata change				DCP(x-y) HP	Dynai Hand	nic pen Penetro	etrometer test (test depth interval sh meter test (UCS kPa)	own)	L MI D VE	D M D D V	lediur ense ery D	n Dense ense	Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%

TP101


PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

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E 1	QUIP EST	MENT TYP	E: H:	5.5 To 2.0 m	onne E W	xcava / IDTH :	tor with 450mm Bucket S 0.5 m D	URFACE RL: ATUM:					
	D	rilling and Sar	npling				Material description and profile informat	ion			Fiel	d Test	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, pla characteristics,colour,minor comp	sticity/particle onents	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
		E 0.10m				CI	FILL: Gravelly CLAY - low to medium red-brown with some orange-brown, fi grained sub-rounded gravel, trace fine grained sand.	lasticity, ne to coarse to coarse					FILL / ROAD BASE
	L Not Encountered	E 0.30m		0. <u>5</u>		CI	0.70m Silty CLAY - low to medium plasticity, pale brown.	hale grey to					ALLUVIUM7 POSSIBLE
	EGENI /ater ✓ W (C → W trata C	D: ater Level bate and time s ater Inflow tater Outflow thanges Gradational orr transitional stra	hown)	Notes, Sa Us₀ CBR E ASS B Field Tes PID	mples a 50mm Bulk s Envird (Glas: Acid s (Plast Bulk s ts	Ind Tess In Diame sample I conmenta s jar, see Sulfate S ic bag, Sample	Hole Terminated at 0.70 m	Consiste VS VS V S S F F St S VSt V H Fb F Density	Pincy /ery Soft Soft Firm Stiff /ery Stiff -lard -Friable V L	Vi	U <2 50 10 20 20 20 20 20 20 20 20 20 20 20 20 20	CS (kP2 25 5 - 50 0 - 100 00 - 200 00 - 400 100 100 100 100 100 100 100 100 100	 Moisture Condition D Dry M Moist W Wet Wp, Plastic Limit WL Liquid Limit Density Index <15% Density Index 15 - 35%
	Gradational or transitional strata Definitive or distict strata change			DCP(x-y) HP	Dynai Hand	mic pen Penetro	etrometer test (test depth interval shown) meter test (UCS kPa)		– ME D VE) M D) V	ediun ense ery D	n Dense ense	 Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



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PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

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E	QUIPN EST P		E: H·	5.5 To 2 0 m	onne Ex W	kcava [:]	tor with 450mm Bucket SUR	FACE RL:					
F	Dri	lling and San	nplina				Material description and profile information				Fiel	d Test	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plastic characteristics,colour,minor component	ty/particle hts	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
	ered	E 0.10m				CI	FILL-TOPSOIL: Sandy CLAY - low to mec plasticity, dark brown, fine to medium grai with some fine to coarse grained sub-rour gravel, trace timber, plastic, brick.	ium 1ed sand, ded					FILL - TOPSOIL
	Not Encount	E 0.40m		- 0. <u>5</u> -		CI	Sitty CLAY - low to medium plasticity, pale pale orange-brown, trace fine grained san	grey to	M > w _p				ALLUVIUM7 POSSIBLE
	EGEND: Tater (Da → Wa ◀ Wa	ter Level ter and time so ter Inflow ter Outflow	hown)	1.0_ Notes, Sa U ₅₀ CBR E ASS	mples a 50mm Bulk s Enviro (Glass Acid S (Plast	nd Tes: Diame ample f sjar, se Sulfate S	Hole Terminated at 0.70 m	Consister VS V F Fi St Si VSt V H H	Lecy Pry Soft oft iff ery Stiff		<u>U</u> <2 50 10 20 20	CS (kP# 25 5 - 50) - 100)0 - 2000)0 - 400	Moisture Condition D Dry M Moist W Wet Wp, Plastic Limit WL Liquid Limit
S	Water Outflow Strata Changes Gradational or transitional strata Definitive or distict strata change			B Field Tes PID DCP(x-y) HP	Bulk S Photo Dynar Hand	Sample ionisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)	Fb Fi Density	iable V L ME D VE	Vi La D M D Vi	ery Lo bose ediun ense ery D	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

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EC	EQUIPMENT TYPE: TEST PIT LENGTH:			5.5 To	nne E	xcava	tor with 450mm Bucket	SURFACE RL:					
TE	ST P	IT LENGTH	1:	2.0 m	w	IDTH:	0.5 m	DATUM:			1		1
	Dril	ling and Sam	npling				Material description and profile info	mation			Fiel	d Test	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type characteristics,colour,minor c	, plasticity/particle omponents	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
	ountered	E 0.10m 0.30m		-		CI	FILL-TOPSOIL: Sandy CLAY - Ior plasticity, dark brown, fine to med with some fine to coarse grained gravel, trace timber, plastic, brick.	v to medium um grained sand, sub-rounded	-				FILL - TOPSOIL
	Not Enco	E 0.40m		0. <u>5</u>		CI	dark grey, trace fine grained sanc		M > Wr				
	GEND: ter ∶Wa (Da - Wa	ter Level te and time sh ter Inflow ter Outflow	nown)	1.0 Notes, Sa U ₅₀ CBR E ASS	mples a 50mn Bulk s Enviro (Glas Acid S (Plast	Ind Tes Diame sample Sulfate \$ Sulfate \$ Sulfate \$	Hole Terminated at 0.70 m	Consiste VS S F St VSt H	PINCY /erry Soft Soft /erry Stiff /erry Stiff		<u>U</u> <<25 111 20	CS (kPa 25 5 - 50 00 - 200 00 - 200 00 - 400	a) <u>Moisture Condition</u> D Dry M Moist W Wet O W _p Plastic Limit W Liquid Limit
	ata Ch —- G tr — D si	anges Gradational or ansitional stra Definitive or dis trata change	ıta stict	B PID DCP(x-y) HP	Bulk S Photo Dynai Hand	Sample ionisatio mic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)	Fb F Density	Friable V L MI D Vr	V L D M C	ery Lo oose lediur ense erv D	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

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E	EQUIPMENT TYPE: TEST PIT LENGTH:			5.5 To 2.0 m	nne Ex W	kcava IDTH:	tor with 450mm Bucket SURF	ACE RL:					
_	D	Drilling and Sa	mpling	-			Material description and profile information				Field	d Test	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticit characteristics,colour,minor componen	y/particle ts	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
	Not Encountered	E 0.10m	-	-		SM	FILL: Silty SAND - fine to coarse grained, b pale brown with some pale grey-white, fines plasticity, root affected top 100mm.	prown to s of low	м				FILL
ט.ט ווטטיטיטי המולמו רמר מוא זי טיא יעי		E 0.50m	-	0. <u>5</u>		CI	Sitty Sandy CLAY - low to medium plasticity brown to pale orange with some pale grey, grained sand.	r, pale fine	M > Wp				ALLUVIUM/POSSIBLE COLLUVIUM
	EGEN Vater 	ID: Vater Level Date and time s Vater Inflow Vater Outflow Changes Gradational or transitional str	shown)	1.0 1.0 Notes, Sa U ₅₀ CBR E ASS B Field Test PID DCP(r v)	mples a 50mm Bulk s Envirc (Glass Acid S (Plasti Bulk S S Photo	nd Tes Diame ample t si jar, se sulfate S co bag, j ample ionisatiù	Hole Terminated at 0.70 m	Consister VS V S S F F St S VSt V H H Fb F Density	ncy fery Soft inf 'ery Stiff 'ery Stiff 'ery Stiff 'zhad 'riable V L	Ve	U0 <22 25 500 200 >4	CS (kPa 5 - 50 - 100 0 - 200 00 - 000	Moisture Condition D Dry M Moist W Wet Wp. Plastic Limit WL Liquid Limit Density Index <15% Density Index 15 - 35% Density Index 15 - 35% Density Index 25
		transitional str Definitive or d strata change	ata istict	PID DCP(x-y) HP	Photoi Dynan Hand	ionisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)		L MD D VD	Lo M De Ve	oose edium ense ery De	n Dense ense	Density Index 15 - 35 Density Index 35 - 65 Density Index 65 - 8 Density Index 85 - 10



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	EQ TES	UIPN ST PI	MENT TYPI	E: 1:	5.5 Tc 2.0 m	onne Ex W	kcava IDTH:	tor with 450mm Bucket	SURFACE RL: DATUM:					
┢		Dril	ling and San	nplina				Material description and profile inform	ation			Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, p characteristics,colour,minor con	plasticity/particle	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
	Е	Not Encountered	E 0.10m 0.40m E 0.50m 0.60m E 0.70m		0. <u>5</u>		CI CI	ILL-TOPSOIL: Clayey SAND - fine grained, dark brown, fines of low pla ballast, root affected top 100mm. FILL: Gravelly Sandy CLAY - low to plasticity, orange-brown and pale gr pale red, fine to coarse grained ang to coarse grained sand, with some v sandstone cobble >200mm, trace or brick, timber. 0.60m 0.60m Silty CLAY - low to medium plasticity grey-brown, trace fine grained sand Hole Terminated at 1.00 m	to coarse sticity, with some	 D - М W < W				FILL - TOPSOIL
	LEGEND: Water Water Level (Date and time shown) Water Inflow Water Outflow Strata Changes		Notes, Sa U ₅₀ CBR E ASS B	mples a 50mm Bulk s Envirc (Glass Acid S (Plasti Bulk S	nd Tes Diame ample ammenta jar, se sulfate s c bag, ample	ts ter tube sample for CBR testing al sample valed and chilled on site) Soil Sample air expelled, chilled)	Consister VS S F St VSt H Fb	/ery Soft Soft Firm Stiff /ery Stiff Hard Friable		U <2 25 50 10 20 >4	CS (kP 25 5 - 50 0 - 100 00 - 200 00 - 400 400	a) <u>Moisture Condition</u> D Dry M Moist W Wet W _p Plastic Limit W _L Liquid Limit		
	Strata Changes Gradational or transitional strata Definitive or distict strata change				Field Test PID DCP(x-y) HP	<u>ts</u> Photoi Dynan Hand	ionisati nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)	Density	V L D VD	Vi La D D Vi	ery Lo bose lediun ense ery D	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%

				E	NGI	NEE	RING LOG - TEST PIT	TE	ST PI	T NC):	TP107
6		LABORATORY			LIENT ROJEC OCATI	: (CT: [ON: 2	ENTRAL COAST INDUSTRY CONNECT PTY LTI DETAILED SITE INVESTIGATION -4 BROWNLEE STREET, OURIMBAH	D PA JO LO DA	ge: B no Ggei Te:	:) BY	:	1 OF 1 NEW23P-0208 TH 24/10/24
EQ TES	UIPN ST PI	IENT TYP	E: H:	5.5 To 2.0 m	nne Ex W	xcava IDTH:	or with 450mm Bucket SURFACE RL: 0.5 m DATUM:					
	Dril	ing and San	npling				Material description and profile information			Field	d Test	
METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/particle characteristics,colour,minor components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and addition observations
		E 0.10m				sc	FILL-TOPSOIL: Clayey SAND - fine to coarse grained, dark brown, fines of low plasticity, with some ballast, root affected top 100mm.					FILL - TOPSOIL
Е	Not Encountered	<u>0.40m</u> E <u>0.50m</u>		0.5		CI	plasticity, orange-brown and pale grey-white with pale red, fine to coarse grained angular gravel, fine to coarse grained sand, with some weathered silty sandstone cobble >200mm, trace coal, charcoal, brick, timber.	м				
		0.80m E 0.90m		-			^{0.80m} Silty CLAY - low to medium plasticity, pale grey to grey-brown, trace fine grained sand.	M > w _P				ALLUVIUM — — — —

1.0 1.00m	
Hole Terminated at 1.0	m
LEGEND: Notes, Samples and Tests	Consistency UCS (kPa) Moisture Condition
U ₅₀ 50mm Diameter tube sample	VS Very Soft <25 D Dry
CBR Bulk sample for CBR testing	S Soft 25 - 50 M Moist
E Environmental sample	F Firm 50 - 100 W Wet
(Glass jar, sealed and chilled on site)	St Stiff 100 - 200 W _p Plastic Limit
Operation ASS Acid Sulfate Soil Sample	VSt Very Stiff 200 - 400 W _L Liquid Limit
G → Water Outflow (Plastic bag, air expelled, chilled)	H Hard >400
B Bulk Sample	Fb Friable
Gradational or Field Tests	Density V Very Loose Density Index <15%
BID Photoionisation detector reading (ppm)	L Loose Density Index 15 - 35%
Definitive or distict DCP(x-y) Dynamic penetrometer test (test depth interval)	hown) MD Medium Dense Density Index 35 - 65%
Strata change HP Hand Penetrometer test (UCS kPa)	D Dense Density Index 65 - 85%
σ σ	VD Very Dense Density Index 85 - 100%



ENGINEERING LOG - TEST PIT

PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CLIENT: CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

TEST PIT NO:

TP108 1 OF 1

NEW23P-0208

JOB NO: LOGGED BY:

ΤН

DATE:		24/10/24
	Field Test	

EQUIPMENT TYPE:5.5TEST PIT LENGTH:2.0						nne Ex W	kcava I DTH:	tor with 450mm Bucket 0.5 m	SURF. DATU	ACE RL: M:					
F		Dril	ing and Sam	npling				Material description and	profile information				Field	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION characteristics,colo	N: Soil type, plasticity ur,minor component	//particle s	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
Situ Tool	ш	Not Encountered	E 0.10m 0.20m E 0.30m		0.5		SC	FILL-TOPSOIL: Clayey medium grained, dark t trace glass, brick, root a 0.20m Silty Sandy CLAY - low brown, fine grained san	SAND / Sandy CLA rown, fines of low pl affected. plasticity, pale brown d.	Y - fine to lasticity,	D - M ^M > W				FILL - TOPSOIL COLLUVIUM 7 POSSIBLE ALLUVIUM
Log NON-CORED BOREHOLE - TEST PIT NEW23P-0208-24.10.25 - TESTPIT LOGS.GPJ < <drawingfile>> 30/10/2024 10:36 10.03.00.09 Datgel Lab and In</drawingfile>	LEG Watu Strav	END: Wate (Da Wate Wate Control (Da)	er Level te and time sh er Inflow er Outflow anges	nown)	1.0 	mples au 50mm Bulk s Enviro (Glass Acid S (Plasti Bulk S	nd Tess Diame ample f anmenta ; jar, se ulfate S c bag, a ample	Hole Terminated at 0.56	0 m	Consister VS V S S F F St S VSt V H H Fb F Densitv	ncy fery Soft im tiff ery Stiff lard riable		U <2 2 5 5 10 2 0 2 0 2 4	CS (kPa 25 5-50 -100 0-200 00-400 00-400	Moisture Condition D Dry M Moist W Wet Wp Plastic Limit WL Liquid Limit Density Index <15%
TLIB 1.1.GLB		G tra _ D st	radational or ansitional stra efinitive or dis rata change	ita stict	PID DCP(x-y) HP	Photoi Dynan Hand I	onisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval ometer test (UCS kPa)	shown)	Benetty	L ME D	D	ense	Dense	Density Index 15 - 35% Density Index 15 - 65% Density Index 85 - 65% Density Index 85 - 100%

	ENGINEERING LOG - TEST PIT CLIENT: CENTRAL COAST INDUSTRY CONNECT PTY PROJECT: DETAILED SITE INVESTIGATION LOCATION: 2-4 BROWNLEE STREET, OURIMBAH										ge: Ge: B NO: Ggei	Г NC :) ВҮ): :	TP109 1 OF 1 NEW23P-0208 TH
·	EQ	UIPN	MENT TYP	E:	5.5 To	onne E	xcava	tor with 450mm Bucket SURFAC	CE RL:	DA	16:			24/10/24
	TE	ST P		H:	2.0 m	W	IDTH:	0.5 m DATUM:	:			E. 1		
ŀ		Drii	ling and Sar	npling			z	Material description and profile information			<u> </u>	Fiel	d lest	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATIO SYMBOL	MATERIAL DESCRIPTION: Soil type, plasticity/pa characteristics,colour,minor components	article	CONDITION	CONSISTENC) DENSITY	Test Type	Result	Structure and additional observations
30/10/2024 10:36 10.03.00.09 Datyel Lab and In Situ Tool	Е	Not Encountered	E 0.10m 0.40m E 0.50m		0.5		SC	FILL-TOPSOIL: Clayey SAND / Sandy CLAY - medium grained, dark brown to brown, fines of plasticity, root affected, with some fine to coars grained gravel, trace timber, metal, charcoal, g sandstone cobble >200mm.	- fine to f low se glass,) - M				FILL
4.10.25 - TESTPIT LOGS.GPJ < <drawingfile>> 3</drawingfile>			0.80m E 0.90m				CL	0.80m OLD TOPSOIL: Silty Sandy CLAY - low plastic pale brown to brown, fine grained sand. 1.00m Hole Terminated at 1.00 m	city,	M < w _p				BURIED TOPSOIL
OLE - TEST PIT NEW23P-0208-24	LEC	GEND:			Notes, Sa	mples a	nd Tesi	ts C	Consistenc VS Ver	Y v Soft			CS (kPa) <u>Moisture Condition</u>
ON-CORED BOREH		uer Wat (Da - Wat	ter Level te and time s ter Inflow ter Outflow	hown)	CBR E ASS	Bulk s Enviro (Glass Acid S (Plast	ample f onmenta s jar, se Sulfate S ic bag, a	tor CBR testing for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled)	S Soft F Firm St Stiff VSt Ver H Har	y Stiff		25 50 10 20 >4	5 - 50) - 100)0 - 200)0 - 400 }00	M Moist W Wet W _p Plastic Limit W _L Liquid Limit

Fb

<u>Density</u>

Friable

V

L

MD

D

VD

Very Loose

Very Dense

Medium Dense

Loose

Dense

Density Index <15% Density Index 15 - 35% Density Index 35 - 65%

Density Index 65 - 85% Density Index 85 - 100%

QT LIB 1.1.GLB Log NON

Strata Changes

Gradational or

strata change

transitional strata

Definitive or distict

В

Field Tests PID

DCP(x-y) HP

Bulk Sample

Photoionisation detector reading (ppm)

Dynamic penetrometer test (test depth interval shown) Hand Penetrometer test (UCS kPa)



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CLIENT: CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

TEST PIT NO:

TP110 1 OF 1

24/10/24

NEW23P-0208

Job No: Logged by:

DATE:

TH

	EQUIPMENT TYPE: TEST PIT LENGTH:			5.5 To	nne E	xcava	tor with 450mm Bucket	SURFACE RL:						
╞	IE.			n.	2.0 111	V	ютн.	. U.S III Motorial description and profile inf				Field	d Toot	
_	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil typ characteristics,colour,minor of	e, plasticity/particle components	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
		ered	E 0.10m 0.20m		-		SC- SM	TOPSOIL: Silty Clayey SAND / S fine to medium grained, dark bro plasticity, root affected.	ilty Sandy CLAY - wn, fines of low	м				TOPSOIL
i Situ Tool	Ш	Not Encounte	E 0.30m		0.5		CL	Silty Sandy CLAY - low plasticity, grey, fine grained sand. Becoming pale orange to pale br	pale brown to pale	M > Wp				COLLUVIUM / POSSIBLE ALLUVIUM
HOLE - TEST PIT NEW23P-0208-24.10.25 - TESTPIT LOGS.GPJ < <drawingfile>> 30/10/2024 10:36 1U.U3.0U.U9 Uagel Lab and</drawingfile>	LEG	END:					nd Tes Diame	ts ter tube sample	Consister	ency Very Soft			<u>CS (kPa</u> 25) <u>Moisture Condition</u> D Dry
-og NUN-CURED BUREF		₩at (Da (Da Wat Wat	ter Level te and time sl ter Inflow ter Outflow anges	hown)	CBR E ASS B	Bulk s Envir (Glas Acid s (Plasi Bulk s	sample f onmenta s jar, se Sulfate S ic bag, s Sample	for CBR testing al sample ealed and chilled on site) Soil Sample air expelled, chilled)	S S F I St S VSt V Fb I	Soft Firm Stiff Very Stiff Hard Friable		25 50 10 20 >2	5 - 50 0 - 100 00 - 200 00 - 400 400	M Moist W Wet W _p Plastic Limit W _L Liquid Limit
QT LIB 1.1.GLB L		G tra — D st	radational or ansitional stra efinitive or dis rata change	ata stict	Field Test PID DCP(x-y) HP	ES Photo Dyna Hand	ionisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)	<u>Density</u>	V L ME D VD	Vi La D D Vi	ery Lo bose ediun ense ery Do	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



CLIENT: CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

TEST PIT NO:

TP111 1 OF 1

JOB NO: LOGGED BY:

DATE:

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24/10/24

NEW23P-0208

	EQ TES	UIPN ST PI	IENT TYPE:	5.5 To 2.0 m	onne E W	xcava IDTH:	tor with 450mm Bucket SL	JRFACE RL: ATUM:					
F		Drill	ing and Samplir	g			Material description and profile information	on			Fiel	d Test	
	METHOD	WATER	SAMPLES F	RL DEPTH	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plas characteristics,colour,minor compo	ticity/particle nents	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
	Ш	Not Encountered	E 0.10m 0.40m E 0.50m	0. <u>5</u>		SC	FILL: Clayey SAND / Sandy CLAY - fine grained, dark brown to brown, fines of la root affected, with some fine to coarse a angular gravel, trace timber, metal, glas coal, sandstone cobble >200mm.	e to medium ow plasticity, grained ss, charcoal,	D - M				FILL BURIED TOPSOIL
			E 0.90m	1.0		CL	1.00m		M < w _p				
4.10.45							Hole Terminated at 1.00 m						
	LEG Wate	END: Pr (Dat Wat Wat	er Level te and time show er Inflow er Outflow	Notes, S: U₅ CBR E ASS B	amples a 50mm Bulk s Enviro (Glass Acid S (Plast Bulk S	nd Tes Diame ample f onmenta s jar, se Sulfate \$ ic bag, a Sample	ts ter tube sample for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled)	Consister VS V S S F F St S VSt V H F Fb F	ncy 'ery Soft Soft iirm tiff 'ery Stiff lard iriable		U <2 50 10 20 20	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 400	a) <u>Moisture Condition</u> D Dry M Moist W Wet W _p Plastic Limit W _L Liquid Limit
מו רום ויויפרם רספ	<u>ora</u>	Gi Gi tra Do	radational or ansitional strata efinitive or distict rata change	Field Tes PID DCP(x-y) HP	<u>ts</u> Photo Dynar Hand	ionisatio nic penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)	Density	V L ME D VD	Vi La D M Di Vi	ery Lo bose lediun ense ery D	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CLIENT: CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

TEST PIT NO:

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NEW23P-0208

Job No: Logged by:

DATE:

TH

24/10/24

	EQI TES	JIPN ST PI	IENT TYPE	: :	5.5 To 2.0 m	nne E: W	kcava IDTH:	tor with 450mm Bucket SUR 0.5 m DAT	FACE RL: UM:					
F		Drill	ing and Sam	pling				Material description and profile information				Field	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plastic characteristics,colour,minor compone	ity/particle nts	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
	ш	Not Encountered	E 0.10m 0.40m		-		SC	FILL-TOPSOIL: Clayey SAND - fine to me grained, pale brown to pale grey, fines of plasticity, trace coarse grained angular gr affected top 100mm.	edium low avel, root	D - M				FILL - TOPSOIL
10:30 10:03:00:03 Datget Lav and III 310 1001			E <u>0.50m</u>		0.5_		CL	Silty Sandy CLAY - low plasticity, pale ora brown, fine grained sand.	nge to pale	M < w _p				COLLUVIUM / POSSIBLE ALLUVIUM
ווו אבענטר שנייני אינט אינט אינט אינט אינט אינט אינט	LEG	END:			1.0		nd Tes	Hole Terminated at 0.70 m	Consiste	Incy Mary Soft		U	CS (kPPs	a) Moisture Condition
רסם ואחוא-הטרובים ובערידי	Wate	er Wat (Dat Wat Wat	er Level te and time sh er Inflow er Outflow anges radational er	own)	U ₅₀ CBR E ASS B <u>Field Test</u>	50mm Bulk s Enviro (Glass Acid S (Plast Bulk S	i Diame ample f onmenta s jar, se Sulfate \$ ic bag, s Sample	ter tube sample for CBR testing al sample aled and chilled on site) Soil Sample air expelled, chilled)	VS VS V S S F F St S VSt V H F Fb F	/ery Soft Soft Firm Stiff /ery Stiff Hard Friable V	Ve	<2 25 50 10 20 >4	25 5 - 50 0 - 100 00 - 200 00 - 400 00 - 400 000	D Dry M Moist W Wet W _p Plastic Limit ULiquid Limit Density Index <15%
41 LID 1.1.GLD		Gi tra Do st	radational or ansitional strat efinitive or dist rata change	ta tict	PID DCP(x-y) HP	Photo Dynar Hand	ionisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)	<u></u>	L ME D VD	Lo D De Ve	edium edium ense ery De	n Dense	Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CLIENT: CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

TEST PIT NO:

TP113

Job No: Logged by:

DATE:

TH

24/10/24

ľ	EQ TE	UIPN ST PI	IENT TYPE T LENGTH	≣: 1:	5.5 To 2.0 m	nne E W	xcava IDTH:	tor with 450mm Bucket 0.5 m	SURFACE RL: DATUM:					
ŀ		Drill	ing and Sam	pling				Material description and profile info	rmation			Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type characteristics,colour,minor co	e, plasticity/particle omponents	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
		sred	E 0.10m 0.20m		-		SC	TOPSOIL: Silty Clayey SAND / Si fine to medium grained, dark brov plasticity. 0.20m Silty Sandy CLAY - low plasticity, to pale brown, fine grained sand.	ty Sandy CLAY - n, fines of low	D - M				TOPSOIL COLLUVIUM / POSSIBLE ALLUVIUM
Daiger Lab and in oim Tool	Ш	Not Encounter	E 0.30m		0. <u>5</u>		CL	0.60m		M > Wp				
00 NOR-OORED BOREMOLE - LEST FIL NEWSSF-0200-24:10/23 - LESTFIL ECGGG, GEV - NOLIGARIINFIRENT GUI VIZIOZA 10:50 10:00:00:03	LEC Wat Stra	END: er Wat (Dat Uat Wat ta Cha	er Level er and time sh er Inflow er Outflow anges	iown)		mples a 50mn Bulks Enviro (Glass Acid S (Plast Bulk S	nd Tes Diame Diamenta s jar, see ic bag, sample	Hole Terminated at 0.60 m	ConsisteVSVSSFStStVStHFbFb	ncy /ery Soft Soft /ery Stiff fard friable		Un <2 500 100 20 20 20	CS (kP2 25 5 - 50 0 - 100 0 - 200 100 - 400) <u>Moisture Condition</u> D Dry M Moist W Wet W _p Plastic Limit W _L Liquid Limit
ען בום ויויטרה		Gi tra — De st	radational or ansitional strat efinitive or dis rata change	ta tict	PID PID DCP(x-y) HP	Photo Dynai Hand	ionisatio nic pen Penetro	on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)		V L MI D VE	0 M D D V	ery LO pose lediun ense ery De	n Dense ense	Density Index < 15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%

1 OF 1 NEW23P-0208



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CLIENT:

CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

TEST PIT NO:

TP114 1 OF 1

NEW23P-0208

Job No: Logged by:

DATE:

TH

24/10/24

	EQ TES	UIPN ST PI	MENT TYP	E: H:	5.5 To 2.0 m	nne E: W	kcava IDTH:	tor with 450mm Bucket SUR	FACE RL: UM:					
ſ		Dril	ling and Sar	npling				Material description and profile information				Fiel	d Test	
	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, plastici characteristics,colour,minor componer	ty/particle its	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
		countered	E 0.10m		-		SP	FILL-TOPSOIL: Gravelly SAND - fine to cc grained, brown to pale brown with some da and dark grey, fine to coarse grained angu trace fines of low plasticity, root affected to with some ballast, sandstone cobble >200 timber, metal.	parse ark brown Ilar gravel, p 200mm, mm,	D - M				FILL - TOPSOIL
>> 30/10/2024 10:36 10.03.00.09 Datgel Lab and In Situ Tool	Ш	Not Enc	E 0.50m		0. <u>5</u>		CI	0.40m Silty Sandy CLAY - low to medium plasticit orange-brown, fine grained sand.	y, pale	M > w _p				COLLUVIUM / POSSIBLE
OLE - TEST PIT_NEW23P-0208-24.10.25 - TESTPIT LOGS.GPJ_< <drawingfile:< th=""><td>LEG</td><td>END:</td><td></td><td></td><td>1.<u>0</u></td><td>mples a</td><td>nd Tes</td><td>te ter tube sample</td><td><u>Consiste</u></td><td>ncy</td><td></td><td>Ŭ</td><td>CS (kPa</td><td>) <u>Moisture Condition</u></td></drawingfile:<>	LEG	END:			1. <u>0</u>	mples a	nd Tes	te ter tube sample	<u>Consiste</u>	ncy		Ŭ	CS (kPa) <u>Moisture Condition</u>
QT LIB 1.1.GLB Log NON-CORED BOREH		er Wat (Da Wat Wat ta Ch ta Ch ta Ch ta St	ter Level te and time si ter Inflow ter Outflow anges radational or ansitional stra efinitive or dis rata change	hown) ata stict	B Field Test PID DCP(x-y) HP	Bulk s Enviro (Glass Acid S (Plast Bulk S Bulk S S Photo Dynar Hand	ample f onmenta s jar, se Gulfate S c bag, a c bag, a c bag, a conisationic pen-	for CBR testing for CBR testing al sample saled and chilled on site) Soil Sample air expelled, chilled) on detector reading (ppm) etrometer test (test depth interval shown) ometer test (UCS kPa)	S S F F St S VSt V H F <u>Fb</u> F	ery Soft oft irm tiff lard riable V L ME D VD	Vi La D Vi	<pre><2 25 50 10 20 ery Lo oose ediun ense ery Do</pre>	5 - 50 6 - 100 10 - 200 10 - 400 100 - 400 100 100 100 100 100 100 100	D Dry M Moist W Wet Wp Plastic Limit WL Liquid Limit Density Index <15%



PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

CLIENT:

TEST PIT NO:

TP115 1 OF 1

JOB NO:

NEW23P-0208

LOGGED BY: DATE: TH 24/10/24

EQU TEST	IIPMENT TYPI T PIT LENGTH	'E: H:	5.5 Toi 2.0 m	nne Ex Wi	cava DTH:	or with 450mm Bucket 0.5 m	SURFACE RL: DATUM:					
	Drilling and Sam	mpling				Material description and profile inform	nation			Field	d Test	
METHOD	SAMPLES SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type, p characteristics,colour,minor con	plasticity/particle	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
ш	E 0.10m 0.20m E 0.30m		-		CI	TOPSOIL: Silty Sandy CLAY - low tr plasticity, dark brown, fine to coarse root affected top 100mm. <u>0.20m</u> Silty CLAY - fines of low plasticity, pr grey, trace fine grained sand.	o medium grained sand,	M > wp				TOPSOIL ALLUVIUM
			0.5			0.50m						
			- - 1.0_ -			Hole Terminated at 0.50 m						
	Mater Level (Date and time sh Water Inflow Water Outflow a <u>Changes</u> Gradational or transitional stra - Definitive or dis	hown)	Notes, Sar U ₅₀ CBR E ASS B Field Test: PID DCP(x-y) HP	mples ar 50mm Bulk s: Enviro (Glass Acid S (Plasti Bulk S S Photoi Dynan Hand I	nd Test Diame ample f nmenta jar, se ulfate S c bag, a ample onisatio nic pene Penetro	Es Exer tube sample or CBR testing Il sample aled and chilled on site) Soil Sample air expelled, chilled) on detector reading (ppm) etrometer test (test depth interval shown) meter test (UCS kPa)	Consiste VS V S S F F St S VSt V H F Fb F Density	ncy fery Soft oft irm tiff ery Stiff lard iriable V L ME	Vi Lc D M	U 25 50 10 20 20 20 20 20 20 20 20 20 2	CS (kPa 25 5 - 50 0 - 100 00 - 200 00 - 400 00 - 400 000 000se n Dense	Moisture Condition D Dry M Moist W Wet W _p Plastic Limit U Liquid Limit Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85%
	strata change	Suot	HP Í	Hand I	Penetro	meter test (UCS kPa)		D VD	D	ense ery De	ense	D



ENGINEERING LOG - TEST PIT CLIENT:

PROJECT: DETAILED SITE INVESTIGATION

LOCATION: 2-4 BROWNLEE STREET, OURIMBAH

CENTRAL COAST INDUSTRY CONNECT PTY LTD PAGE:

TEST PIT NO:

TP116 1 OF 1

JOB NO: LOGGED BY:

DATE:

ΤН

24/10/24

NEW23P-0208

-	EQ TES	UIPN ST P	IENT TYP	E: H:	5.5 To 2.0 m	nne E: W	kcavat IDTH:	or with 450mm Bucket 0.5 m	SURFACE RL: DATUM:					
		Dril	ing and San	npling				Material description and profile info	rmation			Fiel	d Test	
-	METHOD	WATER	SAMPLES	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION: Soil type characteristics,colour,minor c	e, plasticity/particle omponents	MOISTURE CONDITION	CONSISTENCY DENSITY	Test Type	Result	Structure and additional observations
u Tool	Ш	Not Encountered	E 0.10m 0.20m E 0.30m		-		CI CL	TOPSOIL: Silty Sandy CLAY - low plasticity, dark brown, fine to coar root affected top 100mm. 0.20m Silty CLAY - fines of low plasticity, grey, trace fine grained sand.	/ to medium se grained sand, pale brown to pale	M > W _P				TOPSOIL
n Situ					0.5	<u> </u>		0.50m						
REHOLE - TEST PIT NEW23P-0208-24.10.25 - TESTPIT LOGS.GPJ < <drawingfile>> 30/10/2024 10:36 10.03.00.09 DatgeLab an</drawingfile>	LEG	END:			1.0	- - - - - - - - - - - - - - - - - - -	nd Test Diame	s ter tube sample or CBR testing	Consiste VS S	ency Very Soft			CS (kPa 25 5 - 50) <u>Moisture Condition</u> D Dry M Moist
og NON-CORED BORI	⊻ ↓ <u>Stra</u>	Wat (Da Wat Wat	er Level te and time sl ter Inflow ter Outflow anges	hown)	CBR E ASS B	Bulk s Enviro (Glass Acid S (Plast Bulk S	ample f onmenta s jar, se sulfate S c bag, a sample	or CBR testing I sample aled and chilled on site) soil Sample air expelled, chilled)	S F St VSt F F F b	Soft Firm Stiff Very Stiff Hard Friable		25 50 10 20 >2	5 - 50 0 - 100 00 - 200 00 - 400 400	M Moist W Wet W _p Plastic Limit W _L Liquid Limit
QT LIB 1.1.GLB L		G tra D st	radational or ansitional stra efinitive or dis rata change	ata stict	Field Test PID DCP(x-y) HP	t <u>s</u> Photo Dynar Hand	ionisatio nic pene Penetro	on detector reading (ppm) etrometer test (test depth interval shown) meter test (UCS kPa)	<u>Density</u>	V L ME D VE	Vi La D M Di Di Vi	ery Lo bose ediun ense ery Do	oose n Dense ense	Density Index <15% Density Index 15 - 35% Density Index 35 - 65% Density Index 65 - 85% Density Index 85 - 100%

APPENDIX D:

Data Validation Report

QA/QC DATA VALIDATION REPORT Job No: NEW23P-0208-ABv2

Eurofins report: 1040841-S, 1040841-AID, 1153637-S, 1153637-W, 1153637-AID SGS reports: SE256312

1. SAMPLE HANDLING

Item	Yes/No	Comments
Were the sample holding times met?	Yes	
Were the samples in proper custody between collection in the field and reaching the laboratory?	Yes	
Were the samples properly and adequately preserved?	Yes	
Were the samples received by the laboratory in good condition?	Yes	

Sampling Handling was:

Satisfactory : √	Partially Satisfactory:	Unsatisfactory:
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2. PRECISION AND ACCURACY ASSESSMENT

Item	Yes/No	Comment
Was a NATA registered laboratory used?	Yes	-
Did the laboratory perform the requested tests?	Yes	-
Were the laboratory methods adopted NATA endorsed?	Yes	-
Were the appropriate test procedures followed?	Yes	-
Were the reporting limits satisfactory?	Yes	-
Was the NATA seal on the reports?	Yes	-
Were the reports signed by an authorised person?	Yes	-

Laboratory Precision and Accuracy was:

	Satisfactory : \checkmark	Partially Satisfactory:	Unsatisfactory:
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3. FIELD QA/QC

Soil and Water Samples

	Soil
No. Samples Analysed	50
No. of Duplicates	3
No. of Triplicates	1
No. of Wash Blanks	0
No. of Trip Blanks	1
No. of Trip Spikes	0

No. Days Sampling

Item	Soil
Number of Days Sampling	2
Number of Sampling Events	2

Field Duplicates

ltem	Yes/No	Comments
Were an adequate number of field duplicates collected?	Yes	
Were RPDs within control limits? No Limit for 5-10 x EQL and 30% for >10 x EQL	No	 RPDs were within the acceptable range with the exception of: Duplicate pair TP10_0.0-0.2/D1.11.23 for lead (53%) and zinc (58%); Triplicate pair TP10_0.0-0.2/T.1.11.23 for lead (70%) and zinc (76%); and, Duplicate pair TP101_0.0-0.1/D2.25.10.24 for lead (64%) and zinc (42%). This RPD is considered to be due to the heterogeneous distribution of metal contaminants in surface soils adjacent to buildings, and is not considered to affect the data representativeness and usability. It is noted that low concentrations can exaggerate the percentage differences with respect to small total concentrations, therefore where results for primary and duplicate sample were less than 10 times the LOR, the RPDs have been disreagrded.

Trip Blanks/Trip Spikes

ltem	Yes/No	Comments
Were an adequate number of trip blanks and trip spikes collected?	Yes	Trip blanks and trip spikes were not deemed necessary based on field observations, and primary contaminants of concern for the site. No odours or staining was observed.
		One trip blank was collected with the sampling event on the 25 October 2024.
Were the trip blanks free of contaminants? (If no, comment whether the contaminants present are also detected in the samples and whether they are common laboratory chemicals).	Yes	
Were the trip spikes within recovery limits (between 80% and 120%)	NA	

Rinsate Samples

Item	Yes/No	Comments
Were an adequate number of rinsate samples used? (1 per day of using reusable sampling equipment – trowel, hand auger etc)	Yes	Surface samples were collected with the aid of the excavator, with the exception of SS117 which was collected by hand (no tools were used). Therefore, no reusable equipment requiring rinsate samples were used.
Were the rinsate samples free of contaminants? (If no, comment whether the contaminants present are also detected in the samples and whether they are common laboratory chemicals).	NA	

4. LABORATORY INTERNAL QUALITY CONTROL PROCEDURES

A) Type of QA/QC Sample	Yes/No	Comments
Laboratory Blanks/Reagent Blanks (at least 1 per batch)	Yes	-
Laboratory Duplicates (at least 1 per batch or 1 per 10 samples)	Yes	-
Matrix Spikes, Matrix Spike Duplicates (1 for each soil type)	Yes	-
Laboratory Control Spike	Yes	-
Surrogate (where appropriate)	Yes	-

Item	Yes/No	Comments
B) Were the laboratory blanks and/or reagent blanks free of contamination?	Yes	-
C) Were the spike recoveries within control limits? I: Organics/inorganics/metals (50% to 150%) II: Phenols (20% to 130%)	Yes	Matrix spike recoveries were within the control limits with the exception of a variety of OCPS and zinc in Batch SE256312. For OCPS, the lab quoted code 9 which states "Recovery failed acceptance criteria due to sample heterogeneity". For zinc, the lab quoted code 5 which states "Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level)". Based on this, the recoveries are unlikely to affect the data usability. The matrix spike recoveries could mean that concentrations are theoretically higher or lower than that reported, however as OCPs were reported <lor, and="" concentrations="" well<br="" were="" zinc="">below the adopted criteria, this does not affect the outcome of the assessment.</lor,>
D) Were the RPDs of the laboratory duplicates within control limits?	Yes	For copper the lab quoted code Q15 which states: "The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report." Based on this, the RPD is acceptable.
E) Were the surrogate recoveries within control limits?	Yes	-

Laboratory Internal QA/QC was:

	Satisfactory : \checkmark	Partially Satisfactory:	Unsatisfactory:
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5. DATA USABILITY

Item	Yes/No	Comments
Was the data directly usable?	Yes	
Was the data usable with the following corrections/modifications? (see comments)	NA	
Was the data not usable?	NA	

APPENDIX E:

Laboratory Documents

<u>.</u>		DY RECORD		Sydney L a Unit F3 Bid. 02 9900 840	a boratory F 16 Mars F 00 Enviro	toad Lane Co SampleNSW(ve West NSW 2066 @eurofins.com	Drisban Unit 1 21 07 3902 4	e Laboratory Smallwood Place Murarr 1600 EnviroSampleQL	ie QLD 4172 D@eurofins.com	Perth La Unit 2 91 0 08 9251 9	boratory Leach Highway Kewdal 600 EnviroSampleW,	le WA 6 A@euro	105 fins.com			[Mel 6 M 03 I	lbouri iontere 3564 5	Ie Laboratory y Road Dandenong South VIC 000 EnviroSampleVic@eur	ofins.com
Company	Qualtest		Projec	t Na	NEW	23P-0208			Project Manager	Emma Colema	n			Samp	der(s)		Tor	m Hall			
			Project	Name	Deta	led Site In	vestigation - Ourin	nbah	EDD Format ESdat, EQuiS etc	Excel		1	н	anded	over	by					
Address	2 Murray Dwyer Circuit, N	layfield West NSW 2304	1. Ala				12						Er	nali fo	r Invo	lice	ac	coun	its@	gualtest.com.au	ļ.
Contact Name	Emma Coleman		olar or Fills 15 preing				Nº 4						Er	nail to	Resi	ilts	libby tom ⁱ	ybetz@q .hail@qu	qualte: altest	t.com.au emmacoleman@q .com.au billysnow@quattes	ualtest.com.au .Lcom.au
Phone Ne	0429 359 411		s specify TC straet SUF	Metals)										Chang	e colla	Conta iner type	iners • A size K	l neveses	η.	Required Turner Default will be 5	ound Time (TAT) days if not ticked.
ipecial Direction Purchase Order Quote ID Na	180622QUAN-3		Mnene meriale are represent to SUITE code must be used to	suite B7 (TRH, BTEX, PAHs, I	Asbestos (%w/w)	Suite B13 (OCPs, PCBs							00mt Plastic	50mL Plastic	25mL Plastic	mL Amber Glass	0mL VOA vial	licrobiological Iclase or HNDF1		Overnight (repo Same day) 2 days) 5 days (Standa Other(+Surcharge will apply inting by 9am)+ □ 1 day♦ □ 3 days♦ ind)
ła	Client Sample ID	Sampled Date/Time ddimn/yy hh mm	Matrix Solid (S) W <i>aller</i> (W)										u,	CI I		200	Ψ.	5 <u>r</u>		Sample O / Dangerous Good	Comments 5s Hazard Warning
	TP01 0.0-0.2	1/11/23	Soil	X	×													1		1	
2	TP01 0.4-0.5	1/11/23	Soil	X		1												1		1	
30	TP01 0.9-1.0	1/11/23	Soil															1			
4	TP04 0.0-0.2	1/11/23	Soil	X		5												1	1	1	
5	TP04 0.4-0.5	1/11/23	Soil															1		1	
5	TP04 0.9-1.0	1/11/23	Soil															1	I		
7	TP05 0.0-0.2	1/11/23	Soil	X	×	X												1		1	
8	TP05 0.4-0.5	1/11/23	Soil			15													1	1	
9	TP05 0.9-1.0	1/11/23	Soil															1	1	1	
10	TP05 1.4-1.5	1/11/23	Soil			E V		-											1		
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		N 50 005 085 521		Sydney La Unit F3 Bld.f 02 9900 840	aboratory F 16 Mars R D0 Enviros	Road Lane Co SampleNSW	ive West NSW 2066 @eurofins.com	Brisb Unit 1 07 390	ane Laboratory 21 Smallwood Pla 02 4600 Enviros	ice Murarrie (SampleQLD@	DLD 4172 eurofins.com	Perth Lab Unit 2 91 L 08 9251 96	o ratory each Highway Kewdal 500 EnviroSampleW/	le WA 610 A@eurofir	5 s.com			☐ Me 6 № 03	elbour Montere 3 8564	rne Lab rey Road 5000 E	oratory Dandenong South VIC EnviroSampleVic@eum	3175Z	6
Company	Quaitest		Project	t Ni	NEW	23P-0208			Project N	lanager	Emma Coleman				lampler	(5)	To	om Hali	I.				
			Project I	Name	Detai	iled Site In	vestigation - Ouri	imbah	EDD Fo	ormat JulS etc	Excel			Ha	ided ov	er by							
Address	2 Murray Dwyer Circuit, Ma	yfield West NSW 2304	j.											Em	all for Ir	voice	a	ccou	nts(Qqua	altest.com.au		
Contact Name	Emma Coleman		ar or 15 Aller I priceling											Em	ail for R	esults	lib to	bybetz@ mhail@c)qualte qualter	est.com. st.com.a	au emmacoleman@qu u billysnow@quaites/	ualtest.com.au t.com.au	
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ipecial Direction Purchase Order			Analyses Analyses SigtE code must be used to an	lite B7 (TRH, BTEX, PAHs, M	Asbestos (%w/w)	Suite B13 (OCPs, PCBs)								0mL Plastic	0mL Plastic	comL Plasuc L Amber Glass	mL VOA vial	crobiological	Glass or HDPE)	os AS4964, WA Guidelines)	→ Overnight (repor Same day ♦ 2 days ♦ 5 days (Standa Other(◆Surcharge will ar orting by 9am)4 □ 1 day♦ □ 3 days♦ rd)	iply ,
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Ne	Client Sample ID	Date/Time ddinn/yy hicmm	Solut (S) Water (W)																	-teo	Dangerous Good	le Hazard Wa	ming
1	TP08 0.0-0.2	1/11/23	Soil	X	×														1	1			
2	TP08 0.4-0.5	1/11/23	Soil			-													1	1			
3	TP08 0.9-1.0	1/11/23	Soil																1				
4	TP09 0.0-0.2	1/11/23	Soil	×	×														1	1			
5	TP09 0.4-0.5	1/11/23	Soil																1	1			
6	TP09 0.9-1.0	1/11/23	Soil																1				
7	TP10 0.0-0.2	1/11/23	Soil	×	×	×													1	1			
8	TP10 0.4-0.5	1/11/23	Soil																1	1			
9	TP10 0.8-0.9	1/11/23	Soil																1				
10	TP11 0.0-0.2	1/11/23	Soil	X	X	×												-	1			_	_
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Company	Qualtest		Projec	st Ne	NEW	/23P-0208	}		Project Manager	Emma Coleman	I		s	ample	r(8)	· ·	Tom H	all			
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Address	2 Murray Dwyer Circu	uit, Mayfield West NSW 2304	'n										Ema	il for h	voice		acco	unts	@q	ualtest.com.au	1
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1	TP11 0.4-0.5	1/11/23	Soil	X	×													1	1		
2	TP11 0.9-1.0	1/11/23	Soil	X														1	1		
3	TP11 1.4-1.5	1/11/23	Soil															1			
4	TP12 0.0-0.2	1/11/23	Soil			X												1	1		
5	TP12 0.4-0.5	1/11/23	Soil	X	×													1	1		
6	TP12 0.9-1.0	1/11/23	Soil															1	1		
7	TP12 1.4-1.5	1/11/23	Soil															1			
8	SS1	1/11/23	Soil				×											1	1		
9	SS2	1/11/23	Soil				X											1	1		
10	SS3	1/11/23				- 30	X											1	1		
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Contact Name	Emma Coleman		ar e 'Fille E preing										En	nait tor i	Results		ibbybetz(omhall@	@quali qualte	est.com.au emmacolemar st.com.au billysnow@qua	n@qualtest.com.au ltest.com.au
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	584	1/11/23	Soil	X	X													1	1	
2	S S5	1/11/23	Soil	X														1	1	
	SS6	1/11/23	Soil	×	×				See State									1	1	
	S S7	1/11/23	Soil		×		X											1	1	
5	SS8	1/11/23	Soil				×											1	1	
	SS9	1/11/23	Soil		×		x											1	1	
	SS10	1/11/23	Soil		×		X											1	1	
	SS11	1/11/23	Soil		×		X											1	1	
	SS12	1/11/23	Soil		×		X											1	1	
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ecial Directions rchase Order Quote ID Ns 180622QUAN-3 CHent Sample ID SS14 SS15 SS16 SS16 SS17 SS18 TP01 1.4-1.5 TP04 2.0-2.1 TP04 2.5-2 6			es annad 8U	Metals)		(s	Suite							6	hinge co	Cont name by	aliners pe L st	i I noces		Required 1 Details	Sumaround Time (1 In he 5 days I not ficked
Quote ID No. 180622QUAN-3 Client Sample ID SS14 SS15 SS16 SS17 SS18 TP01 1.4-1.5 TP04 2.0-2.1 TP04 2.5-2.6			Analys. Initia are required, please UTE code must be used to	7 (TRH, BTEX, PAHs,	Asbestos (%w/w)	uite B13 (OCPs, PCB	nium Reducible Sulfur	Metals M8						lastic	lastic	neur Glass)A vial	logical	or HDPE)	Image: Solution of the second sec	+Surcharge will a t (reporting by 9am) y ◆ □ 1 day ◆ □ 3 days ●
Client Sample ID SS14 SS15 SS16 SS17 SS18 TP01 1.4-1.5 TP04 2.0-2.1 TP04 2.5-2.6			nerthy G	Suite B		S	Chror							500mL P	250mL P	mL Amt	40mL VC	Nicrobio	Glass (of Stays (nanuaru)
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SS18 TP01 1.4-1.5 TP04 2.0-2.1 TP04 2.5-2.6	1	1/11/23	Soil	×		×													1	1	
TP01 1.4-1.5 TP04 2.0-2.1 TP04 2.5-2.6		1/11/23	Soil	X	×														1	1	
TP04 2.0-2.1	-	1/11/23	Soil				X													1	
TP04 2 5-2 6		1/11/23	Soil				X													1	
11 04 2.0 2.0	-	1/11/23	Soil				×													1	
TP06 2.4-2.5	-	1/11/23	Soil				X													1	
TP10 0.8-0.9	1	1/11/23	Soil				X													1	
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inv			Projec	t Na	NEW	23P-0208	1			Project Manage	Emma Co	leman			Sam	pler(s)	į	Tor	n Hall			
			Project	Name	Detai	led Site I	nvestiga	tion - Ourimbah		EDD Format	Excel			н	andec	d over	by					
5 1	2 Murray Dwyer Circuit, May	field West NSW 2304	5							County and a series				Er	mail fo	ər Invo	xice	ac	coun	<u>its@</u>	gualtest.com.a	u
Name	Emma Coleman		C or 'Filter princing,						~					E	mali («	w Res	uits	libb; tom	ybetz@q hall@qu	qualte ualtesi	st.com.au emmacoleman@ .com.au billysnow@qualte)qualtest.com.a ast.com.au
Ne			ectiy "Tota act Still TE	etals)			uite		I, Metals					3	Char	ge cotilu	Conta ine typ	ners • å size i	THOOSE	aly:	Required Turns Deloat will be !	around Time 5 days End Date
ections Order D Ne	180622QUAN-3		Analyses Where metas are inquerted, please s SuffE code must be used to all	Suite B7 (TRH, BTEX, PAHs, M	Asbestos (%w/w)	Suite B13 (OCPs, PCBs)	Chromium Reducible Sulfur S		3S Suite CL10 (TRH, BTEX, PAH	SGS Suite (OCPs, PCBs)				500mL Plastic	250mL Plastic	125mL Plastic	0mL Amber Glass	40mL VOA vial	Microbiologicał	ar (Glass or nurc)	Same day Same day 2 days 5 days (Stand	◆Surcharge wi poorting by 9ar ☐ 1 day ☐ 3 days dard)
c	lient Sample ID	Sampled Date/Time ddimmlyy hitmm	Matrix Sold (S) Water (W)						ŭ								50		-	5	sample bitto / Dangerous Goo	Comments ods Hazard V
	D.1.11.23	1/11/23	Soil	X		X													1	1		
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Submission of samples to the laboratory will be deemed as a E DI E GIODINA I ETIANOI



Qualtest 2 Murray Dwyer Circuit **Mayfield West NSW 2304**

Emma Coleman

Report Project name Project ID **Received Date**

Attention:

1040841-S

Detailed Site Investigation - Ourimbah NEW23P-0208 Nov 02, 2023

Client Sample ID			TP01 0.0-0.2	TP01 0.4-0.5	TP04 0.0-0.2	^{G01} TP05 0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006851	N23- No0006852	N23- No0006853	N23- No0006854
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	43	< 20	26	< 20
TRH C15-C28	50	mg/kg	2100	70	440	< 50
TRH C29-C36	50	mg/kg	2500	72	740	71
TRH C10-C36 (Total)	50	mg/kg	4643	142	1206	71
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	94	95	111	97
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	69	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5



NATA Accredited Accreditation Number 1261 Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.



Client Sample ID			TP01 0.0-0.2	TP01 0.4-0.5	TP04 0.0-0.2	G01 TP05 0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006851	No0006852	No0006853	No0006854
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	97	103	98	93
p-Terphenyl-d14 (surr.)	1	%	86	92	97	83
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	69	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	3900	120	950	< 100
TRH >C34-C40	100	mg/kg	1200	< 100	500	< 100
TRH >C10-C40 (total)*	100	mg/kg	5169	120	1450	< 100
Heavy Metals						
Arsenic	2	ma/ka	14	< 2	5.8	4.2
Cadmium	0.4	ma/ka	< 0.4	< 0.4	1.4	< 0.4
Chromium	5	ma/ka	51	10	19	17
Copper	5	ma/ka	17	6.6	100	23
Lead	5	ma/ka	57	15	90	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	ma/ka	< 5	< 5	16	13
Zinc	5	ma/ka	120	24	1300	110
Sample Properties						
% Moisture	1	%	12	16	15	15
Organochlorine Pesticides						
Chlordanes - Total	0.1	ma/ka	_	-	-	< 1
4.4'-DDD	0.05	ma/ka	-	-	_	< 0.5
4.4'-DDF	0.05	ma/ka	-	-	-	< 0.5
4.4'-DDT	0.05	ma/ka	-	-	-	< 0.5
a-HCH	0.05	ma/ka	-	-	-	< 0.5
Aldrin	0.05	ma/ka	_	-	-	< 0.5
b-HCH	0.05	ma/ka	_	-	-	< 0.5
d-HCH	0.05	ma/ka	-	-	-	< 0.5
Dieldrin	0.05	mg/kg	-	-	-	< 0.5
Endosulfan I	0.05	mg/kg	-	-	-	< 0.5
Endosulfan II	0.05	mg/kg	-	-	-	< 0.5
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.5
Endrin	0.05	mg/kg	-	-	-	< 0.5
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.5
Endrin ketone	0.05	mg/kg	-	-	-	< 0.5
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.5
Heptachlor	0.05	mg/kg	-	-	-	< 0.5
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.5
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.5
Methoxychlor	0.05	mg/kg	-	-	-	< 0.5
Toxaphene	0.5	mg/kg	-	-	-	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 1



Client Sample ID			TP01 0.0-0.2	TP01 0.4-0.5	TP04 0.0-0.2	^{G01} TP05 0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006851	N23- No0006852	N23- No0006853	N23- No0006854
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dibutylchlorendate (surr.)	1	%	-	-	-	76
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	111
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	-	< 1
Aroclor-1221	0.1	mg/kg	-	-	-	< 1
Aroclor-1232	0.1	mg/kg	-	-	-	< 1
Aroclor-1242	0.1	mg/kg	-	-	-	< 1
Aroclor-1248	0.1	mg/kg	-	-	-	< 1
Aroclor-1254	0.1	mg/kg	-	-	-	< 1
Aroclor-1260	0.1	mg/kg	-	-	-	< 1
Total PCB*	0.1	mg/kg	-	-	-	< 1
Dibutylchlorendate (surr.)	1	%	-	-	-	76
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	111

Client Sample ID			TP08 0.0-0.2	TP09 0.0-0.2	^{G01} TP10 0.0-0.2	^{G01} TP11 0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006855	N23- No0006856	N23- No0006857	N23- No0006858
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	140	98	< 50	82
TRH C29-C36	50	mg/kg	260	160	92	160
TRH C10-C36 (Total)	50	mg/kg	400	258	92	242
втех						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	101	101	74	67
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5



Client Sample ID			TP08 0.0-0.2	TP09 0.0-0.2	G01TP10 0.0-0.2	G01 TP11 0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006855	No0006856	No0006857	No0006858
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	100	90	80	84
p-Terphenyl-d14 (surr.)	1	%	105	108	86	85
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	310	210	< 100	180
TRH >C34-C40	100	mg/kg	220	< 100	110	180
TRH >C10-C40 (total)*	100	mg/kg	530	210	110	360
Heavy Metals						
Arsenic	2	mg/kg	4.0	7.5	2.7	2.8
Cadmium	0.4	mg/kg	< 0.4	0.4	< 0.4	< 0.4
Chromium	5	mg/kg	21	16	28	14
Copper	5	mg/kg	44	55	32	37
Lead	5	mg/kg	48	68	170	70
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	15	11	33	21
Zinc	5	mg/kg	320	800	290	100
Sample Properties	1	1				
% Moisture	1	%	12	20	6.8	5.4
Organochlorine Pesticides	1					
Chlordanes - Total	0.1	mg/kg	-	-	< 1	< 1
4.4'-DDD	0.05	mg/kg	-	-	< 0.5	< 0.5
4.4'-DDE	0.05	mg/kg	-	-	< 0.5	< 0.5
4.4'-DDT	0.05	mg/kg	-	-	< 0.5	< 0.5
a-HCH	0.05	mg/kg	-	-	< 0.5	< 0.5
Aldrin	0.05	mg/kg	-	-	< 0.5	< 0.5
b-HCH	0.05	mg/kg	-	-	< 0.5	< 0.5
d-HCH	0.05	mg/kg	-	-	< 0.5	< 0.5
	0.05	mg/kg	-	-	< 0.5	< 0.5
Endosulfan I	0.05	mg/kg	-	-	< 0.5	< 0.5
	0.05	mg/kg	-	-	< 0.5	< 0.5
	0.05	mg/kg	-	-	< 0.5	< 0.5
Endrin	0.05	mg/kg	-	-	< 0.5	< 0.5
	0.05	mg/kg	-	-	< 0.5	< 0.5
	0.05	mg/kg	-	-	< 0.5	< 0.5
	0.05	mg/kg	-	-	< 0.5	< 0.5
ΠεριαύΠΟΙ	0.00	під/кд	-	-	< 0.0	< U.Ə



Client Sample ID			TP08 0.0-0.2	TP09 0.0-0.2	^{G01} TP10 0.0-0.2	^{G01} TP11 0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006855	N23- No0006856	N23- No0006857	N23- No0006858
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.5	< 0.5
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.5	< 0.5
Methoxychlor	0.05	mg/kg	-	-	< 0.5	< 0.5
Toxaphene	0.5	mg/kg	-	-	< 10	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.5	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 1	< 1
Dibutylchlorendate (surr.)	1	%	-	-	63	87
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	103
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 1	< 1
Aroclor-1221	0.1	mg/kg	-	-	< 1	< 1
Aroclor-1232	0.1	mg/kg	-	-	< 1	< 1
Aroclor-1242	0.1	mg/kg	-	-	< 1	< 1
Aroclor-1248	0.1	mg/kg	-	-	< 1	< 1
Aroclor-1254	0.1	mg/kg	-	-	< 1	< 1
Aroclor-1260	0.1	mg/kg	-	-	< 1	< 1
Total PCB*	0.1	mg/kg	-	-	< 1	< 1
Dibutylchlorendate (surr.)	1	%	-	-	63	87
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	103

Client Sample ID			TP11 0.4-0.5	TP11 0.9-1.0	^{G01} TP12 0.0-0.2	TP12 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006859	N23- No0006860	N23- No0006861	N23- No0006862
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	56	< 50	-	< 50
TRH C29-C36	50	mg/kg	140	< 50	-	56
TRH C10-C36 (Total)	50	mg/kg	196	< 50	-	56
втех		-				
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	106	61	-	103
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	-	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	-	< 20



Client Sample ID			TP11 0.4-0.5	TP11 0.9-1.0	G01TP12 0.0-0.2	TP12 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006859	No0006860	No0006861	No0006862
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	ma/ka	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	99	94	-	99
p-Terphenyl-d14 (surr.)	1	%	106	95	-	108
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	140	< 100	-	< 100
TRH >C34-C40	100	mg/kg	150	< 100	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	290	< 100	-	< 100
Heavy Metals						
Arsenic	2	mg/kg	3.7	5.1	-	2.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	15	12	-	16
Copper	5	mg/kg	35	18	-	13
Lead	5	mg/kg	120	45	-	18
Mercury	0.1	mg/kg	0.2	< 0.1	-	< 0.1
Nickel	5	mg/kg	8.8	7.7	-	< 5
Zinc	5	mg/kg	160	81	-	27
Sample Properties						
% Moisture	1	%	17	20	10	12
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 1	-
4.4'-DDD	0.05	mg/kg	-	-	< 0.5	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.5	-
4.4'-DDT	0.05	mg/kg	-	-	< 0.5	-
a-HCH	0.05	mg/kg	-	-	< 0.5	-
Aldrin	0.05	mg/kg	-	-	< 0.5	-
b-HCH	0.05	mg/kg	-	-	< 0.5	-
d-HCH	0.05	mg/kg	-	-	< 0.5	-
Dieldrin	0.05	mg/kg	-	-	< 0.5	-



Client Sample ID			TP11 0.4-0.5	TP11 0.9-1.0	^{G01} TP12 0.0-0.2	TP12 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006859	No0006860	No0006861	No0006862
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.05	mg/kg	-	-	< 0.5	-
Endosulfan II	0.05	mg/kg	-	-	< 0.5	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.5	-
Endrin	0.05	mg/kg	-	-	< 0.5	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.5	-
Endrin ketone	0.05	mg/kg	-	-	< 0.5	-
g-HCH (Lindane)	0.05	mg/kg	-	-	< 0.5	-
Heptachlor	0.05	mg/kg	-	-	< 0.5	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.5	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.5	-
Methoxychlor	0.05	mg/kg	-	-	< 0.5	-
Toxaphene	0.5	mg/kg	-	-	< 10	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.5	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 1	-
Dibutylchlorendate (surr.)	1	%	-	-	72	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	95	-
Polychlorinated Biphenyls		-				
Aroclor-1016	0.1	mg/kg	-	-	< 1	-
Aroclor-1221	0.1	mg/kg	-	-	< 1	-
Aroclor-1232	0.1	mg/kg	-	-	< 1	-
Aroclor-1242	0.1	mg/kg	-	-	< 1	-
Aroclor-1248	0.1	mg/kg	-	-	< 1	-
Aroclor-1254	0.1	mg/kg	-	-	< 1	-
Aroclor-1260	0.1	mg/kg	-	-	< 1	-
Total PCB*	0.1	mg/kg	-	-	< 1	-
Dibutylchlorendate (surr.)	1	%	-	-	72	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	95	-

Client Sample ID			SS1	SS2	SS3	SS4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006863	N23- No0006864	N23- No0006865	N23- No0006866
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	21	21	< 20
TRH C15-C28	50	mg/kg	94	120	110	110
TRH C29-C36	50	mg/kg	170	190	160	150
TRH C10-C36 (Total)	50	mg/kg	264	331	291	260
втех						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1



Client Sample ID			SS1	SS2	SS3	SS4
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006863	No0006864	No0006865	No0006866
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
BTEX						
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	89	108	103	56
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	105	98	93	96
p-Terphenyl-d14 (surr.)	1	%	86	98	101	109
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	200	250	200	210
TRH >C34-C40	100	mg/kg	150	120	150	< 100
TRH >C10-C40 (total)*	100	mg/kg	350	370	350	210
Heavy Metals		1				
Arsenic	2	mg/kg	-	-	-	23
Cadmium	0.4	mg/kg	-	-	-	1.0
Chromium	5	mg/kg	-	-	-	23
Copper	5	mg/kg	-	-	-	62
Lead	5	mg/kg	-	-	-	140
Mercury	0.1	mg/kg	-	-	-	< 0.1
	5	mg/kg	-	-	-	24
	5	mg/kg	-	-	-	1000
Sample Properties						
% Moisture	1	%	18	19	15	27



Client Sample ID			SS5	SS6	SS7	SS8
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006867	No0006868	No0006869	No0006870
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	85	< 50	-	-
TRH C29-C36	50	mg/kg	120	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	205	< 50	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	57	INT	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.7	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.3	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	0.8	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	0.8	< 0.5	-	-
Chrysene	0.5	mg/kg	1.2	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	1.0	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	1.3	< 0.5	-	-
Total PAH*	0.5	mg/kg	5.1	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	81	94	-	-
p-Terphenyl-d14 (surr.)	1	%	95	95	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	170	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	170	< 100	-	-


Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled			SS5 Soil N23- No0006867 Nov 01, 2023	SS6 Soil N23- No0006868 Nov 01, 2023	SS7 Soil N23- No0006869 Nov 01, 2023	SS8 Soil N23- No0006870 Nov 01, 2023
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	10	3.0	6.7	9.2
Cadmium	0.4	mg/kg	1.2	0.6	< 0.4	< 0.4
Chromium	5	mg/kg	33	11	12	14
Copper	5	mg/kg	41	39	15	46
Lead	5	mg/kg	320	74	24	30
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	15	6.5	7.9	14
Zinc	5	mg/kg	2500	320	67	95
Sample Properties						
% Moisture	1	%	26	14	19	20

Client Sample ID			SS9	SS10	SS11	SS12
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006871	N23- No0006872	N23- No0006873	N23- No0006874
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	4.8	3.8	2.9	4.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	12	13	13	11
Copper	5	mg/kg	19	15	24	< 5
Lead	5	mg/kg	19	75	80	30
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	7.5	< 5	7.2	< 5
Zinc	5	mg/kg	73	91	77	37
Sample Properties						
% Moisture	1	%	26	9.9	7.7	17

Client Sample ID			SS13	^{G01} SS14	^{G01} SS15	SS16
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006875	N23- No0006876	N23- No0006877	N23- No0006878
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	-	< 20	-	< 20
TRH C10-C14	20	mg/kg	-	< 20	-	< 20
TRH C15-C28	50	mg/kg	-	170	-	< 50
TRH C29-C36	50	mg/kg	-	250	-	120
TRH C10-C36 (Total)	50	mg/kg	-	420	-	120
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1



Client Sample ID			SS13	^{G01} SS14	G01SS15	SS16
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006875	No0006876	No0006877	No0006878
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
втех	•					
Xylenes - Total*	0.3	mg/kg	-	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	98	-	62
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	-	< 50
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	-	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	-	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	102	-	72
p-Terphenyl-d14 (surr.)	1	%	-	105	-	88
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	340	-	130
TRH >C34-C40	100	mg/kg	-	160	-	120
TRH >C10-C40 (total)*	100	mg/kg	-	500	-	250
Heavy Metals						
Arsenic	2	mg/kg	2.3	6.9	11	2.5
Cadmium	0.4	mg/kg	< 0.4	1.7	< 0.4	0.4
Chromium	5	mg/kg	13	25	69	11
Copper	5	mg/kg	10	150	19	31
Lead	5	mg/kg	57	200	31	82
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	21	9.0	10
Zinc	5	mg/kg	80	2300	340	160
Sample Properties						
% Moisture	1	%	20	21	16	5.8



Client Sample ID			SS13	G01SS14	G01SS15	SS16
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006875	No0006876	No0006877	No0006878
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides	1					
Chlordanes - Total	0.1	mg/kg	-	< 1	< 1	-
4.4'-DDD	0.05	mg/kg	-	< 0.5	< 0.5	-
4.4'-DDE	0.05	mg/kg	-	< 0.5	< 0.5	-
4.4'-DDT	0.05	mg/kg	-	< 0.5	< 0.5	-
а-НСН	0.05	mg/kg	-	< 0.5	< 0.5	-
Aldrin	0.05	mg/kg	-	< 0.5	< 0.5	-
b-HCH	0.05	mg/kg	-	< 0.5	< 0.5	-
d-HCH	0.05	mg/kg	-	< 0.5	< 0.5	-
Dieldrin	0.05	mg/kg	-	< 0.5	< 0.5	-
Endosulfan I	0.05	mg/kg	-	< 0.5	< 0.5	-
Endosulfan II	0.05	mg/kg	-	< 0.5	< 0.5	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.5	< 0.5	-
Endrin	0.05	mg/kg	-	< 0.5	< 0.5	-
Endrin aldehyde	0.05	mg/kg	-	< 0.5	< 0.5	-
Endrin ketone	0.05	mg/kg	-	< 0.5	< 0.5	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.5	< 0.5	-
Heptachlor	0.05	mg/kg	-	< 0.5	< 0.5	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.5	< 0.5	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.5	< 0.5	-
Methoxychlor	0.05	mg/kg	-	< 0.5	< 0.5	-
Toxaphene	0.5	mg/kg	-	< 10	< 10	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.5	< 0.5	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.5	< 0.5	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 1	< 1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 1	< 1	-
Dibutylchlorendate (surr.)	1	%	-	62	96	-
Tetrachloro-m-xylene (surr.)	1	%	-	110	92	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 1	< 1	-
Aroclor-1221	0.1	mg/kg	-	< 1	< 1	-
Aroclor-1232	0.1	mg/kg	-	< 1	< 1	-
Aroclor-1242	0.1	mg/kg	-	< 1	< 1	-
Aroclor-1248	0.1	mg/kg	-	< 1	< 1	-
Aroclor-1254	0.1	ma/ka	-	< 1	< 1	-
Aroclor-1260	0.1	ma/ka	-	< 1	< 1	-
Total PCB*	0.1	ma/ka	-	< 1	< 1	-
Dibutylchlorendate (surr.)	1	%	-	62	96	-
Tetrachloro-m-xylene (surr.)	1	%	-	110	92	-



Client Sample ID			^{G01} SS17	SS18	TP01 1.4-1.5	TP04 2.0-2.1
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006879	No0006880	No0006881	No0006882
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	220	< 50	-	-
TRH C29-C36	50	mg/kg	500	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	720	< 50	-	-
втех						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	107	60	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	0.6	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	0.6	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	112	68	-	-
p-Terphenyl-d14 (surr.)	1	%	107	65	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	520	< 100	-	-
TRH >C34-C40	100	mg/kg	550	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	1070	< 100	-	-



Client Sample ID			G01SS17	SS18	TP01 1 4-1 5	TP04 2 0-2 1
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006879	No0006880	No0006881	No0006882
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Heavy Metals		1				
Arsenic	2	ma/ka	2.6	5.3	_	-
Cadmium	0.4	ma/ka	0.4	< 0.4	-	-
Chromium	5	mg/kg	23	17	-	-
Copper	5	mg/kg	46	5.1	-	-
Lead	5	mg/kg	83	11	-	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	-
Nickel	5	mg/kg	32	< 5	-	-
Zinc	5	mg/kg	160	34	-	-
Sample Properties						
% Moisture	1	%	3.7	13	16	24
Organochlorine Pesticides		70	0.1			
Chlordanes - Total	0.1	ma/ka	< 1	_	_	
	0.05	ma/ka	< 0.5	_	_	_
4.4'-DDE	0.05	ma/ka	< 0.5	_	_	_
4 4'-DDT	0.05	mg/kg	< 0.5	_	_	_
a-HCH	0.05	mg/kg	< 0.5	_	_	_
Aldrin	0.05	mg/kg	< 0.5	_	_	_
h-HCH	0.05	mg/kg	< 0.5	_	_	_
d-HCH	0.05	mg/kg	< 0.5	_	_	_
Dieldrip	0.05	ma/ka	< 0.5	_	_	_
Endosulfan I	0.05	mg/kg	< 0.5	_	_	_
Endosulfan II	0.05	ma/ka	< 0.5	_	_	_
Endosulfan sulphate	0.05	ma/ka	< 0.5	_	_	_
Endrin	0.05	ma/ka	< 0.5	_	-	_
Endrin aldehyde	0.05	ma/ka	< 0.5	_	-	_
Endrin ketone	0.05	ma/ka	< 0.5	_	-	_
g-HCH (Lindane)	0.05	ma/ka	< 0.5	_	-	_
Heptachlor	0.05	ma/ka	< 0.5	_	-	_
Heptachlor epoxide	0.05	ma/ka	< 0.5	_	-	_
Hexachlorobenzene	0.05	ma/ka	< 0.5	_	-	_
Methoxychlor	0.05	ma/ka	< 0.5	_	-	_
Toxaphene	0.5	ma/ka	< 10	_	-	_
Aldrin and Dieldrin (Total)*	0.05	ma/ka	< 0.5	-	_	-
DDT + DDE + DDD (Total)*	0.05	ma/ka	< 0.5	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	ma/ka	< 1	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	ma/ka	< 1	-	-	-
Dibutylchlorendate (surr.)	1	<u>%</u>	120	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	101	-	-	-
Polychlorinated Biphenyls	•	70				
Aroclor-1016	0.1	ma/ka	< 1	_	_	_
Aroclor-1221	0.1	mg/kg	<1	_	_	_
Aroclor-1232	0.1	ma/ka	<1	_	_	_
Aroclor-1242	0.1	ma/ka	<1	_	_	_
Aroclor-1248	0.1	ma/ka	<1	-	_	_
Aroclor-1254	0.1	ma/ka	21		_	-
Aroclor-1260	0.1	ma/ka	21			-
Total PCB*	0.1	ma/ka	21		_	-
Dibuty/chlorendate (surr.)	1	 	120		_	-
Tetrachloro-m-xylene (surr.)	1	%	101	-	_	_
	•	/0		1	1	1



Client Sample ID			^{G01} SS17	SS18	TP01 1.4-1.5	TP04 2.0-2.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006879	N23- No0006880	N23- No0006881	N23- No0006882
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Chromium Suite						
pH-KCL (NLM-3.1)	0.1	pH Units	-	-	6.4	4.4
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	-	-	15	93
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	-	-	0.024	0.15
Chromium Reducible Sulfur (s-SCr) (NLM-2.1) ^{S04}	0.005	% S	-	-	0.016	0.012
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	3	mol H+/t	-	-	10	7.4
Sulfur - KCI Extractable	0.005	% S	-	-	N/A	0.006
HCI Extractable Sulfur Correction Factor	1	factor	-	-	2.0	2.0
HCI Extractable Sulfur	0.005	% S	-	-	N/A	0.008
Net Acid soluble sulfur (SNAS) NLM-4.1	0.005	% S	-	-	N/A	< 0.005
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	-	-	N/A	< 2
Net Acid soluble sulfur (s-SNAS) NLM-4.1 ^{S02}	0.005	% S	-	-	N/A	< 0.005
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	0.01	% CaCO3	-	-	N/A	N/A
Acid Neutralising Capacity - (a-ANCbt) (NLM-5.2)	2	mol H+/t	-	-	N/A	N/A
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2) ^{S03}	0.02	% S	-	-	N/A	N/A
ANC Fineness Factor		factor	-	-	1.5	1.5
CRS Suite - Net Acidity - NASSG (Including ANC)	0.02	% S	-	-	0.04	0.16
CRS Suite - Net Acidity - NASSG (Including ANC)	10	mol H+/t	-	-	26	100
CRS Suite - Liming Rate - NASSG (Including ANC) ^{S01}	1	kg CaCO3/t	-	-	1.9	7.5
Extraneous Material						
<2mm Fraction	0.005	g	-	-	180	130
>2mm Fraction	0.005	g	-	-	< 0.005	< 0.005
Analysed Material	0.1	%	-	-	100	100
Extraneous Material	0.1	%	-	-	< 0.1	< 0.1

Client Sample ID			TP04 2.5-2.6	TP06 2.4-2.5	TP10 0.8-0.9	^{G01} D.1.11.23
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006883	N23- No0006884	N23- No0006885	N23- No0006886
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	-	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	-	< 50
TRH C29-C36	50	mg/kg	-	-	-	< 50
TRH C10-C36 (Total)	50	mg/kg	-	-	-	< 50
BTEX						
Benzene	0.1	mg/kg	-	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total*	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	56
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	-	-	-	< 0.5
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	-	-	< 50
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	-	-	< 20



Client Sample ID			TP04 2.5-2.6	TP06 2.4-2.5	TP10 0.8-0.9	^{G01} D.1.11.23
Sample Matrix			Soil	Soil	Soil	Soil
			N23-	N23-	N23-	N23-
Eurofins Sample No.			No0006883	No0006884	No0006885	No0006886
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	-	1.2
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	-	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	-	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	< 0.5
Total PAH*	0.5	mg/kg	-	-	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	-	-	77
p-Terphenyl-d14 (surr.)	1	%	-	-	-	69
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	< 100
TRH >C34-C40	100	mg/kg	-	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	-	< 100
Heavy Metals						
Arsenic	2	mg/kg	-	-	-	2.1
Cadmium	0.4	mg/kg	-	-	-	< 0.4
Chromium	5	mg/kg	-	-	-	34
Copper	5	mg/kg	-	-	-	30
Lead	5	mg/kg	-	-	-	99
Mercury	0.1	mg/kg	-	-	-	< 0.1
Nickel	5	mg/kg	-	-	-	41
	5	mg/kg	-	-	-	160
Sample Properties						
% Moisture	1	%	27	24	11	8.2
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 1
4.4-DDD	0.05	mg/kg	-	-	-	< 0.5
4.4-DDE	0.05	mg/kg	-	-	-	< 0.5
	0.05	mg/kg	-	-	-	< 0.5
	0.05	mg/kg	-	-	-	< 0.5
	0.05	mg/kg	-	-	-	< 0.5
	0.05	mg/kg	-	-	-	< 0.5
	0.05	mg/kg	-	-	-	< 0.5
Dielarin	0.05	mg/kg	-	-	-	< 0.5



Client Sample ID			TP04 2 5-2 6	TP06 2 4-2 5	TP10.0.8-0.9	^{G01} D 1 11 23			
Sample Matrix			Soil	Soil	Soil	Soil			
			N23-	N23-	N23-	N23-			
Eurofins Sample No.			No0006883	No0006884	No0006885	No0006886			
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023			
Test/Reference	LOR	Unit							
Organochlorine Pesticides	-								
Endosulfan I	0.05	ma/ka	_	_	_	< 0.5			
Endosulfan II	0.05	ma/ka	_	-	-	< 0.5			
Endosulfan sulphate	0.05	ma/ka	_	-	-	< 0.5			
Endrin	0.05	ma/ka	_	-	_	< 0.5			
Endrin aldehvde	0.05	ma/ka	-	-	-	< 0.5			
Endrin ketone	0.05	ma/ka	-	-	-	< 0.5			
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.5			
Heptachlor	0.05	ma/ka	-	-	-	< 0.5			
Heptachlor epoxide	0.05	ma/ka	-	-	-	< 0.5			
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.5			
Methoxychlor	0.05	mg/kg	-	-	-	< 0.5			
Toxaphene	0.5	mg/kg	-	-	-	< 10			
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.5			
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.5			
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 1			
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 1			
Dibutylchlorendate (surr.)	1	%	-	-	-	INT			
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	96			
Polychlorinated Biphenyls									
Aroclor-1016	0.1	ma/ka	-	-	-	< 1			
Aroclor-1221	0.1	ma/ka	-	-	-	< 1			
Aroclor-1232	0.1	ma/ka	-	-	-	< 1			
Aroclor-1242	0.1	ma/ka	-	_	-	< 1			
Aroclor-1248	0.1	mg/kg	-	-	-	< 1			
Aroclor-1254	0.1	mg/kg	-	-	-	< 1			
Aroclor-1260	0.1	mg/kg	-	-	-	< 1			
Total PCB*	0.1	mg/kg	-	-	-	< 1			
Dibutylchlorendate (surr.)	1	%	-	-	-	INT			
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	96			
Chromium Suite									
pH-KCL (NLM-3.1)	0.1	pH Units	4.1	4.5	4.5	-			
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	130	56	29	-			
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	0.21	0.090	0.046	-			
Chromium Reducible Sulfur (s-SCr) (NLM-2.1) ^{S04}	0.005	% S	0.009	0.016	0.009	-			
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	3	mol H+/t	5.5	10	5.9	-			
Sulfur - KCl Extractable	0.005	% S	0.016	< 0.005	N/A	-			
HCI Extractable Sulfur Correction Factor	1	factor	2.0	2.0	2.0	-			
HCI Extractable Sulfur	0.005	% S	0.017	0.008	N/A	-			
Net Acid soluble sulfur (SNAS) NLM-4.1	0.005	% S	< 0.005	0.016	N/A	_			
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	< 2	7.6	N/A	-			
Net Acid soluble sulfur (s-SNAS) NLM-4.1 ^{S02}	0.005	% S	< 0.005	0.012	N/A	-			
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	0.01	% CaCO3	N/A	N/A	N/A	-			
Acid Neutralising Capacity - (a-ANCbt) (NLM-5.2)	2	mol H+/t	N/A	N/A	N/A	_			
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2) ^{S03}	0.02	% S	N/A	N/A	N/A	_			
ANC Fineness Factor		factor	1.5	1.5	1.5	_			
CRS Suite - Net Acidity - NASSG (Including ANC)	0.02	<u>%</u> S	0.22	0.12	0.06	-			
CRS Suite - Net Acidity - NASSG (Including ANC)	10	mol H+/t	140	74	35	-			
CRS Suite - Liming Rate - NASSG (Including ANC) ^{S01}	1	kg CaCO3/t	10	5.5	2.6	-			



Client Sample ID			TP04 2.5-2.6	TP06 2.4-2.5	TP10 0.8-0.9	^{G01} D.1.11.23
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N23- No0006883	N23- No0006884	N23- No0006885	N23- No0006886
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Extraneous Material						
<2mm Fraction	0.005	g	110	120	160	-
>2mm Fraction	0.005	g	< 0.005	6.6	9.7	-
Analysed Material	0.1	%	100	95	94	-
Extraneous Material	0.1	%	< 0.1	5.4	5.6	-



Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B4	Ū		0
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Svdnev	Nov 09. 2023	14 Davs
- Method: LTM-ORG-2010 TRH C6-C40	- , ,	,	,
BTEX	Sydney	Nov 09, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 09, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 09, 2023	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 09, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8	Sydney	Nov 09, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Nov 03, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			
Organochlorine Pesticides	Sydney	Nov 09, 2023	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Nov 09, 2023	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Chromium Reducible Sulfur Suite			
Chromium Suite	Brisbane	Nov 07, 2023	6 Week
- Method: LTM-GEN-7070 Chromium Reducible Sulfur Suite			
Extraneous Material	Brisbane	Nov 07, 2023	6 Week
- Method: 1 TM-GEN-7050/7070			

		C :	ABN: 50 005 085	521	g Australia Pty Ltd											ABN: 91 05 0159 898	NZBN: 9429046	024954	NZ Ltd
web: w email:	ww.eurofins.com.au EnviroSales@eurofins	.com	Melbourne 6 Monterey Road Dandenong Sout VIC 3175 Tel: +61 3 8564 : NATA# 1261 Site# 1254	Geelong 1 19/8 Lewalan th Grovedale VIC 3216 5000 Tel: +61 3 856 NATA# 1261 Site# 25403	Sydney Street 179 Magowar Ro Girraween NSW 2145 45000 Tel: +61 2 9900 NATA# 1261 Site# 18217	Dad U M Al B400 Te Si	anberra nit 1,2 [litchell CT 291 el: +61 2 ATA# 1 ite# 254	a Dacre Si 1 2 6113 8 261 166	Bi M Q 3091 Te Si	risbane 21 Sma urarrie LD 417 el: +61 7 ATA# 12 te# 207	llwood I 2 7 3902 4 261 94	Ne Place 1/ M Te 600 Na Si	ewcast 2 Frost layfield el: +61 2 ATA# 1 ite# 250	le Drive West NS\ 2 4968 84 261 079 & 252	W 2304 448 289	Perth 46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Roa Penrose, Auckland 1061 Tel: +64 9 526 4 IANZ# 1327	Christchurch d 43 Detroit Drive Rolleston, Christchurch 7675 (551 Tel: +64 3 343 520 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 D1 Tel: +64 9 525 0568 IANZ# 1402
Co Ad	mpany Name: Idress:	Qualtest 2 Murray Dv Mayfield We NSW 2304	vyer Circuit est				O Re Pl Fa	rder N eport hone: ax:	lo.: #:	1 () ()	04084 2 496 2 496	41 8 446 0 977	68 75			Receive Due: Priority: Contact	ed: Name:	Nov 2, 2023 3:10 Nov 9, 2023 5 Day Emma Coleman) PM
Pro Pro	oject Name: oject ID:	Detailed Site NEW23P-02	e Investigation 208	n - Ourimbah												Eurofins A	nalytical Serv	vices Manager :	Andrew Black
		Sa	ample Detail			Asbestos - WA guidelines	HOLD	Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4					
Melk	oourne Laborato	ory - NATA # 12	261 Site # 12	54				х					Х	х					
Syd	ney Laboratory	- NATA # 1261	Site # 18217	,		Х	X	Х	Х		Х	Х	Х	Х					
Bris	bane Laborator	y - NATA # 126	1 Site # 2079	94						Х	Х	Х							
Exte	rnal Laboratory	,																	
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID														
1	TP01 0.0-0.2	Nov 01, 2023		Soil	N23-No0006851	х						Х	х						
2	TP01 0.4-0.5	Nov 01, 2023		Soil	N23-No0006852							Х	Х						
3	TP04 0.0-0.2	Nov 01, 2023		Soil	N23-No0006853							Х	Х						
4	TP05 0.0-0.2	Nov 01, 2023		Soil	N23-No0006854	Х			Х			Х	Х						
5	TP08 0.0-0.2	Nov 01, 2023		Soil	N23-No0006855	Х						Х	Х						
6	TP09 0.0-0.2	Nov 01, 2023		Soil	N23-No0006856	Х						Х	X						
7	TP10 0.0-0.2	Nov 01, 2023		Soil	N23-No0006857	X			X			Х	X						
8	TP11 0.0-0.2	Nov 01, 2023		Soil	N23-No0006858	X			X			X	X						
9	TP11 0.4-0.5	Nov 01, 2023		Soil	N23-No0006859	X						X	X	+					
10	<u>IP11 0.9-1.0</u>	Nov 01, 2023		Soil	N23-No0006860				<u>.</u>			X	X	+					
11	112 0.0-0.2	Nov 01, 2023		Soll	N23-No0006861				Х			Х							

	Auro	fine	Eurofins Enviro ABN: 50 005 085 52	nment Testing Au	istralia Pty Ltd											Eurofins ARL Pty Ltd ABN: 91 05 0159 898	Eurofins Envir NZBN: 942904602	onment Testing N 24954	IZ Ltd
web: w email:	ww.eurofins.com.au EnviroSales@eurofins	.com	Melbourne 6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 500 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Stree Grovedale VIC 3216 0 Tel: +61 3 8564 50 NATA# 1261 Site# 25403	Sydney 179 Magowar Ro Girraween NSW 2145 00 Tel: +61 2 9900 8 NATA# 1261 Site# 18217	ad U M 4400 T S	anberra nit 1,2 [litchell CT 291 el: +61 2 ATA# 1 ite# 254	a Dacre St 1 2 6113 8 261 -66	8 rreet 1/ M Q 3091 Te N Si	risbane 21 Sma urarrie LD 417 el: +61 7 ATA# 12 ite# 207	llwood 2 7 3902 4 261 94	N Place 1/ M Te 1600 N Si	ewcast 2 Frost layfield el: +61 2 ATA# 1 ite# 250	tle Drive West NS 2 4968 8 261 079 & 252	SW 2304 448 289	Perth 46-48 Banksia Road Walshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Road Penrose, Auckland 1061 Tel: +64 9 526 45: IANZ# 1327	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 51 Tel: +64 3 343 520 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 1 Tel: +64 9 525 0568 IANZ# 1402
Co Ao	mpany Name: dress:	Qualtest 2 Murray Dv Mayfield We NSW 2304	vyer Circuit est				Oi Ri Pi Fa	rder N eport none: ax:	lo.: #:	1 C C	0408 02 496 02 496	41 8 446 60 977	68 75			Receive Due: Priority: Contact	d: N N Name: E	Nov 2, 2023 3:10 Nov 9, 2023 5 Day Emma Coleman	PM
Pr Pr	oject Name: oject ID:	Detailed Site NEW23P-02	e Investigation - 208	Ourimbah												Eurofins A	nalytical Servi	ces Manager : /	Andrew Black
		Si	ample Detail			Asbestos - WA guidelines	HOLD	Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4					
Mell	ourne Laborato	ory - NATA # 12	261 Site # 1254					Х					Х	Х					
Syd	ney Laboratory	- NATA # 1261	Site # 18217			Х	Х	х	х		х	х	Х	Х					
Bris	bane Laboratory	y - NATA # 126	1 Site # 20794							х	х	х							
12	TP12 0.4-0.5	Nov 01, 2023	S	oil N2	23-No0006862	Х						х	Х						
13	SS1	Nov 01, 2023	S	oil N2	23-No0006863							х		Х					
14	SS2	Nov 01, 2023	S	oil N2	23-No0006864							Х		Х					
15	SS3	Nov 01, 2023	S	oil N2	23-No0006865							Х		Х					
16	SS4	Nov 01, 2023	S	oil N2	23-No0006866	Х						Х	Х						
17	SS5	Nov 01, 2023	S	oil N2	23-No0006867							Х	Х						
18	SS6	Nov 01, 2023	S	oil N2	23-No0006868	Х						Х	Х						
19	SS7	Nov 01, 2023	S	oil N2	23-No0006869	Х		Х				Х							
20	SS8	Nov 01, 2023	S	oil N2	23-No0006870			Х				Х							
21	SS9	Nov 01, 2023	S	oil N2	23-No0006871	Х		Х				Х							
22	SS10	Nov 01, 2023	S	oil N2	23-No0006872	Х		Х				Х							
23	SS11	Nov 01, 2023	S	oil N2	23-No0006873	Х		Х				Х							
24	SS12	Nov 01, 2023	S	oil N2	23-No0006874	Х		Х				Х							
25	SS13	Nov 01, 2023	S	oil N2	23-No0006875	Х		Х				Х							

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web: www email: En	v.eurofins.com.au viroSales@eurofins.	.com	Melbourne 6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 500 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Stree Grovedale VIC 3216 00 Tel: +61 3 8564 50 NATA# 1261 Site# 25403	Sydney 179 Magowar Ro Girraween NSW 2145 00 Tel: +61 2 9900 8 NATA# 1261 Site# 18217	ad U N A 400 T S	anberra nit 1,2 E litchell CT 291 ² el: +61 2 ATA# 1: ite# 254	1 Dacre St 2 6113 8 261 66	reet 1/: Mi QI 091 Te N/ Si	risbane 21 Sma urarrie LD 417 bl: +61 7 ATA# 12 te# 207	llwood I 2 7 3902 4 261 94	Ne Place 1/ Mi Te 600 N/ Si	ewcast 2 Frost ayfield 1 21: +61 2 ATA# 1: te# 250	le Drive West NSW 2 4968 8444 261 179 & 25289	/ 2304 8 9	Perth 46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Road Penrose, Auckland 1061 Tel: +64 9 526 45: IANZ# 1327	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 51 Tel: +64 3 343 520 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 1 Tei: +64 9 525 0568 IANZ# 1402
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Proje Proje	ect Name: ect ID:	Detailed Site NEW23P-02	e Investigation - 208	Ourimbah												Eurofins A	nalytical Servi	ces Manager : /	Andrew Black
		Si	ample Detail			Asbestos - WA guidelines	HOLD	Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4					
Melbo	urne Laborato	ory - NATA # 12	261 Site # 1254					Х					х	х					
Sydne	y Laboratory -	- NATA # 1261	Site # 18217			Х	Х	Х	Х		Х	Х	х	x					
Brisba	ane Laboratory	y - NATA # 126	1 Site # 20794							Х	Х	Х							
26 5	SS14	Nov 01, 2023	S	oil N2	23-No0006876	Х			Х			Х	Х						
27 5	SS15	Nov 01, 2023	S	oil N2	23-No0006877			Х	Х			Х							
28 5	SS16	Nov 01, 2023	S	oil N2	23-No0006878	Х						Х	Х						
29 5	SS17	Nov 01, 2023	S	oil N2	23-No0006879				Х			Х	Х						
30 5	SS18	Nov 01, 2023	S	oil N2	23-No0006880	Х						Х	Х						
31 T	P01 1.4-1.5	Nov 01, 2023	S	oil N2	23-No0006881					Х	Х								
32 T	P04 2.0-2.1	Nov 01, 2023	S	oil N2	23-No0006882					Х	Х								
33 T	P04 2.5-2.6	Nov 01, 2023	S	oil N2	23-No0006883					Х	Х								
34 7	P06 2.4-2.5	Nov 01, 2023	S	oil N2	23-No0006884		ļ			Х	Х								
35 1	P10 0.8-0.9	Nov 01, 2023	S	oil N2	23-No0006885					Х	Х								
36 C	0.1.11.23	Nov 01, 2023	S	oil N2	23-No0006886				Х			Х	Х						
37 1	P01 0.9-1.0	Nov 01, 2023	S	oil N2	23-No0006887		X												
38 T	P04 0.4-0.5	Nov 01, 2023	S	oil N2	23-No0006888		X												
39 T	P04 0.9-1.0	Nov 01, 2023	S	oil N2	23-No0006889		Х												

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web: w email:	ww.eurofins.com.au EnviroSales@eurofins.	.com	Melbourne 6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 500 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 0 Tel: +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Ro Girraween NSW 2145 D Tel: +61 2 9900 8 NATA# 1261 Site# 18217	ad U M Al 400 Te Si	anberra nit 1,2 [litchell CT 291 el: +61 2 ATA# 1 ite# 254	a Dacre St 1 2 6113 8 261 866	Binneet 1/ M Q 3091 Te Ni Si	risbane 21 Sma urarrie LD 417 el: +61 7 ATA# 12 ite# 207	llwood 2 7 3902 4 261 94	No Place 1/2 Ma Te 1600 N/ Si	ewcastl 2 Frost ayfield \ el: +61 2 ATA# 12 te# 250	e Drive West NS 2 4968 8 261 79 & 25	SW 2304 3448 5289	Perth 46-48 Banksia Ro Welshpool WA 6106 Tel: +61 8 6253 4 NATA# 2377 Site# 2370	oad 1444	Auckland 35 O'Rorke Roa Penrose, Auckland 1061 Tel: +64 9 526 4 IANZ# 1327	Christchurch d 43 Detroit Drive Rolleston, Christchurch 767 551 Tel: +64 3 343 52 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, 5 Tauranga 3112 001 Tel: +64 9 525 0568 IANZ# 1402
Co Ad	mpany Name: dress:	Qualtest 2 Murray Dv Mayfield We NSW 2304	vyer Circuit est				O Re Pi Fa	rder N eport hone: ax:	lo.: #:	1 C C	0408 2 496 2 496	41 8 446 60 977	8 75			F C F	Receive Due: Priority: Contact	d: Name:	Nov 2, 2023 3:1 Nov 9, 2023 5 Day Emma Coleman	0 PM
Pro Pro	oject Name: oject ID:	Detailed Site NEW23P-02	e Investigation - 208	Ourimbah												Eur	ofins A	nalytical Serv	vices Manager :	Andrew Black
		Sa	ample Detail			Asbestos - WA guidelines	HOLD	Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4						
Melb	ourne Laborato	ory - NATA # 12	261 Site # 1254					Х					Х	х						
Sydi	ney Laboratory ·	- NATA # 1261	Site # 18217			Х	X	Х	Х		Х	Х	Х	Х						
Bris	bane Laboratory	y - NATA # 126	1 Site # 20794							Х	Х	Х			-					
40	TP05 0.4-0.5	Nov 01, 2023	So	oil N23	3-No0006890		X													
41	TP05 0.9-1.0	Nov 01, 2023	Sc	bil N23	3-No0006891		X													
42	TP05 1.4-1.5	Nov 01, 2023	Sc	bil N23	3-No0006892		X								-					
43	TP08 0.4-0.5	Nov 01, 2023	So	bil N23	3-No0006893		X													
44	TP08 0.9-1.0	Nov 01, 2023	So	bil N23	3-No0006894		X													
45	TP09 0.4-0.5	Nov 01, 2023	So	pil N23	3-No0006895		X								-					
46	TP09 0.9-1.0	Nov 01, 2023	So	bil N23	3-No0006896		X													
47	TP10 0.4-0.5	Nov 01, 2023	So	bil N23	3-No0006897		X													
48	TP11 1.4-1.5	Nov 01, 2023	So	bil N23	3-No0006899		X													
49	TP12 0.9-1.0	Nov 01, 2023	So	bil N23	3-No0006900		X													
50	TP12 1.4-1.5	Nov 01, 2023	So	bil N23	3-No0006901		X								-					
51	TP01 0.2-0.3	Nov 01, 2023	Sc	pil N23	3-No0007299		X													
Test	Counts					19	15	8	8	5	36	36	19	3]					



Internal Quality Control Review and Glossary

General

- 1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
- 2. All soil/sediment/solid results are reported on a dry weight basis unless otherwise stated.
- 3. All biota/food results are reported on a wet weight basis on the edible portion unless otherwise stated.
- 4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- 5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- 6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- 7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- 8. Samples were analysed on an 'as received' basis.
- 9. Information identified in this report with blue colour indicates data provided by customers that may have an impact on the results.
- 10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001)

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA. If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is 7 days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units		
mg/kg: milligrams per kilogram	mg/L: milligrams per litre	µg/L: micrograms per litre
ppm: parts per million	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit		

Terms

Unite

APHA	American Public Health Association
CEC	Cation Exchange Capacity
сос	Chain of Custody
СР	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
ТВТО	Tributyltin oxide (bis-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented. RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30%; however the following acceptance guidelines are equally

applicable: Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 - 150%

PFAS field samples that contain surrogate recoveries above the QC limit designated in QSM 5.4, where no positive PFAS results have been reported, have been reviewed, and no data was affected.

QC Data General Comments

- 1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- 2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
- 3. pH and Free Chlorine analysed in the laboratory Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- 4. Recovery Data (Spikes & Surrogates) where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- 5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.



Quality Control Results

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank					-	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	mg/kg	< 20		20	Pass	
TRH C10-C14	mg/kg	< 20		20	Pass	
TRH C15-C28	mg/kg	< 50		50	Pass	
TRH C29-C36	mg/kg	< 50		50	Pass	
Method Blank		1	т т	1		
BTEX	1					
Benzene	mg/kg	< 0.1		0.1	Pass	
Toluene	mg/kg	< 0.1		0.1	Pass	
Ethylbenzene	mg/kg	< 0.1		0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2		0.2	Pass	
o-Xylene	mg/kg	< 0.1		0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3		0.3	Pass	
Method Blank		1			1	
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene	mg/kg	< 0.5		0.5	Pass	
TRH C6-C10	mg/kg	< 20		20	Pass	
Method Blank		1	T T		-	
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/kg	< 0.5		0.5	Pass	
Acenaphthylene	mg/kg	< 0.5		0.5	Pass	
Anthracene	mg/kg	< 0.5		0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5		0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5		0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5		0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Chrysene	mg/kg	< 0.5		0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5		0.5	Pass	
Fluoranthene	mg/kg	< 0.5		0.5	Pass	
Fluorene	mg/kg	< 0.5		0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5		0.5	Pass	
Naphthalene	mg/kg	< 0.5		0.5	Pass	
Phenanthrene	mg/kg	< 0.5		0.5	Pass	
Pyrene	mg/kg	< 0.5		0.5	Pass	
Method Blank		1			1	
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	"	50		50		
TRH >C10-C16	mg/kg	< 50		50	Pass	
TRH >016-034	mg/kg	< 100		100	Pass	
IRH >C34-C40	mg/kg	< 100		100	Pass	
		1				
	mallea	. 2		2	Deee	
Alsenic	mg/kg	< 2		2	Pass	
Chromium	mg/kg	< 0.4		0.4	Pass	
Connor	mg/kg	< 5		5	Pass	
	mg/kg	< 5		5	Pass	
Morouny	mg/kg	< 0 1		5	Pass	
Niekol	mg/kg	< 0.1		U.1 E	Pass	
	mg/kg	< 0		5	Page	
Method Blank	myrky			<u> </u>	1 035	



Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Organochlorine Pesticides					
Chlordanes - Total	mg/kg	< 0.1	0.1	Pass	
4.4'-DDD	mg/kg	< 0.05	0.05	Pass	
4.4'-DDE	mg/kg	< 0.05	0.05	Pass	
4.4'-DDT	mg/kg	< 0.05	0.05	Pass	
a-HCH	mg/kg	< 0.05	0.05	Pass	
Aldrin	mg/kg	< 0.05	0.05	Pass	
b-HCH	mg/kg	< 0.05	0.05	Pass	
d-HCH	mg/kg	< 0.05	0.05	Pass	
Dieldrin	mg/kg	< 0.05	0.05	Pass	
Endosulfan I	mg/kg	< 0.05	0.05	Pass	
Endosulfan II	mg/kg	< 0.05	0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05	0.05	Pass	
Endrin	mg/kg	< 0.05	0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05	0.05	Pass	
Endrin ketone	mg/kg	< 0.05	0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05	0.05	Pass	
Heptachlor	mg/kg	< 0.05	0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05	0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05	0.05	Pass	
Methoxychlor	mg/kg	< 0.05	0.05	Pass	
Toxaphene	mg/kg	< 0.5	0.5	Pass	
Method Blank					
Polychlorinated Biphenyls					
Aroclor-1016	mg/kg	< 0.1	0.1	Pass	
Aroclor-1221	mg/kg	< 0.1	0.1	Pass	
Aroclor-1232	mg/kg	< 0.1	0.1	Pass	
Aroclor-1242	mg/kg	< 0.1	0.1	Pass	
Aroclor-1248	mg/kg	< 0.1	0.1	Pass	
Aroclor-1254	mg/kg	< 0.1	0.1	Pass	
Aroclor-1260	mg/kg	< 0.1	0.1	Pass	
Total PCB*	mg/kg	< 0.1	0.1	Pass	
LCS - % Recovery					
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	-				
TRH C6-C9	%	121	70-130	Pass	
TRH C10-C14	%	109	70-130	Pass	
LCS - % Recovery			-		
BTEX	-				
Benzene	%	114	70-130	Pass	
Toluene	%	126	70-130	Pass	
Ethylbenzene	%	104	70-130	Pass	
m&p-Xylenes	%	105	70-130	Pass	
o-Xylene	%	104	70-130	Pass	
Xylenes - Total*	%	105	70-130	Pass	
LCS - % Recovery			 		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene	%	94	70-130	Pass	
TRH C6-C10	%	98	70-130	Pass	
LCS - % Recovery					
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	%	102	70-130	Pass	
Acenaphthylene	%	107	70-130	Pass	
Anthracene	%	96	70-130	Pass	
Benz(a)anthracene	%	103	70-130	Pass	



Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Benzo(a)pyrene	%	113		70-130	Pass	
Benzo(b&j)fluoranthene	%	107		70-130	Pass	
Benzo(g.h.i)perylene	%	115		70-130	Pass	
Benzo(k)fluoranthene	%	106		70-130	Pass	
Chrysene	%	112		70-130	Pass	
Dibenz(a.h)anthracene	%	103		70-130	Pass	
Fluoranthene	%	92		70-130	Pass	
Fluorene	%	98		70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	103		70-130	Pass	
Naphthalene	%	100		70-130	Pass	
Phenanthrene	%	88		70-130	Pass	
Pyrene	%	99		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	%	104		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	99		80-120	Pass	
Cadmium	%	105		80-120	Pass	
Chromium	%	102		80-120	Pass	
Copper	%	104		80-120	Pass	
Lead	%	100		80-120	Pass	
Mercury	%	103		80-120	Pass	
Nickel	%	104		80-120	Pass	
Zinc	%	103		80-120	Pass	
LCS - % Recovery		1	T	1		
Organochlorine Pesticides						
Chlordanes - Total	%	78		70-130	Pass	
4.4'-DDD	%	87		70-130	Pass	
4.4'-DDE	%	80		70-130	Pass	
4.4'-DDT	%	91		70-130	Pass	
а-НСН	%	91		70-130	Pass	
Aldrin	%	79		70-130	Pass	
b-HCH	%	83		70-130	Pass	
d-HCH	%	82		70-130	Pass	
Dieldrin	%	84		70-130	Pass	
Endosulfan I	%	96		70-130	Pass	
Endosulfan II	%	97		70-130	Pass	
Endosulfan sulphate	%	91		70-130	Pass	
Endrin	%	91		70-130	Pass	
Endrin aldehyde	%	81		70-130	Pass	
Endrin ketone	%	93		70-130	Pass	
g-HCH (Lindane)	%	84		70-130	Pass	
Heptachlor	%	81		70-130	Pass	
Heptachlor epoxide	%	78		70-130	Pass	
Hexachlorobenzene	%	84		70-130	Pass	
Methoxychlor	%	84		 70-130	Pass	
LCS - % Recovery						
Polychlorinated Biphenyls						
Aroclor-1016	%	104		70-130	Pass	
Aroclor-1260	%	78		70-130	Pass	



Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-No0008338	NCP	%	100			75-125	Pass	
Cadmium	S23-No0008338	NCP	%	107			75-125	Pass	
Chromium	S23-No0008338	NCP	%	98			75-125	Pass	
Copper	S23-No0008338	NCP	%	102			75-125	Pass	
Lead	S23-No0008338	NCP	%	105			75-125	Pass	
Mercury	S23-No0008338	NCP	%	113			75-125	Pass	
Nickel	S23-No0008338	NCP	%	101			75-125	Pass	
Zinc	S23-No0008338	NCP	%	84			75-125	Pass	
Spike - % Recovery	•				•				
Total Recoverable Hydrocarbons -	1999 NEPM Fract	ions		Result 1					
TRH C10-C14	S23-No0014366	NCP	%	74			70-130	Pass	
Spike - % Recovery	•								
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1					
Naphthalene	S23-Oc0063824	NCP	%	92			70-130	Pass	
Spike - % Recovery	•			•			•	•	
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1					
TRH >C10-C16	S23-No0014366	NCP	%	88			70-130	Pass	
Spike - % Recovery	•			•			•	•	
BTEX				Result 1					
Benzene	N23-No0006862	CP	%	89			70-130	Pass	
Toluene	N23-No0006862	СР	%	76			70-130	Pass	
Ethylbenzene	N23-No0006862	СР	%	91			70-130	Pass	
m&p-Xylenes	N23-No0006862	СР	%	92			70-130	Pass	
o-Xylene	N23-No0006862	СР	%	90			70-130	Pass	
Xylenes - Total*	N23-No0006862	СР	%	91			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1					
Naphthalene	N23-No0006862	CP	%	80			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons -	1999 NEPM Fract	ions		Result 1					
TRH C6-C9	N23-No0006880	CP	%	96			70-130	Pass	
Spike - % Recovery				1					
BTEX				Result 1					
Benzene	N23-No0006880	CP	%	108			70-130	Pass	
Toluene	N23-No0006880	CP	%	102			70-130	Pass	
Ethylbenzene	N23-No0006880	CP	%	95			70-130	Pass	
m&p-Xylenes	N23-No0006880	CP	%	101			70-130	Pass	
o-Xvlene	N23-No0006880	CP	%	93			70-130	Pass	
Xylenes - Total*	N23-No0006880	CP	%	98			70-130	Pass	
Spike - % Recovery				1					
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1					
TRH C6-C10	N23-No0006880	CP	%	95			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons -	1999 NEPM Fract	ions		Result 1	Result 2	RPD			
TRH C6-C9	S23-Oc0071350	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S23-Oc0071223	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S23-Oc0071223	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S23-Oc0071223	NCP	mg/kg	72	75	3.2	30%	Pass	



Duplicate									
ВТЕХ				Result 1	Result 2	RPD			
Benzene	S23-Oc0071350	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-Oc0071350	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-Oc0071350	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-Oc0071350	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-Oc0071350	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-Oc0071350	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate							•		
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1	Result 2	RPD			
Naphthalene	S23-Oc0071350	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S23-Oc0071350	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1	Result 2	RPD			
TRH >C10-C16	S23-Oc0071223	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S23-Oc0071223	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S23-Oc0071223	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	N23-No0006870	CP	mg/kg	9.2	9.9	7.3	30%	Pass	
Cadmium	N23-No0006870	CP	mg/kg	< 0.4	0.4	4.8	30%	Pass	
Chromium	N23-No0006870	CP	mg/kg	14	15	9.1	30%	Pass	
Copper	N23-No0006870	CP	mg/kg	46	51	8.9	30%	Pass	
Lead	N23-No0006870	CP	mg/kg	30	32	5.9	30%	Pass	
Mercury	N23-No0006870	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	N23-No0006870	CP	mg/kg	14	16	10	30%	Pass	
Zinc	N23-No0006870	CP	mg/kg	95	100	8.7	30%	Pass	
Duplicate							•		
Sample Properties				Result 1	Result 2	RPD			
% Moisture	N23-No0006885	CP	%	11	11	<1	30%	Pass	
Duplicate									
Chromium Suite				Result 1	Result 2	RPD			
pH-KCL (NLM-3.1)	N23-No0006885	CP	pH Units	4.5	4.5	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	N23-No0006885	CP	mol H+/t	29	29	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	N23-No0006885	CP	% pyrite S	0.046	0.046	<1	30%	Pass	
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)	N23-No0006885	СР	% S	0.009	0.009	2.2	20%	Pass	
Chromium Reducible Sulfur (a-SCr)	N23-No0006885	CP	mol H+/t	59	57	22	30%	Pass	
Sulfur - KCI Extractable	N23-No0006885	CP	%S	N/A	N/A	N/A	30%	Pass	
HCI Extractable Sulfur	N23-No0006885	CP	%S	N/A	N/A	N/A	20%	Pass	
Net Acid soluble sulfur (SNAS)			<i>,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				2070	1 400	
NLM-4.1	N23-No0006885	CP	% S	N/A	N/A	N/A	30%	Pass	
NLM-4.1	N23-No0006885	CP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (s-SNAS) NLM-4.1	N23-No0006885	CP	% S	N/A	N/A	N/A	30%	Pass	
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	N23-No0006885	СР	% CaCO3	N/A	N/A	N/A	20%	Pass	
Acid Neutralising Capacity - (s- ANCbt) (NLM-5.2)	N23-No0006885	СР	% S	N/A	N/A	N/A	30%	Pass	
ANC Fineness Factor	N23-No0006885	CP	factor	1.5	1.5	<1	30%	Pass	
CRS Suite - Net Acidity - NASSG (Including ANC)	N23-No0006885	СР	% S	0.06	0.06	<1	30%	Pass	
CRS Suite - Net Acidity - NASSG (Including ANC)	N23-No0006885	СР	mol H+/t	35	35	<1	30%	Pass	
CRS Suite - Liming Rate - NASSG	N23-No0006885	СР	kg CaCO3/t	2.6	2.6	<1	30%	Pass	



Comments

Sample Integrity	
Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Manager

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
S01	Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO3) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from 'kg/t dry weight' to 'kg/m3 in-situ soil' multiply 'reported results' x 'wet bulk density of soil in t/m3'
S02	Retained Acidity is Reported when the pHKCI is less than pH 4.5
S03	Acid Neutralising Capacity is only required if the pHKCI if greater than or equal to pH 6.5
S04	Acid Sulfate Soil Samples have a 24 hour holding time unless frozen or dried within that period

Authorised by:

Analytical Services Mana
Senior Analyst-Metal
Senior Analyst-Asbestos
Senior Analyst-Volatile
Senior Analyst-Volatile
Senior Analyst-Organic
Senior Analyst-SPOCAS
Senior Analyst-Metal

Glenn Jackson Managing Director

Final Report - this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521									
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289	NATA# 2377			
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794		Site# 2370			

Sample Receipt Advice

Company name:	Qualtest
Contact name:	Emma Coleman
Project name:	Detailed Site Investigation - Ourimbah
Project ID:	NEW23P-0208
Turnaround time:	5 Day
Date/Time received	Nov 2, 2023 3:10 PM
Eurofins reference	1040841

Sample Information

- A detailed list of analytes logged into our LIMS, is included in the attached summary table. 1
- All samples have been received as described on the above COC.
- COC has been completed correctly.
- Attempt to chill was evident.
- Appropriately preserved sample containers have been used.
- All samples were received in good condition.
- Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- Appropriate sample containers have been used.
- Sample containers for volatile analysis received with zero headspace.
- 1 Split sample sent to requested external lab.
- X Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

T.1.11.23 forwarded to SGS. Sample TP10 0.8-0.9 missing. Extra bag with small amount of soil (TP01 0.2-0.3) logged on hold.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager: Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com Results will be delivered electronically via email to Emma Coleman - emmacoleman@qualtest.com.au. Note: A copy of these results will also be delivered to the general Qualtest email address.

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Eurofins ARL Pty Ltd Eurofins Environment Testing NZ Ltd 159 898

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EnviroSales@eurofins.com

Tauranga 1277 Cameron Road Gate Pa, IANZ# 1402



Certificate of Analysis

Environment Testing

Qualtest 2 Murray Dwyer Circuit Mayfield West NSW 2304



NATA Accredited Accreditation Number 1261 Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention:	Emma Coleman
Report	1040841-AID
Project Name	Detailed Site Investigation - Ourimbah
Project ID	NEW23P-0208
Received Date	Nov 02, 2023
Date Reported	Nov 14, 2023

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. <i>NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.</i>
Bonded asbestos- containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 4964 - 2004. NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01%" and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.



Project Name	Detailed Site Investigation - Ourimbah
Project ID	NEW23P-0208
Date Sampled	Nov 01, 2023
Report	1040841-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP01 0.0-0.2	23-No0006851	Nov 01, 2023	Approximate Sample 743g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP05 0.0-0.2	23-No0006854	Nov 01, 2023	Approximate Sample 731g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP08 0.0-0.2	23-No0006855	Nov 01, 2023	Approximate Sample 862g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP09 0.0-0.2	23-No0006856	Nov 01, 2023	Approximate Sample 538g Sample consisted of: Brown coarse grained sandy clayey soil, corroded metal and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP10 0.0-0.2	23-No0006857	Nov 01, 2023	Approximate Sample 989g Sample consisted of: Brown coarse grained sandy clayey soil, glass, plaster, brick, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP11 0.0-0.2	23-No0006858	Nov 01, 2023	Approximate Sample 809g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP11 0.4-0.5	23-No0006859	Nov 01, 2023	Approximate Sample 762g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP12 0.4-0.5	23-No0006862	Nov 01, 2023	Approximate Sample 904g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.



Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
SS4	23-No0006866	Nov 01, 2023	Approximate Sample 788g Sample consisted of: Brown coarse grained sandy clayey soil, brick, corroded metal and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS6	23-No0006868	Nov 01, 2023	Approximate Sample 598g Sample consisted of: Brown coarse grained sandy clayey soil, glass, corroded metal and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS7	23-No0006869	Nov 01, 2023	Approximate Sample 533g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS9	23-No0006871	Nov 01, 2023	Approximate Sample 725g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS10	23-No0006872	Nov 01, 2023	Approximate Sample 833g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS11	23-No0006873	Nov 01, 2023	Approximate Sample 715g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS12	23-No0006874	Nov 01, 2023	Approximate Sample 678g Sample consisted of: Brown coarse grained sandy clayey soil, glass and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS13	23-No0006875	Nov 01, 2023	Approximate Sample 664g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS14	23-No0006876	Nov 01, 2023	Approximate Sample 891g Sample consisted of: Brown coarse grained sandy clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS16	23-No0006878	Nov 01, 2023	Approximate Sample 692g Sample consisted of: Brown coarse grained sandy clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS18	23-No0006880	Nov 01, 2023	Approximate Sample 629g Sample consisted of: Brown coarse grained sandy clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.



Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description

Asbestos - LTM-ASB-8020

Testing SiteExtractedSydneyNov 03, 2023

Holding Time 23 Indefinite

		C :	ABN: 50 005 08	ironment Testing	g Australia Pty Ltd		Eurofins ARL Pty Ltd ABN: 91 05 0159 898	Eurofins Environment Testing NZ Ltd NZBN: 9429046024954										
web: www.eurofins.com.au email: EnviroSales@eurofins.com			Melbourne Geelong Sydney Canl 6 Monterey Road 19/8 Lewalan Street 179 Magowar Road Unit Dandenong South Grovedale Girraween Mitcl VIC 3175 VIC 3216 NSW 2145 ACT Tel: +61 3 8564 5000 Tel: +61 2 9900 8400 Tel: +61 2 9900 8400 Tel: NATA# 1261 NATA# 1261 NATA# 1261 NATA# 1261 NAT Site# 1254 Site# 25403 Site# 18217 Site#				Canberra Brisbane Unit 1,2 Dacre Street 1/21 Smallwood Pla Mitchell Murarrie ACT 2911 QLD 4172 200 Tel: +61 2 6113 8091 Tel: +61 7 3902 460 NATA# 1261 NATA# 1261 Site# 25466 Site# 20794					Ne Place 1/ M Te 1600 Na Si	ewcast 2 Frost ayfield V el: +61 2 ATA# 1: te# 250	le Drive West NSW 230 2 4968 8448 261 79 & 25289	Perth 46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Roac Penrose, Auckland 1061 Tel: +64 9 526 45 IANZ# 1327	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 551 Tel: +64 3 343 520 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 1 Tei: +64 9 525 0568 IANZ# 1402
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Pro Pro	oject Name: oject ID:	Detailed Site NEW23P-02	e Investigatio 208	n - Ourimbah											Eurofins A	nalytical Serv	ices Manager : A	Andrew Black
Sample Detail								Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4				
Melk	oourne Laborato	ory - NATA # 12	261 Site # 12	54				х					х	х				
Syd	ney Laboratory	- NATA # 1261	Site # 18217	/		Х	X	Х	Х		Х	х	Х	х				
Bris	bane Laborator	y - NATA # 126	1 Site # 207	94						Х	Х	Х						
Exte	rnal Laboratory	, 1		1	1													
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID													
1	TP01 0.0-0.2	Nov 01, 2023		Soil	N23-No0006851	Х	_					Х	Х					
2	TP01 0.4-0.5	Nov 01, 2023		Soil	N23-No0006852							Х	Х					
3	TP04 0.0-0.2	Nov 01, 2023		Soil	N23-No0006853							X	Х					
4	TP05 0.0-0.2	Nov 01, 2023		Soil	N23-No0006854	X			Х			Х	Х					
5	TP08 0.0-0.2	Nov 01, 2023		Soil	N23-No0006855	X						X	X					
6	TP09 0.0-0.2	Nov 01, 2023		Soil	N23-No0006856	X	+	+				X	X	┣──┤				
7	TP10 0.0-0.2	Nov 01, 2023		Sol	N23-N00006857	X			X			X	X	┣───┤				
8	TP11 0.0-0.2	Nov 01, 2023		Soil	N23-N00006858	×	+	+	X			×	×	┠───┤				
10	TP110010	Nov 01, 2023		Soil	N23-N00006860		+	+				×	×					
11	TP12 0 0-0 2	Nov 01 2023		Soil	N23-No0006861		-		x			x						
	11120.0-0.2	1.00 01, 2023	1			I				I	I		L					

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web: www.eurofins.com.au email: EnviroSales@eurofins.com		Melbourne 6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 500 NATA# 1261 Site# 1254	Canberra ad Unit 1,2 Dacre Street Mitchell ACT 2911 3400 Tel: +61 2 6113 8091 NATA# 1261 Site# 25466				Brisbane Newcastle 1/21 Smallwood Place 1/2 Frost Drive Murarrie Mayfield West NSW 2304 QLD 4172 Tel: +61 2 4968 8448 Tel: +61 7 3902 4600 NATA# 1261 NATA# 1261 Site# 25079 & 25289 Site# 20794 Site# 20794					W 2304 448 289	Perth 46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Roa Penrose, Auckland 1061 Tel: +64 9 526 4 IANZ# 1327	Christchurch d 43 Detroit Drive Rolleston, Christchurch 7675 551 Tel: +64 3 343 520 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 1 Tei: +64 9 525 0568 IANZ# 1402			
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Pr Pr	oject Name: oject ID:	Detailed Site NEW23P-02	e Investigation - 208	Ourimbah												Eurofins A	nalytical Serv	vices Manager : /	Andrew Black
Sample Detail							HOLD	Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4					
Mell	oourne Laborato	ory - NATA # 12	261 Site # 1254					Х					Х	Х					
Syd	ney Laboratory ·	- NATA # 1261	Site # 18217			Х	Х	Х	Х		Х	Х	Х	Х					
Bris	bane Laboratory	y - NATA # 126	1 Site # 20794							Х	Х	Х							
12	TP12 0.4-0.5	Nov 01, 2023	Sc	oil N2	3-No0006862	Х						Х	Х						
13	SS1	Nov 01, 2023	Sc	oil N2	3-No0006863							Х		Х					
14	SS2	Nov 01, 2023	Sc	oil N2	3-No0006864							Х		Х					
15	SS3	Nov 01, 2023	Sc	oil N2	3-No0006865							Х		Х					
16	SS4	Nov 01, 2023	So	pil N2	3-No0006866	Х						Х	Х						
17	SS5	Nov 01, 2023	Sc	pil N2	3-No0006867							Х	X						
18	SS6	Nov 01, 2023	Sc	oil N2	3-No0006868	Х						Х	Х						
19	SS7	Nov 01, 2023	Sc	oil N2	3-No0006869	Х		Х				Х							
20	SS8	Nov 01, 2023	Sc	oil N2	3-No0006870			Х				Х		\square					
21	SS9	Nov 01, 2023	Sc	oil N2	3-No0006871	Х		Х				Х		\square					
22	SS10	Nov 01, 2023	Sc	oil N2	3-No0006872	Х		Х				Х		\square					
23	SS11	Nov 01, 2023	Sc	oil N2	3-No0006873	Х		Х				Х							
24	SS12	Nov 01, 2023	Sc	oil N2	3-No0006874	Х		Х				Х							
25	SS13	Nov 01, 2023	Sc	pil N2	3-No0006875	Х		Х				Х							

web: www.eurofins.com.au email: EnviroSales@eurofins.com		Eurotins Environment Testing Australia Pty Ltd ABN: 50 005 085 521											ABN: 91 05 0159 898	Eurofins Environment Testing NZ Ltd NZBN: 9429046024954				
		Melbourne 6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 500 NATA# 1261 Site# 1254	Melbourne Geelong Sydney 6 Monterey Road 19/8 Lewalan Street 179 Magowar Ro Dandenong South Grovedale Girraween VIC 3175 VIC 3216 NSW 2145 Tel: +61 3 8564 5000 Tel: +61 3 8564 5000 Tel: +61 2 9900 NATA# 1261 NATA# 1261 NATA# 1261 Site# 1254 Site# 25403 Site# 18217		Canberra Jad Unit 1,2 Dacre Street Mitchell ACT 2911 8400 Tel: +61 2 6113 8091 NATA# 1261 Site# 25466			Bi M Q 3091 Te Ni Si	Brisbane Newcastle it 1/21 Smallwood Place 1/2 Frost Drive Murarrie Mayfield West NSW 2304 QLD 4172 Tel: +61 2 4968 8448 11 Tel: +61 7 3902 4600 NATA# 1261 NATA# 1261 Site# 25079 & 25289 Site# 20794 Site# 20794				tle Drive West NS 2 4968 84 261 079 & 252	SW 2304 9448 289	Perth 46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Roa Penrose, Auckland 1061 Tel: +64 9 526 - IANZ# 1327	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 4551 Tel: +64 3 343 520 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 11 Tel: +64 9 525 0568 IANZ# 1402
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Project Name: Project ID:	Detailed S NEW23P-0	ite Investigation -)208	Ourimbah												Eurofins A	nalytical Ser	vices Manager :	Andrew Black
	\$	Sample Detail			Asbestos - WA guidelines	HOLD	Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4					
Melbourne Labo	ratory - NATA # '	1261 Site # 1254					Х					Х	Х					
Sydney Laborate	ory - NATA # 126	1 Site # 18217			X	Х	Х	Х		Х	Х	Х	Х					
Brisbane Labora	tory - NATA # 12	261 Site # 20794							X	Х	Х							
26 SS14	Nov 01, 2023	B S	oil N2	3-No0006876	X			Х			Х	Х						
27 SS15	Nov 01, 2023	S S	oil N2	3-No0006877			X	Х			Х							
28 SS16	Nov 01, 2023		oil N2	3-No0006878	X						X	X						
29 \$\$17	Nov 01, 2023		oil N2	3-No0006879				X			X	X						
30 5518	NOV 01, 2023			3-N00006880	×				~	v		~						
31 TP01 1.4-1.	5 Nov 01, 2023			3-N00006882						×								
32 TP04 2.0-2.	6 Nov 01, 2023			3-No0006883					×	×								
34 TP06 2 4-2	5 Nov 01, 2023			3-No0006884					X	X								
35 TP10 0.8-0	9 Nov 01, 2023			3-No0006885					x	X								
36 D.1.11.23	Nov 01, 2023		oil N2	3-No0006886			1	x		~	Х	x						
37 TP01 0.9-1.	0 Nov 01, 2023	s s	oil N2	3-No0006887		x												
38 TP04 0.4-0.	5 Nov 01, 2023	s S	oil N2	3-No0006888		x												
39 TP04 0.9-1.	0 Nov 01, 2023	3 Se	oil N2	3-No0006889		Х												
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web: wy email: E	ww.eurofins.com.au EnviroSales@eurofins	.com	Melbourne 6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 500 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 0 Tel: +61 3 8564 500 NATA# 1261 Site# 25403	Sydney 179 Magowar Ro Girraween NSW 2145 10 Tel: +61 2 9900 8 NATA# 1261 Site# 18217	bad U M A 8400 T S	anberra nit 1,2 [litchell CT 291 el: +61 2 ATA# 1 ite# 254	a Dacre S 1 2 6113 8 261 866	Bitreet 1/ M Q B091 Te N Si	risbane 21 Sma urarrie LD 417 el: +61 ATA# 1 te# 207	illwood 2 7 3902 4 261 94	Ne Place 1/ M Te 4600 N/ Si	ewcastl 2 Frost ayfield \ el: +61 2 ATA# 12 te# 250	le Drive West NSW 2 2 4968 8448 261 179 & 25289	2304 3	Perth 46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Roac Penrose, Auckland 1061 Tel: +64 9 526 45 IANZ# 1327	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 551 Tel: +64 3 343 520 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 11 Tel: +64 9 525 0568 IANZ# 1402
Coi Ade	mpany Name: dress:	Qualtest 2 Murray Dv Mayfield We NSW 2304	wyer Circuit est				O Re Pi Fa	rder N eport hone: ax:	lo.: #:	1 () ()	0408)2 496)2 496	41 68 446 60 977)8 75			Receive Due: Priority: Contact	d: Name:	Nov 2, 2023 3:10 Nov 9, 2023 5 Day Emma Coleman) PM
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		Si	ample Detail			Asbestos - WA guidelines	HOLD	Metals M8	Suite B13: OCP/PCB	Chromium Reducible Sulfur Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4					
Melb	ourne Laborato	ory - NATA # 1	261 Site # 1254					Х					Х	х					
Sydr	ney Laboratory	- NATA # 1261	Site # 18217			X	X	Х	X		Х	X	Х	X					
Brisk	bane Laboratory	y - NATA # 126	61 Site # 20794							Х	Х	X							
40	TP05 0.4-0.5	Nov 01, 2023	S	bil N2	3-No0006890		X												
41	TP05 0.9-1.0	Nov 01, 2023	S	bil N2	3-No0006891		X												
42	TP05 1.4-1.5	Nov 01, 2023	So	DII N2	3-No0006892		X												
43	TP08 0.4-0.5	Nov 01, 2023	50		3-N00006893														
44	TP08 0.9-1.0	Nov 01, 2023	50		3-N00006894														
45	TP09 0.4-0.5	Nov 01, 2023	30		3-No0006895		Ŷ												
40	TP10.0.4-0.5	Nov 01, 2023	30		3-No0006897		x												
47	TP11 1 4-1 5	Nov 01, 2023	50		3-No0000037		X												
40	TP12 0 9-1 0	Nov 01 2023			3-No0006900		x							<u>├</u>					
50	TP12 1 4-1 5	Nov 01 2023			3-No0006901		x												
51	TP01 0.2-0.3	Nov 01, 2023	50	oil N2	3-No0007299	1	x	1	1										
Test	Counts					19	15	8	8	5	36	36	19	3					



Internal Quality Control Review and Glossary General

- 1. 2. 3.
- QC data may be available on request. All soil results are reported on a dry basis, unless otherwise stated. Samples were analysed on an 'as received' basis. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results. This report replaces any interim results previously issued. 4. 5.

Holding Times Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units % w/w: F/fld F/mL g, kg g/kg L, mL L/min min	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (% w/w) Airborne fibre filter loading as Fibres (N) per Fields counted (n) Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (C) Mass, e.g. of whole sample (M) or asbestos-containing find within the sample (m) Concentration in grams per kilogram Volume, e.g. of air as measured in AFM (V = r x t) Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (r) Time (t), e.g. of air sample collection period
Calculations	
Airborne Fibre Concentration:	$C = \left(\frac{n}{a}\right) \times \left(\frac{n}{r}\right) \times \left(\frac{1}{r}\right) = K \times \left(\frac{n}{r}\right) \times \left(\frac{1}{v}\right)$
Asbestos Content (as asbestos):	$\% w/w = \frac{(m \times P_A)}{M}$
Weighted Average (of asbestos):	$\mathscr{H}_{WA} = \sum \frac{(m \times P_A)_x}{x}$
Terms %asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 Appendix 2, else assumed to be 15% in accordance with WA DOH Appendix 2 (P _A).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (% w/w).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, Asbestos: The Analysts Guide, 2nd Edition (2021).
HSG264	UK HSE HSG264, Asbestos: The Survey Guide (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (K) as derived from the effective filter area of the given AFM membrane used for collecting the sample (A) and the projected eyepiece graticule area of the specific microscope used for the analysis (a).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
Sampling	Unless otherwise stated Eurofins are not responsible for sampling equipment or the sampling process.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004 May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos- Contaminated Sites in Western Australia (updated 2021), including Appendix Four: Laboratory analysis
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (%wA).



Comments

Sample Integrity	
Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Laxman Dias

Senior Analyst-Asbestos

Authorised by:

Sayeed Abu

Senior Analyst-Asbestos

Glenn Jackson Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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ANALYTICAL REPORT





CLIENT DETAILS		LABORATORY DE	- LABORATORY DETAILS							
Contact	Emma Coleman	Manager	Huong Crawford							
Client	QUALTEST LABORATORY NSW PTY LTD	Laboratory	SGS Alexandria Environmental							
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Telephone	61 2 49684468	Telephone	+61 2 8594 0400							
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499							
Email	emmacoleman@qualtest.com.au	Email	au.environmental.sydney@sgs.com							
Project	NEW23P-0208 Detailed Site Investigation	SGS Reference	SE256312 R0							
Order Number	NEW23P-0208	Date Received	7/11/2023							
Samples	1	Date Reported	14/11/2023							

COMMENTS

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

SIGNATORIES

Akheeqar BENIAMEEN Chemist



Senior Chemist

Kamrul AHSAN Senior Chemist

/km/m/

Ly Kim HA Organic Section Head

Shane MCDERMOTT

rons

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VOC's in Soil [AN433] Tested: 9/11/2023

			T.1.11.23
			SOIL
			1/11/2023
PARAMETER	UOM	LOR	SE256312.001
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2
o-xylene	mg/kg	0.1	<0.1
Total Xylenes*	mg/kg	0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6
Naphthalene (VOC)*	mg/kg	0.1	<0.1



Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 9/11/2023

			T.1.11.23
			SOIL
PARAMETER	UOM	LOR	SE256312.001
TRH C6-C9	mg/kg	20	<20
Benzene (F0)	mg/kg	0.1	<0.1
TRH C6-C10	mg/kg	25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25



TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 9/11/2023

			T.1.11.23
			SOIL - 1/11/2023
PARAMETER	UOM	LOR	SE256312.001
TRH C10-C14	mg/kg	20	<20
TRH C15-C28	mg/kg	45	<45
TRH C29-C36	mg/kg	45	<45
TRH C37-C40	mg/kg	100	<100
TRH >C10-C16	mg/kg	25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120
TRH C10-C36 Total	mg/kg	110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210


ANALYTICAL RESULTS

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 9/11/2023

			T.1.11.23
			SOIL
			-
PARAMETER	UOM	LOR	SE256312.001
Naphthalene	mg/kg	0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1
Fluorene	mg/kg	0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1
Anthracene	mg/kg	0.1	<0.1
Fluoranthene	mg/kg	0.1	0.1
Pyrene	mg/kg	0.1	0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1
Chrysene	mg/kg	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.1
Carcinogenic PAHs, BaP TEQ <lor=0*< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td><0.2</td></lor=0*<>	TEQ (mg/kg)	0.2	<0.2
Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td><0.3</td></lor=lor*<>	TEQ (mg/kg)	0.3	<0.3
Carcinogenic PAHs, BaP TEQ <lor=lor 2*<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td><0.2</td></lor=lor>	TEQ (mg/kg)	0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8



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OC Pesticides in Soil [AN420] Tested: 9/11/2023

			T.1.11.23
			SOIL
			-
			1/11/2023
PARAMETER	UOM	LOR	SE256312.001
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1
Lindane (gamma BHC)	mg/kg	0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1
Aldrin	mg/kg	0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1
o,p'-DDE*	mg/kg	0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2
Endrin	mg/kg	0.2	<0.2
o,p'-DDD*	mg/kg	0.1	<0.1
o,p'-DDT*	mg/kg	0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1
Endrin aldehyde	mg/kg	0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1
Endrin ketone	mg/kg	0.1	<0.1
Isodrin	mg/kg	0.1	<0.1
Mirex	mg/kg	0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1
Total OC VIC EPA	mg/kg	1	<1



PCBs in Soil [AN420] Tested: 9/11/2023

			T.1.11.23
PARAMETER	UOM	LOR	SOIL - 1/11/2023 SE256312.001
Arochlor 1016	mg/kg	0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1



ANALYTICAL RESULTS

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 9/11/2023

			T.1.11.23
			SOIL
			-
PARAMETER	UOM	LOR	SE256312.001
Arsenic, As	mg/kg	1	2
Cadmium, Cd	mg/kg	0.3	<0.3
Chromium, Cr	mg/kg	0.5	15
Copper, Cu	mg/kg	0.5	22
Lead, Pb	mg/kg	1	82
Nickel, Ni	mg/kg	0.5	27
Zinc, Zn	mg/kg	2	130



Mercury in Soil [AN312] Tested: 9/11/2023

			T.1.11.23
			SOIL
PARAMETER	UOM	LOR	SE256312.001
Mercury	mg/kg	0.05	<0.05



Moisture Content [AN002] Tested: 9/11/2023

			T.1.11.23
			SOIL
PARAMETER	UOM	LOR	SE256312.001
% Moisture	%w/w	1	6.8



METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by AAS or ICP as per USEPA Method 200.8.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D). Total PAH calculated from individual analyte detections at or above the limit of reporting.
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.



FOOTNOTES -

*	NATA accreditation does not cover
	the performance of this service.
**	Indicative data, theoretical holding
	time exceeded.

*** Indicates that both * and ** apply.

NVL Not IS Insu LNR San

Not analysed. Not validated. Insufficient sample for analysis. Sample listed, but not received. UOM Unit of Measure. LOR Limit of Reporting. ↑↓ Raised/lowered Limit of Reporting.

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

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

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

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

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

Note that in terms of units of radioactivity:

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

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

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

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STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS		LABORATORY DETAIL	s
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Project	NEW23P-0208 Detailed Site Investigation	SGS Reference	SE256312 R0
Order Number	NEW23P-0208	Date Received	07 Nov 2023
Samples	1	Date Reported	14 Nov 2023

COMMENTS

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

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

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

OC Pesticides in Soil

Matrix Spike

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

3 items 1 item

SAMPLE SUMMARY Sample counts by matrix 1 Soil Type of documentation received COC 7/11/2023 Date documentation received Samples received in good order Yes 14.3°C Samples received without headspace Sample temperature upon receipt Yes Turnaround time requested Standard Sample container provider Other Lab Samples received in correct containers Yes Sufficient sample for analysis Yes Sample cooling method Ice Bricks Samples clearly labelled Yes Complete documentation received Yes

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HOLDING TIME SUMMARY

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

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

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the

Mercury in Soil							Method: I	ME-(AU)-[ENV]AN312
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296091	01 Nov 2023	07 Nov 2023	29 Nov 2023	09 Nov 2023	29 Nov 2023	14 Nov 2023
Moisture Content							Method: I	ME-(AU)-[ENV]AN002
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296086	01 Nov 2023	07 Nov 2023	15 Nov 2023	09 Nov 2023	14 Nov 2023	14 Nov 2023
OC Pesticides in Soil							Method: I	ME-(AU)-[ENV]AN420
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296080	01 Nov 2023	07 Nov 2023	15 Nov 2023	09 Nov 2023	19 Dec 2023	14 Nov 2023
PAH (Polynuclear Aromatic	Hydrocarbons) in Soil						Method: I	ME-(AU)-[ENV]AN420
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296080	01 Nov 2023	07 Nov 2023	15 Nov 2023	09 Nov 2023	19 Dec 2023	14 Nov 2023
PCBs in Soil							Method: I	ME-(AU)-[ENV]AN420
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296080	01 Nov 2023	07 Nov 2023	15 Nov 2023	09 Nov 2023	19 Dec 2023	14 Nov 2023
Total Recoverable Elements	s in Soil/Waste Solids/Ma	terials by ICPOES					Method: ME-(AU)-[ENV]AN040/AN320
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296081	01 Nov 2023	07 Nov 2023	29 Apr 2024	09 Nov 2023	29 Apr 2024	14 Nov 2023
TRH (Total Recoverable Hy	drocarbons) in Soil						Method: I	ME-(AU)-[ENV]AN403
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296080	01 Nov 2023	07 Nov 2023	15 Nov 2023	09 Nov 2023	19 Dec 2023	14 Nov 2023
VOC's in Soil							Method: I	ME-(AU)-[ENV]AN433
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
T.1.11.23	SE256312.001	LB296082	01 Nov 2023	07 Nov 2023	15 Nov 2023	09 Nov 2023	15 Nov 2023	14 Nov 2023
Volatile Petroleum Hydroca	rbons in Soil						Method: I	ME-(AU)-[ENV]AN433
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed

07 Nov 2023

15 Nov 2023

09 Nov 2023

15 Nov 2023

T.1.11.23

SE256312.001

LB296082

01 Nov 2023

14 Nov 2023



SURROGATES

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

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

OC Pesticides in Soil				Method: M	IE-(AU)-[ENV]AN420
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	97

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AU					
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	T.1.11.23	SE256312.001	%	70 - 130%	94
d14-p-terphenyl (Surrogate)	T.1.11.23	SE256312.001	%	70 - 130%	99
d5-nitrobenzene (Surrogate)	T.1.11.23	SE256312.001	%	70 - 130%	106
PCBs in Soil				Method: M	E-(AU)-[ENV]AN420
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
TCMX (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	92

VOC's in Soil				Method: M	E-(AU)-[ENV]AN433
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	99
d4-1,2-dichloroethane (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	78
d8-toluene (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	90
Volatile Petroleum Hydrocarbons in Soil				Method: M	E-(AU)-[ENV]AN433
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	99
d4-1,2-dichloroethane (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	78
d8-toluene (Surrogate)	T.1.11.23	SE256312.001	%	60 - 130%	90



METHOD BLANKS

SE256312 R0

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

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

Mercury in Soil		Me	thod: ME-(AU)-[ENV]AN312
Sample Number Parameter	Units	LOR	Result
LB296091.001 Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

OC Pesticides in Soil				Metho	od: ME-(AU)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result
LB296080.001		Alpha BHC	mg/kg	0.1	<0.1
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Lindane (gamma BHC)	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor	ma/ka	0.1	<0.1
		Aldrin	ma/ka	0.1	<0.1
		Isodrin	ma/ka	0.1	<0.1
		Heptachlor epoxide	ma/ka	0.1	<0.1
		Gamma Chlordane	ma/ka	0.1	<0.1
		Alpha Chlordane	ma/ka	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
			mg/kg	0.2	<0.2
		p,p-bbe	mg/kg	0.1	<0.1
			mg/kg	0.2	<0.2
			mg/kg	0.2	<0.2
			mg/kg	0.2	<0.2
		p,p-DUD	mg/kg	0.1	<0.1
		Endrin aldehyde	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endrin ketone	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	87
PAH (Polynuclear Aromati	c Hydrocarbons) in Soil			Metho	od: ME-(AU)-[ENV]AN420
PAH (Polynuclear Aromati Sample Number	c Hydrocarbons) in Soil	Parameter	Units	LOR	od: ME-(AU)-[ENV]AN420 Result
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene	Units mg/kg	LOR 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene	Units mg/kg mg/kg	Metho LOR 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene	Units mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1	Dd: ME-(AU)-[ENV]AN420 Result <0.1 <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene	Units mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1	Dd: ME-(AU)-[ENV]AN420 Result <0.1 <0.1 <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene Acenaphthylene Acenaphthylene	Units mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1	Dd: ME-(AU)-[ENV]AN420 Result <0.1 <0.1 <0.1 <0.1 <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Fluorene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Dd: ME-(AU)-[ENV]AN420 Result <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Dd: ME-(AU)-[ENV]AN420 Result <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Dd: ME-(AU)-[ENV]AN420 Result <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Fluoranthene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Dd: ME-(AU)-[ENV]AN420 Result <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Phenanthrene Fluorene Phenanthrene Fluorene Pyrene Benzo(a)anthracene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthrene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Phenanthrene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(a)antyrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthrene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Iordeno(1 2 andhorene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Dibenzo(12,3-cd)pyrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthene Fluorene Phenanthrene Fluorene Phenanthrene Fluorene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Dibenzo(ah)anthracene Benzo(ah)anthracene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(gh)perylene Total DAL (48)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthene Fluorene Phenanthrene Fluorene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(gh)perylene Total PAH (18) df. pitroneroen (furrenate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Phenanthrene Pluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(ghi)perylene Total PAH (18) d5-nitrobenzene (Surrogate) 2-fluersbeard (Surgeate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Phenanthrene Fluorente Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(gh)perylene Total PAH (18) d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate) 2-fluorobiphenyl (Surrogate)	Units mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(gh)perylene Total PAH (18) d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate) d14-p-terphenyl (Surrogate)	Units mg/kg mg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	c Hydrocarbons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthrene Fluorene Phenanthrene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Indenc(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(gh)perylene Total PAH (18) d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Od: ME-(AU)-[ENV]AN420 Result <0.1
PAH (Polynuclear Aromati Sample Number LB296080.001	Surrogates	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthylene Acenaphthrene Fluorene Phenanthrene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(ah)anthracene Benzo(ghi)perylene Total PAH (18) d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate) Parameter	Units mg/kg mg	Metho LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	od: ME-(AU)-[ENV]AN420 Result <0.1

Arochlor 1221

Arochlor 1232

Arochlor 1242

Arochlor 1248

Arochlor 1254

<0.2

<0.2

<0.2

<0.2

<0.2

mg/kg

mg/kg

mg/kg

mg/kg

mg/kg

0.2

0.2

0.2

0.2

0.2



METHOD BLANKS

SE256312 R0

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

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

PCBs in Soil (continued	d)			Metho	od: ME-(AU)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result
LB296080.001		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	TCMX (Surrogate)	%	-	81
Total Recoverable Eler	nents in Soil/Waste Solids/Mat	erials by ICPOES		Method: ME-	(AU)-[ENV]AN040/AN320
Sample Number		Parameter	Units	LOR	Result
LB296081.001		Arsenic, As	mg/kg	1	<1
		Cadmium, Cd	mg/kg	0.3	<0.3
		Chromium, Cr	mg/kg	0.5	<0.5
		Copper, Cu	mg/kg	0.5	<0.5
		Nickel, Ni	mg/kg	0.5	<0.5
		Lead, Pb	mg/kg	1	<1
		Zinc, Zn	mg/kg	2	<2.0
TRH (Total Recoverabl	le Hydrocarbons) in Soil			Metho	od: ME-(AU)-[ENV]AN403
Sample Number		Parameter	Units	LOR	Result
LB296080.001		TRH C10-C14	mg/kg	20	<20
		TRH C15-C28	mg/kg	45	<45
		TRH C29-C36	mg/kg	45	<45
		TRH C37-C40	mg/kg	100	<100
		TRH C10-C36 Total	mg/kg	110	<110
VOC's in Soil				Metho	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB296082.001	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1
	Hydrocarbons	Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
		d8-toluene (Surrogate)	%	-	99
		Bromofluorobenzene (Surrogate)	%	-	108
	Totals	Total BTEX*	mg/kg	0.6	<0.6
Volatile Petroleum Hyd	rocarbons in Soil			Metho	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB296082.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1.2-dichloroethane (Surrogate)	%	-	98



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

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

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

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

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury in Soil						Meth	od: ME-(AU)-	ENVJAN31	2
Original	Duplicate	Parameter	Unit	s LOR	Original	Duplicate	Criteria %	RPD %	l
SE256276.035	LB296091.014	Mercury	mg/k	g 0.05	<0.05	<0.05	200	0	
SE256331.001	LB296091.023	Mercury	mg/k	g 0.05	<0.05	<0.05	200	0	

Moisture Content

Moisture Content						Meth	od: ME-(AU)-	ENVJAN002
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256276.035	LB296086.011	% Moisture	%w/w	1	14.6	15.1	37	3
SE256331.001	LB296086.020	% Moisture	%w/w	1	6.8	6.7	45	1

OC Pesticides in Soil

OC Pesticides in Soil Method: ME-(AU)-(E								ENVJAN420	
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256276.036	LB296080.025		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDE*	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD*	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin aldehvde	ma/ka	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	ma/ka	0.1	<0.1	<0.1	200	0
			o.p'-DDT*	ma/ka	0.1	<0.1	<0.1	200	0
			p.p'-DDT	ma/ka	0.1	<0.1	<0.1	200	0
			Endrin ketone	ma/ka	0.1	<0.1	<0.1	200	0
			Methoxychlor	ma/ka	0.1	<0.1	<0.1	200	0
			Mirex	ma/ka	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	ma/ka	1	<1	<1	200	0
			Total OC VIC EPA	ma/ka	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.14	30	2
	LB296080.028		Alpha BHC	ma/ka	0.1	<0.1	<0.1	200	0
			Hexachlorobenzene (HCB)	ma/ka	0.1	<0.1	<0.1	200	0
			Beta BHC	ma/ka	0.1	<0.1	<0.1	200	0
			Lindane (gamma BHC)	ma/ka	0.1	<0.1	<0.1	200	0
			Delta BHC	ma/ka	0.1	<0.1	<0.1	200	0
			Heptachlor	ma/ka	0.1	<0.1	<0.1	200	0
			Aldrin	ma/ka	0.1	<0.1	<0.1	200	0
			Isodrin	ma/ka	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	ma/ka	0.1	<0.1	<0.1	200	0
			Gamma Chlordane	ma/ka	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	ma/ka	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	ma/ka	0.2	<0.2	<0.2	200	0
			o.p'-DDE*	ma/ka	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/ka	0.2	<0.2	<0.2	200	0
			Endrin	ma/ka	0.2	<0.2	<0.2	200	0
			Beta Endosulfan	mg/ka	0.2	<0.2	<0.2	200	0
			o,p'-DDD*	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDD	mg/ka	0.1	<0.1	<0.1	200	0
			Endrin aldehvde	ma/ka	0.1	<0.1	<0.1	200	0
					0			200	



OC Pesticides in Soil (continued) Original Duplicate Method: ME-(AU)-IENVIAN420

0

0

0

0

0

0

0

0

2

0

0

0

0

0

0

0

0

0

0

0

0

0

0

70

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8

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

71

0

Original Duplicate Criteria % RPD %

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

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

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

Parameter

Fluorene

Phenanthrene

Anthracene

Fluoranthene

Benzo(a)anthracene

Benzo(b&j)fluoranthene

Benzo(k)fluoranthene

Indeno(1,2,3-cd)pyrene

Dibenzo(ah)anthracene

Carcinogenic PAHs, BaP TEQ <LOR=0*

Benzo(ghi)perylene

Benzo(a)pyrene

Pyrene

Chrvsene

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

Units

mg/kg

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.2

< 0.1

<0.1

<0.1

< 0.1

<0.1

<0.1

< 0.1

<0.1

<0.1

<0.1

<0.1

<0.1

< 0.1

<0.2

< 0.1

<0.1

<0.1

< 0.1

<0.1

<0.1

< 0.1

<0.1

<0.1

< 0.1

<0.1

<0.1

0.2

<0.2

LOR

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

SE256276.036 LB296080.028 Endosulfan sulphate 200 0.1 <0.1 <0.1 mg/kg o,p'-DDT* mg/kg 0.1 < 0.1 < 0.1 200 p,p'-DDT 0.1 <0.1 <0.1 200 mg/kg Endrin ketone 0.1 <0.1 <0.1 200 mg/kg Methoxychlor 0 1 <0.1 <0.1 200 mg/kg Mirex 0.1 <0.1 <0.1 200 mg/kg Total CLP OC Pesticides 200 <1 <1 ma/ka 1 Total OC VIC EPA <1 <1 200 mg/kg 1 30 Surrogates Tetrachloro-m-xylene (TCMX) (Surrogate) 0.14 0.14 mg/kg SE256331.001 LB296080.023 Alpha BHC 0.1 <0.1 <0.1 200 mg/kg Hexachlorobenzene (HCB) 0.1 <0.1 <0.1 200 mg/kg Beta BHC 0.1 <0.1 <0.1 200 mg/kg Lindane (gamma BHC) <0.1 < 0.1 200 ma/ka 0.1 Delta BHC 0.1 < 0.1 < 0.1 200 mg/kg <0.1 Heptachlor 0.1 <0.1 200 mg/kg Aldrin 0.1 <0.1 <0.1 200 mg/kg Isodrin mg/kg 0.1 < 0.1 < 0.1 200 <0.1 <0.1 200 Heptachlor epoxide mg/kg 0.1 Gamma Chlordane 0.1 <0.1 <0.1 200 mg/kg Alpha Chlordane 01 <0.1 <0.1 200 mg/kg 0.2 <0.2 <0.2 200 Alpha Endosulfan mg/kg o.p'-DDE' 0.1 <0.1 < 0.1 200 ma/ka p,p'-DDE 0.1 < 0.1 < 0.1 200 mg/kg <0.2 Dieldrin 0.2 0.3 81 mg/kg Endrin 0.2 <0.2 <0.2 200 mg/kg Beta Endosulfan mg/kg 0.2 <0.2 <0.2 200 o,p'-DDD* 0.1 <0.1 <0.1 200 mg/kg p.p'-DDD < 0.1 200 mg/kg 0.1 < 0.1 Endrin aldehyde 0.1 < 0.1 <0.1 200 mg/kg Endosulfan sulphate 0.1 <0.1 <0.1 200 mg/kg o,p'-DDT* <0.1 mg/kg 0.1 <0.1 200 p,p'-DDT mg/kg 0.1 < 0.1 < 0.1 200 <0.1 <0.1 200 Endrin ketone 0.1 mg/kg Methoxychlor mg/kg 0.1 <0.1 <0.1 200 Mirex 0.1 <0.1 <0.1 200 mg/kg <0.1 <0.1 200 trans-Nonachlor 0.1 mg/kg Total CLP OC Pesticides 200 ma/ka 1 <1 <1 Total OC VIC EPA mg/kg 1 <1 <1 200 30 Surrogates Tetrachloro-m-xylene (TCMX) (Surrogate) 0.12 0.13 mg/kg PAH (Polynuclear Aromatic Hydrocarbons) in Soil Duplicate Units LOR Duplicate Criteria % RPD % Original Parameter Original SE256276.036 LB296080.025 Naphthalene 0.1 <0.1 <0.1 200 mg/kg 2-methylnaphthalene 0.1 <0.1 <0.1 200 mg/kg 1-methylnaphthalene mg/kg 0.1 < 0.1 < 0.1 200 Acenaphthylene mg/kg 0.1 <0.1 <0.1 200 <0.1 200 Acenaphthene 0.1 <0.1 mg/kg

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

200

200

200

171

152

200

200

167

200

171

195

200

103

200



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

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

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

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

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

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256276.036	LB296080.025		Carcinogenic PAHs, BaP TEQ <lor=lor 2*<="" td=""><td>mg/kg</td><td>0.2</td><td><0.2</td><td><0.2</td><td>174</td><td>0</td></lor=lor>	mg/kg	0.2	<0.2	<0.2	174	0
			Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>mg/kg</td><td>0.3</td><td><0.3</td><td><0.3</td><td>134</td><td>0</td></lor=lor*<>	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	125	71
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	10
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	9
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	10
SE256331.001	LB296080.023		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	ma/ka	0.1	<0.1	<0.1	200	0
			Anthracene	ma/ka	0.1	<0.1	<0.1	200	0
			Eluoranthene	ma/ka	0.1	<0.1	<0.1	200	0
			Pyrene	ma/ka	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	ma/ka	0.1	<0.1	<0.1	200	0
			Chrysene	ma/ka	0.1	<0.1	<0.1	200	0
			Benzo(b&i)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrepe	mg/kg	0.1	<0.1	<0.1	200	0
				mg/kg	0.1	<0.1	<0.1	200	0
				mg/kg	0.1	<0.1	<0.1	200	0
			Bapta(ahi)aanunacene	mg/kg	0.1	<0.1	<0.1	200	0
				mg/kg	0.1	<0.1	<0.1	200	0
				mg/kg	0.2	<0.2	<0.2	200	0
				mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>mg/kg</td><td>0.3</td><td><0.3</td><td><0.3</td><td>134</td><td>0</td></lor=lor*<>	mg/kg	0.3	<0.3	<0.3	134	0
		0	I otal PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	/
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	9
PCBs in Soil							Meth	od: ME-(AU)-[ENVJAN420
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256276.036	LB296080.026		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	ma/ka	1	<1	<1	200	0
		Surrogates	TCMX (Surrogate)	ma/ka	-	0	0	30	2
SE256331.001	LB296080.023		Arochlor 1016	ma/ka	0.2	<0.2	<0.2	200	0
			Arachlar 1221	ma/ka	0.2	<0.2	<0.2	200	0
			Arochlor 1221	ma/ka	0.2	<0.2	<0.2	200	0
			Arachiar 1202	mg/kg	0.2	<0.2	<0.2	200	0
			Arochior 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochior 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	malka	0.2	<0.2	<0.2	200	0
			Arochlor 1200	пц/ку	0.2	~0.2	-0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCPa (Arachlara)	пц/ку	1	~0.2	~0.2	200	0
		Surrossias		mg/kg	I	~1	~1	200	0
		Surrogates	i GiviA (Surrogate)	mg/kg	-	U	U	30	э
Total Recoverable	Elements in Soil/Wa	ste Solids/Materia	ils by ICPOES				Method: ME-	-(AU)-[ENV]AI	N040/AN320
	Duulissta		Parameter	Unite	LOR				



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

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

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

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

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Total Recoverable	Elements in Soil/Was	te Solids/Materials	by ICPOES (continued)				Method: ME-	-(AU)-[ENV]A	N040/AN320
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256276.035	LB296081.014		Arsenic, As	mg/kg	1	6	5	48	5
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	18	18	33	1
			Copper, Cu	mg/kg	0.5	8.2	7.8	36	5
			Nickel, Ni	mg/kg	0.5	2.6	2.4	50	7
			Lead, Pb	mg/kg	1	16	16	36	4
			Zinc, Zn	mg/kg	2	13	14	45	2
SE256331.001	LB296081.023		Arsenic, As	mg/kg	1	3	4	57	10
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	7.7	9.4	36	20
			Copper, Cu	mg/kg	0.5	3.5	3.7	44	7
			Nickel, Ni	mg/kg	0.5	<0.5	<0.5	185	0
			Lead, Pb	mg/kg	1	8	9	41	13
			Zinc, Zn	mg/kg	2	5.7	7.1	61	21
TRH (Total Recove	erable Hydrocarbons)	in Soil					Meth	od: ME-(AU)-	ENVJAN40
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256276.036	L B296080 025		TRH C10-C14	ma/ka	20	<20	<20	200	0
02200270.000	2020000.020		TRH C15-C28	mg/kg	45	49	<45	126	9
			TRH C29-C36	mg/kg	45	100	83	79	19
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	150	<110	125	30
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
		Harri Banas	TRH >C10-C16 - Nanhthalene (E2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	110	93	117	20
			TPH >C34-C40 (F4)	mg/kg	120	<120	<120	163	0
SE256331 001	L B 206080 023		TPH C10-C14	mg/kg	20	<20	<20	200	0
32230331.001	LD230000.023		TPH C15-C28	mg/kg	45	<15	<45	200	0
			TPH C20-C36	mg/kg	45	<45	<45	200	0
			TPH C37-C40	mg/kg	100	<100	<100	200	0
			TPH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (E bands)	mg/kg	210	<210	<210	200	0
		TRH E Bande		mg/kg	210	<210	<25	200	0
		Intri Danus	TPH >C10-C16 - Nanhthalana (E2)	mg/kg	25	<25	<25	200	0
			TPH >C16-C34 (F3)	mg/kg		<20	<20	200	0
				mg/kg	120	<120	<120	200	0
			TKH 2034-040 (F4)	iiig/kg	120	\$120	\$120	200	0
VOC's in Soil							Meth	od: ME-(AU)-	ENVJAN43
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256331.001	LB296082.007	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	9.8	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.6	9.9	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	10.6	10.7	50	2
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
Volatile Petroleum	Hydrocarbons in Soil						Meth	od: ME-(AU)-	[ENV]AN43
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE256331.001	LB296082.007		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.6	9.8	50	1
			d8-toluene (Surrogate)	mg/kg	-	9.6	9.9	50	2

Bromofluorobenzene (Surrogate)

TRH C6-C10 minus BTEX (F1)

Benzene (F0)

VPH F Bands

0

0

10.6

<0.1

<25

0.1

25

mg/kg

mg/kg

mg/kg

10.7

<0.1

<25

50

200

200



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

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

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

Mercury in Soil					1	Nethod: ME-(A	U)-[ENV]AN312
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296091.002	Mercury	mg/kg	0.05	0.18	0.2	80 - 120	90

OC Pesticides in Soil

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296080.002		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	76
		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	86
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	80
		Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	85
		Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	92
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	98
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.13	0.15	40 - 130	89
PAH (Polynuclear A	romatic Hydroca	bons) in Soil				N	Nethod: ME-(A	U)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296080.002		Naphthalene	mg/kg	0.1	3.4	4	60 - 140	85
		Acenaphthylene	mg/kg	0.1	3.4	4	60 - 140	85
		Acenaphthene	mg/kg	0.1	3.6	4	60 - 140	90
		Phenanthrene	mg/kg	0.1	3.4	4	60 - 140	85
		Anthracene	mg/kg	0.1	3.6	4	60 - 140	89
		Fluoranthene	mg/kg	0.1	3.4	4	60 - 140	85
		Pyrene	mg/kg	0.1	3.4	4	60 - 140	84
		Benzo(a)pyrene	mg/kg	0.1	3.5	4	60 - 140	87
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	99
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	97
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
PCBs in Soll						I	Nethod: ME-(A	U)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296080.002		Arochlor 1260	mg/kg	0.2	0.3	0.4	60 - 140	77

Total Recoverable	Elements in Soil/W	aste Solids/Materials by ICPOES				Method:	ME-(AU)-[EN\	/JAN040/AN320
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296081.002		Arsenic, As	mg/kg	1	350	318.22	80 - 120	111
		Cadmium, Cd	mg/kg	0.3	4.6	4.81	70 - 130	96
		Chromium, Cr	mg/kg	0.5	42	38.31	80 - 120	109
		Copper, Cu	mg/kg	0.5	330	290	80 - 120	114
		Nickel, Ni	mg/kg	0.5	190	187	80 - 120	103
		Lead, Pb	mg/kg	1	95	89.9	80 - 120	106
		Zinc, Zn	mg/kg	2	290	273	80 - 120	107
TRH (Total Recove	rable Hydrocarbor	ns) in Soil				N	lethod: ME-(A	U)-[ENV]AN403
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296080.002		TRH C10-C14	mg/kg	20	34	40	60 - 140	85
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	81
		TRH C29-C36	 mg/kg	45	<45	40	60 - 140	69
	TRH F Bands	TRH >C10-C16	mg/kg	25	34	40	60 - 140	84
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	77
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	84
VOC's in Soil						N	lethod: ME-(A	U)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296082.002	Monocyclic	Benzene	 mg/kg	0.1	4.5	5	60 - 140	91
	Aromatic	Toluene	mg/kg	0.1	4.4	5	60 - 140	87
		Ethylbenzene	mg/kg	0.1	4.2	5	60 - 140	85
		m/p-xylene	mg/kg	0.2	8.5	10	60 - 140	85
		o-xylene	mg/kg	0.1	4.3	5	60 - 140	86
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.0	10	70 - 130	100
		d8-toluene (Surrogate)	mg/kg	-	10.0	10	70 - 130	100
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.8	10	70 - 130	98

mg/kg



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

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

Volatile Petroleum I	lydrocarbons in S	oil				N	lethod: ME-(A	U)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB296082.002		TRH C6-C10	mg/kg	25	85	92.5	60 - 140	92
		TRH C6-C9	mg/kg	20	76	80	60 - 140	95
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.0	10	70 - 130	100
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.8	10	70 - 130	98
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	59	62.5	60 - 140	95



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

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

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

Mercury in Soil						Meth	od: ME-(AL	J)-[ENV]AN312
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE256276.026	LB296091.004	Mercury	mg/kg	0.05	0.22	0.02900839220	0.2	98

OC Pesticides in Soil

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE256276.026	LB296080.004	Alpha BHC	mg/kg	0.1	<0.1	1.80233975773	-	-
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	0.01552123948	-	-
		Beta BHC	mg/kg	0.1	<0.1	5.29602176596	-	-
		Lindane (gamma BHC)	mg/kg	0.1	<0.1	4.96136068690	-	-
		Delta BHC	mg/kg	0.1	0.2	3.16683458643	0.2	85
		Heptachlor	mg/kg	0.1	0.3	0.73166867755	0.2	-229 ⑨
		Aldrin	mg/kg	0.1	0.2	0.00023402436	0.2	86
		Isodrin	mg/kg	0.1	<0.1	0	-	-
		Heptachlor epoxide	mg/kg	0.1	0.7	2.16659918462	-	-
		Gamma Chlordane	mg/kg	0.1	1.5	7.58347956453	-	-
		Alpha Chlordane	mg/kg	0.1	0.2	0.73053361532	-	-
		Alpha Endosulfan	mg/kg	0.2	<0.2	0	-	-
		o,p'-DDE*	mg/kg	0.1	<0.1	0	-	-
		p,p'-DDE	mg/kg	0.1	0.1	0.21363941683	-	-
		Dieldrin	mg/kg	0.2	0.3	0.19602476791	0.2	54
		Endrin	mg/kg	0.2	<0.2	0.04623950929	0.2	76
		Beta Endosulfan	mg/kg	0.2	<0.2	0.00040945094	-	-
		o,p'-DDD*	mg/kg	0.1	<0.1	0.00470533221	-	-
		p,p'-DDD	mg/kg	0.1	<0.1	0.05518360013	-	-
		Endrin aldehyde	mg/kg	0.1	<0.1	0.00850482574	-	-
		Endosulfan sulphate	mg/kg	0.1	<0.1	0.00964718722	-	-
		o,p'-DDT*	mg/kg	0.1	<0.1	0.05518360013	-	-
		p,p'-DDT	mg/kg	0.1	0.3	0.26941601927	0.2	24
		Endrin ketone	mg/kg	0.1	<0.1	0.00437870151	-	-
		Methoxychlor	mg/kg	0.1	<0.1	0.01119130166	-	-
		Mirex	mg/kg	0.1	<0.1	0.00154856162	-	-
		Total CLP OC Pesticides	mg/kg	1	4	11.89136124605	-	-
		Total OC VIC EPA	mg/kg	1	2	4.30788168152	-	-
	Surroga	ates Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.13240468354	-	90
Total Recoverable	e Elements in Soil/Waste Solid	s/Materials by ICPOES				Method: ME-	(AU)-[ENV	JAN040/AN320
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE256276.026	LB296081.004	Arsenic, As	mg/kg	1	53	8.05621410462	50	90
		Cadmium, Cd	mg/kg	0.3	43	0.21126662182	50	85
		Chromium, Cr	mg/kg	0.5	61	12.64748279608	50	96
		Copper, Cu	mg/kg	0.5	92	36.10110208516	50	111
		Nickel, Ni	mg/kg	0.5	50	6.66332333005	50	87
		Lead, Pb	mg/kg	1	81	38.55723857815	50	85
		Zinc, Zn	mg/kg	2	460	36.8557717183	50	248 ⑤



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

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

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

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

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.



Samples analysed as received.

Solid samples expressed on a dry weight basis.

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

- * NATA accreditation does not cover the performance of this service.
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- 6 LOR was raised due to sample matrix interference.
- ¹ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- [®] LOR was raised due to high conductivity of the sample (required dilution).
- t Refer to relevant report comments for further information.

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Company	Qualtest		Proir	vel No	NEV	V23P-020	8			Project Mene	Emma	Coleman				Sa	moteri	()	To	m Ha			6
Company (waltest		Droico	Name	Det	ailed Site	Investigation	Qurimbah		EDD Forma	Ennia	ooreman			-	Uand							
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			"Filered"													Email	for Inv	voice	ac	cou	nts(a))qualtest.com.	au
Contact Name	Emma Coleman		Tole' of UNE or						tals)							Email	tor Res	sults	tom	hall@q	gualtest.	com.au emmacoleman com.au billysnow@qua	@qualtest.com.au Itest.com.au
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Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request



SAMPLE RECEIPT ADVICE

- CLIENT DETAIL	S	LABORATORY DETA	ILS	
Contact	Emma Coleman	Manager	Huong Crawford	
Client	QUALTEST LABORATORY NSW PTY LTD	Laboratory	SGS Alexandria Environmental	
Address	2 MURRAY DWYER CIRCUIT MAYFIELD WEST NSW 2304	Address	Unit 16, 33 Maddox St Alexandria NSW 2015	
Telephone	61 2 49684468	Telephone	+61 2 8594 0400	
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499	
Email	emmacoleman@qualtest.com.au	Email	au.environmental.sydney@sgs.com	
Project	NEW23P-0208 Detailed Site Investigation	Samples Received	Tue 7/11/2023	
Order Number	NEW23P-0208	Report Due	Tue 14/11/2023	
Samples	1	SGS Reference	SE256312	

SUBMISSION DETAILS

This is to confirm that 1 sample was received on Tuesday 7/11/2023. Results are expected to be ready by COB Tuesday 14/11/2023. Please quote SGS reference SE256312 when making enquiries. Refer below for details relating to sample integrity upon receipt.

- Sample counts by matrix Date documentation received Samples received without headspace Sample container provider Samples received in correct containers Sample cooling method Complete documentation received
- 1 Soil 7/11/2023 Yes Other Lab Yes Ice Bricks Yes

Type of documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested Sufficient sample for analysis Samples clearly labelled

COC Yes 14.3°C Standard Yes Yes

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

COMMENTS -

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SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia Australia

t +61 2 8594 0400 www.sgs.com.au f +61 2 8594 0499



SAMPLE RECEIPT ADVICE

- CLIENT DETAILS -

Client QUALTEST LABORATORY NSW PTY LTD

Project NEW23P-0208 Detailed Site Investigation

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The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details . Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

- CLIENT DETAILS -

Client QUALTEST LABORATORY NSW PTY LTD

Project NEW23P-0208 Detailed Site Investigation

 SUMMARY	OF ANALYSIS			
No.	Sample ID	Mercury in Soil	Moisture Content	
001	T.1.11.23	1	1	

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details . Testing as per this table shall commence immediately unless the client intervenes with a correction .

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Examples Environment Leading Matrills PariAL

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Purchase Order Quote ID Ne	180622QUAN-3		Analyses When music av normal plane of SUITE occh mus he uerd in ath	Metals M8	Asbestos (w/w%)	Suite B7 (TRH, BTEX, PAH, Me	pH and CEC	Suite B13 (OCP, PCB)					500ml Plastic	250mL Plastic	125mL Plastic MMm1 Amhar Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	sbestos AS4964, WA Guidelines)	 ☐ Overnight (reportin ☐ Same day ◆ ☐ 2 days ◆ ☐ 5 days (Standard) ☐ Other(ng by 9am)∙ 2 1 day ◆ 3 3)
	Client Sample ID	Sampied Date/Time ddfmmlyy Nrmm	Matrix Solid (5) Water (W)																Other (A	Sample Cor / Dangerous Goods	mments Hazard Warning
	TP109 0.8-0.9	25/10/24	SOIL		l													1			
	TP110 0.0-0.1	25/10/24	SOIL		×	X											-	1	1		
	TP110 0.2-0.3	25/10/24	SOIL			ļ												1			
	TP111 0.0-0.1	25/10/24	SOIL		×	×		X						_		-		1	1		
	TP111 0.4-0.5	25/10/24	SOIL			×				_						-		1	1		
	TP111 0.8-0.9	25/10/24	SOIL													+	_	1			_
	TP112 0.0-0.1	25/10/24	SOIL		×	×							1			1		1	1		
	TP112 0.4-0.5	25/10/24	SOIL															1			
9	TP113 0.0-0.1	25/10/24	SOIL		×	×		X										1	1		
10	TP113 0.2-0.3	25/10/24	SOIL												T	_	_	1	_		
-Stand		Tota	al Counts		4	5		2										10	5	page 1/2	10.2.5
lethod of Shipmen	Courier (#)] Hand Delivere	d	D P	ostal	Na	ame			Signature			C	ate					Tomostum	18
	Received By			SYD	BNE ME	el Per	ADL NTI	L DRW	Signature	the second		Date		T	ime				-	Poport No.	15262
Laboratory Use	Only Received By		9410	SYD	BNE M	EL PER	ADL NT	LIDRW	Signature			Date		T	ime					Report Ne	10 303

Company

Address

Qualtest

2 Murray Dwyer Circuit NSW 2304

Sydney Laboratory

NEW23P-0208

Updated DSI - Ourimbah

____ DIISUARE CADOTALOTY Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066 02 9900 8400 EnviroSampleNSW@eurofins.com

Unit 1 21 Smallwood Place Muranie QLD 4172 07 3902 4600 EnviroSampleQLD@eurofins.com

Emma Coleman

Excel

Project Manage

EDD Format

Unit 2 91 Leach Highway Kewdale WA 6105

Sampler(s)

Handed over by

6 Monterey Road Dandenong South VIC 3175 - 🐓 🖉 🌌 03 8564 5000 EnviroSampleVic@eurofins.com 08 9251 9600 EnviroSampleWA@eurofins.com

accounts@qualtest.com.au

libbybetz@qualtest.com.au emmacoleman@qualtest.com.au

T.Hall

C	HAIN OF CUSTOD			Sydney Labora Jnit F3 Bld.F 16 N 9900 8400 E	tory Aars Road EnviroSam	d Lane Co npleNSW@	ve West NSW 2066 geurofins.com	Unit 1 21 S 07 3902 48	Laboratory mailwood Place Murarrie 600 EnviroSampleQLD@	QLD 4172)eurofins.com	Unit 2 91 L 08 9251 9	Leach Highway Kewdale W 600 EnviroSampleWA@e	(A 6105 eurofins.	.com			_	6 Mon 03 850	nterey Ro 64 5000	bad Dandenong South V EnviroSampleVic@eu	C 3175 71 9
Company	Qualtest	000000321	Project	t Ne I	NEW23F	P-0208			Project Manager	Emma Coleman			Se	smpler	(6)	-	T.Hal	1			
		0004	Project N	Name I	Updated	d DSI - (Durimbah		EDD Format ESdat, EQuiS etc	Excel			Hand	ded ov	er by				Sec.		
Address	2 Murray Dwyer Circuit NSW	2304	"bent										Emai	I for Ir	waice		acc	ount	s@q	ualtest.com.a	u an@qualtest.com.au
Contact Name	Emma Coleman		Town or Fill										Emai	il tar R	esuits Coi	ntainer	billysi tomha	now@q all@qua	jualtest altest.co	.com.au lewiscallina om.au Required Turna	n@qualtest.com.au round Time (TAT)
Phone Ne			15 alliad 5/			Metals)							C	lange o	ntainm	type & si	izie II rik	eestery		Defauli wii be	i days if not taked.
Special Directions			Analyse re requests, peace odo muet be used to	Metals M8	Destos (w/w/w)	RH, BTEX, PAH,	oH and CEC						tic	tic	Glace	vial	Bottle	HDPE)	WA Guidelines)	 Overnight (rep Same day 2 days 	+Surcharge will appry lorting by 9am}∙ □ 1 day ◆ □ 3
Purchase Order			s metals i SUITE o	A A A A A A A A A A A A A A A A A A A	ASI	в 7 (ТF	-						nL Plas	nL Plas	Amher	L VOA	PFASI	ass or I	AS4964,	5 days (Stand	ard)
Quote iD Na	180622QUAN-3		Whee			Suite							500r	250	1021	40m	500mL	Jar (Gl	Asbestos		,
Nt	Client Semple ID	Sampled Data/Time ddimnlyy tih.mm	Matrix Solid (5) Water (W)																Other (Sample / Dangerous Goo	Comments ids Hazard Warning
1	TP114 0.0-0.1	25/10/24	SOIL	1	×	×												1	1		
2	TP114 0.4-0.5	25/10/24	SOIL															1			
3	TP115 0.0-0.1	25/10/24	SOIL	1	×	X											_	1	1		
4	TP115 0.2-0.3	25/10/24	SOIL	ê.												_		1			
5	TP116 0.0-0.1	25/10/24	SOIL		×	X												1	1		
6	TP116 0.2-0.3	25/10/24	SOIL											_				1			_
7	THE SIT	7 25/10/24	SOIL			X								_			_	1	1		
8	D.25.10.24	25/10/24	SOIL			X									_	_	_	1			
9	T.25.10.24	25/10/24	SOIL												_			1			
10	D2.25.10.24	25/10/24	SOIL			X									_		_	1	-		11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
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	Received By			SYD BN	EIMEL	. PER	ADE NIL DRW	Signature	sa dien et an acteorium	of E-month Shikoring	the state	Territori d'Orgent Prime Inte		at office	West As	20123	000000	01 (10)	in the		

Company	Qualtest		Project N		NEW2	3P-0208				Project Manager	Emma	Coleman				Sa	mpler	(6)	1	.Hall				
			Project Nar	me	Updat	ed DSI -	Ourimba	h		EDD Format Esdat, EQuiS etc	Excel				0	Hand	led ov	er by						
ddress	2 Murray Dwyer Circui	it NSW 2304	s, j													Email	l for in	voice	ć	acco	unts	s@qu	altest.com.a	iu
tact Name	Emma Coleman		an of fille E pricing.													Email	l for Ra	sults	b t	bbybet illysno omhall	tz@qua)w@qu I@qual	altest.co ualtest.co itest.cor	om.au emmacolem :om.au lewiscallina m.au	ian@qualtest.com. in@qualtest.com.a
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			Analysee at please	<u>∞</u>	(%M)	, PAH, N	ы	TEX, PA														lnes)	🗋 Overnight (rej	♦Surcharge will app porting by 9am)♦
Directions			a nult be	detals M	estos (w	Н, ВТЕХ	H and CI	(TRH, B										lass	8	ottie	DE)	A Guldell	□ Same day ♦	☑ 1 day ♦
iase Order			a mediak ai Suinte co		Asb	: B7 (TRI	đ	Suite B4							i i i i i i i i i i i i i i i i i i i	L Plast	IL Plasti I placti	Amber G	VOA vi	PFAS Bo	ss or HC	S4964, W	— 2 days ◆ ☐ 5 days (Stand	Jard)
rote ID Ne	180622QUAN-3		Į.			Suite		05							e e	mone a	250m	200mL A	40mL	500mL	Jar (Gla	sbestos A	Other(124 3 12 12
	Client Sumple ID	Sampled Dete/Time duttoridyy teltroom	Matrix Sulki (S) Winter (W)																			Other (A	Sample / Dangerous God	Comments ods Hazard Warr
	T2.25.10.24	25/10/24	SOIL																		1			
	TB.25.10.24	25/10/24	SOIL					×				1						1	2					
	ASB TP01	25/10/24	Fragment																			1		
		Tola	I Counts	I				1	1									1	2		1	1	page 1/2	
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And the owner water w		11da Lug	Va					Wadin	Signature	(n)			Date	DUI	Qh1		Time		1	1: 2	50	2	Temperature	11 0



Qualtest 2 Murray Dwyer Circuit Mayfield West NSW 2304

Attention:

Emma Coleman

Report Project name Project ID Received Date **1153637-S** UPDATED DSI - OURIMBAH NEW23P-0208 Oct 28, 2024

Client Sample ID			TP101 0.0-0.1	TP102 0.0-0.1	TP103 0.0-0.1	TP104 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N24- Oc0070595	N24- Oc0070597	N24- Oc0070599	N24- Oc0070601
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	12	-	-	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	7.4	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	4.4	4.1	6.7	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.8	-
Chromium	5	mg/kg	18	22	15	-
Copper	5	mg/kg	15	16	61	-
Lead	5	mg/kg	160	20	75	-
Mercury	0.1	mg/kg	0.2	< 0.1	0.1	-
Nickel	5	mg/kg	< 5	13	9.0	-
Zinc	5	mg/kg	780	70	850	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.5	meq/100g	8.6	-	-	-
Sample Properties						
% Moisture	1	%	17	13	27	27
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	-	< 50	< 50	75
TRH C10-C36 (Total)	50	mg/kg	-	< 50	< 50	75
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	INT	61	79
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	-	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	< 20	< 20



NATA Accredited Accreditation Number 1261 Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.



Client Sample ID			TP101 0.0-0.1	TP102 0.0-0.1	TP103 0.0-0.1	TP104 0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Every fire a Demaile Ma			N24-	N24-	N24-	N24-
Eurofins Sample No.			OC0070595	000/059/	00070599	000/0601
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	1.4
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	1.7
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	2.0
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	0.7
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	1.1
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	< 0.5	1.0
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	0.8
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	1.2
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	0.9
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	1.4
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	1.4
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	8.5
2-Fluorobiphenyl (surr.)	1	%	-	84	85	104
p-Terphenyl-d14 (surr.)	1	%	-	82	81	113
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	< 100	100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	< 100	100

Client Sample ID			TP105 0.0-0.1	TP106 0.0-0.1	TP107 0.0-0.1	TP107 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			N24- Oc0070603	N24- Oc0070605	N24- Oc0070608	N24- Oc0070609
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	< 2	5.2	4.4	3.6
Cadmium	0.4	mg/kg	< 0.4	1.1	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	17	12	11
Copper	5	mg/kg	8.7	28	25	17
Lead	5	mg/kg	20	39	26	26
Mercury	0.1	mg/kg	< 0.1	0.1	0.1	< 0.1
Nickel	5	mg/kg	< 5	15	8.1	< 5
Zinc	5	mg/kg	310	130	150	49
Sample Properties						
% Moisture	1	%	11	27	34	17



Client Sample ID			TP105 0.0-0.1	TP106 0.0-0.1	TP107 0.0-0.1	TP107 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
			N24-	N24-	N24-	N24-
Eurofins Sample No.			Oc0070603	Oc0070605	Oc0070608	Oc0070609
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	64
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	64
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	63	64	61	52
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	<u>%</u>	98	98	92	94
p-Ierphenyl-d14 (surr.)	<u> </u>	%	94	93	94	92
I otal Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
IRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
IRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
1KH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
IRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100



Client Sample ID			TP105.0.0-0.1	TP106.0.0-0.1	TP107 0 0-0 1	TP107 0 4-0 5
Sample Matrix			Soil	Soil	Soil	Soil
			N24-	N24-	N24-	N24-
Eurofins Sample No.			Oc0070603	Oc0070605	Oc0070608	Oc0070609
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Organochlorine Pesticides		-				
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-HCH	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-HCH	0.05	mg/kg	-	< 0.05	-	-
d-HCH	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	0.07	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.05	mg/kg	-	< 0.05	-	-
Toxaphene	0.5	mg/kg	-	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	122	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	100	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	-	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	-	< 0.1	-	-
Total PCB*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	122	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	100	-	-



Client Sample ID			TP107 0.8-0.9	TP108 0.0-0.1	TP109 0.0-0.1	TP109 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
			N24-	N24-	N24-	N24-
Eurofins Sample No.			Oc0070610	Oc0070611	Oc0070613	Oc0070614
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Heavy Metals		•				
Arsenic	2	mg/kg	< 2	5.6	5.1	4.4
Cadmium	0.4	mg/kg	< 0.4	1.5	< 0.4	< 0.4
Chromium	5	mg/kg	6.4	18	20	13
Copper	5	mg/kg	6.7	48	27	25
Lead	5	mg/kg	37	160	33	30
Mercury	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	14	7.6	6.0
Zinc	5	mg/kg	34	700	110	110
Sample Properties						
% Moisture	1	%	21	23	24	12
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	69	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	160	< 50	< 50	58
TRH C10-C36 (Total)	50	mg/kg	229	< 50	< 50	58
втех						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	69	52	58	INT
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5


Client Sample ID			TP107 0.8-0.9	TP108 0.0-0.1	TP109 0.0-0.1	TP109 0.4-0.5	
Sample Matrix			Soil	Soil	Soil	Soil	
			N24-	N24-	N24-	N24-	
Eurofins Sample No.			Oc0070610	Oc0070611	Oc0070613	Oc0070614	
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	
Test/Reference	LOR	Unit					
Polycyclic Aromatic Hydrocarbons							
Pyrene	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5	
Total PAH*	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5	
2-Fluorobiphenyl (surr.)	1	<u>%</u>	108	100	92	87	
p-Terphenyl-d14 (surr.)	1	%	115	98	93	66	
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions	70					
TRH >C10-C16	50	ma/ka	< 50	< 50	< 50	< 50	
TRH >C16-C34	100	ma/ka	190	< 100	< 100	< 100	
TRH >C34-C40	100	ma/ka	130	< 100	< 100	< 100	
TRH >C10-C40 (total)*	100	ma/ka	320	< 100	< 100	< 100	
Organochlorine Pesticides	100	ing/kg	020	100			
Chlordonon Total	0.1	malka		- 0.1			
	0.05	mg/kg	-	< 0.05	-	-	
4.4-DDD	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	0.10	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
	0.05	mg/kg	-	< 0.05	-	-	
Endrin ketone	0.05	mg/kg		< 0.05		-	
a-HCH (Lindane)	0.05	mg/kg		< 0.05	_		
Hentachlor	0.05	mg/kg		< 0.05	_		
Heptachlor enovide	0.05	mg/kg		< 0.05	_		
Heyachlorobenzene	0.05	mg/kg	_	< 0.05		_	
Methovychlor	0.05	ma/ka	_	< 0.05	_	_	
Toyanhana	0.00	ma/ka	_	< 0.05	_	_	
Aldrin and Dieldrin (Total)*	0.05	mg/kg	_	0.18	_	_	
DDT + DDE + DDD (Total)*	0.05	ma/ka	_	< 0.05	_	_	
Vic EPA IWRG 621 OCP (Total)*	0.00	ma/ka	_	0.18	_	_	
Vic EPA IWRG 621 Other OCP (Total)*	0.1	ma/ka	_	< 0.1	_	_	
Dibuty/chlorendate (surr.)	1	<u>%</u>	_	114	_	_	
Tetrachloro-m-xylene (surr.)	1	%	_	104	-	_	
Polychlorinated Binhenvis	•	70		101			
Aroclor-1016	0.1	ma/ka	_	< 0.1	_		
Aroclor-1221	0.1	ma/ka	_	< 0.1	_	_	
Aroclor-1232	0.1	ma/ka	_	< 0.1	_	_	
Aroclor-1242	0.1	ma/ka	_	< 0.1	_	_	
Aroclor-1248	0.1	ma/ka	-	< 0.1	_	_	
Aroclor-1254	0.1	ma/ka		< 0.1	_	-	
Aroclor-1260	0.1	ma/ka	-	~ 0.1		-	
Total PCB*	0.1	ma/ka		< 0.1	_	-	
Dibuty/chlorendate (surr.)	1	 		114	_	-	
Tetrachloro-m-xylene (surr.)	1	%	-	104	-	-	
		/0			1	1	



Client Sample ID			TP110 0.0-0.1	TP111 0.0-0.1	TP111 0.4-0.5	TP112 0.0-0.1		
Sample Matrix			Soil	Soil	Soil	Soil		
			N24-	N24-	N24-	N24-		
Eurofins Sample No.			Oc0070616	Oc0070618	Oc0070619	Oc0070621		
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024		
Test/Reference	LOR	Unit						
Heavy Metals								
Arsenic	2	mg/kg	< 2	4.1	4.4	< 2		
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4		
Chromium	5	mg/kg	< 5	10	9.5	< 5		
Copper	5	mg/kg	10	2300	20	9.1		
Lead	5	mg/kg	190	220	32	15		
Mercury	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1		
Nickel	5	mg/kg	< 5	16	5.2	< 5		
Zinc	5	mg/kg	69	320	210	37		
Sample Properties								
% Moisture	1	%	32	19	13	16		
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions							
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20		
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20		
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50		
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50		
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50		
втех								
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1		
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1		
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1		
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2		
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1		
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3		
4-Bromofluorobenzene (surr.)	1	%	53	INT	62	60		
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions							
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50		
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20		
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20		
Polycyclic Aromatic Hydrocarbons								
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6		
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2		
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		



Client Sample ID			TP110 0.0-0.1	TP111 0.0-0.1	TP111 0.4-0.5	TP112 0.0-0.1		
Sample Matrix			Soil	Soil	Soil	Soil		
			N24-	N24-	N24-	N24-		
Eurofins Sample No.			Oc0070616	Oc0070618	Oc0070619	Oc0070621		
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024		
Test/Reference	LOR	Unit						
Polycyclic Aromatic Hydrocarbons								
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
2-Fluorobiphenyl (surr.)	1	%	91	81	90	86		
p-Terphenyl-d14 (surr.)	1	%	94	77	83	89		
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions							
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50		
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100		
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100		
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100		
Organochlorine Pesticides								
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-		
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-		
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-		
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-		
а-НСН	0.05	mg/kg	-	< 0.05	-	-		
Aldrin	0.05	mg/kg	-	< 0.05	-	-		
b-HCH	0.05	mg/kg	-	< 0.05	-	-		
d-HCH	0.05	mg/kg	-	< 0.05	-	-		
Dieldrin	0.05	mg/kg	-	< 0.05	-	-		
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-		
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-		
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-		
Endrin	0.05	mg/kg	-	< 0.05	-	-		
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-		
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-		
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	-	-		
Heptachlor	0.05	mg/kg	-	< 0.05	-	-		
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-		
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-		
	0.05	mg/kg	-	< 0.05	-	-		
	0.5	mg/kg	-	< 0.5	-	-		
	0.05	mg/kg	-	< 0.05	-	-		
	0.05	mg/kg	-	< 0.05	-	-		
Vic EPA IWRG 621 OCF (Total)	0.1	mg/kg	-	< 0.1	-	-		
Dibutylebloropdate (surr.)	1	0/.	-	117	-	-		
Tetrachloro-m-xylene (surr.)	1	/0 0/		77				
Polychlorinated Binbenyls	I	70	_		-	_		
Arcolor 1016	0.1	malka		- 0.1				
Aroclor 1221	0.1	mg/kg	-	< 0.1	-	-		
Aroclor 1222	0.1	mg/kg	-	< 0.1	-	-		
Aroclor 1242	0.1	mg/kg	-	< 0.1	-	-		
Aroclor-1248	0.1	mg/kg	-	< 0.1	-	-		
Aroclor-1254	0.1	ma/ka	-	< 0.1	-	-		
Aroclor-1260	0.1	ma/ka	-	~ 0.1	-	-		
Total PCB*	0.1	ma/ka	-	~ 0.1		-		
Dibuty/chlorendate (surr.)	1	%	-	117	_	_		
Tetrachloro-m-xylene (surr.)	1	%	-	77	-	-		



Sample Maintrix Soli Soli Soli Soli Soli Soli Soli Soli Soli Date Sampled Unit Unit Oct 25, 2024 Soli Soli Soli Soli Soli Soli Soli Soli Soli S	Client Sample ID			TP113 0.0-0.1	TP114 0.0-0.1	TP115 0.0-0.1	TP116 0.0-0.1		
Normal Normal<	Sample Matrix			Soil	Soil	Soil	Soil		
Euroline Sample No. Dec Coordination Oct 25, 2024 Oct 25, 2024 <td></td> <td></td> <td></td> <td>N24-</td> <td>N24-</td> <td>N24-</td> <td>N24-</td>				N24-	N24-	N24-	N24-		
Date Sampled LOR Unit Oct 25, 2024 C4 C4 Arsenia 2 mgkg <2	Eurofins Sample No.			Oc0070623	Oc0070625	Oc0070627	Oc0070629		
TestReference LOR Unit Image of the second seco	Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024		
Heavy Metals Image	Test/Reference	LOR	Unit						
Arsenic 2 mg/kg < 2 4.5 < 2 2.1 Cadmium 0.4 mg/kg <0.4	Heavy Metals								
	Arsenic	2	ma/ka	< 2	4.5	< 2	2.1		
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Cadmium	0.4	ma/ka	< 0.4	< 0.4	< 0.4	< 0.4		
Copper 6 mg/kg 15 30 16 14 Lead 5 mg/kg 21 35 11 12 Mercury 0.1 mg/kg c.5 20 c.5 c.5 Sample Properties 5 mg/kg c.5 20 c.5 c.5 Sample Properties 1 % 16 23 16 14 Total Recoverable Hydrocarbons - 1999 NEPM Fractoms 1 % 16 23 c.6 c.20	Chromium	5	ma/ka	< 5	14	5.8	6.0		
Lead 5 mg/kg 21 35 11 12 Marcury 0.1 mg/kg 0.1 0.1 0.1 0.1 0.1 0.1 Nckel 5 mg/kg 4.5 2.0 <.5	Copper	5	ma/ka	15	30	15	14		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Lead	5	ma/ka	21	35	11	12		
Nickel 5 mg/kg < 5 2.0 < 5 < 5 Zinc 5 mg/kg 150 2.40 15 12 Sample Properties 1 % 16 2.40 15 12 % Moisture 1 % 16 2.0 < 2.0	Mercury	0.1	ma/ka	0.1	0.1	< 0.1	0.1		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Nickel	5	ma/ka	< 5	20	< 5	< 5		
Sample Properties 1 $\%$ 16 23 16 14 % Moisture 1 $\%$ 16 23 16 14 Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C9 20 mg/kg <20	Zinc	5	ma/ka	150	240	15	12		
$\begin{tabular}{ c c c c } \hline 1 & 6 & 16 & 23 & 16 & 14 \\ \hline \begin{tabular}{ c c c c c c c } \hline Text C6-C9 & 20 & $	Sample Properties								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	% Moisture	1	%	16	23	16	14		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions	70	10	20	10			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		20	ma/ka	< 20	< 20	< 20	- 20		
$\begin{array}{ c c c c c c } \hline \begin{tabular}{ c c c c c } \hline \begin{tabular}{ c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20		
Introduct 30 Impring Code	TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50		
Introduction 3.0 Impring C.00 To C.00 C.00 BTR C10-C38 (Total) 50 mg/kg <50	TRH C29-C36	50	mg/kg	< 50	76	< 50	< 50		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	TRH C10-C36 (Total)	50	ma/ka	< 50	76	< 50	< 50		
Derx Benzene 0.1 mg/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 <th< td=""><td>BTEX</td><td></td><td>iiig/kg</td><td>< 50</td><td>10</td><td>< 30</td><td><u> </u></td></th<>	BTEX		iiig/kg	< 50	10	< 30	<u> </u>		
Delication 0.1 Img/kg < 0.1 < 0.1 < 0.1 < 0.1 Toluene 0.1 mg/kg < 0.1	Banzana	0.1	ma/ka	< 0.1	< 0.1	< 0.1	< 0.1		
Industrie 0.1 Img/kg < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	Toluono	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Ethylhonzono	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1		
Indepryon CO.2 Ing/kg CO.2 CO.1		0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.2		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Vylenes - Total*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	4-Bromofluorobenzene (surr.)	1	111g/ Kg %	< 0.5 60	74	< 0.5 76	81		
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions	70	00	74	10	01		
Naphthalene0.5Mg/kg< 0.5< 0.5< 0.5< 0.5< 0.5< 0.5TRH >C10-C16 less Naphthalene (F2)*N0150mg/kg< 20	Naphtholone ^{N02}	0.5	malka	< 0.5	< 0.5	:05	- 0.5		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	TPH > C10 C16 loss Norbtholons (E2)*N01	0.5 50	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		20	mg/kg	< 30	< 30	< 30	< 30		
Increase Image	TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20		
Projectic Aronatic Hydrocarbons 0.5 mg/kg <td>Polycyclic Aromatic Hydrocarbons</td> <td>20</td> <td>шу/ку</td> <td>< 20</td> <td>< 20</td> <td>< 20</td> <td>< 20</td>	Polycyclic Aromatic Hydrocarbons	20	шу/ку	< 20	< 20	< 20	< 20		
Benzo(a)pyrene TEQ (lower bound)0.5mg/kg<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5<0.5 <th< td=""><td></td><td>0.5</td><td></td><td>.05</td><td>.05</td><td>.0.5</td><td></td></th<>		0.5		.05	.05	.0.5			
Benzo(a)pyrene TEQ (intedidin bound)0.5Intg/kg0.60.60.60.6Benzo(a)pyrene TEQ (upper bound) *0.5mg/kg1.21.21.21.21.2Acenaphthene0.5mg/kg<0.5	Benzo(a)pyrene TEQ (lower bound)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
DerivativeDerivative0.5Indy/kg1.21.21.21.21.21.2Acenaphthene0.5mg/kg<0.5	Benzo(a)pyrene TEQ (inedialih bound)	0.5	mg/kg	0.0	0.0	0.0	0.0		
Acenaphthe0.3Ind/kg< 0.3< 0.3< 0.5< 0.5< 0.5< 0.5< 0.5Acenaphthylene0.5mg/kg< 0.5		0.5	mg/kg	1.2	1.2	1.2	1.2		
Actemplititylene0.5Ing/kg< 0.5< 0.5< 0.5< 0.5< 0.5Anthracene0.5mg/kg< 0.5		0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Antimacene0.3mg/kg< 0.3< 0.5< 0.5< 0.5< 0.5< 0.5Benz(a)anthracene0.5mg/kg< 0.5	Anthracono	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Deriz(a)antimaterie0.3mg/kg< 0.3< 0.5< 0.5< 0.5< 0.5< 0.5Benzo(a)pyrene0.5mg/kg< 0.5	Antinacene Bonz(a)anthracono	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Derizo(a)pytene0.3mg/kg< 0.3< 0.5< 0.5< 0.5< 0.5< 0.5Benzo(b&j)fluoranthene0.5mg/kg< 0.5	Benzo(2)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5		
Denzo(og),noorantiene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 <td>Benzo(b&i)fluoranthene^{N07}</td> <td>0.5</td> <td>mg/kg</td> <td>~ 0.5</td> <td>< 0.5 - 0.5</td> <td>< 0.5</td> <td>~ 0.5</td>	Benzo(b&i)fluoranthene ^{N07}	0.5	mg/kg	~ 0.5	< 0.5 - 0.5	< 0.5	~ 0.5		
Benzo(k)fluoranthene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 <td></td> <td>0.5</td> <td>ma/ka</td> <td>< 0.5</td> <td>< 0.5</td> <td>< 0.5</td> <td>< 0.5</td>		0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5		
Chrysene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 <t< td=""><td>Benzo(k)fluoranthene</td><td>0.5</td><td>ma/ka</td><td>~ 0.5</td><td>~ 0.5</td><td>~ 0.5</td><td>~ 0.5</td></t<>	Benzo(k)fluoranthene	0.5	ma/ka	~ 0.5	~ 0.5	~ 0.5	~ 0.5		
Dibenz(a.h)anthracene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 <td>Chrysene</td> <td>0.5</td> <td>ma/ka</td> <td>~ 0.5</td> <td>~ 0.5</td> <td>~ 0.5</td> <td>~ 0.5</td>	Chrysene	0.5	ma/ka	~ 0.5	~ 0.5	~ 0.5	~ 0.5		
Electrical gamma concerne 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.	Dibenz(a h)anthracene	0.5	ma/ka	< 0.5	~ 0.5	< 0.5	< 0.5		
Fluorene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 <t< td=""><td>Fluoranthene</td><td>0.5</td><td>ma/ka</td><td>~ 0.5</td><td>~ 0.5</td><td>~ 0.5</td><td>~ 0.5</td></t<>	Fluoranthene	0.5	ma/ka	~ 0.5	~ 0.5	~ 0.5	~ 0.5		
Indecide 0.5 Ing/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 <	Fluorene	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5		
Naphthalene 0.5 mg/kg < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	Indepo(1.2.3-cd)pyrepe	0.5	ma/ka	~ 0.5	~ 0.5	~ 0.5	~ 0.5		
	Nanhthalene	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5		
Phenanthrene 0.5 mg/kg <0.5 <0.5 <0.5 <0.5 <0.5	Phenanthrene	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5		



Client Sample ID			TP113 0.0-0.1	TP114 0.0-0.1	TP115 0.0-0.1	TP116 0.0-0.1		
Sample Matrix			Soil	Soil	Soil	Soil		
			N24-	N24-	N24-	N24-		
Eurofins Sample No.			Oc0070623	Oc0070625	Oc0070627	Oc0070629		
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024		
Test/Reference	LOR	Unit						
Polycyclic Aromatic Hydrocarbons		1						
Pyrene	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5		
Total PAH*	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5		
2-Fluorobiphenyl (surr.)	1	%	85	92	85	78		
p-Terphenyl-d14 (surr.)	1	%	78	91	76	66		
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions							
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50		
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100		
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100		
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100		
Organochlorine Pesticides								
Chlordanes - Total	0.1	ma/ka	< 0.1	-	-	-		
4.4'-DDD	0.05	ma/ka	< 0.05	-	-	-		
4.4'-DDE	0.05	ma/ka	< 0.05	-	-	-		
4.4'-DDT	0.05	ma/ka	< 0.05	-	-	-		
a-HCH	0.05	mg/kg	< 0.05	-	-	-		
Aldrin	0.05	mg/kg	< 0.05	-	-	-		
b-HCH	0.05	mg/kg	< 0.05	-	-	-		
d-HCH	0.05	mg/kg	< 0.05	-	-	-		
Dieldrin	0.05	mg/kg	< 0.05	-	-	-		
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-		
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-		
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-		
Endrin	0.05	mg/kg	< 0.05	-	-	-		
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-		
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-		
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-	-		
Heptachlor	0.05	mg/kg	< 0.05	-	-	-		
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-		
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-		
Methoxychlor	0.05	mg/kg	< 0.05	-	-	-		
Toxaphene	0.5	mg/kg	< 0.5	-	-	-		
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-		
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-		
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-		
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-		
Dibutylchlorendate (surr.)	1	%	115	-	-	-		
Tetrachloro-m-xylene (surr.)	1	%	81	-	-	-		
Polychlorinated Biphenyls		1						
Aroclor-1016	0.1	mg/kg	< 0.1	-	-	-		
Aroclor-1221	0.1	mg/kg	< 0.1	-	-	-		
Aroclor-1232	0.1	mg/kg	< 0.1	-	-	-		
Aroclor-1242	0.1	mg/kg	< 0.1	-	-	-		
Aroclor-1248	0.1	mg/kg	< 0.1	-	-	-		
Arocior-1254	0.1	mg/kg	< 0.1	-	-	-		
Arocior-1260	0.1	mg/kg	< 0.1	-	-	-		
I Otal PCB*	0.1	mg/kg	< 0.1	-	-	-		
Dibutyicniorendate (surr.)	1	<u>%</u>	115	-	-	-		
i etrachioro-m-xyiene (surr.)	1	%	81	-	-			



Client Sample ID			SS117	D.25.10.24	D2.25.10.24	
Sample Matrix			Soil	Soil	Soil	
Eurofine Sample No			N24-	N24-	N24-	
Euronn's Sample No.			00070031	0.0070032	00070834	
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	
Test/Reference	LOR	Unit				
Heavy Metals		1				
Arsenic	2	mg/kg	6.0	< 2	9.6	
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.5	
Chromium	5	mg/kg	12	< 5	31	
Copper	5	mg/kg	22	15	23	
Lead	5	mg/kg	24	21	310	
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	
Nickel	5	mg/kg	8.1	< 5	15	
	5	mg/kg	67	150	1200	
Sample Properties		1				
% Moisture	1	%	61	18	18	
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions	T				
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	
TRH C29-C36	50	mg/kg	< 50	110	< 50	
TRH C10-C36 (Total)	50	mg/kg	< 50	110	< 50	
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	
4-Bromofluorobenzene (surr.)	1	%	69	INT	95	
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	



Client Sample ID			SS117	D.25.10.24	D2.25.10.24
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			N24- Oc0070631	N24- Oc0070632	N24- Oc0070634
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	82	85	82
p-Terphenyl-d14 (surr.)	1	%	70	72	75
Total Recoverable Hydrocarbons - 2013 NEPM Fract	tions				
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	130	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	130	< 100



Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Conductivity (1:5 aqueous extract at 25 °C as rec.)	Sydney	Oct 29, 2024	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Oct 30, 2024	28 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
pH (1:5 Aqueous extract at 25 °C as rec.)	Sydney	Oct 29, 2024	7 Days
- Method: LTM-GEN-7090 pH by ISE			
Metals M8	Sydney	Oct 29, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Oct 28, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			
Eurofins Suite B4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Organochlorine Pesticides	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Oct 29, 2024	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			

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web: web: web: web: web: web: web: web:	ww.eurofins.com.au	Melbourne 6 Monterey R Dandenong S VIC 3175 +61 3 8564 51 NATA# 1261 Site# 1254	Geelong oad 19/8 Lew outh Grovedal VIC 3216 900 +61 3 85 NATA# 12 Site# 256 1400	alan Street le 64 5000 261 403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Mitchell ACT 2911 +61 2 6113 80 NATA# 1261 Site# 25466	Street 91	Brisba 1/21 S Muran QLD T: +61 NATA# Site# 2	ane imallwoo rie 4172 7 3902 - # 1261 20794 &	d Place 4600 2780	Newca 1/2 Fro Mayfie NSW 2 +61 2 NATA# Site# 2	astle ost Drive Id West 2304 4968 84 1261 25079	48	Pert 46-4 Wels WA +61 NAT	h 8 Banks shpool 6106 8 6253 4 A# 2377 # 2370 &	sia Road 4444		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Pro Pro	oject Name: oject ID:	UPDATED DSI NEW23P-0208	- OURIMBA	Η														Eurofine	Analytical Servio	ces Manager : /	Andrew Black
			Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4									
Melk	ourne Laborato	ory - NATA # 12	61 Site # 12	254										х							
Sydi	ney Laboratory	- NATA # 1261	Site # 18217	7			Х	X		Х	Х	Х	Х	Х	Х	X					
May	field West Labo	ratory - NATA	# 1261 Site	# 25079					Х												
Exte	rnal Laboratory	, I																			
No	Sample ID	Sample Date	Sampling Time	Mat	irix L	.AB ID															
1	TP101 0.0-0.1	Oct 25, 2024		Soil	N24-C	Dc0070595	Х			Х	Х		Х	Х							
2	TP101 0.2-0.3	Oct 25, 2024		Soil	N24-C	Dc0070596		Х													
3	TP102 0.0-0.1	Oct 25, 2024		Soil	N24-C	Dc0070597	Х						Х		Х						
4	TP102 0.2-0.3	Oct 25, 2024		Soil	N24-C	Dc0070598		Х													
5	TP103 0.0-0.1	Oct 25, 2024		Soil	N24-C	Dc0070599	Х						Х		Х						
6	TP103 0.3-0.4	Oct 25, 2024		Soil	N24-C	Dc0070600		X													
7	TP104 0.0-0.1	Oct 25, 2024		Soil	N24-C	Dc0070601							Х			X					
8	TP104 0.3-0.4	Oct 25, 2024		Soil	N24-C	Dc0070602		X													
9	TP105 0.0-0.1	Oct 25, 2024		Soil	N24-C	Dc0070603	Х						Х		Х						
10	TP105 0.4-0.5	Oct 25, 2024		Soil	N24-C	Dc0070604		X													
11 TP106 0.0-0.1 Oct 25, 2024 Soil N24-Oc0070605						Dc0070605	Х					Х	Х		Х						
12	TP106 0.4-0.5	Oct 25, 2024		Soil	N24-C	Dc0070606		Х]				

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web: w email:	ww.eurofins.com.au	Melbourne 6 Monterey F Dandenong VIC 3175 +61 3 8564 5 NATA# 1261 Site# 1254	Road	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Mitchell ACT 2911 +61 2 6113 80 NATA# 1261 Site# 25466	Street	Brisba 1/21 S Muran QLD 4 T: +61 NATA# Site# 2	ane imallwoo rie 4172 7 3902 # 1261 20794 &	od Place 4600 2780	Newca 1/2 Fro Mayfie NSW 2 +61 2 NATA# Site# 2	astle ost Drive eld West 2304 4968 84 # 1261 25079	48	Pert 46-4 Wels WA +61 NAT	h 8 Banks shpool 6106 8 6253 4 A# 2377 # 2370 &	sia Road 4444 & 2554		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Sample Detail Melbourne Laboratory - NATA # 1261 Site # 1254							Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4					
Mel	bourne Laborato	ory - NATA # 1	261 Sit	e # 1254										Х							
Syd	ney Laboratory	- NATA # 1261	Site #	18217			Х	Х		Х	Х	Х	Х	Х	Х	Х					
May	field West Labo	ratory - NATA	# 1261	Site # 25079					Х												
13	TP106 0.6-0.7	Oct 25, 2024		Soil	N24-C	0c0070607		X													
14	TP107 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070608	Х						Х		Х						
15	TP107 0.4-0.5	Oct 25, 2024		Soil	N24-C	0c0070609							Х		Х						
16	TP107 0.8-0.9	Oct 25, 2024		Soil	N24-C	0c0070610							Х		Х						
17	TP108 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070611	Х					Х	Х		Х						
18	TP108 0.2-0.3	Oct 25, 2024		Soil	N24-C	0c0070612		X													
19	TP109 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070613	Х						Х		Х						
20	TP109 0.4-0.5	Oct 25, 2024		Soil	N24-C	0c0070614							Х		Х						
21	TP109 0.8-0.9	Oct 25, 2024		Soil	N24-C	0c0070615		X													
22	TP110 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070616	Х						Х		Х						
23	TP110 0.2-0.3	Oct 25, 2024		Soil	N24-C	0c0070617		X													
24 TP111 0.0-0.1 Oct 25, 2024 Soil N24-Oc0070618						0c0070618	Х					Х	Х		Х						
25 TP111 0.4-0.5 Oct 25, 2024 Soil N24-Oc0070619											Х		Х								
26	TP111 0.8-0.9	Oct 25, 2024		Soil	N24-C	0c0070620		Х													
27	TP112 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070621	Х						Х		Х						

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web: www.eu email: Enviro	urofins.com.au pSales@eurofins.cc	Melbourne 6 Monterey Dandenon VIC 3175 +61 3 8564 om NATA# 126 Site# 1254	e / Road g South 4 5000 51	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Mitchell ACT 2911 +61 2 6113 80 NATA# 1261 Site# 25466	Brisbane e Street 1/21 Smallwood Place Murarrie QLD 4172 091 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780			Newca 1/2 Fro Mayfie NSW 2 +61 2 NATA# Site# 2	astle ost Drive eld West 2304 4968 84 # 1261 25079	48	Pert 46-4 Wels WA +61 NAT Site	h 8 Banks shpool 6106 8 6253 A# 2377 # 2370 8	sia Road 4444 , & 2554		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402	
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Projec Projec	ct Name: ct ID:	UPDATED D NEW23P-020	SI - OU 08	IRIMBAH														Eurofins	Analytical Servic	ces Manager :	Andrew Black
Sample Detail Melbourne Laboratory - NATA # 1261 Site # 1254							Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4					
Melbou	rne Laborato	ory - NATA #	1261 S	ite # 1254										Х							
Sydney	Laboratory	- NATA # 126	1 Site	# 18217			Х	X		X	X	Х	Х	Х	Х	X					
Mayfield	d West Labo	ratory - NAT/	A # 126	1 Site # 25079					X												
28 TP	P112 0.4-0.5	Oct 25, 2024	,	Soil	N24-C	0c0070622		X													
29 TP	113 0.0-0.1	Oct 25, 2024		Soil	N24-C	00070623	X					X	Х		X						
30 TP	113 0.2-0.3	Oct 25, 2024		Soil	N24-C	00070624		X													
31 TP	2114 0.0-0.1	Oct 25, 2024		Soil	N24-C	00070625	X	X					X		X						
32 TP	2114 0.4-0.5	Oct 25, 2024		Soll	N24-C	0070626	~	X					~		v						
33 TP	2115 0.0-0.1	Oct 25, 2024	•	Soll	N24-C	0070627	×	V					×		~						
34 TP	2115 0.2-0.3	Oct 25, 2024	•	Soll	N24-C	0070620	v						v		v						
30 TP	2116 0.0-0.1	Oct 25, 2024	•	Soil	N24-C	00070620	^	v					^		^						
27 00	2117	Oct 25, 2024	·	Sul	N24-C	00070624							v		~						
20 0	25 10 24	Oct 25, 2024	·	Sul	N24-C	00070633							~ 		~						
38 D.25.10.24 Oct 25, 2024 Soil N24-Oc0070632 39 T.25.10.24 Oct 25, 2024 Soil N24-Oc0070632					00070632		~					^		<u> </u>							
39 1.25.10.24 Oct 25, 2024 Soil N24-Oc0070633 40 D2.25.10.24 Oct 25, 2024 Soil N24-Oc0070633											v		v								
40 D2	2.20.10.24	Oct 25, 2024	·		N24-C	00070635		v		-			^								
42 TR	3 25 10 24	Oct 25, 2024		Water	N24-C	0070636										x					
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web: w	ab: www.eurofins.com.au nail: EnviroSales@eurofins.com	S	ABN: 50 005 085 Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000	Instruction Geelong Sydney Ielbourne Geelong Sydney Monterey Road 19/8 Lewalan Street 179 Magc Dandenong South Grovedale Girraweer IC 3175 VIC 3216 NSW 214 61 3 8564 5000 +61 3 8564 5000 +61 2 99C JATA# 1261 NATA# 1261 NATA# 1261 isite# 1254 Site# 25403 Site# 182		Sydney Canberra t179 Magowar Road Unit 1,2 Dacre St Girraween Mitchell NSW 2145 ACT 2911 +61 2 9900 8400 +61 2 6113 8091 NATA# 1261 NATA# 1261 Site# 18217 Site# 25466		Street	Brisb 1/21 S Murar QLD T: +61	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261		Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261		ABN 46-4 Wels WA +61	l: 91 05 0 h 8 Banks shpool 6106 8 6253 4	0159 898 iia Road 1444	3	NZBN: 9429046024 Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568	
email:	EnviroSales@eurofins.c	m	NATA# 1261 Site# 1254	NATA# 1261 Site# 25403	1 3	NATA# 1261 Site# 18217	NATA# 1261 Site# 25466		NATA#	# 1261 20794 &	2780	NATA# Site# 2	ŧ 1261 25079		NAT/ Site#	A# 2377 # 2370 &	2554		IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402
Co Ao Pr	ompany Name: Idress:	Qualt 2 Mur Mayfi NSW	est rray Dwyer C eld West 2304	Circuit									Or Re Ph Fa	der Ne port # one: k:	0.: !:	115: 02 4 02 4	3637 1968 4 1960 9	468 775		Received: Due: Priority: Contact Name:	Oct 28, 2024 Oct 30, 2024 1 Day Emma Cole	4 11:30 AM 4 man
Pr	oject ID:	NEW	23P-0208																Eurofins	Analytical Servio	ces Manager : .	Andrew Black
			Sam	ple Detail				Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4					
Melbourne Laboratory - NATA # 1261 Site # 1254															Х							
Sydney Laboratory - NATA # 1261 Site # 18217								Х	Х		х	Х	Х	Х	Х	х	х					
Mayfield West Laboratory - NATA # 1261 Site # 25079									Х													
43 ASB TP01 Oct 25, 2024 Building Materials N24-Oc00706				-Oc0070637			х															
Tes	t Counts		15	19	19	1	1	4	23	1	21	2										



Internal Quality Control Review and Glossary

General

- 1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
- 2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
- 3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
- 4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- 5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- 6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
- 7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- 8. Samples were analysed on an 'as received' basis.
- 9. Information identified in this report with blue colour indicates data provided by customers that may have an impact on the results.
- 10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units		
mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
μg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

Unite

••••••	
APHA	American Public Health Association
CEC	Cation Exchange Capacity
сос	Chain of Custody
СР	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
твто	Tributyltin oxide (bis-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 - 150%, VOC recoveries 50 - 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

- 1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- 2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
- 3. pH and Free Chlorine analysed in the laboratory Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- 4. Recovery Data (Spikes & Surrogates) where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- 5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.



Quality Control Results

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank						
Conductivity (1:5 aqueous extract at 25 °C as rec.)	uS/cm	< 10		10	Pass	
Method Blank						
Heavy Metals						
Arsenic	mg/kg	< 2		2	Pass	
Cadmium	mg/kg	< 0.4		0.4	Pass	
Chromium	mg/kg	< 5		5	Pass	
Copper	mg/kg	< 5		5	Pass	
Lead	mg/kg	< 5		5	Pass	
Mercury	mg/kg	< 0.1		0.1	Pass	
Nickel	mg/kg	< 5		5	Pass	
Zinc	mg/kg	< 5		5	Pass	
Method Blank	1 0 0 1					
Cation Exchange Capacity						
Cation Exchange Capacity	meg/100g	< 0.5		0.5	Pass	
Method Blank						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	mg/kg	< 20		20	Pass	
TRH C15-C28	ma/ka	< 50		50	Pass	
TRH C29-C36	ma/ka	< 50		50	Pass	
Method Blank				+		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	ma/ka	< 50		50	Pass	
TRH >C16-C34	ma/ka	< 100		100	Pass	
TRH >C34-C40	ma/ka	< 100		100	Pass	
Method Blank						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	ma/ka	< 20		20	Pass	
TRH C15-C28	ma/ka	< 50		50	Pass	
TRH C29-C36	ma/ka	< 50		50	Pass	
Method Blank			н н	+		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	ma/ka	< 50		50	Pass	
TRH >C16-C34	ma/ka	< 100		100	Pass	
TRH >C34-C40	ma/ka	< 100		100	Pass	
Method Blank				1		
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	ma/ka	< 0.5		0.5	Pass	
Acenaphthylene	ma/ka	< 0.5		0.5	Pass	
Anthracene	ma/ka	< 0.5		0.5	Pass	
Benz(a)anthracene	ma/ka	< 0.5		0.5	Pass	
Benzo(a)pyrene	ma/ka	< 0.5		0.5	Pass	
Benzo(b&i)fluoranthene	ma/ka	< 0.5		0.5	Pass	
Benzo(a,h,i)pervlene	ma/ka	< 0.5		0.5	Pass	
Benzo(k)fluoranthene	ma/ka	< 0.5		0.5	Pass	
Chrysene	ma/ka	< 0.5		0.5	Pass	
Dibenz(a,h)anthracene	ma/ka	< 0.5		0.5	Pass	
Fluoranthene	ma/ka	< 0.5		0.5	Pass	
Fluorene	ma/ka	< 0.5		0.5	Pass	
Indeno(1,2,3-cd)pyrene	ma/ka	< 0.5		0.5	Pass	
Naphthalene	ma/ka	< 0.5		0.5	Pass	
Phenanthrene	mg/kg	< 0.5		0.5	Pass	



Test	Units	Result 1	Ad	cceptance Limits	Pass Limits	Qualifying Code
Pyrene	mg/kg	< 0.5		0.5	Pass	
Method Blank						
Organochlorine Pesticides						
Chlordanes - Total	mg/kg	< 0.1		0.1	Pass	
4.4'-DDD	mg/kg	< 0.05		0.05	Pass	
4.4'-DDE	mg/kg	< 0.05		0.05	Pass	
4.4'-DDT	mg/kg	< 0.05		0.05	Pass	
a-HCH	mg/kg	< 0.05		0.05	Pass	
Aldrin	mg/kg	< 0.05		0.05	Pass	
b-HCH	mg/kg	< 0.05		0.05	Pass	
d-HCH	mg/kg	< 0.05		0.05	Pass	
Dieldrin	mg/kg	< 0.05		0.05	Pass	
Endosulfan I	mg/kg	< 0.05		0.05	Pass	
Endosulfan II	mg/kg	< 0.05		0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05		0.05	Pass	
Endrin	mg/kg	< 0.05		0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05		0.05	Pass	
Endrin ketone	mg/kg	< 0.05		0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05		0.05	Pass	
Heptachlor	mg/kg	< 0.05		0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05		0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05		0.05	Pass	
Methoxychlor	mg/kg	< 0.05		0.05	Pass	
Toxaphene	mg/kg	< 0.5		0.5	Pass	
Method Blank						
Polychlorinated Biphenyls						
Aroclor-1016	mg/kg	< 0.1		0.1	Pass	
Aroclor-1221	mg/kg	< 0.1		0.1	Pass	
Aroclor-1232	mg/kg	< 0.1		0.1	Pass	
Aroclor-1242	mg/kg	< 0.1		0.1	Pass	
Aroclor-1248	mg/kg	< 0.1		0.1	Pass	
Aroclor-1254	mg/kg	< 0.1		0.1	Pass	
Aroclor-1260	mg/kg	< 0.1		0.1	Pass	
Total PCB*	mg/kg	< 0.1		0.1	Pass	
Method Blank						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	mg/kg	< 20		20	Pass	
Method Blank		- I	- i i			
BTEX	1					
Benzene	mg/kg	< 0.1		0.1	Pass	
Toluene	mg/kg	< 0.1		0.1	Pass	
Ethylbenzene	mg/kg	< 0.1		0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2		0.2	Pass	
o-Xylene	mg/kg	< 0.1		0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3		0.3	Pass	
Method Blank						
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene	mg/kg	< 0.5		0.5	Pass	
TRH C6-C10	mg/kg	< 20		20	Pass	
Method Blank						
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/kg	< 0.5		0.5	Pass	
Acenaphthylene	mg/kg	< 0.5		0.5	Pass	
Anthracene	mg/kg	< 0.5		0.5	Pass	



Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Benz(a)anthracene	mg/kg	< 0.5		0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5		0.5	Pass	
Benzo(b&i)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5		0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Chrysene	mg/kg	< 0.5		0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5		0.5	Pass	
Fluoranthene	mg/kg	< 0.5		0.5	Pass	
Fluorene	mg/kg	< 0.5		0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5		0.5	Pass	
Naphthalene	mg/kg	< 0.5		0.5	Pass	
Phenanthrene	mg/kg	< 0.5		0.5	Pass	
Pyrene	mg/kg	< 0.5		0.5	Pass	
Method Blank						
Organochlorine Pesticides						
Chlordanes - Total	mg/kg	< 0.1		0.1	Pass	
4.4'-DDD	mg/kg	< 0.05		0.05	Pass	
4.4'-DDE	mg/kg	< 0.05		0.05	Pass	
4.4'-DDT	mg/kg	< 0.05		0.05	Pass	
a-HCH	mg/kg	< 0.05		0.05	Pass	
Aldrin	mg/kg	< 0.05		0.05	Pass	
b-HCH	mg/kg	< 0.05		0.05	Pass	
d-HCH	mg/kg	< 0.05		0.05	Pass	
Dieldrin	mg/kg	< 0.05		0.05	Pass	
Endosulfan I	mg/kg	< 0.05		0.05	Pass	
Endosulfan II	mg/kg	< 0.05		0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05		0.05	Pass	
Endrin	mg/kg	< 0.05		0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05		0.05	Pass	
Endrin ketone	mg/kg	< 0.05		0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05		0.05	Pass	
Heptachlor	mg/kg	< 0.05		0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05		0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05		0.05	Pass	
Methoxychlor	mg/kg	< 0.05		0.05	Pass	
Toxaphene	mg/kg	< 0.5		0.5	Pass	
Method Blank			1	1		
Polychlorinated Biphenyls						
Aroclor-1016	mg/kg	< 0.1		0.1	Pass	
Aroclor-1221	mg/kg	< 0.1		0.1	Pass	
Aroclor-1232	mg/kg	< 0.1		0.1	Pass	
Aroclor-1242	mg/kg	< 0.1		0.1	Pass	
Aroclor-1248	mg/kg	< 0.1		0.1	Pass	
Aroclor-1254	mg/kg	< 0.1		0.1	Pass	
Aroclor-1260	mg/kg	< 0.1		0.1	Pass	
Total PCB*	mg/kg	< 0.1		0.1	Pass	
LCS - % Recovery	-		I I	1		
Conductivity (1:5 aqueous extract at 25 °C as rec.)	%	98		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	95		80-120	Pass	
Cadmium	%	97		80-120	Pass	
Chromium	%	99		80-120	Pass	
Copper	%	100		80-120	Pass	



Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Lead	%	104		80-120	Pass	
Mercury	%	109		80-120	Pass	
Nickel	%	99		80-120	Pass	
Zinc	%	101		80-120	Pass	
LCS - % Recovery		1				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	%	85		70-130	Pass	
LCS - % Recovery		I	1 1	T		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	%	82		70-130	Pass	
LCS - % Recovery		1		T		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	%	79		70-130	Pass	
LCS - % Recovery		-		1		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	%	77		70-130	Pass	
LCS - % Recovery		1				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	%	120		70-130	Pass	
Acenaphthylene	%	128		70-130	Pass	
Anthracene	%	115		70-130	Pass	
Benz(a)anthracene	%	113		70-130	Pass	
Benzo(a)pyrene	%	112		70-130	Pass	
Benzo(b&j)fluoranthene	%	98		70-130	Pass	
Benzo(g.h.i)perylene	%	107		70-130	Pass	
Benzo(k)fluoranthene	%	124		70-130	Pass	
Chrysene	%	117		70-130	Pass	
Dibenz(a.h)anthracene	%	107		70-130	Pass	
Fluoranthene	%	95		70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	94		70-130	Pass	
Naphthalene	%	123		70-130	Pass	
Phenanthrene	%	11/		70-130	Pass	
Pyrene loop at Deservoire	%	81		70-130	Pass	
LCS - % Recovery		1		1		
Chlordonos Total	0/	70		70.100	Deee	
	% 0/	72		70-130	Pass	
		07		70-130	Pass	
	- 70 0/	102		70-130	Pass	
2-HCH	70 0/	102		70-130	Pass	
Aldrin	70 0/	103		70-130	Pass	
	70 %	125		70-130	Pass	
	%	103		70-130	Pass	
Dieldrin	%	88		70-130	Pass	
Endosulfan I	%	83		70-130	Pass	
Endosulfan II	%	74		70-130	Pass	
Endosulfan sulphate	%	99		70-130	Pass	
Endrin	%	103		70-130	Pass	
Endrin aldehvde	%	95		70-130	Pass	
Endrin ketone	%	79		70-130	Pass	
g-HCH (Lindane)	%	130		70-130	Pass	
Heptachlor	%	125		70-130	Pass	
Heptachlor epoxide	%	82		70-130	Pass	
Hexachlorobenzene	%	122		70-130	Pass	



Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Methoxychlor	%	98		70-130	Pass	
LCS - % Recovery						
Polychlorinated Biphenyls						
Aroclor-1016	%	102		70-130	Pass	
Aroclor-1260	%	72		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	%	70		70-130	Pass	
LCS - % Recovery						
втех						
Benzene	%	92		70-130	Pass	
Toluene	%	94		70-130	Pass	
Ethylbenzene	%	80		70-130	Pass	
m&p-Xylenes	%	113		70-130	Pass	
o-Xylene	%	85		70-130	Pass	
Xylenes - Total*	%	104		70-130	Pass	
LCS - % Recovery					-	
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	-					
Naphthalene	%	89		70-130	Pass	
TRH C6-C10	%	73		70-130	Pass	
LCS - % Recovery						
Polycyclic Aromatic Hydrocarbons	-					
Acenaphthene	%	112		70-130	Pass	
Acenaphthylene	%	107		70-130	Pass	
Anthracene	%	107		70-130	Pass	
Benz(a)anthracene	%	104		70-130	Pass	
Benzo(a)pyrene	%	108		70-130	Pass	
Benzo(b&j)fluoranthene	%	117		70-130	Pass	
Benzo(g.h.i)perylene	%	101		70-130	Pass	
Benzo(k)fluoranthene	%	115		70-130	Pass	
Chrysene	%	113		70-130	Pass	
Dibenz(a.h)anthracene	%	75		70-130	Pass	
Fluoranthene	%	107		70-130	Pass	
Fluorene	%	112		70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	87		70-130	Pass	
Naphthalene	%	106		70-130	Pass	
Phenanthrene	%	107		70-130	Pass	
Pyrene	%	105		70-130	Pass	
LCS - % Recovery		1	1	1		
Organochlorine Pesticides	1					
Chlordanes - Total	%	97		70-130	Pass	
4.4'-DDD	%	93		70-130	Pass	
4.4'-DDE	%	105		70-130	Pass	
4.4'-DDT	%	92		70-130	Pass	
а-НСН	%	103		70-130	Pass	
Aldrin	%	102		70-130	Pass	
b-HCH	%	103		70-130	Pass	
d-HCH	%	100		70-130	Pass	
Dieldrin	%	106		70-130	Pass	
Endosulfan I	%	108		70-130	Pass	
Endosulfan II	%	98		70-130	Pass	
Endosulfan sulphate	%	98		70-130	Pass	
Endrin	%	100		70-130	Pass	
Endrin aldehyde	%	83		70-130	Pass	



Test			Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Endrin ketone			%	92		70-130	Pass	
g-HCH (Lindane)			%	103		70-130	Pass	
Heptachlor			%	99		70-130	Pass	
Heptachlor epoxide			%	99		70-130	Pass	
Hexachlorobenzene			%	105		70-130	Pass	
Methoxychlor			%	94		70-130	Pass	
I CS - % Recovery			,,,			10.00	1 400	
Polychlorinated Binhenvis								
Aroclor-1016			0/_	00		70-130	Pass	
Aroclor-1260			0/_	101		70-130	Dass	
Alociol 1200		04	/0	101		Accentance	Pass	Qualifying
Test	Lab Sample ID	Source	Units	Result 1		Limits	Limits	Code
Spike - % Recovery							_	
Heavy Metals				Result 1				
Nickel	S24-Oc0074279	NCP	%	102		75-125	Pass	
Spike - % Recovery	•							
Total Recoverable Hydrocarbons -	1999 NEPM Fract	ions		Result 1				
TRH C6-C9	S24-Oc0069741	NCP	%	91		70-130	Pass	
Spike - % Recovery						-		
BTEX				Result 1				
Benzene	S24-Oc0069741	NCP	%	87		70-130	Pass	
Toluene	S24-Oc0069741	NCP	%	96		70-130	Pass	
Ethylbenzene	S24-Oc0069741	NCP	%	91		70-130	Pass	
m&n-Xylenes	S24-Oc0069741	NCP	%	114		70-130	Pass	
	S24-Oc0069741	NCP	%	83		70-130	Pass	
Xylenes - Total*	S24-Oc0069741	NCP	70 0/_	104		70-130	Dass	
Spike - % Pacovory			70	104		10-130	1 855	
Total Baseverable Hydroserbane 2012 NEDM Fractions				Popult 1		1		
Naphthalana	S24 Oc0060741		0/	07		70.120	Page	
	S24-0c0069741		/0 0/	01		70-130	Pass	
Spike - % Pecovery	324-00009741	NCF	/0	91		70-130	газэ	
Total Baseverable Hydrosorbons	1000 NERM Erect	iona		Bogult 1				
			0/	70		70.120	Booo	
Spike % Persovery	N24-00070599		-70	12		70-130	F 455	
Spike - % Recovery	2012 NEDM Freet	lana		Deput 1				
Total Recoverable Hydrocarbons -			0/			70.120	Deee	
TRH >C10-C16	N24-OC0070599	CP	%			70-130	Pass	
Spike - % Recovery				Desult 1		1	[
Organochiorine Pesticides	NO4 0 -0070000	0.0	0/	Result 1		70.400	Dese	
	N24-0c0070623		<u>%</u>	106		70-130	Pass	
4.4-DDD	N24-0c0070623		<u>%</u>	92		70-130	Pass	
4.4-DDE	N24-Oc0070623		<u>%</u>	111		70-130	Pass	
4.4-DD1	N24-OC0070623		%	123		70-130	Pass	
а-нсн	N24-Oc0070623	CP	%	90		70-130	Pass	
Aldrin	N24-Oc0070623	CP	%	98		70-130	Pass	
Ь-НСН	N24-Oc0070623	CP	%	98		70-130	Pass	
d-HCH	N24-Oc0070623	CP	%	89		70-130	Pass	
	N24-Oc0070623	CP	%	105		70-130	Pass	
Endosulfan I	N24-Oc0070623	CP	%	101		70-130	Pass	
Endosulfan II	N24-Oc0070623	CP	%	93		70-130	Pass	
Endrin ketone	N24-Oc0070623	CP	%	115		70-130	Pass	
g-HCH (Lindane)	N24-Oc0070623	CP	%	113		70-130	Pass	
Heptachlor	N24-Oc0070623	CP	%	106		70-130	Pass	
Heptachlor epoxide	N24-Oc0070623	CP	%	99		70-130	Pass	
Hexachlorobenzene	N24-Oc0070623	CP	%	103		70-130	Pass	
Methoxychlor	N24-Oc0070623	CP	%	111		70-130	Pass	



Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	N24-Oc0070623	CP	%	90			70-130	Pass	
Aroclor-1260	N24-Oc0070623	CP	%	109			70-130	Pass	
Spike - % Recovery								•	
Heavy Metals				Result 1					
Arsenic	N24-Oc0070625	CP	%	90			75-125	Pass	
Cadmium	N24-Oc0070625	CP	%	95			75-125	Pass	
Chromium	N24-Oc0070625	СР	%	84			75-125	Pass	
Copper	N24-Oc0070625	СР	%	83			75-125	Pass	
Lead	N24-Oc0070625	СР	%	97			75-125	Pass	
Mercury	N24-Oc0070625	СР	%	103			75-125	Pass	
Zinc	N24-Oc0070625	СР	%	80			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons	5			Result 1					
Acenaphthene	S24-Oc0075501	NCP	%	101			70-130	Pass	
Acenaphthylene	S24-Oc0075501	NCP	%	95			70-130	Pass	
Anthracene	S24-Oc0075501	NCP	%	109			70-130	Pass	
Benz(a)anthracene	S24-Oc0075501	NCP	%	87			70-130	Pass	
Benzo(a)pyrene	S24-Oc0075501	NCP	%	116			70-130	Pass	
Benzo(b&j)fluoranthene	S24-Oc0075501	NCP	%	77			70-130	Pass	
Benzo(g.h.i)perylene	S24-Oc0075501	NCP	%	91			70-130	Pass	
Benzo(k)fluoranthene	S24-Oc0075501	NCP	%	90			70-130	Pass	
Chrysene	S24-Oc0075501	NCP	%	115			70-130	Pass	
Dibenz(a.h)anthracene	S24-Oc0075501	NCP	%	86			70-130	Pass	
Fluoranthene	S24-Oc0075501	NCP	%	103			70-130	Pass	
Fluorene	S24-Oc0075501	NCP	%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S24-Oc0075501	NCP	%	76			70-130	Pass	
Naphthalene	S24-Oc0075501	NCP	%	106			70-130	Pass	
Phenanthrene	S24-Oc0075501	NCP	%	92			70-130	Pass	
Pyrene	S24-Oc0075501	NCP	%	109			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	N24-Oc0070595	СР	uS/cm	12	11	12	30%	Pass	
pH (1:5 Aqueous extract at 25 °C as rec.)	N24-Oc0070595	СР	pH Units	7.4	7.5	pass	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	S24-Oc0072353	NCP	meq/100g	13	13	1.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons -	1999 NEPM Fract	ions		Result 1	Result 2	RPD			
TRH C6-C9	S24-Oc0073300	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate								-	
BTEX				Result 1	Result 2	RPD			
Benzene	S24-Oc0073300	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-Oc0073300	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S24-Oc0073300	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S24-Oc0073300	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S24-Oc0073300	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-Oc0073300	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	



Duplicate									
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1	Result 2	RPD			
Naphthalene	S24-Oc0073300	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S24-Oc0073300	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	N24-Oc0070608	CP	mg/kg	4.4	4.1	6.0	30%	Pass	
Cadmium	N24-Oc0070608	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	N24-Oc0070608	CP	mg/kg	12	12	2.0	30%	Pass	
Copper	N24-Oc0070608	CP	mg/kg	25	34	31	30%	Fail	Q15
Lead	N24-Oc0070608	CP	mg/kg	26	24	9.0	30%	Pass	
Mercury	N24-Oc0070608	CP	mg/kg	0.1	0.1	5.0	30%	Pass	
Nickel	N24-Oc0070608	CP	mg/kg	8.1	9.6	18	30%	Pass	
Zinc	N24-Oc0070608	CP	mg/kg	150	160	2.0	30%	Pass	
Duplicate									
Sample Properties			1	Result 1	Result 2	RPD			
% Moisture	N24-Oc0070608	CP	%	34	36	8.0	30%	Pass	
Duplicate				1			I		
Total Recoverable Hydrocarbons -	1999 NEPM Fract	ions	1	Result 1	Result 2	RPD			
TRH C10-C14	N24-Oc0070608	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	N24-Oc0070608	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	N24-Oc0070608	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate				1				1	
Polycyclic Aromatic Hydrocarbons	S			Result 1	Result 2	RPD			
Acenaphthene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	N24-Oc0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	N24-Oc0070608		mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	N24-Oc0070608		mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	N24-Oc0070608		mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	N24-OC0070608	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate				Deputed	Desult 0			1	
Total Recoverable Hydrocarbons -			m a/l (a	Result 1	Result 2	RPD 11	200/	Deee	
	N24-00070608		mg/kg	< 50	< 50	<1	30%	Pass	
TRH > C10-C34	N24-00070608		mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate	1124-00070008	UF	під/ку	< 100	< 100	<1	30%	F 455	
Total Pasaverable Hydrosorbons	1000 NERM Erect	iona		Booult 1	Regult 2			1	
			malka				209/	Dooo	
TRH C15-C28	N24-00070610		mg/kg	< 20	< 20	~1	30%	Pace	
TRH C20-C36	N24-0-0070610		ma/ka	< 50	< 50	~1	30%	Pass	
			i iig/kg	< 30	< 50		50 /0	1 1 2 2 2	
Polycyclic Aromatic Hydrocarbone	3			Result 1	Result 2	RPD			
Acenanothene	N24-0c0070618	CP	ma/ka			~1	30%	Pass	
Acenaphthylene	N24-Oc0070619		ma/ka	< 0.5	< 0.5	~1	30%	Pace	
Anthracene	N24-Oc0070619		ma/ka	< 0.5	< 0.5	~1	30%	Page	
Benz(a)anthracene	N24-Oc0070619		ma/ka	< 0.5	< 0.5	~1	30%	Pass	
	112-7 000010010		iiig/ky	0.5	< 0.0	<u></u>	5070	1 035	,l



Duplicate									
Polycyclic Aromatic Hydrocarbons	6			Result 1	Result 2	RPD			
Benzo(a)pyrene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate				1					
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1	Result 2	RPD			
TRH >C10-C16	N24-Oc0070618	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	N24-Oc0070618	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	N24-Oc0070618	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate				i	1				
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	N24-Oc0070618	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	N24-Oc0070618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate								1	
Polychlorinated Biphenyls				Result 1	Result 2	RPD		_	
Aroclor-1016	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
I otal PCB*	N24-Oc0070618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate					D. 110	000			
Sample Properties			<i></i>	Result 1	Result 2	RPD	0.000		
% MOISTURE	N24-UC0070621	CP	%	16	17	6.0	30%	Pass	



Juplicate														
Heavy Metals				Result 1	Result 2	RPD								
Arsenic	N24-Oc0070623	CP	mg/kg	< 2	< 2	<1	30%	Pass						
Cadmium	N24-Oc0070623	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass						
Chromium	N24-Oc0070623	CP	mg/kg	< 5	< 5	<1	30%	Pass						
Copper	N24-Oc0070623	CP	mg/kg	15	16	6.0	30%	Pass						
Lead	N24-Oc0070623	CP	mg/kg	21	22	3.0	30%	Pass						
Mercury	N24-Oc0070623	CP	mg/kg	0.1	0.1	2.0	30%	Pass						
Nickel	N24-Oc0070623	CP	mg/kg	< 5	< 5	<1	30%	Pass						
Zinc	N24-Oc0070623	CP	mg/kg	150	140	1.0	30%	Pass						



Comments

Sample Integrity	
Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code Description

N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Nileshni Goundar	Analytical Services Manager
Chamath JHM Annakkage	Senior Analyst-Asbestos
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Sample Properties
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic
Vivian Wang	Senior Analyst-Metal

Glenn Jackson Managing Director

Final Report - this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Eurofins Environment Testing Australia Pty Ltd

Eurofins Envir	onment Testing A	ustralia Pty Ltd			Eurofins ARL Pty Ltd	Eurofins Enviro	Eurofins Environment Testing NZ Ltd						
ABN: 50 005 085 5	21				ABN: 91 05 0159 898	NZBN: 9429046024954							
Melbourne	Geelong Sydney Canberra Brisbane Newcastle				Newcastle	Perth	Auckland	Auckland (Focus)	Christchurch	Tauranga			
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive	46-48 Banksia Road	35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road			
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West	Welshpool	Penrose,	Mount Wellington,	Rolleston,	Gate Pa,			
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304	WA 6106	Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112			
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448	+61 8 6253 4444	+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568			
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 2377	IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402			
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079	Site# 2370 & 2554							

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EnviroSales@eurofins.com

Sample Receipt Advice

Company name:	Qualtest
Contact name:	Emma Coleman
Project name:	UPDATED DSI - OURIMBAH
Project ID:	NEW23P-0208
Turnaround time:	1 Day
Date/Time received	Oct 28, 2024 11:30 AM
Eurofins reference	1153637

Sample Information

- A detailed list of analytes logged into our LIMS, is included in the attached summary table. ./
- All samples have been received as described on the above COC.
- COC has been completed correctly.
- Attempt to chill was evident.
- Appropriately preserved sample containers have been used.
- All samples were received in good condition.
- Samples have been provided with adequate time to commence analysis in accordance with the relevant ./ holding times.
- Appropriate sample containers have been used. 1
- Sample containers for volatile analysis received with zero headspace. 1
- Split sample sent to requested external lab. Х
- X Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Emma Coleman - emmacoleman@qualtest.com.au.

Note: A copy of these results will also be delivered to the general Qualtest email address.

Global Leader - Results you can trust



Qualtest 2 Murray Dwyer Circuit Mayfield West NSW 2304





NATA Accredited Accreditation Number 1261 Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention:

Emma Coleman

Report Project name Project ID Received Date **1153637-W** UPDATED DSI - OURIMBAH NEW23P-0208 Oct 28, 2024

			-
Client Sample ID			TB.25.10.24
Sample Matrix			Water
			N24-
Eurofins Sample No.			Oc0070636
Date Sampled			Oct 25, 2024
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fract	ions		
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1
втех			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	101
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions		
Naphthalene ^{N02}	0.01	mg/L	< 0.01
TRH >C10-C16 less Naphthalene (F2)*N01	0.05	mg/L	< 0.05
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02
Polycyclic Aromatic Hydrocarbons		-	
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001



Client Sample ID			TB.25.10.24
Sample Matrix			Water
Eurofins Sample No.			N24- Oc0070636
Date Sampled			Oct 25, 2024
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	98
p-Terphenyl-d14 (surr.)	1	%	116
Total Recoverable Hydrocarbons - 2013 NEPM Fract	ions		
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1



Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			

•	ourofin	Eurofins E									Eur	ofins A	ARL Pty	y Ltd	Eurofins Environment Testing NZ Ltd NZBN: 9429046024954							
web: web: web: web: web: web: web: web:	ww.eurofins.com.au	Melbourne 6 Monterey R Dandenong S VIC 3175 +61 3 8564 50 NATA# 1261 Site# 1254 Site# 1254	Geelong oad 19/8 Lew South Grovedal VIC 3216 VIC 3216 000 +61 3 85 NATA# 1: Site# 254	alan Street e 64 5000 261 103	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Mitchell ACT 2911 +61 2 6113 80 NATA# 1261 Site# 25466	Brisbane ⇒ Street 1/21 Smallwood Place Murarrie QLD 4172 091 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780			Newca 1/2 Fro Mayfie NSW 2 +61 2 NATA# Site# 2	wcastle ? Frost Drive wyfield West W 2304 1 2 4968 8448 VTA# 1261 we# 25079			h 8 Banks shpool 6106 8 6253 4 A# 2377 # 2370 &	sia Road 4444 k 2554		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402		
Co Ad	mpany Name: dress:	Qualtest 2 Murray Dwye Mayfield West NSW 2304	r Circuit						Order N Report Phone Fax:				der N port # one: k:	o.: #:	115: 02 4 02 4	3637 1968 4 1960 9	468 9775		Received: Due: Priority: Contact Name:	Oct 28, 2024 11:30 AM Oct 30, 2024 1 Day Emma Coleman		
Pro Pro	oject Name: oject ID:	UPDATED DSI NEW23P-0208	- OURIMBA	H														Eurofine	Analytical Servio	ces Manager : /	Andrew Black	
			Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4										
Melt	ourne Laborato	ory - NATA # 12	261 Site # 12	254										Х								
Sydi	ney Laboratory	- NATA # 1261	Site # 18217	7			Х	X		Х	Х	Х	Х	Х	Х	X						
May	field West Labo	ratory - NATA	# 1261 Site #	# 25079					Х													
Exte No	Sample ID	Sample Date	Sampling Time	Mat	rix L	AB ID																
1	TP101 0.0-0.1	Oct 25, 2024		Soil	N24-0	c0070595	Х			х	х		Х	х								
2	TP101 0.2-0.3	Oct 25, 2024		Soil	N24-0	c0070596		х														
3	TP102 0.0-0.1	Oct 25, 2024		Soil	N24-0	c0070597	Х						Х		Х							
4	TP102 0.2-0.3	Oct 25, 2024		Soil	N24-0	c0070598		Х														
5	TP103 0.0-0.1	Oct 25, 2024		Soil	N24-0	c0070599	Х						Х		Х							
6	TP103 0.3-0.4	Oct 25, 2024		Soil	N24-0	c0070600		x														
7	TP104 0.0-0.1	Oct 25, 2024		Soil	N24-0	c0070601							Х			х						
8	TP104 0.3-0.4	Oct 25, 2024		Soil	N24-0	c0070602		Х														
9	TP105 0.0-0.1	Oct 25, 2024		Soil	N24-0	c0070603	Х						Х		Х							
10	TP105 0.4-0.5	Oct 25, 2024		Soil	N24-0	c0070604		Х														
11	TP106 0.0-0.1	Oct 25, 2024		Soil	N24-0	c0070605	Х					Х	Х		Х							
12	TP106 0.4-0.5	Oct 25, 2024		Soil	N24-0	c0070606		Х]					

•••	ourofin	Eurofins E	Eurofins Environment Testing Australia Pty Ltd E ABN: 50 005 085 521 A														/ Ltd	Eurofins Environment Testing NZ Ltd NZBN: 9429046024954					
web: w email:	ww.eurofins.com.au	Melbourne 6 Monterey F Dandenong VIC 3175 +61 3 8564 5 NATA# 1261 Site# 1254	Melbourne Geelong 6 Monterey Road 19/8 Lewalan Street Dandenong South Grovedale VIC 3175 VIC 3216 +61 3 8564 5000 +61 3 8564 5000 MATA# 1261 NATA# 1261 Site# 1254 Site# 25403			Canberra Unit 1,2 Dacre Mitchell ACT 2911 +61 2 6113 80 NATA# 1261 Site# 25466	Street	Brisba 1/21 S Muran QLD 4 T: +61 NATA# Site# 2	ane imallwoo rie 4172 7 3902 # 1261 20794 &	od Place 4600 2780	Newca 1/2 Fro Mayfie NSW 2 +61 2 NATA# Site# 2	astle ost Drive eld West 2304 4968 84 # 1261 25079	48	Pert 46-4 Wels WA +61 NAT	h 8 Banks shpool 6106 8 6253 4 A# 2377 # 2370 &	sia Road 4444 & 2554		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402		
Co Ao	ompany Name: Idress:	Qualtest 2 Murray Dwye Mayfield West NSW 2304	er Circu	lit				Order No.: Report #: 1153637 Phone: 02 4968 4468 Fax: 02 4960 9775							Received: Due: Priority: Contact Name:	Oct 28, 2024 Oct 30, 2024 1 Day Emma Cole	4 11:30 AM 4 man						
Pr Pr	oject Name: oject ID:	UPDATED DS NEW23P-0208	1 - OUR 3	RIMBAH														Eurofins	s Analytical Servio	ces Manager : /	Andrew Black		
Sample Detail							Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4							
Mel	bourne Laborato	ory - NATA # 1	261 Sit	e # 1254										Х									
Syd	ney Laboratory	- NATA # 1261	Site #	18217			Х	Х		Х	Х	Х	Х	Х	Х	Х							
May	field West Labo	ratory - NATA	# 1261	Site # 25079					Х														
13	TP106 0.6-0.7	Oct 25, 2024		Soil	N24-C	0c0070607		X															
14	TP107 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070608	Х						Х		Х								
15	TP107 0.4-0.5	Oct 25, 2024		Soil	N24-C	0c0070609							Х		Х								
16	TP107 0.8-0.9	Oct 25, 2024		Soil	N24-C	0c0070610							Х		Х								
17	TP108 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070611	Х					Х	Х		Х								
18	TP108 0.2-0.3	Oct 25, 2024		Soil	N24-C	0c0070612		X															
19	TP109 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070613	Х						Х		Х								
20	TP109 0.4-0.5	Oct 25, 2024		Soil	N24-C	0c0070614							Х		Х								
21	TP109 0.8-0.9	Oct 25, 2024		Soil	N24-C	0c0070615		X															
22	TP110 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070616	Х						Х		Х								
23	TP110 0.2-0.3	Oct 25, 2024		Soil	N24-C	0c0070617		X															
24	TP111 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070618	Х					Х	Х		Х								
25	TP111 0.4-0.5	Oct 25, 2024		Soil	N24-C	0c0070619							Х		Х								
26	TP111 0.8-0.9	Oct 25, 2024		Soil	N24-C	0c0070620		Х															
27	TP112 0.0-0.1	Oct 25, 2024		Soil	N24-C	0c0070621	Х						Х		Х								

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web: www.eu email: Enviro	urofins.com.au pSales@eurofins.cc	Melbourne Geelong 6 Monterey Road 19/8 Lewala Dandenong South Grovedale VIC 3175 VIC 3216 +61 3 8564 5000 +61 3 8564 MATA# 1261 NATA# 1261 Site# 1254 Site# 25403		Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney Canberra it 179 Magowar Road Unit 1,2 Dacre 5 Girraween Mitchell NSW 2145 ACT 2911 +61 2 9900 8400 +61 2 6113 809 NATA# 1261 NATA# 1261 Site# 18217 Site# 25466		Street 91	Brisbane et 1/21 Smallwood Place Murarrie QLD QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780			Newca 1/2 Fro Mayfie NSW 2 +61 2 NATA# Site# 2	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079			Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554			Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402		
Comp Addre	any Name: ess:	Qualtest 2 Murray Dwy Mayfield Wes NSW 2304	yer Circ st	cuit			Orde Repr Pho Fax:			der N port # one: k:	o.: #: 1153637 02 4968 4468 02 4960 9775			468 9775		Received: Due: Priority: Contact Name:	Oct 28, 2024 Oct 30, 2024 1 Day Emma Cole	Oct 28, 2024 11:30 AM Oct 30, 2024 1 Day Emma Coleman					
Projec Projec	ct Name: ct ID:	UPDATED D NEW23P-020	SI - OU 08	IRIMBAH														Eurofins	Analytical Servic	ces Manager :	Andrew Black		
Sample Detail						Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4								
Melbou	rne Laborato	ory - NATA #	1261 S	ite # 1254										Х									
Sydney	Laboratory	- NATA # 126	1 Site	# 18217			Х	X		X	X	Х	Х	Х	Х	X							
Mayfield	d West Labo	ratory - NAT/	A # 126	1 Site # 25079					X														
28 TP	P112 0.4-0.5	Oct 25, 2024	,	Soil	N24-C	0c0070622		X															
29 TP	113 0.0-0.1	Oct 25, 2024		Soil	N24-C	00070623	X					X	X		X								
30 TP	113 0.2-0.3	Oct 25, 2024		Soil	N24-C	00070624		X															
31 TP	2114 0.0-0.1	Oct 25, 2024		Soil	N24-C	00070625	X	X					X		X								
32 TP	2114 0.4-0.5	Oct 25, 2024		Soll	N24-C	0070626	~	X					~		v								
33 TP	2115 0.0-0.1	Oct 25, 2024	•	Soll	N24-C	0070627	×	V					×		~								
34 TP	2115 0.2-0.3	Oct 25, 2024	•	Soll	N24-C	0070620	v						v		v								
30 TP	2116 0.0-0.1	Oct 25, 2024	•	Soil	N24-C	00070620	^	v					^		^								
27 00	2117	Oct 25, 2024	·	Sul	N24-C	00070624							v		~								
20 0	25 10 24	Oct 25, 2024	·	Sul	N24-C	00070633							~ 		~								
	25.10.24	Oct 25, 2024	·	Soli	N24-C	00070632		~					^		<u> </u>								
39 1.23.10.24 Oct 23, 2024 Soil N24-Oc0070633 40 D2 25 10 24 Oct 25, 2024 Soil N24-Oc0070633					0070624							v		v									
40 D2	2.20.10.24	Oct 25, 2024	·		N24-C	00070635		v		-			^										
42 TR	3 25 10 24	Oct 25, 2024		Water	N24-C	0070636										x							
	.20.10.24	1001 20, 2024		water	11/24-0		I	I	I	I	I	I		I	I	_ ^	I						

			Eurofins Environment Testing Australia Pty Ltd									Eur	Eurofins ARL Pty Ltd Eurofins Environment Testing NZ Ltd									
web: www.eurofins.com.au		S	ABN: 50 005 085 Melbourne 6 Monterey Road Dandenong Sou VIC 3175	50 005 085 521 ourne Geelong nterey Road 19/8 Lewala denong South Grovedale 3175 VIC 3216		Sydney 179 Magowar Road Girraween NSW 2145	r Road Unit 1,2 Dacre Mitchell ACT 2911		Brisbane eet 1/21 Smallwood Place Murarrie QLD 4172		Newcastle 1/2 Frost Drive Mayfield West NSW 2304		ABN: 91 05 0159 898 Perth 46-48 Banksia Road Welshpool WA 6106			3	NZBN: 94290460249 Auckland 35 O'Rorke Road Penrose, Auckland 1061	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112		
email	: EnviroSales@eurofins.c	om	+61 3 8564 5000 NATA# 1261 Site# 1254	0 +61 3 8564 NATA# 1261 Site# 25403	5000 1 3	+61 2 9900 8400 NATA# 1261 Site# 18217	+61 2 6113 80 NATA# 1261 Site# 25466	91	T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780		+61 2 4968 8448 NATA# 1261 Site# 25079		+61 8 6253 4444 NATA# 2377 Site# 2370 & 2554		+64 9 526 4551 IANZ# 1327	+64 9 525 0568 IANZ# 1308	+64 3 343 5201 IANZ# 1290	+64 9 525 0568 IANZ# 1402				
Company Name: Address: Project Name: Project ID:		Qualtest 2 Murray Dwyer Circuit Mayfield West NSW 2304								Order No Report #: Phone: Fax:).: ☆ 1153637 02 4968 4468 02 4960 9775		468 9775		Received: Due: Priority: Contact Name:	Oct 28, 202 Oct 30, 202 1 Day Emma Cole	4 11:30 AM 4 man				
		NEW	W23P-0208										Eurofi			Eurofins	s Analytical Services Manager : Andrew Black					
			Sample Detail				Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4						
Me	Melbourne Laboratory - NATA # 1261 Site # 1254													Х								
Sy	dney Laboratory	- NAT	A # 1261 S	ite # 18217				X	X		X	Х	Х	Х	Х	х	Х					
Ма	yfield West Labo	ratory	y - NATA # '	1261 Site # 2	25079					Х												
43	ASB TP01	Oct 2	25, 2024	E	Building Material	ls N24-0	Dc0070637			х												
Test Counts				15	19	19	1	1	4	23	1	21	2									



Internal Quality Control Review and Glossary

General

- 1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
- 2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
- 3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
- 4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- 5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- 6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
- 7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- 8. Samples were analysed on an 'as received' basis.
- 9. Information identified in this report with blue colour indicates data provided by customers that may have an impact on the results.
- 10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units		
mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
μg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

Unite

••••••	
APHA	American Public Health Association
CEC	Cation Exchange Capacity
сос	Chain of Custody
СР	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
твто	Tributyltin oxide (bis-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is <30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 - 150%, VOC recoveries 50 - 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

- 1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- 2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
- 3. pH and Free Chlorine analysed in the laboratory Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- 4. Recovery Data (Spikes & Surrogates) where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- 5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data



Quality Control Results

Method Biank Image: Control of Contro of Contro of Control of Control of Control of Control of Control	Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions mg/L < 0.02	Method Blank		-				
TRH C10-C14 mgl. < 0.02 0.05 Pass TRH C10-C14 mgl. < 0.1	Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRN C10-C14 mgl. < 0.05 Pess TRN C15-C28 mgl. < 0.1	TRH C6-C9	mg/L	< 0.02		0.02	Pass	
TRH C15-C28 mgl. < 0.1 0.1 Pass Method Blank mgl. < 0.1	TRH C10-C14	mg/L	< 0.05		0.05	Pass	
TRH C29-C36 mgl, < 0.1 Pass Method Blank	TRH C15-C28	mg/L	< 0.1		0.1	Pass	
Method Blank U Image Image <thimage< th=""></thimage<>	TRH C29-C36	mg/L	< 0.1		0.1	Pass	
BTEX Image: Control in the second seco	Method Blank		1	1 1	T		
Benzene mgL < 0.001 0.011 Pass Tokuene mgL < 0.001	BTEX	1					
Tolene mgL < 0.001 0.001 Pass Ethylbanzone mgL < 0.001	Benzene	mg/L	< 0.001		0.001	Pass	
Ethylenzene mgL < 0.001 0.001 Pass mBy-Xylenes mgL < 0.002	Toluene	mg/L	< 0.001		0.001	Pass	
mgL < 0.002 0.002 Pass c×lytene mgL < 0.001	Ethylbenzene	mg/L	< 0.001		0.001	Pass	
o-Xylene mg/L < 0.001 0.001 Pass Method Blank	m&p-Xylenes	mg/L	< 0.002		0.002	Pass	
Xylenes - Total* mg/L < 0.003 Pass Method Blank	o-Xylene	mg/L	< 0.001		0.001	Pass	
Method Blank Unit Recoverable Hydrocarbons - 2013 NEPM Fractions mg/L < 0.01 Pass Naphthalene mg/L < 0.01	Xylenes - Total*	mg/L	< 0.003		0.003	Pass	
Total Recoverable Hydrocarbons - 2013 NEPM Fractions mg/L < 0.01 Pass TRH C6-C10 mg/L < 0.02	Method Blank		1				
Naphthalene mg/L < 0.01 Pass Method Blank 0.02 0.02 Pass Polycyclic Aromatic Hydrocarbons mg/L < 0.001	Total Recoverable Hydrocarbons - 2013 NEPM Fractions	1					
TRH C6-C10 mg/L < 0.02	Naphthalene	mg/L	< 0.01		0.01	Pass	
Method Blank Second Stress Second Stress Second Stress Acenaphthene mg/L < 0.001	TRH C6-C10	mg/L	< 0.02		0.02	Pass	
Polycyclic Aromatic Hydrocarbons mpl Acenaphthene mg/L < 0.001	Method Blank		1	1	-		
Acenaphthere mg/L < 0.001 0.001 Pass Acenaphthylene mg/L < 0.001	Polycyclic Aromatic Hydrocarbons					_	
Acenaphthylene mg/L < 0.001 0.001 Pass Anthracene mg/L < 0.001	Acenaphthene	mg/L	< 0.001		0.001	Pass	
Anthracene mg/L < 0.001 0.001 Pass Benz(a)anthracene mg/L < 0.001	Acenaphthylene	mg/L	< 0.001		0.001	Pass	
Benz(a)anthracene mg/L < 0.001 0.001 Pass Benzo(a)pyrene mg/L < 0.001	Anthracene	mg/L	< 0.001		0.001	Pass	
Benzo(a)pyrene mg/L < 0.001 Pass Benzo(a),i)perylene mg/L < 0.001	Benz(a)anthracene	mg/L	< 0.001		0.001	Pass	
Benzo(b3)/illuoranthene mg/L < 0.001 Pass Benzo(s)/illuoranthene mg/L < 0.001	Benzo(a)pyrene	mg/L	< 0.001		0.001	Pass	
Benzo(g.h.i)perviene mg/L < 0.001 0.001 Pass Benzo(k)fluoranthene mg/L < 0.001	Benzo(b&j)fluoranthene	mg/L	< 0.001		0.001	Pass	
Benzolk/lituoranthene mg/L < 0.001 Disk Chrysene mg/L < 0.001	Benzo(g.h.i)perylene	mg/L	< 0.001		0.001	Pass	
Chrysene mg/L < 0.001 Pass Dibenz(a.h)anthracene mg/L < 0.001	Benzo(k)fluoranthene	mg/L	< 0.001		0.001	Pass	
Dibenz(a.h)anthracene mg/L < 0.001 Pass Fluoranthene mg/L < 0.001	Chrysene	mg/L	< 0.001		0.001	Pass	
Huoranthene mg/L < 0.001 Pass Fluorene mg/L < 0.001	Dibenz(a.h)anthracene	mg/L	< 0.001		0.001	Pass	
Hudene mg/L < 0.001 Pass Indeno(1.2.3-cd)pyrene mg/L < 0.001		mg/L	< 0.001		0.001	Pass	
Indeno(1.2.3-co)pyrene mg/L < 0.001 Pass Naphthalene mg/L < 0.001		mg/L	< 0.001		0.001	Pass	
Naphthalene mg/L < 0.001 Pass Phenanthrene mg/L < 0.001	Indeno(1.2.3-cd)pyrene	mg/L	< 0.001		0.001	Pass	
Pyrene mg/L < 0.001 Pass Pyrene mg/L < 0.001	Naphthalene	mg/L	< 0.001		0.001	Pass	
Pyrene mg/L < 0.001 Pass Method Blank Total Recoverable Hydrocarbons - 2013 NEPM Fractions 0.05 Pass TRH >C10-C16 mg/L < 0.05	Phenanthrene	mg/L	< 0.001		0.001	Pass	
Method Blank Image: Control of the system of t	Pyrene Mathead Plank	∣ mg/L	< 0.001		0.001	Pass	
TRH >C10-C16 mg/L < 0.05 Pass TRH >C16-C34 mg/L < 0.1	Method Blank				1		
INFL C 0.03 Pass TRH >C16-C34 mg/L < 0.1		ma/l	< 0.05		0.05	Page	
INIT 2010/034 Initial K 0.1 Pass TRH >C34-C40 mg/L < 0.1	TRH >C16-C34	mg/L	< 0.05		0.05	Pass	
INIT 2004-040 Inig/L K.O.T Tass LCS - % Recovery	TRH >C34-C40	mg/L	< 0.1		0.1	Pass	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C9 % 88 70-130 Pass TRH C10-C14 % 80 70-130 Pass LCS - % Recovery Wester State West		mg/∟	< 0.1		0.1	1 835	
TRH C6-C9 % 88 70-130 Pass TRH C10-C14 % 80 70-130 Pass LCS - % Recovery % 80 70-130 Pass BTEX Benzene % 108 70-130 Pass Toluene % 96 70-130 Pass Ethylbenzene % 96 70-130 Pass o-Xylenes % 92 70-130 Pass	Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14 % 80 70-130 Pass LCS - % Recovery % 80 70-130 Pass BTEX // // // // // Benzene % 108 70-130 Pass Toluene % 96 70-130 Pass Ethylbenzene % 96 70-130 Pass o-Xylene % 92 70-130 Pass		%	88		70-130	Pass	
INTERIOR OFF 70 70 100 1433 LCS - % Recovery BTEX Image: Constraint of the state of	TRH C10-C14	70 %	80		70-130	Pass	
BTEX 108 70-130 Pass Benzene % 108 70-130 Pass Toluene % 96 70-130 Pass Ethylbenzene % 90 70-130 Pass m&p-Xylenes % 96 70-130 Pass o-Xylene % 92 70-130 Pass	I CS - % Recovery	/0			10100	1 435	
Benzene % 108 70-130 Pass Toluene % 96 70-130 Pass Ethylbenzene % 90 70-130 Pass m&p-Xylenes % 96 70-130 Pass o-Xylene % 92 70-130 Pass	BTEX						
Toluene % 96 70-100 Pass Ethylbenzene % 90 70-130 Pass m&p-Xylenes % 96 70-130 Pass o-Xylene % 92 70-130 Pass	Benzene	%	108		70-130	Pass	
Ethylbenzene % 90 70-100 Pass m&p-Xylenes % 96 70-130 Pass o-Xylene % 92 70-130 Pass	Toluene	%	96		70-130	Pass	
m&p-Xylenes % 96 70-100 Pass o-Xylene % 92 70-130 Pass	Ethylbenzene	%	90		70-130	Pass	
o-Xylene % 92 70-130 Pass	m&p-Xylenes	%	96		70-130	Pass	
	o-Xylene	%	92		70-130	Pass	



Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Xylenes - Total*			%	95			70-130	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions							
Naphthalene			%	74			70-130	Pass	
TRH C6-C10			%	78			70-130	Pass	
LCS - % Recovery									
Polycyclic Aromatic Hydrocarbons	5								
Acenaphthene			%	83			70-130	Pass	
Acenaphthylene			%	87			70-130	Pass	
Anthracene			%	98			70-130	Pass	
Benz(a)anthracene			%	77			70-130	Pass	
Benzo(a)pyrene			%	78			70-130	Pass	
Benzo(b&i)fluoranthene			%	83			70-130	Pass	
Benzo(a.h.i)pervlene			%	73			70-130	Pass	
Benzo(k)fluoranthene			%	81			70-130	Pass	
Chrysene			%	86			70-130	Pass	
Dibenz(a,h)anthracene			%	80			70-130	Pass	
Fluoranthene			%	98			70-130	Pass	
Fluorene			%	88			70-130	Pass	
Indeno(1,2,3-cd)pyrene			%	77			70-130	Pass	
Naphthalene			%	90			70-130	Pass	
Phenanthrene			%	Q1			70-130	Pass	
Pyrene			0/_	100			70-130	Dass	
			70	100			70-130	1 855	
Total Pacovorable Hydrocarbons	2012 NEPM Eract	ions		[[1		
			0/	80			70 120	Page	
		04	/0	00				Pass	Qualifying
Test	Lab Sample ID	Source	Units	Result 1			Limits	Limits	Code
Spike - % Recovery		•		Devilled	[1		
Total Recoverable Hydrocarbons -	1999 NEPM Fract	IONS	<u> </u>	Result 1			70.400		
TRH C6-C9	S24-OC0069687	NCP	%	108			70-130	Pass	
Spike - % Recovery				D 114	1				
BTEX				Result 1				_	
Benzene	S24-Oc0069687	NCP	%	101			70-130	Pass	
Toluene	S24-Oc0069687	NCP	%	120			70-130	Pass	
Ethylbenzene	S24-Oc0069687	NCP	%	111			70-130	Pass	
m&p-Xylenes	S24-Oc0069687	NCP	%	122			70-130	Pass	
o-Xylene	S24-Oc0069687	NCP	%	108			70-130	Pass	
Xylenes - Total*	S24-Oc0069687	NCP	%	117			70-130	Pass	
Spike - % Recovery				1	1	i		[
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1					
Naphthalene	S24-Oc0069687	NCP	%	83			70-130	Pass	
TRH C6-C10	S24-Oc0069687	NCP	%	97			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons -	1999 NEPM Fract	ions		Result 1	Result 2	RPD			
TRH C6-C9	S24-Oc0072404	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	N24-Oc0070636	СР	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	N24-Oc0070636	СР	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	N24-Oc0070636	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	



Duplicate									
BTEX		Result 1	Result 2	RPD					
Benzene	S24-Oc0072404	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S24-Oc0072404	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S24-Oc0072404	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S24-Oc0072404	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S24-Oc0072404	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S24-Oc0072404	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate				1				1	
Total Recoverable Hydrocarbons -	2013 NEPM Fract	ions		Result 1	Result 2	RPD			
Naphthalene	S24-Oc0072404	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S24-Oc0072404	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate				1				1	
Polycyclic Aromatic Hydrocarbons	Ş			Result 1	Result 2	RPD			
Acenaphthene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	N24-Oc0070636	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene N24-Oc0070636 CP			mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons -	Result 1	Result 2	RPD						
TRH >C10-C16	N24-Oc0070636	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	N24-Oc0070636	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	N24-Oc0070636	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	


Comments

Sample Integrity	
Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code Description

N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.

F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Nileshni Goundar Roopesh Rangarajan Roopesh Rangarajan Analytical Services Manager Senior Analyst-Organic Senior Analyst-Volatile

Glenn Jackson Managing Director

Final Report - this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

NATA Accredited

Environment Testing

	NATA Accredited
	Accreditation Number 1261
Qualtest	Site Number 18217
2 Murray Dwyer Circuit	Accredited for compliance with ISO/IEC 17025–Testing
	Arrangement for the mutual recognition of the equivalence of testing medical testing calibration
Mayfield West	inspection, proficiency metadot country, metadot country, and a country of the section of the se
NSW 2304	
Attention:	Emma Coleman
Report	1153637-AID
Project Name	LIPDATED DSI - OURIMBAH
Project ID	NFW/23P-0208
Received Date	Oct 28, 2024
Neceived Date	Oct 20, 2024
Date Reported	Oct 30, 2024
Methodology:	
Asbestos Fibre	Conducted in accordance with the Australian Standard AS 5370:2024* Sampling and qualitative identification of
Identification	asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 and in-house Method LTM-ASB-8020 by
	NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.
Man-made vitreous	Fibres exhibiting isotropic characteristics including glass fibres glass wool, rock wool, slag wool, ceramic fibres and bio-
fibre (MMVF)	soluble fibres. NOTE: previously known as "synthetic mineral fibre" (SMF). Simple analytical procedures such as
	polarised light microscopy cannot detect or reliably identify asbestos in some types of commercial products containing asbestos, either because the fibres are below the resolution of optical microscopy or because the matrix material
	adheres too strongly to the fibres. For these types of products, electron microscopy may be necessary.
Subsampling Soil	The sample submitted is dried and passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater
Samples	than 10 mm and greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the
	presence of asbestos. If the sub 2mm fraction is greater than approximately 30 g to 60 g, then a subsampling routine
	NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be
	subsampled for trace analysis, in accordance with AS 5370:2024*.
Ronded ashestos-	The material is first examined and any fibres are isolated for identification by PLM and DS. Where required interfering
containing material	matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in
(ACM)	combination. The resultant material is then further examined in accordance with AS 5370:2024*.
	materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in
	the material or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos
	examples of these types of material, which are difficult to analyse.
Limit of Reporting	The performance limitation of the AS 5370:2024* method for non-homogeneous samples is around 0.1 g/kg (equivalent
(LOR)	to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the
	determination, not a laboratory limit of reporting, per se. Examination of large sample size (e.g., 500 ml.) may improve
	the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric
	determinations to this level of accuracy are outside of AS 5370:2024*, and hence, NATA Accreditation does not cover the performance of this service (non-NATA results are shown with an asterisk)
	NOTE: NATA News March 2014, p.7, states in relation to AS 4964-2004: "This is a qualitative method with a nominal
	reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of
	aspessos. Trins report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.



Project Name	UPDATED DSI - OURIMBAH
Project ID	NEW23P-0208
Date Sampled	Oct 25, 2024
Report	1153637-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP101 0.0-0.1	24-Oc0070595	Oct 25, 2024	Approximate Sample 649g Sample consisted of: Dark Grey fine-grained clayey sandy soil, organic debris and rocks	ACM: Chrysotile asbestos detected in fibre cement material. Approximate raw weight of ACM = 15g Total estimated asbestos content in ACM = 1.5g* Total estimated asbestos concentration in ACM = 0.23% w/w* Organic fibre detected. No trace asbestos detected.
TP102 0.0-0.1	24-Oc0070597	Oct 25, 2024	Approximate Sample 730g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP103 0.0-0.1	24-Oc0070599	Oct 25, 2024	Approximate Sample 541g Sample consisted of: Dark Grey fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP105 0.0-0.1	24-Oc0070603	Oct 25, 2024	Approximate Sample 816g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP106 0.0-0.1	24-Oc0070605	Oct 25, 2024	Approximate Sample 692g Sample consisted of: Dark Grey fine-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP107 0.0-0.1	24-Oc0070608	Oct 25, 2024	Approximate Sample 444g Sample consisted of: Dark Grey fine-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP108 0.0-0.1	24-Oc0070611	Oct 25, 2024	Approximate Sample 449g Sample consisted of: Dark Grey fine-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.



Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP109 0.0-0.1	24-Oc0070613	Oct 25, 2024	Approximate Sample 667g Sample consisted of: Dark Grey fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP110 0.0-0.1	24-Oc0070616	Oct 25, 2024	Approximate Sample 485g Sample consisted of: Dark Grey fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP111 0.0-0.1	24-Oc0070618	Oct 25, 2024	Approximate Sample 519g Sample consisted of: Black fine-grained clayey sandy soil, charcoal, bitumen like material and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP112 0.0-0.1	24-Oc0070621	Oct 25, 2024	Approximate Sample 641g Sample consisted of: Dark Grey fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP113 0.0-0.1	24-Oc0070623	Oct 25, 2024	Approximate Sample 570g Sample consisted of: Dark Grey fine-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP114 0.0-0.1	24-Oc0070625	Oct 25, 2024	Approximate Sample 586g Sample consisted of: Dark Grey fine-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP115 0.0-0.1	24-Oc0070627	Oct 25, 2024	Approximate Sample 674g Sample consisted of: Brown fine-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP116 0.0-0.1	24-Oc0070629	Oct 25, 2024	Approximate Sample 775g Sample consisted of: Brown fine-grained clayey sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.



Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description

Asbestos - LTM-ASB-8020

Testing SiteExtractedSydneyOct 28, 2024

4 Indefinite

ABN: 50 005 085 521					ralia Pty Ltd	τγ μτα												Eurofins Environment Testing NZ Ltd NZBN: 9429046024954					
web: web: web: web: web: web: web: web:	ww.eurofins.com.au	Melbourne 6 Monterey R Dandenong S VIC 3175 +61 3 8564 50 NATA# 1261 Site# 1254	Geelong oad 19/8 Lew south Groveda VIC 3216 000 +61 3 85 NATA# 1 Site# 25	ralan Street le 64 5000 261 403	Sydney Canberra Street 179 Magowar Road Unit 1,2 D Girraween Mitchell NSW 2145 ACT 2911 000 +61 2 9900 8400 +61 2 61' NATA# 1261 NATA# 12 Site# 18217 Site# 254		acre Street 3 8091 61 36		Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780		Newca 1/2 Fro Mayfie NSW 2 +61 2 NATA# Site# 2	astle ost Drive eld West 2304 4968 84 # 1261 25079	48	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554				Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402		
Co Ad	mpany Name: dress:	Qualtest 2 Murray Dwye Mayfield West NSW 2304	r Circuit									Or Re Ph Fa	der Ne port # one: k:	0.: ‡:	115 02 4 02 4	3637 4968 4 4960 9	468 9775		Received: Due: Priority: Contact Name:	Oct 28, 2024 Oct 30, 2024 1 Day Emma Cole	4 11:30 AM 4 man		
Project Name: UPDATED DSI - OURIMBAH Project ID: NEW23P-0208																		Eurofins	Analytical Servio	es Manager : /	Andrew Black		
Sample Detail								HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4							
Melk	ourne Laborato	ory - NATA # 12	261 Site # 12	254										Х									
Sydi	ney Laboratory	- NATA # 1261	Site # 1821	7			Х	X		Х	Х	Х	Х	Х	Х	X							
May	field West Labo	ratory - NATA	# 1261 Site	# 25079					Х														
Exte	rnal Laboratory			1																			
No	Sample ID	Sample Date	Sampling Time	Ma	trix L	.AB ID																	
1	TP101 0.0-0.1	Oct 25, 2024		Soil	N24-0	Dc0070595	Х			х	Х		Х	Х									
2	TP101 0.2-0.3	Oct 25, 2024		Soil	N24-0	Dc0070596		Х															
3	TP102 0.0-0.1	Oct 25, 2024		Soil	N24-0	Dc0070597	Х						Х		Х								
4	TP102 0.2-0.3	Oct 25, 2024		Soil	N24-0	Dc0070598		X															
5	TP103 0.0-0.1	Oct 25, 2024		Soil	N24-0	Dc0070599	Х						Х		Х								
6	TP103 0.3-0.4	Oct 25, 2024		Soil	N24-0	Dc0070600		X															
7	TP104 0.0-0.1	Oct 25, 2024		Soil	N24-0	Dc0070601							Х			X							
8	TP104 0.3-0.4	Oct 25, 2024		Soil	N24-0	Dc0070602		X			L												
9	TP105 0.0-0.1	Oct 25, 2024		Soil	N24-0	Dc0070603	Х						Х		Х								
10	TP105 0.4-0.5	Oct 25, 2024		Soil	N24-0	Dc0070604		X															
11	11 TP106 0.0-0.1 Oct 25, 2024 Soil N24-Oc00706											Х	Х		Х								
12	12 TP106 0.4-0.5 Oct 25, 2024 Soil N24-Oc00706]						

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web: www.eurofins.com.au email: EnviroSales@eurofins.	com	Melbourne Geelong 6 Monterey Road 19/8 Lewalan Street Dandenong South Grovedale VIC 3175 VIC 3216 +61 3 8564 5000 +61 3 8564 5000 NATA# 1261 NATA# 1261		Sydney Canberra 179 Magowar Road Unit 1,2 Dacre Girraween Mitchell NSW 2145 ACT 2911 +61 2 9900 8400 +61 2 6113 80 NATA# 1261 NATA# 1261		Brisbane e Street 1/21 Smallwood Place Murarrie QLD 4172 091 T: +61 7 3902 4600 NATA# 1261 Stirt# 20704 & 2780			Newc 1/2 Fro Mayfie NSW 2 +61 2 NATA#	astle ost Drive Id West 2304 4968 84 ± 1261	48	Pert 46-4 Wels WA +61 NAT	th 18 Banks shpool 6106 8 6253 7A# 2377	sia Road 4444	<u> </u>	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402			
		Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 25466			Site# 20794 & 2780				Site# 2370 & 2554									
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Project Name: Project ID:	Project Name: UPDATED DSI - OURIMBAH Project ID: NEW23P-0208																Eurofins	Eurofins Analytical Services Manager : Andrew Black				
Sample Detail						Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4							
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Sydney Laboratory	/ - NAT	TA # 1261 Site	# 18217			Х	X		X	Х	Х	Х	Х	Х	X	ļ						
Mayfield West Lab	oratory	y - NATA # 126	61 Site # 25079					Х								-						
13 TP106 0.6-0.7	Oct 2	25, 2024	Soil	N24-C	c0070607		X									-						
14 TP107 0.0-0.1	Oct 2	25, 2024	Soil	N24-C	c0070608	Х						Х		Х		-						
15 TP107 0.4-0.5	Oct 2	25, 2024	Soil	N24-C	c0070609							Х		Х		ł						
16 TP107 0.8-0.9	Oct 2	25, 2024	Soil	N24-C	c0070610							Х		Х		-						
17 TP108 0.0-0.1	Oct 2	25, 2024	Soil	N24-C	c0070611	Х					Х	Х		X		-						
18 TP108 0.2-0.3	Oct 2	25, 2024	Soil	N24-C	c0070612		X									-						
19 TP109 0.0-0.1	Oct 2	25, 2024	Soil	N24-C	c0070613	Х						Х		Х		ł						
20 TP109 0.4-0.5	Oct 2	25, 2024	Soil	N24-C	c0070614							Х		Х		-						
21 TP109 0.8-0.9	Oct 2	25, 2024	Soil	N24-C	c0070615		X									-						
22 TP110 0.0-0.1	Oct 2	25, 2024	Soil	N24-C	c0070616	Х						Х		Х		ł						
23 TP110 0.2-0.3	Oct 2	25, 2024	Soil	N24-C	c0070617		X									-						
24 TP111 0.0-0.1	Oct 2	25, 2024	Soil	N24-C	c0070618	Х		<u> </u>			Х	Х		Х		-						
25 TP111 0.4-0.5	Oct 2	25, 2024	Soil	N24-C	c0070619			<u> </u>				Х		Х		-						
26 TP111 0.8-0.9	Oct 2	25, 2024	Soil	N24-C	c0070620		X									ļ						
27 TP112 0.0-0.1	Oct 2	25, 2024	Soil	N24-C	c0070621	Х						Х		Х]						

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Projet ID:: UPDATED DSI - OURIMBAH NEW32P-0208 Sample Detail N </th <th>Co Ad</th> <th colspan="6">Company Name: Qualtest Address: 2 Murray Dwyer Circuit Mayfield West NSW 2304</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Ore Re Ph Fa:</th> <th>der No port # one: <:</th> <th>D.: !:</th> <th>1153 02 4 02 4</th> <th>3637 1968 4 1960 9</th> <th>468 775</th> <th></th> <th>Received: Due: Priority: Contact Name:</th> <th>Oct 28, 202 Oct 30, 202 1 Day Emma Cole</th> <th>4 11:30 AM 4 man</th>	Co Ad	Company Name: Qualtest Address: 2 Murray Dwyer Circuit Mayfield West NSW 2304											Ore Re Ph Fa:	der No port # one: <:	D.: !:	1153 02 4 02 4	3637 1968 4 1960 9	468 775		Received: Due: Priority: Contact Name:	Oct 28, 202 Oct 30, 202 1 Day Emma Cole	4 11:30 AM 4 man	
Methoda Sample Detail Adv VA	Project Name: UPDATED DSI - OURIMBAH Project ID: NEW23P-0208																	Eurofins	s Analytical Servi	ces Manager :	Andrew Black		
Melbourne Laboratory - NATA # 1261 Site # 1254 Image: Constraint of the state of the stat	Sample Detail						Asbestos - WA guidelines	HOLD*	HOLD*	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B4							
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28 TP112 0.4-0.5 Oct 25, 2024 Soil N24-Oc0070622 X Image: Control of Control	May	ield West Labo	oratory - NA	ΓA # 120	61 Site # 25079					Х													
29 TP113 0.0-0.1 Oct 25, 2024 Soil N24-Oc0070623 X X X X X 30 TP113 0.2-0.3 Oct 25, 2024 Soil N24-Oc0070624 X X X X X 31 TP114 0.0-0.1 Oct 25, 2024 Soil N24-Oc0070625 X X X X X 32 TP114 0.4-0.5 Oct 25, 2024 Soil N24-Oc0070626 X X X X 33 TP115 0.0-0.1 Oct 25, 2024 Soil N24-Oc0070627 X X X X 34 TP115 0.2-0.3 Oct 25, 2024 Soil N24-Oc0070628 X X X X 35 TP116 0.0-0.1 Oct 25, 2024 Soil N24-Oc0070629 X X X X 36 TP116 0.2-0.3 Oct 25, 2024 Soil N24-Oc0070630 X X X X 37 SS117 Oct 25, 2024 Soil N24-Oc0070631 X X X X	28	TP112 0.4-0.5	Oct 25, 202	24	Soil	N24-0	c0070622		X														
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40 D2 25 10 24 Oct 25 2024 Soil N24-Oc0070634	40	D2 25 10 24	Oct 25, 202	24	Soil	N24-0	00070634							x		x							
41 T2 25 10 24 Oct 25, 2024 Soil N24-Oc0070635 X	41	T2 25 10 24	Oct 25, 202	24	Soil	N24-0	00070635		x					~		~							
42 TB.25.10.24 Oct 25, 2024 Water N24-Oc0070636 X	42	TB.25.10.24	Oct 25, 202	24	Water	N24-0	c0070636										x						

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Company Name: Qualtest Address: 2 Murray Dwyer Circuit Mayfield West NSW 2304 Project Name: UPDATED DSI - OURIMBAH Project ID: NEW23P-0208										Or Re Ph Fa	der N port a one: x:	o.: #:	115 02 4 02 4	3637 1968 4 1960 9	468 775	Eurofins	Received: Due: Priority: Contact Name:	Oct 28, 202 Oct 30, 202 1 Day Emma Cole	4 11:30 AM 4 man Andrew Black				
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			Samp	ole Detail			sbestos - WA guidelines	10LD*	HOLD*	oH (1:5 Aqueous extract at 25 °C as rec.)	Aetals M8	suite B13: OCP/PCB	Aoisture Set	Cation Exchange Capacity	urofins Suite B7	urofins Suite B4							
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Sy	Sydney Laboratory - NATA # 1261 Site # 18217						х	Х		Х	х	х	х	х	Х	X							
Ma	Mayfield West Laboratory - NATA # 1261 Site # 25079								Х														
43	ASB TP01	Oct 2	25, 2024	Buildin Materia	g N24-C	0c0070637			х														
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Internal Quality Control Review and Glossary General

- 1. 2.
- QC data may be available on request. All soil results are reported on a dry basis, unless otherwise stated.
- Samples were analysed on an 'as received' basis. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results. This report replaces any interim results previously issued. 3. 4. 5.

Holding Times Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).

Units % w/w: F/fld F/mL g, kg g/kg L, mL L/min min	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (% w/w) Airborne fibre filter loading as Fibres (N) per Fields counted (n) Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (C) Mass, e.g. of whole sample (M) or asbestos-containing find within the sample (m) Concentration in grams per kilogram Volume, e.g. of air as measured in AFM (V = r x t) Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (r) Time (t), e.g. of air sample collection period
Calculations Airborne Fibre Concentration:	$C = \left(\frac{A}{\alpha}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{v}\right) \times \left(\frac{1}{v}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{v}\right)$
Asbestos Content (as asbestos):	$\% w/w = \frac{(m \times P_A)}{M}$
Weighted Average (of asbestos):	$\mathscr{H}_{WA} = \sum \frac{(m \times P_A)_X}{x}$
Terms %asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 Appendix 2, else assumed to be 15% in accordance with WA DOH Appendix 2 (P _A). This estimate is not NATA-accredited.
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g., by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total %w/w asbestos content in asbestos-containing finds in a soil sample (% w/w).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
	Chan of Custody.
	Qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004
Dry	Sampie is oneo by neating prior to analysis.
DS EA	Dispersion Statining. Technique required for unequivocal identification of assession libres of PEM.
FA	Fibrous Aspestos. Aspestos-containing material that is wholy of in part triable, including materials with nigher aspestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to distinguish visibly and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess the degree of friability.
HSG248	UK HSE HSG248, Asbestos: The Analysts Guide, 2 nd Edition (2021), ISBN: 9780616667079.
HSG264	UK HSE HSG264, Asbestos: The Survey Guide (2012), .ISBN: 9780717665020
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (K) as derived from the effective filter area of the given AFM membrane used for collecting the sample (A) and the projected eyepiece graticule area of the specific microscope used for the analysis (a).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, <i>Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres</i> , 2nd Edition [NOHSC:3003(2005)].
MMVF	Nan-made vitreous Flore - exhibiting isotropic characteristics, including glass tibres, glass wool, rock wool, siag wool, ceramic tibres and "bio-soluble tibres. NOTE: previously known as "synthetic mineral fibre" (SMF).
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 53/0:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004
PCM	Phase Contrast Microscopy. This is used for tibre counting according to the MIFM.
	Polarised Light Microscopy. As used for Hibre Identification and Trace Analysis according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004
Sampling	Unless otherwise stated, Eurorins are not responsible for sampling equipment or the sampling process.
JRA Traco Analysis	Jample Receipt Auvice.
	An analytical procedule is used to detect the presence on respiratore norse (particularly assesses) in a given sample matrix.
	United Kinguoni, realin and Safety Executive, realin and Safety Guidance, publication.
	Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004. It may include (but is not limited to) actinolite, anthophyllite, or tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos- Contaminated Sites in Western Australia (updated 2021), including Appendix Four: Laboratory analysis
Weighted Average	Combined average %w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (%wA).



Comments

24-Oc0070608, 24-Oc0070611, 24-Oc0070616 samples received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity	
Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Sayeed Abu

d Abu Senior Analyst-Asbestos

Authorised by:

Chamath JHM Annakkage

Senior Analyst-Asbestos

Glenn Jackson Managing Director

Final Report - this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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