

DETAILED SITE INVESTIGATION



PRODUCTION KITCHEN BRACKEN ST - CAMBRIDGE

Client:Hobart International AirportCertificate of Title:152454/1Investigation Date:14/01/2025, 16/01/2025 & 22/01/2025

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Executive Summary

Enviro-Tech Consultants Pty. Ltd. (Envirotech) were contracted by Jaws Architects to prepare a phase II detailed site investigation (DSI) for a proposed commercial kitchen development located at Bracken Street, Cambridge (herein referred to as the Site or the Project Area) (refer to Appendix 1).

The purpose of the investigation was to evaluate the Site including the stockpile to the north of the proposed kitchen for contaminants of potential concern (CoPCs) identified in previous investigations (Envirotech Limited Scope Environmental Site Assessment [LSESA] 2024b and Envirotech Preliminary Site Investigation [PSI] 2025). The Site has historically been subject to potentially contaminating land-use activities (PCA's) and is now proposed to be redeveloped.

It is proposed that stockpiled soil will be used to infill the Production Kitchen Site to a level of 4.5 metres AHD. Based on calculations, the natural ground level beneath the stockpile is determined to be 3.4 metres AHD, with the estimated volume of the stockpiled soil being 15,000 cubic metres.

The Civil Aviation Authority partly overlaps the Site and is the likely source of historically distributed and broadly dispersed PFAS. At least five historical and demolished buildings have been identified in Site aerial photographs which are likely to be source of asbestos which was distinguished in the PSI and has been investigated as part of this DSI.

Contaminants of potential concern (CoPCs) encompass those known to be present at the site, as well as those that have not been detected but may potentially exist. Based on the available evidence, contaminants of potential concern include:

- Total recoverable hydrocarbons (TRH) or total petroleum hydrocarbons (TPH)
- Polycyclic aromatic hydrocarbons (PAH)
- Heavy metals
- PFAS

Asbestos, though not technically a contaminant, must be investigated due to potential health risks. It is present on the site in cement sheet form as an asbestos-containing material (ACM¹) and likely exists in the soil as Friable Asbestos (FA²), Asbestos Fines (AF³).

The commercial and industrial land use guidelines have been established to assess human health risks with the plan of using the Site as a commercial kitchen. The design includes extensive paved surfaces across most of the Site, which minimizes the potential for exposure to soil contaminants. A commercial/industrial ecological guideline has been implemented since the Site has undergone significant modification. Pine plantations are located downgradient of the Site and are regarded as a commercial operation.

¹ Bonded ACM (bonded Asbestos) - asbestos-containing-material which is in sound condition and where the asbestos is bound in a matrix such as cement or resin (e.g. asbestos fencing and vinyl tiles). Bonded ACM refers to, in this instance, material that cannot pass a 7 mm x 7 mm sieve.

² Fibrous Asbestos - friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This material is in a degraded condition such that it can be broken or crumbled by hand pressure.

³Asbestos Fines - AF includes free fibres, small fibre bundles and also small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve.



The following are concluded from the detailed Site investigation:

- It is concluded from this assessment that **none** of the soil samples collected from the Site (within the stockpile and at the Production Kitchen Site) have COPC's (including PFAS) that exceed NEPM 2013 commercial/industrial guideline limits.
- There is a low risk that soil within the stockpile is considered as a hazardous substance if the soil is to be used in a manned which does not permit PFAS exposure to secondary receptors.
- PFAS compounds have been identified in the soil at levels that permit its use as fill material for the production kitchen site. This is contingent upon ensuring that more than 80% of the production kitchen site surface is paved and appropriately managed to limit exposure to secondary consumers, in accordance with a PFAS soil management plan.
- Residual asbestos-containing material (ACM) has been detected on the surface of the Production Kitchen Site at a depth ranging from 0 to 0.1 meters. The exposed asbestos at the surface does not comply with NEPM 2013 guidelines. It is necessary to determine if asbestos fibres (AF and FA) are present on the surface of the site in quantities exceeding NEPM 2013 guidelines near where ACM has been found. Alternatively, all surface soil in these areas may be removed, followed by validation sampling to confirm compliance with NEPM 2013 guidelines.
- Asbestos has **not** been detected in the stockpile, and the likelihood of the stockpile containing asbestos concentrations exceeding NEPM (2013) guideline limits is low.



List of Abbreviations

ABC	Ambient Background Concentration			
AHD	Australian Height Datum (1983)			
ALS	Analytical Laboratory Services			
APC	areas of potential concern			
AS	Australian Standard			
AST	above ground storage tank			
bgl	below ground level			
B(a)P	benzo(a)pyrene			
ВН	Borehole			
BTEX	benzene, toluene, ethylbenzene and xylenes			
CEC	cation exchange capacity			
COA	certificate of analysis			
COC	chain of custody			
COPC	contaminants of potential concern			
Cr III	Chromium			
CRC CARE	Cooperative Research Centre for Contamination Assessment and Remediation of the Environment			
CSIRO	Commonwealth Scientific and Industrial Research Organisation			
CSM	Conceptual Site Model			
CSA	Contaminated Site Assessment			
DA	development application			
DEM	Digital Elevation Model			
DPAC	Department of Premier and Cabinet			
DQO	data quality objective			
DSG	Department of State Growth			
DSI	detailed site investigation			
EIL	ecological investigation level			
Envirotech	Enviro-Tech Consultants Pty. Ltd.			
EPA	Environmental Protection Authority			
ESA	Environmental Site Assessment			
ESL	ecological screening level			
GDA94	Australian Geodetic Datum (1994) Zone 55			
GIL	groundwater investigation level			
GIS	Geographical Information System			
GPS	global positioning system			
HIL	health investigation level			



HSL	health screening level			
IPS	Interim Planning Scheme			
LIDAR	Light Detection And Ranging			
LIST	Land and Information System, Tasmania			
LNAPL	light non-aqueous phase liquid			
LOR	limits of reporting			
MRT	Mineral Resources Tasmania			
N/A	not applicable			
NATA	National Association of Testing Authorities			
NEPC	National Environment Protection Council			
NEPM ASC	National Environment Protection (Assessment of Site Contamination) Measure 1999			
NL	not limiting			
OCP	organochlorine pesticide			
РАН	polycyclic aromatic hydrocarbon			
PCA	potentially contaminating activities			
РСВ	polychlorinated biphenyl			
PHC	Petroleum hydrocarbon			
PSI	preliminary site investigation			
PVI	Petroleum vapour intrusion			
RPD	relative percentage difference			
QA	quality assurance			
QC	quality control			
SRN	Sample Receipt Notification			
TDS	total dissolved solids			
TEF	toxicity equivalence factor			
TEQ	toxicity equivalent quotient			
ТРН	total petroleum hydrocarbons			
TRH	total recoverable hydrocarbons			
UPSS	Underground Petroleum Storage Systems			
USCS	unified soil classification system			
USEPA	United States Environmental Protection Authority			
UPSS	underground petroleum storage system			
UST	underground storage tank			
VOCC	volatile organic chlorinated compound			
WMS	Waterloo membrane samplers			



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1 Introduction

1.1 Background

Enviro-Tech Consultants Pty. Ltd. (Envirotech) were contracted by Jaws Architects to prepare a phase II detailed site investigation (DSI) for a proposed commercial kitchen development located at Bracken Street, Cambridge (herein referred to as the Site or the Project Area) (refer to Appendix 1).

The purpose of the investigation was to evaluate the Site including the stockpile to the north of the proposed kitchen for contaminants of potential concern (CoPCs) identified in previous investigations (Envirotech Limited Scope Environmental Site Assessment [LSESA] 2024b and Envirotech Preliminary Site Investigation [PSI] 2025). The Site has historically been subject to potentially contaminating land-use activities (PCA's) and is now proposed to be redeveloped.

Fieldwork for this investigation took place from January 14th to 22nd, 2025, involving the collection and analysis of soil samples according to relevant industry guidelines. Selected samples were analysed in a NATA accredited laboratory, and the analytical results were compared against the Site Assessment Criteria (SAC) to determine the site's suitability for the proposed development.

1.2 Proposed Development

The proposed work plan is presented in Appendix 1.

It is proposed that stockpiled soil will be used to infill the Production Kitchen Site to a level of 4.5 metres AHD. Based on calculations, the natural ground level beneath the stockpile is determined to be 3.4 metres AHD, with the estimated volume of the stockpiled soil being 15,000 cubic metres.

It needs to be ensured that hazardous materials are not incorporated into the proposed development, and therefore the stockpile and the surface of the Production Kitchen Site is to be assessed for contaminants of potential concern including but not limited to PFAS, asbestos, hydrocarbons, and heavy metals.

1.3 Objectives

The objective of the Detailed Site Investigation (DSI) is to conduct a contaminated land assessment that addresses data gaps identified in the Limited Scope Environmental Site Assessment (Envirotech 2024b), and Preliminary Site Investigation (PSI) (Envirotech 2025). This assessment is in preparation for future commercial development of the Production Kitchen Site and its surroundings. The findings of the DSI will be used to determine if any management controls or remediation actions are necessary before, during, or after redevelopment.

1.4 Scope

Filed works include the following with more detail presented in the methods section of this report:

- Desktop review of the PSI and recent PFAS National Environmental Management Plan 3.0 guidelines as well as associated documentation.
- A more detailed Site walkover assessing for the presence/absence of asbestos.
- Sampling for Contaminants of Potential Concern (CoPC) including asbestos.
 - Drilling 21 core samples through the Stockpile into the natural ground
 - Hand excavations to 0.1m depth using a shovel
- Logging soil in all boreholes in accordance with AS1726 and photographing the soil core
- Collection and submitting samples to a NATA accredited laboratory for analysis:
 - Eighteen (18) primary soil samples and quality control samples for potential contaminants
 - Three (3) soil samples containing visible ACM
- Surveying ALL testing locations to 0.6m accuracy vertical (mAHD) and horizontal (GDA94) using a differential GPS as detailed in soil logs.

2 Site Description and Environmental Setting

2.1 Site Details

The Site spans approximately 16,800 m² of airside land within HIAPL. Part of the Site comprising the 'stockpiled area' has been utilized over the past decade for stockpiling soil and materials excavated during airside projects. The bulk of this material has sourced from the construction of the building pad and footings from the freight depot Site. Additional historical context, including aerial photography and LIDAR comparisons can be found in the PSI (Envirotech 2025).

The Civil Aviation Authority partly overlaps the Site and is the likely source of historically distributed and broadly dispersed PFAS. At least five historical and demolished buildings have been identified in Site aerial photographs which are likely to be source of asbestos which was distinguished in the PSI and has been investigated as part of this DSI.

Item	Details
Land Title	152454/1
Project Area Address (The LIST)	HOBART INTERNATIONAL AIRPORT' - 1309 TASMAN HWY CAMBRIDGE TAS 7170
Project Area Physical Address	The southern corner of Sinclair Place and Bracken Street, HIAPL Freight Terminal Precinct.
Locality Map	Refer to Figure 1
Development	Department of Health Production Kitchen
Site Area (m²)	16,800 m ²
Authority	Commonwealth of Australia (Crown)
Land Use Commercial/Industrial	
Onsite PCA's	Civil Aviation Authority
	Potentially Contaminated Fill Stockpiling
	Civil Aviation Authority
Offsite PCA's	Potentially Contaminated Fill Stockpiling
	Landfill
Site Topography	Natural ground surface 3.2 to 4.7m AHD
	Filling up to 7.2 m AHD
Site Drainage Well drained sandy soils vulnerable to short intensity flash flooding	
	Frederick Henry Bay 1.0km southwest of Site boundary.
Decenters	Conservation of Freshwater Ecosystem Values (CFEV) Wetland - Medium
Receptors	Integrated Conservation Value 700m to northeast.
	Barilla Bay 2.4 km to northeast.

Details of the Site are summarised in Table 1.

Table	1	Site	Summary
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2.2 Surrounding Land Use

Details of surrounding land use are presented in Table 2.

Direction	NEPM Land Use	Use
Northwest	Commercial/Industrial D	Former Landfill
Northwest	commercialy industrial D	Freight Depot
Northeast	Commercial/Industrial D	Civil Aviation Authority & Airside
Southeast	Commercial/Industrial D	Pine Plantations, Frederick Henry Bay ~1km
Southwest	Commercial/Industrial D	Lanherne Golf Club

Table 2 Surrounding Land Use

2.3 Local topography

Based on the Hobart Airport Light Detection and ranging (LIDAR) 2024, the Site ranges in elevation from 3.2 to 4.7m AHD across the natural ground surface. A series of longitudinal dune swales (troughs) and crests are apparent within the landscape which are aligned with the coast. The natural landscape is

interrupted by sandy fill which cover the proposed road (extension of Sinclair Place), the turning circle and the bulk of the stockpile which is has an elevation of up to 7.2 m AHD.

2.4 Local Hydrology

There is a wetland to the northeast of the Site. Previous studies (GHD 2018) indicate that this flows toward Seven Mile Beach (GHD). This wetland has been classified as having medium Conservation of Freshwater Ecosystem Values (CFEV) according to LISTmap (2016). The shallow sands are estimated to have an infiltration rate in the order of 3 m/day and are well drained.

2.5 Geology

According to 1:25,000 mineral resources Tasmania geological mapping geology has been generalised as comprising Quaternary Sand gravel and mud of alluvial, lacustrine and littoral origin.

2.6 Hydrogeology

Based on Envirotech's geotechnical site investigation, (Envirotech 2024a) groundwater has a fall of 0.0025 (0.25%) to the southeast towards Frederick Henry Bay. The elevation of groundwater is calculated to range from 2.1 to 2.6m AHD beneath the Site approximating 0.5 to 1.5m below ground surface.

3 Preliminary Conceptual Site Model

3.1 Areas of Potential Concern

3.1.1 Stockpile

The following PCA are apparent within the stockpiled area:

- Within the stockpile area, GHD have reported PFOS in soil at concentrations below the nominated threshold limits (GHD 2024) (Map 1). The only sample which exceeded guidelines for leachability (TP12) which was located outside of the Site towards the historical Site. The sampling depth has not been indicated, but it is likely the sample was collected from or close to the natural ground surface layer.
- PFAS was detected in test pits 3, 9, 10 and 11 (all offsite), and the soil had the appearance of topsoil (dark grey in colour) but clearly comprised fill, with the PFAS likely to have sourced from the stockpile origins.
- There were no detections of heavy metals or hydrocarbons exceeding nominated threshold limits in the stockpiled soil.
- There was no detection of asbestos in any of the test pits.
- Envirotech similarly reported PFOS in soil at concentrations below the nominated threshold limits (Envirotech 2024b).

3.1.2 Natural Surface of The Site

- There is evidence of historical building on the Site which were constructed from asbestos sheeting or asbestos containing materials (ACM). As part of the PSI, the site walkover identified areas of broken sheeting distributed to the south of the Site (offsite). The full extent of ACM is to be investigated.
- Historical use of PFAS at the Civil Aviation Authority Training Facility located to the northeast. Part of the training ground covers the Site, including beneath parts of the stockpile. PFAS is identified in natural soil layers at very low concentrations within the stockpile area (Envirotech 2024b).

3.2 Contaminants of Potential Concern

Contaminants of potential concern (CoPCs) encompass those known to be present at the site, as well as those that have not been detected but may potentially exist. Based on the available evidence, contaminants of potential concern include:

- Total recoverable hydrocarbons (TRH) or total petroleum hydrocarbons (TPH)
- Polycyclic aromatic hydrocarbons (PAH)
- Heavy metals
- PFAS

Asbestos, though not technically a contaminant, must be investigated due to potential health risks. It is present on the site in cement sheet form as an asbestos-containing material (ACM⁴) and likely exists in the soil as Friable Asbestos (FA^5), Asbestos Fines (AF^6).

⁴ Bonded ACM (bonded Asbestos) - asbestos-containing-material which is in sound condition and where the asbestos is bound in a matrix such as cement or resin (e.g. asbestos fencing and vinyl tiles). Bonded ACM refers to, in this instance, material that cannot pass a 7 mm x 7 mm sieve. ⁵ Fibrous Asbestos - friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This material is in a degraded condition such that it can be broken or crumbled by hand pressure.

⁶Asbestos Fines - AF includes free fibres, small fibre bundles and also small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve.

3.3 Potential Receptors

3.3.1 Current Receptors

The current receptors identified at and near the site include airport workers. These receptors are primarily commercial users, such as workers performing general HIAPL tasks in the area, intrusive maintenance workers involved in future trenching activities, or workers engaged in stockpiling or earthmoving operations in the area.

3.3.2 Future Receptors

The site is planned for commercial development. Future receptors will include construction workers during development and commercial workers after completion. For the proposed production kitchen, commercial/industrial thresholds have been applied on the basis that the proposal is for all surfaces are to be fully paved.

3.3.3 Ecological Receptors

Ecological receptors need to be considered mainly in the context of potential exposure to PFAS.

3.4 Potential Contaminant Exposure Pathways

The conceptual site model (CSM) in Table 3 details the potential hazards and risks identified at the Site from the PCA.

Potential Contamination Source	COPCs	Potential Exposure Pathways and Transport Mechanisms	Receptors
Uncontrolled fill on	Asbestos	Inhalation of dust/fibers Disturbance during construction	 On-site construction Workers Off-site human receptors
the site stockpile	PFAS, PAHs, heavy metals	Oral exposure Inhalation of dust Disturbance during construction	 On-site construction Workers Off-site human receptors
Hazardous building materials in former site structures	Asbestos	Inhalation of dust/fibers Disturbance during construction	 On-site construction Workers Off-site human receptors
Contaminated	PFAS	Oral exposure Inhalation of dust Disturbance during construction	 On-site construction Workers Off-site human receptors
topsoil	PFAS	Ingestion of vegetation or primary consumers in soil	Ecological receptors (secondary to tertiary)
Contaminated soil	TRH, BTEX	Inhalation exposure	Trench workers
	TRH, BTEX	Vapor intrusion	On-site commercial users

Table 3 Conceptual Site Model

4 Assessment Criteria

The assessment criteria specified in the following publications were considered for this assessment:

- National Environment Protection (Assessment of Site Contamination) Measure 2009, as amended 2013 (NEPM)
- Tasmania EPA [TAS EPA], Information Bulletin IB105 Classification and Management of Contaminated Soil For Disposal (2018)
- Heads of the EPA Australia and New Zealand, PFAS National Environmental Management Plan [PFAS NEMP], Version 3.0 (2025)

4.1 Airport (Environment Protection) Regulations 1997

The Airport Regulations establish rules for pollution control based on the National Environment Protection Council Act 1994. They aim to improve environmental management at airports, specifically addressing soil pollution to protect soil chemistry, human health, aesthetics, the environment, and land use. If soil pollution exceeds set limits, an environmental officer or expert must properly manage or mitigate the effects.

The soil pollution limits specified in the Airport Regulations for this report pertain to 'areas of an airport generally'.

4.2 Human Health Guidelines

The commercial and industrial land use guidelines have been established to assess human health risks with the plan of using the Site as a commercial kitchen. The design includes extensive paved surfaces across most of the Site, which minimizes the potential for exposure to soil contaminants.

4.2.1 Soil Health Investigation Levels (HILs) – HIL D Commercial/industrial

The NEPM (NEPC 2013) guidelines outline four generic land use settings for Tier 1 assessment of potential human health risks from metals and organic substances such as PAHs, phenols, pesticides, herbicides. The HILs apply to assessing human health risk through all relevant exposure pathways.

4.2.2 Soil Health Screening Levels (HSLs) – HSL D Commercial/industrial for vapour intrusion

HSLs for selected petroleum compounds assess human health risk via inhalation and direct contact. The HSLs are criteria based on a series of conservative assumptions designed to protect human health in various exposure scenarios across different land use types.

As part of NEPM 2013 Schedule B1, The HSLs are thresholds that help determine whether detected Petroleum Hydrocarbon Compounds in soil present a risk of petroleum hydrocarbon vapour intrusion (PVI) into confined spaces. This includes but is not limited to spaces such as future commercial spaces or areas where workers might be exposed for example in trenches. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures.

The adopted threshold limits for EILs and ESLs from Schedule B1 in the ASC NEPM (NEPC 2013) are summarised in Appendix 4.

4.2.3 Hydrocarbon Management Limits – HSL D Commercial/industrial for vapour intrusion

Per Section 2.9 of Schedule B1 of the ASC NEPM (NEPC 2013), Management Limits for petroleum hydrocarbons were assessed to determine if soil conditions present a risk to buried infrastructure or have the potential to form NAPL with potential fire and explosion hazard risks. Values from Table 1 B(6) of Schedule B1 for coarse-grained soils will be used.

4.2.4 Soil HSLs for Asbestos

Further characterisation of in-situ fill material was assessed against NEPM (NEPC 2013) for asbestos in soils. The action criteria outlined in Table 4 was adopted as per the specific land use scenario for the specific portion of the site.

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Table 4 Summary of Adopted HSLS For Asbestos Contamination In Soil

Form of Asbestos	Health Screening Level (w/w) – Commercial/Industrial D	
Bonded ACM	0.05%	
FA and AF (friable asbestos)	0.001%	
All forms of asbestos	No visible asbestos for surface soils	

4.2.5 PFAS Soil Health Investigation Levels – Commercial and industrial

The HEPA PFAS National Environmental Management Plan Version 3.0 (2025) provides guidance on the management of PFAS impacted soils. The classes of soil criteria defined in the PFAS NEMP Version 3.0 (HEPA 2020) for human Health Investigation Levels (HIL) are presented in Table 11.

Assumes eight hours is spent indoors and one hour spent outdoors at a site such as a shop, office, factory, or industrial site. If these scenarios are not appropriate, a site-specific assessment is required.

The PFOS + PFHxS value was derived using the methodology consistent with assumptions set out in the ASC NEPM for HIL D. The industrial/commercial direct exposure criterion for PFOA (including its salts and related compounds) has been set as 50mg/kg.

Soil Criteria (Human Health)	PFOS + PFHxS (mg/kg)	PFOA (mg/kg)
Commercial/Industrial (HIL-D)	20	50

Table 5 Summary of PFAS Human Health Soil Criteria

4.3 Ecological Guidelines

A commercial/industrial ecological guideline has been implemented since the Site has undergone significant modification. Pine plantations are located downgradient of the Site and are regarded as a commercial operation.

4.3.1 PFAS Soil Health Investigation Levels – Ecological Guidelines Value

The ecological guideline values are used to assess and investigate potential risks to aquatic and terrestrial ecosystems. The ecological guideline values in Table 6 are intended to be protective of wildlife, based on the current scientific evidence. The following interim ecological soil guideline values consider both direct exposure and indirect exposure to ecological receptors. It is acknowledged that these guideline values are interim and may be refined by future work as additional relevant research becomes available.

The ecological direct soil exposure guideline applies specifically to the protection of organisms that live within, or in close contact with soil, such as earthworms and plants.

Ecological indirect soil exposure guideline accounts for the various pathways through which organisms can be exposed whether or not they are in direct contact with PFAS-contaminated soil (for example, exposure through the food chain, such as animals consuming contaminated prey, plants and water). The values calculated for exposure of a small secondary or tertiary consumer with large proportionate food intake are based on the most sensitive exposure pathway.

For the purposes of this investigation, the location of the existing stockpiles is not pertinent as the focus of this assessment is to determine whether the proposed use of the soil at the Production Kitchen Site presents a scenario where the soil could be classified as hazardous.

As the Site is proposed to be intensively developed with greater than 80% of each hectare (1.68 ha in total) will be covered by hard surfaces, a higher value of 0.14mg/kg is allocated as the trigger for assessing risk to secondary consumers such as invertivores and carnivores (Table 6).

Soil Criteria (Ecological) – all land uses	PFOS (mg/kg)	PFOA (mg/kg)
Ecological direct soil exposure (no reptiles)	1	10
Ecological direct soil exposure (with reptiles)	1	0.005
Ecological indirect soil exposure in areas of low accessibility		0.14

Table 6 Summary of PFAS Ecological Soil Criteria

*Based on a small Insectivorous Marsupial dusky antechinus of 62g weight

4.3.2 Soil Ecological Investigation Levels (EIL's)

Ecological Investigation Levels (EILs) pertain to specific metals and organic compounds and are designed to evaluate risks to terrestrial ecosystems in areas of ecological significance, urban residential/open spaces, and commercial/industrial land use scenarios. These levels apply to the top 2 meters of accessible soil, encompassing the root zone and habitation zone of various species.

The proposed development detailed in Section 1.2 includes commercial and industrial land use with limited soil accessibility. Therefore, it is necessary to assess the ecological risks according to the ecological criteria applicable to commercial and industrial land use for these areas.

4.3.3 Soil Ecological Screening Levels (ESL's)

Ecological screening levels (ESLs) have been established for certain petroleum compounds and fractions, and they are used to assess risk to terrestrial ecosystems. These ESLs apply to the top 1 meter of accessible soil. For this assessment, threshold limits are derived based on coarse-grained soil criteria.

The adopted threshold limits for EILs and ESLs from Schedule B1 in the ASC NEPM (NEPC 2013) are summarised in Appendix 4.

4.4 Aesthetics

According to Section 3.6 of NEPM Schedule B1, the aesthetic quality of accessible soils should be taken into account even if analytical testing indicates that concentrations of Contaminants of Potential Concern (CoPCs) are within the Site Assessment Criteria (SAC).

There are no specific guidelines to quantify the aesthetic suitability of soils. According to the NEPM, professional judgement should be used to assess the quantity, type, and distribution of foreign materials and/or odors concerning the intended land use.

The following examples would trigger further aesthetic assessment:

- Hydrocarbon sheen on groundwater
- Presence of anthropogenic materials and/or soil staining
- Odorous soils or groundwater (i.e., hydrocarbon or hydrogen sulphide odours)
- Asbestos or other foreign materials on soil surface

4.5 Disposal

Tasmanian EPA (2018) Waste Classifications Guidelines; Information Bulletin No. 105

The Tasmanian Environmental Protection Authority (EPA) has developed guidelines for the disposal of contaminated soils, including criteria to determine the appropriate landfill class for disposal. These criteria have been assessed against site data to provide an indication of the likely management requirements for the material during the proposed site redevelopment.

5 Methodology

5.1 Overview

The methodology adopted in the assessment is summarised in Table 7.

5.1.1 Asbestos

A total of 62 asbestos samples were collected from the 15,000 m³ stockpile. Samples were carefully screened as per method presented in Table 7 to determine if ACM (cement sheet) has been disposed into the stockpile.

Table 7 Field Investigation Procedures

Task	Adopted Method									
	Traffic management – not required									
Preliminaries Pre-Drilling	Approvals – the investigation was on private land. Envirotech was given permission from the land holder to carry out the works through inductions, SWMS, detailed SOP's and interviews.									
Fre-Drining	Clearance of underground utilities - All services at the Site were located by acquiring service locations digitally and uploading them into Trimble. A 'no drill' buffer of 5m was designated around all mapped services.									
	Soil coring – A 4wd AMS Powerprobe Drilling Rig collects soil cores up to 6.0 m deep.									
	Bore target depth – All boreholes were terminated in the run that intercepted the topsoil layer, ensuring the fill was intercepted.									
	Soil contamination sampling – The investigation followed Australian Standards AS 4482.1—2005 and AS 4482.2-1999 for sampling non-volatile, semi-volatile, and volatile substances. Samples were collected at each 0.5-m interval or when soil type changed. Each sample was handled with clean nitrile gloves and placed in soil jars with minimal air space to reduce PHC volatilisation.									
	Soil asbestos sampling – Discrete 0.5m length soil samples representing 630 cm ³ were collected from the core sample tube and placed into a zip lock bag for further asbestos screening. ACM screening was conducted offsite using an enclosed sieve machine, which allowed full sample separation through a 2.36mm sieve. The accuracy of the screening method is calculated at 1 part per 10,000 (0.01%).									
	Soil logging - the soil was logged according to the Australian Standard AS1726-1993 and the NEPM ASC using a modified method based on the Unified Soil Classification System (USCS). Visual and olfactory observations (e.g. clay content, inclusions, moisture, odours, staining) were also recorded. The soil bore logs are presented in Attachment B.									
	Sample quality control – guided by quality control (QC) procedures outlined in AS 4482.1 - 2005 and AS 4482.2-1999. See the Soil Analysis section for QC details.									
	Field Contamination Sample Management – Soil contamination samples were placed into an ice-filled Esky.									
	Sample Freight – All samples were transferred to an Esky with ice blocks for safe freight. All Eskys were security sealed, with chain of custody documentation and note tracking for freight to Analytical Laboratory Services (ALS) in Melbourne.									
Contaminated Soil analysis	Laboratory services (NATA accredited) ALS Melbourne - Primary, blank, and duplicate samples									
	During the sampling works for this detained site investigation, a visual inspection was also conducted to ensure no asbestos (AF/FA)/ACM materials were visible. The inspections for asbestos were undertaken in accordance with NEPM 2013 in Section 4.1.1. In addition to the visual inspection, a screening assessment based on NEPM 2013.									
Asbestos soil analysis	A 500 mL soil sample was collected at varying depths. All of the 12 collected samples were analysed for asbestos fines (AF) / fibrous asbestos (FA) as per NEPM (2013) guidelines.									
	Where Asbestos Containing Material (ACM), was discerned in a sample, the entire bag sample, including the ACM and soil (sand), was double bagged and dispatched to the laboratory. The purpose was to conduct a detailed analysis of the ACM composition and to screen fibers.									

Task	Adopted Method
Surveying (GPS)	To accurately determine soil coring depths/elevations, all borehole collars were surveyed to 0.6m accuracy using a differential GPS. Data was captured in GDA94 Zone 55 & mAHD.
LIDAR Data	HobartAirport2024-DEM-1m_5415256_GDA2020_Zone 55. Reprojected to GDA94_Zone 55 Clarence2019-DEM-1m_5415256_GDA2020_55. Reprojected to GDA94_Zone 55 GreaterHobartLiDAR2013-DEM-GRID-001_5415256_55_0001_0001 (GDA94_Zone 55) ClimateFuturesDerwent2008-DEM-1m_5415256_55.tif (GDA94_Zone 55)

5.2 Laboratory Analysis

The analytical results are summarised in Section 0 and the quality control results are summarised in Section 8.

5.2.1 Soil Contamination Testing

The soil contamination primary and quality control sample analysis schedule is summarised in Table 8. The pH was tested along with COPCs to determine ecological threshold limits.

Samples	Samples	Analytes
Primary ¹	PT01 2.0 BH10 0.5, 1.5 BH12 0.3, 0.7 BH13 1.0 PT16 1.0 PT20 0.5, 2.5 PT28 0.0 PT34 0.1 PT36 0.0 PT40 0.0 PT42 0.0 PT44 1.5, 2.6 PT45 0.0 PT46 0.0	 PFAS Benzene, toluene, ethylbenzene, xylene (BTEX) Naphthalene TRH C6 – C10 minus BTEX (F1) TRH C10 – C16 minus Naphthalene (F2) TRH >C16 Polynuclear Aromatic Hydrocarbons (PAH's) 8 metals (As, Cd, Cr, Cu, Pb, Ni, Zn, Hg) pH
Duplicate ²	Duplicate	
Rinse ³	Rinse blank	
Field ⁴	Field blank	
Asbestos	PT07 0.0 PT19 0.0 PT32 0.0	Asbestos 500mL

Table 8 Soil Contamination Analysis

1 Primary sample collected from target locations.

2 Duplicate quality control sample tested to determine representativeness of results.

3 Equipment risk blank to assess potential for cross-contamination between samples.

4 Field blank to assess potential for contamination to have sourced from the working environment.

5 Quality control trip sample transported alongside other samples to detect any potential VOC interference during transit

6 Field Observations

6.1 Site Walkover

Following the preliminary PSI walkover, a more detailed Site walkover was conducted between the 16th and the 22nd of January 2025. Photographic observation points are presented in Map 2

6.1.1 Asbestos Visual Assessment

The primary objective of the walkover was to conduct a visual assessment for the presence or absence of asbestos. This specifically focused on areas near the southern corner of the Site, near where asbestos had been previously identified in the offsite cutting, as well as the northern corner of the site, where demolished sheds were observed in aerial imagery.

Asbestos observed at the Site was encountered within 0.1m of surface level (see Map 3) with occurrences catalogued in Table 10. All pieces of asbestos encountered were retained in sealed bags for further analysis.

There are two distinct locations of asbestos distribution:

- Area A to the north which is an inferred 55m wide zone surrounding former building structures.
- Area B to the south with a narrower distribution of 40m associated with smaller shed structures (offsite).
- As the focus has been on the Site only (and not around other buildings to the west), the true extent of the asbestos may be larger than inferred.
- It is apparent that the bulk of the asbestos has been removed from the buildings and the mapped asbestos only represents a small proportion of asbestos remaining from the original building.

Sample	Occurrence	Date	Easting	Northing	Depth	Layer	Dimensions	Weight
(Bag) ID			GDA94 55	GDA94 55	(m)	-		
							19x17x5	0.81
							29x22x4	3.19
01	Surface	14/01/2025	541828.6	5256487.68	0	5	15x4x1	0.37
							32x19x5	2.58
							31x17x4	2.43
02	Currente e e	14/01/2025	F4102C F1	5256400 70	0		28x21x4	2.48
02	Surface	14/01/2025	541826.51	5256488.79	0	5	42x20x4	3.75
03	Surface	14/01/2025	541826.22	5256490.36	0	5	32x19x5	2.12
					-		24x20x4	1.71
04	Surface	14/01/2025	541827.8	5256487.11	0	5	18x16x5	1.03
05	Surface	14/01/2025	541847.66	5256360.59	0	6	66x51x5	30.7
06	Surface	14/01/2025	541844.5	5256363.38	0		95x60x8	37.68
							43x33x6	13.88
07	Excavation	14/01/2025	541845.85	5256362.52	0	5	62x25x5	15.81
							90x83x5	69.47
08	Surface	14/01/2025	541843.48	5256365.93	0	6	58x43x6	17.96
08	Surrace		541645.46	5250505.55	0	_	58x50x5	22.09
09	Surface	14/01/2025	541835.78	5256353.17	0	5	111x72x6	72.81
10	Currente e e	14/01/2025	F 4 1 0 F 2 0 0		0	F	67x50x5	28.72
10	Surface	14/01/2025	541852.09	5256361.53	0	5	81x55x6	36.52
11	Surface	14/01/2025	541854.49	5256473.73	0	5	34x32x4	2.45
12	Surface	14/01/2025	541851.93	5256466.74	0	5		
13	Surface	14/01/2025	541837.85	5256468.73	0	5	24x12x4	0.24
							24x17x5	0.21
14	Surface	14/01/2025	541822.52	5256488.36	0	5	28x27x5	3.61
							33x24x5	2.79
15	Surface	22/01/2025	541850.77	5256478.31	0	5	30x27x5	2.63
16							29x29x4	3.29
16	Excavation	16/01/2025	541830	5256489	0.1	5	37x30x5	3.78
PT07							21x10x3	1.84

 Table 9 Asbestos Registry from Site Investigation Works

Due to the presence of ACM on the surface of the Site, the NEPM (NEPC 2013) guidelines thresholds are triggered for both visible asbestos and visual aesthetics.

The natural soil was not tested for asbestos fibres, given there is a cleanup requirement to ensure there is no visible asbestos in the top 100mm of soil. A clean up method would see all potential ACM in the top 100mm including fibres within the topsoil layer removed from the Site.

6.2 Soil Profiles

Soil profiles were investigated using a combination of:

- Direct push core sampling through deep fill areas
- Hand excavations in areas where shallow fill or topsoil is observed.

Drilling and excavation locations are presented in Map 4 with soil layering descriptions summarised in Table 10 to Table 12 and bore logs presented in Appendix 7. The geology of the Site is not consistent with MRT mapping with all boreholes intercepting Quaternary sand aeolian deposits.

6.2.1 FILL (Layers 1 to 5)

Investigated fill thicknesses within the stockpile are up to 3.9m (PT04), which is the maximum depth limit which has modelled based on 2013 to 2019 LIDAR comparisons. The FILL comprises predominantly SAND with trace amounts of roots. The majority (90%) of the stockpile comprises SAND with the exception for Layer 2 which comprises SAND with gravel, mixed with up to 15 to 20% basalt cobbles. Organic matter makes up a very small proportion of the soil mass (estimated to be less than 1%).

There are locations across the Site where asbestos is encountered on surface, and this soil is generally not categorised as FILL (often categorised as topsoil) unless the asbestos has been encountered within the soil unless the soil is discernibly fill.

6.2.2 Natural Soil Profile (Layers 6 to 10)

Natural soils layers comprise well graded and poorly graded sand.

Table 10 Layer 6: FILL: SAND trace gravel, trace silt, dark greyish brown, well sorted, fine to medium grained sand SW

Hole ID	PT32	PT35	РТ36	PT37		PT41	PT42	PT43
Depth to (m)	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1

Table 11	Layer 7: TOPSOIL: SAND trace silt/clay, dark grey	ish brown, poorly sorted, fine to medium grained sand. SP-SM

Hole	PT25	PT26	PT27	PT28	РТ29	PT30	PT31	PT33	PT34	PT36	PT38	РТ39
Depth to (m)	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.3	0.1	0.1

6.2.3 Asbestos Screening

Asbestos was encountered in borehole PT07 near the at a depth of 0.1m. This was the only sample of asbestos which was encountered within the soil and not on the surface of this soil. This result indicates there may have been reworking of the topsoil.

Table 12 Summary of Site soil conditions

#	Layer	Details	USCS	PT01	РТ02	РТ03	РТ04	РТ05	РТ06	PT07	РТ08	РТ09	PT10	PT11	PT12
1	SAND	FILL: SAND, very pale yellow, well sorted	SW									0-0.3		0-0.3	
2	SAND	FILL: SAND with gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand; angular gravel; 15% BASALT cobbles	SP				0-1.4				0-0.4	0.3- 0.7		0.3- 0.6	0-0.6
3	SAND	FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand	SP	0-1.1	0-1.4	0-1	1.4- 2.2	0-1	0-1.5		0.4- 0.6		0-0.7		
4	SAND	FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand	SP	1.1- 2.2	1.4- 2.5	1-2.5	2.2- 3.9	1-2.7	1.5- 2.9				0.7- 1.5		
7	SAND	TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand	SP-SM							0-0.2					
8	SAND	TOPSOIL: SAND with silt, trace clay, dark grey, poorly sorted, fine to medium grained sand	SM	2.2- 2.3		2.5- 2.6	3.9- 4.1	2.7- 2.9	2.9-3		0.6- 0.7	0.7- 0.8	1.5- 1.6		0.6- 0.8
9	SAND	SAND, pale brown, well sorted, fine to medium grained sand	SW			2.6- 3.5	4.1- 4.2	2.9-3	3-3.1		0.7-1	0.8-1	1.6- 1.7	0.6-1	
10	SAND	SAND trace silt/clay, light yellowish brown, poorly sorted, fine to medium grained sand	SP-SM							0.2- 0.3					

Table 12 (cont)

#	Layer	Details	USCS	PT13	PT14	PT15	PT16	PT17	PT18	PT19	PT20	PT21	PT22	PT23	PT24	PT44
1	SAND	FILL: SAND, very pale yellow, well sorted														
2	SAND	FILL: SAND with gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand; angular gravel; 15% BASALT cobbles		0.2- 0.9	0-1	0-0.1										
3	SAND	FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand	SP	0-0.2			0-0.9				0-2.5	0-2	0-1.6	0-1.5	0-0.4	0-1.7
4	SAND	FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand	SP													1.7- 2.6
5	SAND	FILL: SAND, black, well sorted, fine to medium grained sand, with gravel, trace charcoal, trace silt, 5 % charcoal and roots; sub-angular gravel; 20% DOLERITE cobbles	sw					0-0.1								
7	SAND	TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand	SP-SM						0-0.2	0-0.1						
8	SAND	TOPSOIL: SAND with silt, trace clay, dark grey, poorly sorted, fine to medium grained sand	SM	0.9- 1.2	1- 1.2	0.1- 0.2	0.9- 1.1	0.1- 0.2		0.1- 0.3	2.5- 2.7	2-2.2	1.6- 1.8	1.5- 1.6	0.4- 0.6	2.6- 2.8
9	SAND	SAND, pale brown, well sorted, fine to medium grained sand	SW	1.2- 1.3		0.2- 0.3		0.2- 0.3	0.2- 0.4	0.3- 0.4	2.7-3	2.2- 2.5	1.8-2		0.6-1	2.8-3
10	SAND	SAND trace silt/clay, light yellowish brown, poorly sorted, fine to medium grained sand	SP-SM													

7 Analytical Results

The NATA laboratory certificates including sample receipt notification (SRN), chain of custody (COC), and certificates of analysis (COA) are provided in Appendix 5 and Appendix 6 respectively.

7.1 Health Screening Levels

7.1.1 Soil Testing

Soil laboratory testing results are compared with the nominated HSL threshold limit guidelines in Appendix 4 with results presented in Appendix 6 and Table 13.

Based on soil samples collected from the stockpile and proposed work area:

• Laboratory tests did not detect BTEX, naphthalene, F1, or F2, making it unlikely that hydrocarbons within the stockpile will pose a petroleum hydrocarbon vapour intrusion risk to commercial workers.

Table 13 Analyte Detections in Soil Samples (Highlighted Where NEPM HSL D Guideline Limits for Commercial Use are Exceeded)

and Exceeded)	Soil Layer	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	F1	F2
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		LOR	0.2	0.5	0.5	0.5	1.0	10	50
PT01 2.0	1	22/01/2025	<	<	<	<	<	<	<
PT10 0.5	1	22/01/2025	<	<	<	<	<	<	<
PT10 1.5	1	22/01/2025	<	<	<	<	<	<	<
PT12 0.3	1	22/01/2025	<	<	<	<	<	<	<
PT12 0.7	1	22/01/2025	<	<	<	<	<	<	<
PT13 1.0	1	22/01/2025	<	<	<	<	<	<	<
PT16 1.0	1	22/01/2025	<	<	<	<	<	<	<
PT20 0.5	1	22/01/2025	<	<	<	<	<	<	<
PT20 2.5	1	22/01/2025	<	<	<	<	<	<	<
PT28 0.0	1	22/01/2025	<	<	<	<	<	<	<
PT34 0.1	1	22/01/2025	<	<	<	<	<	<	<
PT36 0.0	1	22/01/2025	<	<	<	<	<	<	<
PT40 0.0	1	22/01/2025	<	<	<	<	<	<	<
PT42 0.0	1	22/01/2025	<	<	<	<	<	<	<
PT44 1.5	1	22/01/2025	<	<	<	<	<	<	<
PT44 2.6	1	22/01/2025	<	<	<	<	<	<	<
PT45 0.0	1	22/01/2025	<	<	<	<	<	<	<
Duplicate	1	22/01/2025	<	<	<	<	<	<	<

Note:

1) Highlighted cells: correspond to analytical result exceedances above guideline limits;

2) Bold: correspond to analytical result detections (above LOR)

3) ' = 1 to 2 x IL; '' = 2 to 5 x IL; ''' = 5 to 10 x IL; '''' = 10 to 20 x IL; ''''' = 20 to 50 x IL; ''''' = >50 x IL

7.2 Health Investigation Levels

The results of soil laboratory tests are compared against nominated HIL threshold limit guidelines presented in Appendix 4 with results presented in Appendix 6 and Table 14.

Based on soil samples collected from the stockpile and proposed work area:

 No laboratory detections or concentrations of heavy metals, PAH, or PFAS compounds exceeded NEPM (ASC) commercial/industrial land use guidelines for assessing soil ingestion or dust inhalation risk to commercial workers.

 Table 14 Analyte Detections in Soil Samples (Highlighted Where NEPM Commercial/Industrial HIL Guideline Limits are Exceeded)

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are Exceeded															
Sample	Soil Layer	Date	Land Use	Arsenic	Cadmium	Chromium Total	Copper	Lead	Nickel	Zinc	Mercury (inorganic)	Carcinogenic PAHs (as BaP TEQ)	Total PAHs	PFOA	PFHxS and PFOS
		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
		LOR		5	1	2	5	5	2	5	0.1	0.5	0.5	0.0002	0.0002
HIL Class D Limit	1			3,000	900	-	240,000	1,500	6,000	400,000	730	40	4,000	20	50
									ſ			î			
PT01 2.0	1	22/1/25	D	<	<	3	<	<	<	<	<	<	<		
PT10 0.5	1	22/1/25	D	<	<	8	<	<	12	10	<	<	<	<	0.0018
PT10 1.5	1	22/1/25	D	<	<	3	6	<	<	7	<	<	<	<	0.0012
PT12 0.3	1	22/1/25	D	<	<	7	<	<	13	6	<	<	<	<	<
PT12 0.7	1	22/1/25	D	<	<	4	<	<	4	6	<	<	<	<	0.0014
PT13 1.0	1	22/1/25	D	<	<	3	<	<	<	6	<	<	<	0.0003	0.0068
PT16 1.0	1	22/1/25	D	<	<	3	<	<	<	9	<	<	<	<	0.0023
PT20 0.5	1	22/1/25	D	<	<	4	<	<	<	<	<	<	<	<	0.0077
PT20 2.5	1	22/1/25	D	<	<	4	<	<	<	<	<	<	<	<	0.0006
PT28 0.0	1	22/1/25	D	<	<	3	7	<	<	10	<	<	<	<	0.0011
PT34 0.1	1	22/1/25	D	<	<	5	<	<	<	8	<	<	<	<	0.0004
РТ36 0.0	1	22/1/25	D	<	<	4	7	6	<	15	<	<	<	<	0.0008
РТ40 0.0	1	22/1/25	D	<	<	4	<	<	2	10	<	<	<	<	0.003
РТ42 0.0	1	22/1/25	D	<	<	4	<	<	<	9	<	<	<	<	0.0012
PT44 1.5	1	22/1/25	D	<	<	4	<	<	<	<	<	<	<	<	<
РТ44 2.6	1	22/1/25	D	<	<	3	<	<	<	5	<	<	<	<	0.0012
PT45 0.0	1	22/1/25	D	<	<	3	<	<	<	8	<	<	<	<	0.0005
												1			

1) Highlighted cells: correspond to analytical result exceedances above guideline limits;

2) Bold: correspond to analytical result detections (above LOR)

3) ' = 1 to 2 x IL; '' = 2 to 5 x IL; ''' = 5 to 10 x IL; '''' = 10 to 20 x IL; ''''' = 20 to 50 x IL; '''''' = >50 x IL

7.3 Ecological Investigation Levels

The results of the soil laboratory tests are compared against nominated EIL threshold limit guidelines in Appendix 4 with results presented in Table 15.

Based on soil samples collected from the stockpile and proposed work area:

• There were either NO laboratory detections or NO concentrations of heavy metals, naphthalene nor PFAS compounds exceeding NEPM (ASC) commercial/industrial land use to evaluate risks to terrestrial ecosystems

Table 15 Analyte Detections in Soil Samples (Highlighted Where NEPM Commercial/Industrial EIL Guideline Limits	
are Exceeded)	

Sample	Soil Layer	Date	Zinc	Copper (CEC)	Copper (pH)	Chromium	Nickel	Lead	Arsenic	Naphthalene	PFOS - Indirect Paved (HEPA 2025)	PFOS - Indirect Paved (HEPA 2025)
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		LOR	5	5	5	2	2	5	5	0.5	0.0002	0.0002
PT01 2.0	1	22/01/25	<	<	<	3	<	<	<	<	0.002	<
PT10 0.5	1	22/01/25	10	<	<	8	12	<	<	<	0.0014	<
PT10 1.5	1	22/01/25	7	6	6	3	<	<	<	<	0.0008	<
PT12 0.3	1	22/01/25	6	<	<	7	13	<	<	<	<	<
PT12 0.7	1	22/01/25	6	<	<	4	4	<	<	<	0.0009	<
PT13 1.0	1	22/01/25	6	<	<	3	<	<	<	<	0.0011	0.0003
PT16 1.0	1	22/01/25	9	<	<	3	<	<	<	<	0.0016	<
PT20 0.5	1	22/01/25	<	<	<	4	<	<	<	<	0.0077	<
PT20 2.5	1	22/01/25	<	<	<	4	<	<	<	<	0.0006	<
PT28 0.0	1	22/01/25	10	7	7	3	<	<	<	<	0.0011	<
PT34 0.1	1	22/01/25	8	<	<	5	<	<	<	<	0.0004	<
PT36 0.0	1	22/01/25	15	7	7	4	<	6	<	<	0.0008	<
PT40 0.0	1	22/01/25	10	<	<	4	2	<	<	<	0.003	<
PT42 0.0	1	22/01/25	9	<	<	4	<	<	<	<	0.0012	<
PT44 1.5	1	22/01/25	<	<	<	4	<	<	<	<	0.0194	<
PT44 2.6	1	22/01/25	5	<	<	3	<	<	<	<	0.001	<
PT45 0.0	1	22/01/25	8	<	<	3	<	<	<	<	0.0005	<
Duplicate	1	22/01/25	8	<	<	4	<	<	<	<	0.0014	<

Note:

1) Highlighted cells: correspond to analytical result exceedances above guideline limits;

2) Bold: correspond to analytical result detections (above LOR)

3) ' = 1 to 2 x IL; '' = 2 to 5 x IL; ''' = 5 to 10 x IL; '''' = 10 to 20 x IL; ''''' = 20 to 50 x IL; '''''' = >50 x IL

7.4 Ecological Screening Levels

Laboratory test results are compared against ESL threshold limit guidelines in Appendix 4 with results presented in Table 16.

Based on soil samples collected from the stockpile and proposed work area:

• Laboratory tests did not detect any concentrations of F1 to F4 hydrocarbons, BTEX, or Benzo(a)pyrene compounds that exceed NEPM (ASC) commercial/industrial land use guidelines for assessing risks to terrestrial ecosystems.

 Table 16 Analyse Detections in Soil Samples (Highlighted Where NEPM Commercial/Industrial ESL Guideline Limits are Exceeded)

are Exceeded			_							_	
Sample	Soil Layer	Date	F1	F2	£	F4	Benzene	Toluene	Ethylbenzene	Total Xylenes	Benzo(a)pyrene
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		LOR	10	50	100	100	0.2	0.5	0.5	0.5	0.5
ESL Limits (Coarse)			215	170	1700	3300	75	135	165	180	0.7
PT01 2.0	1	22/01/25	<	<	<	<	<	<	<	<	<
PT10 0.5	1	22/01/25	<	<	<	<	<	<	<	<	<
PT10 1.5	1	22/01/25	<	<	<	<	<	<	<	<	<
PT12 0.3	1	22/01/25	<	<	<	<	<	<	<	<	<
PT12 0.7	1	22/01/25	<	<	<	<	<	<	<	<	<
PT13 1.0	1	22/01/25	<	<	<	<	<	<	<	<	<
PT16 1.0	1	22/01/25	<	<	<	<	<	<	<	<	<
PT20 0.5	1	22/01/25	<	<	<	<	<	<	<	<	<
PT20 2.5	1	22/01/25	<	<	<	<	<	<	<	<	<
PT28 0.0	1	22/01/25	<	<	<	<	<	<	<	<	<
PT34 0.1	1	22/01/25	<	<	<	<	<	<	<	<	<
PT36 0.0	1	22/01/25	<	<	<	<	<	<	<	<	<
PT40 0.0	1	22/01/25	<	<	<	<	<	<	<	<	<
PT42 0.0	1	22/01/25	<	<	<	<	<	<	<	<	<
PT44 1.5	1	22/01/25	<	<	<	<	<	<	<	<	<
PT44 2.6	1	22/01/25	<	<	<	<	<	<	<	<	<
PT45 0.0	1	22/01/25	<	<	<	<	<	<	<	<	<
Duplicate	1	22/01/25	<	<	<	<	<	<	<	<	<

Note:

1) Highlighted cells: correspond to analytical result exceedances above guideline limits;

2) Bold: correspond to analytical result detections (above LOR)

3) ' = 1 to 2 x IL; '' = 2 to 5 x IL; ''' = 5 to 10 x IL; '''' = 10 to 20 x IL; ''''' = 20 to 50 x IL; ''''' = >50 x IL

7.5 Airports Environmental Protection Regulations

Soil analysis results were compared against Airport (Environment Protection) Regulations (1997) in Table 17 and Table 18 with findings indicating there are no guideline exceedances for heavy metals not hydrocarbons respectively.

Table 17 Analyte Detections of Metals and in Soil Samples (Highlighted where Airport Environment Protection	n
Regulations (1997) Guidelines Limits are Exceeded)	

		Elitites are execcu						
Sample	Soil Layer	Date	Zinc	Copper	Chromium	Nickel	Lead	Arsenic
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EIL Class C/I		LOR	5	5	2	2	5	5
Airport Guideline IL			35,000	5,000	500	3,00	1,500	500
PT01 2.0	1	22/01/25	<	<	3	<	<	<
PT10 0.5	1	22/01/25	10	<	8	12	<	<
PT10 1.5	1	22/01/25	7	6	3	<	<	<
PT12 0.3	1	22/01/25	6	<	7	13	<	<
PT12 0.7	1	22/01/25	6	<	4	4	<	<
PT13 1.0	1	22/01/25	6	<	3	<	<	<
PT16 1.0	1	22/01/25	9	<	3	<	<	<
PT20 0.5	1	22/01/25	<	<	4	<	<	<
PT20 2.5	1	22/01/25	<	<	4	<	<	<
PT28 0.0	1	22/01/25	10	7	3	<	<	<
PT34 0.1	1	22/01/25	8	<	5	<	<	<
РТЗ6 0.0	1	22/01/25	15	7	4	<	6	<
РТ40 0.0	1	22/01/25	10	<	4	2	<	<
PT42 0.0	1	22/01/25	9	<	4	<	<	<
PT44 1.5	1	22/01/25	<	<	4	<	<	<
PT44 2.6	1	22/01/25	5	<	3	<	<	<
РТ45 0.0	1	22/01/25	8	<	3	<	<	<
Duplicate	1	22/01/25	8	<	4	<	<	<

Table 18 Analyte Detections of Hydrocarbons and in Soil Samples (Highlighted where Airport Environment Protection Regulations (1997) Guideline Limits are Exceeded)

Sample	Soil Layer	Date	Benzene	Toluene	Ethylbenzene	Xylenes	C6-C10 Fraction	>C10-C40 (Sum of Total)	Total PAHs	Benzo(a)pyre ne
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		LOR	0.2	0.5	0.5	0.5	10	50	0.5	0.5
Airport Guideline IL			1	130	50	25	800	5,000	4000	100
PT01 2.0	1	22/01/2025	<	<	<	<	<	<	<	<
PT10 0.5	1	22/01/2025	<	<	<	<	<	<	<	<
PT10 1.5	1	22/01/2025	<	<	<	<	<	<	<	<
PT12 0.3	1	22/01/2025	<	<	<	<	<	<	<	<
PT12 0.7	1	22/01/2025	<	<	<	<	<	<	<	<
PT13 1.0	1	22/01/2025	<	<	<	<	<	<	<	<
PT16 1.0	1	22/01/2025	<	<	<	<	<	<	<	<
PT20 0.5	1	22/01/2025	<	<	<	<	<	<	<	<
PT20 2.5	1	22/01/2025	<	<	<	<	<	<	<	<
PT28 0.0	1	22/01/2025	<	<	<	<	<	<	<	<
PT34 0.1	1	22/01/2025	<	<	<	<	<	<	<	<
PT36 0.0	1	22/01/2025	<	<	<	<	<	<	<	<
PT40 0.0	1	22/01/2025	<	<	<	<	<	<	<	<
PT42 0.0	1	22/01/2025	<	<	<	<	<	<	<	<
PT44 1.5	1	22/01/2025	<	<	<	<	<	<	<	<
PT44 2.6	1	22/01/2025	<	<	<	<	<	<	<	<
PT45 0.0	1	22/01/2025	<	<	<	<	<	<	<	<
Duplicate	1	22/01/2025	<	<	<	<	<	<	<	<

Note:

Highlighted cells: correspond to analytical result exceedances above guideline limits;
 Bold: correspond to analytical result detections (above LOR)
 ' = 1 to 2 x IL; '' = 2 to 5 x IL; ''' = 5 to 10 x IL; '''' = 10 to 20 x IL; ''''' = 20 to 50 x IL; '''''' = >50 x IL

7.6 Asbestos

Three ACM samples and surrounding surface soil were bagged up and sent to ALS for analysis to determine the asbestos type as well as the presence of trace asbestos. It is concluded from the assessment that:

- Trace asbestos was not detected in any of the soil samples
- Chrysotile was detected in all samples and crocidolite was detected in PT07 0.0m
- The concentration as ACM was not measured given it was an ACM sample.
- One asbestos fibre bundle (approx 0.5 x 0.5 x 0.5 mm) was encountered in PT19 0.0m.

Table 19 Laboratory Results for the Identification of Asbestos in Soils

Sample	Asbestos Detected	Asbestos (Trace)	Asbestos Type	Concentration as ACM	Concentration as AF or FA	Description	Synthetic Mineral Fibre	Organic Fibre	Sample weight (dry)
Units	g/kg			%	%				g
LOR	0.1			0.01	0.001				0.01
NEPM 2013 Bonded asbestos material		Yes		0.05					
NEPM 2013 Friable asbestos and asbestos fines					0.001				
NEPM 2013 Asbestos visible on ground surface									
PT07 0.0m	Yes	No	Ch + Cr	NM*	NE^	Brown sandy soil with organic matter plus multiple asbestos containing material fragments approx 35 x 25 x 3mm.	No	Yes	233
PT19 0.0m	Yes	No	Ch	NM*	NE^	Brown sandy soil with organic matter plus one asbestos containing material fragment approx 20 x 15 x 3mm and one asbestos fibre bundle approx 0.5 x 0.5 x 0.5mm.	No	Yes	233
PT32 0.0m	Yes	No	Ch	NM*		Brown sandy soil with organic matter plus one asbestos containing material fragment approx 15 x 10 x 3mm.	No	Yes	592

NM* Not measured

NE[^] Not estimated

'Am' Amosite (brown asbestos)

'Cr' Crocidolite (blue asbestos)

'Ch' Chrysotile (white asbestos)

'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres

'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.

'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.

'No*' - No asbestos found at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.

'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.

7.7 EPA Information Bulletin IB105

Laboratory results are compared against Tasmanian EPA Information Bulletin IB105 in Table 20.

IB105 defines the criteria used by the Environment Protection Authority (EPA) for the classification of contaminated soils that require treatment and/or off-site disposal. IB105 outlines the management of each classification in accordance with the 2010 Environmental Management and Pollution Control (Waste Management) Regulations (the 'Regulations').

The guidelines are used to determine whether potentially contaminated soil is suitable for disposal at a landfill site and in assessing alternative options for contaminated soil management.

The EPA uses four categories to classify contaminated soil: (Level 1) Fill Material; (Level 2) Low Level Contaminated Soil; (Level 3) contaminated soil; and (Level 4) Contaminated Soil for remediation.

Findings indicate that samples collected from the Site align with a Level 1 IB105 classification.

								<u> </u>	0		5 10101 1							
Sample	Soil Layer	Date	Barium	Cadmium	Chromium (total)	Copper	Lead	Mercury (total)	Nickel	Zinc	Benzo(a)pyrene	C6-C9 petroleum hydrocarbons	C10-C36 petroleum hydrocarbons	Polycyclic aromatic hydrocarbons (total)	Benzene	Toluene	Ethylbenzene	Xylene (total)
Level 1			<300	<3	<50	<100	<300	<1	<60	<200	<0.08	<65	<1000	<20	<1	<1	<3	<14
Level 2			300	3	50	100	300	1	60	200	0.08	65	1000	20	1	1	3	14
Level 3			3000	40	500	2000	1200	30	600	14000	2	650	5000	40	5	100	100	180
Level 4			30000	400	5000	7500	3000	110	3000	50000	20	1000	10000	200	50	1000	1080	1800
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
LOR			10	1	2	5	5	0	2	5	1	10	50	1	0	1	1	1
A			1		4	7	6		8	8								
Average					4	/	0		0	0								
PT01 2.0	1	22/01/2025	<	<	3	<	<	<	<	<	<	<	<	<	<	<	<	<
PT10 0.5	1	22/01/2025	<	<	8	<	<	<	12	10	<	<	<	<	<	<	<	<
PT10 1.5	1	22/01/2025	<	<	3	6	<	<	<	7	<	<	<	<	<	<	<	<
PT12 0.3	1	22/01/2025	<	<	7	<	<	<	13	6	<	<	<	<	<	<	<	<
PT12 0.7	1	22/01/2025	<	<	4	<	<	<	4	6	<	<	<	<	<	<	<	<
PT13 1.0	1	22/01/2025	<	<	3	<	<	<	<	6	<	<	<	<	<	<	<	<
PT16 1.0	1	22/01/2025	<	<	3	<	<	<	<	9	<	<	<	<	<	<	<	<
PT20 0.5	1	22/01/2025	<	<	4	<	<	<	<	<	<	<	<	<	<	<	<	<
PT20 2.5	1	22/01/2025	<	<	4	<	<	<	<	<	<	<	<	<	<	<	<	<
PT28 0.0	1	22/01/2025	<	<	3	7	<	<	<	10	<	<	<	<	<	<	<	<
PT34 0.1	1	22/01/2025	<	<	5	<	<	<	<	8	<	<	<	<	<	<	<	<
PT36 0.0	1	22/01/2025	<	<	4	7	6	<	<	15	<	<	<	<	<	<	<	<
PT40 0.0	1	22/01/2025	<	<	4	<	<	<	2	10	<	<	<	<	<	<	<	<
PT42 0.0	1	22/01/2025	<	<	4	<	<	<	<	9	<	<	<	<	<	<	<	<
PT44 1.5	1	22/01/2025	<	<	4	<	<	<	<	<	<	<	<	<	<	<	<	<
PT44 2.6	1	22/01/2025	<	<	3	<	<	<	<	5	<	<	<	<	<	<	<	<
PT45 0.0	1	22/01/2025	<	<	3	<	<	<	<	8	<	<	<	<	<	<	<	<
PT46 0.0	1	22/01/2025	<	<	3	<	<	<	<	9	<	<	<	<	<	<	<	<
Duplicate	1	22/01/2025	<	<	4	<	<	<	<	8	<	<	<	<	<	<	<	<
Noto																		

Table 20 Tasmanian Environmental Protection Authority Information Bulletin 105 (highlighted if exceeding level 1 to level 4 landfill disposal limits).

Note:

1) Highlighted cells: correspond to analytical result exceedances above Level 1 to Level 4 guideline limits

2) Bold: correspond to analytical result detections (above LOR)

8 Quality Assurance/ Quality Control

Envirotech data quality assurance (QA) procedures were adopted, and quality control (QC) samples were collected to support the provision of reliable data upon which decisions can be made. The adopted QA/QC approach was based on the guidance provided from the following sources:

- Australian Standard (AS) 4482.1-2005 Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Nonvolatile and semivolatile compounds.
- Australian Standard (AS) 4482.2-1999 Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile Substances
- National Environment Protection Council (NEPC) National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B (3) Guideline on Laboratory Analysis of Potentially Contaminated Soils.
- United States Environmental Protection Agency Guidance on Systematic Planning Using the Data Quality Objectives Process EPA QA/G-4.
- United States Environmental Protection Agency Guidance on Environmental Data Verification and Data Validation EPA QA/G-8.

Laboratory quality control documentation is presented in Appendix 7 and both the field data and laboratory data validation and quality review are provided within Appendix 8. The findings indicate that the data are considered suitable for use to form conclusions relating to the contamination status within the proposed work area.

9 Conclusions

The following are concluded from the detailed Site investigation:

- It is concluded from this assessment that **none** of the soil samples collected from the Site (within the stockpile and at the Production Kitchen Site) have COPC's (including PFAS) that exceed NEPM 2013 commercial/industrial guideline limits.
- There is a low risk that soil within the stockpile is considered as a hazardous substance if the soil is to be used in a manned which does not permit PFAS exposure to secondary receptors.
- PFAS compounds have been identified in the soil at levels that permit its use as fill material for the production kitchen site. This is contingent upon ensuring that more than 80% of the production kitchen site surface is paved and appropriately managed to limit exposure to secondary consumers, in accordance with a PFAS soil management plan.
- Residual asbestos-containing material (ACM) has been detected on the surface of the Production Kitchen Site at a depth ranging from 0 to 0.1 meters. The exposed asbestos at the surface does not comply with NEPM 2013 guidelines. It is necessary to determine if asbestos fibres (AF and FA) are present on the surface of the site in quantities exceeding NEPM 2013 guidelines near where ACM has been found. Alternatively, all surface soil in these areas may be removed, followed by validation sampling to confirm compliance with NEPM 2013 guidelines.
- Asbestos has **not** been detected in the stockpile, and the likelihood of the stockpile containing asbestos concentrations exceeding NEPM (2013) guideline limits is low.

10 Recommendations

The following are recommended

- A separate asbestos investigation report is required to ascertain the presence or absence of asbestos fibres in the surface soil within Areas A and B. This assessment is required to determine any potential risks to future site workers associated with soil disturbance. This assessment report is to refer to this detailed site investigation report and recommendation.
- The utilization of stockpiled fill at the Production Kitchen Site is deemed non-hazardous, provided that the soil remains adequately separated from secondary consumers at the filled location. In addition to ensuring that pavement coverage is no less than 80%, a site-specific PFAS soil management plan must be developed to reduce exposure of secondary consumers to PFAS in accordance with HEPA 2025b.

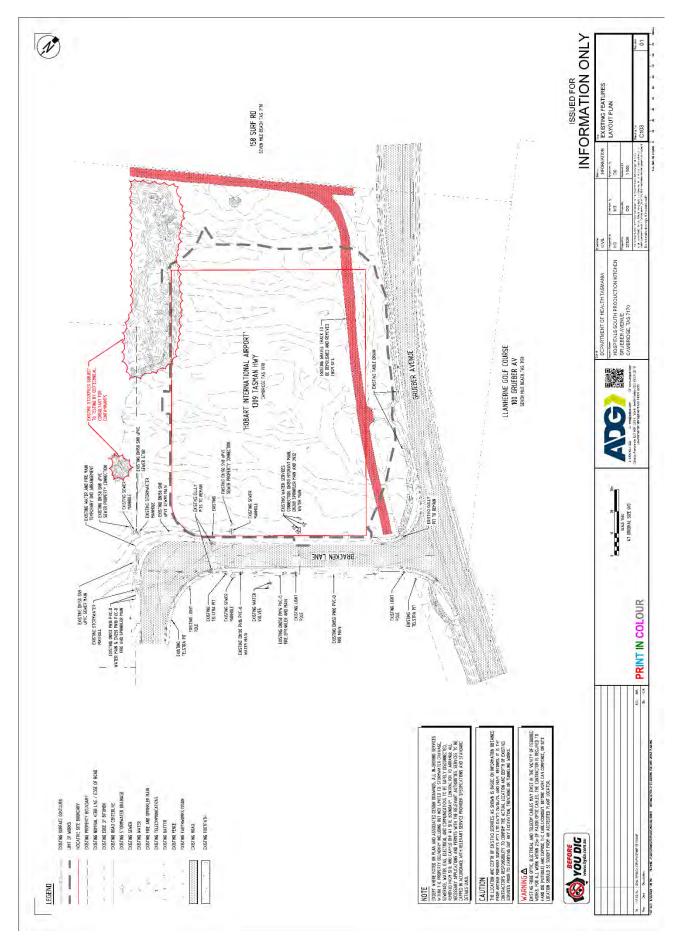
Kris J Taylor BSc (Hons) | Environmental & Engineering Geologist

Director

Enviro-Tech Consultants Pty. Ltd.

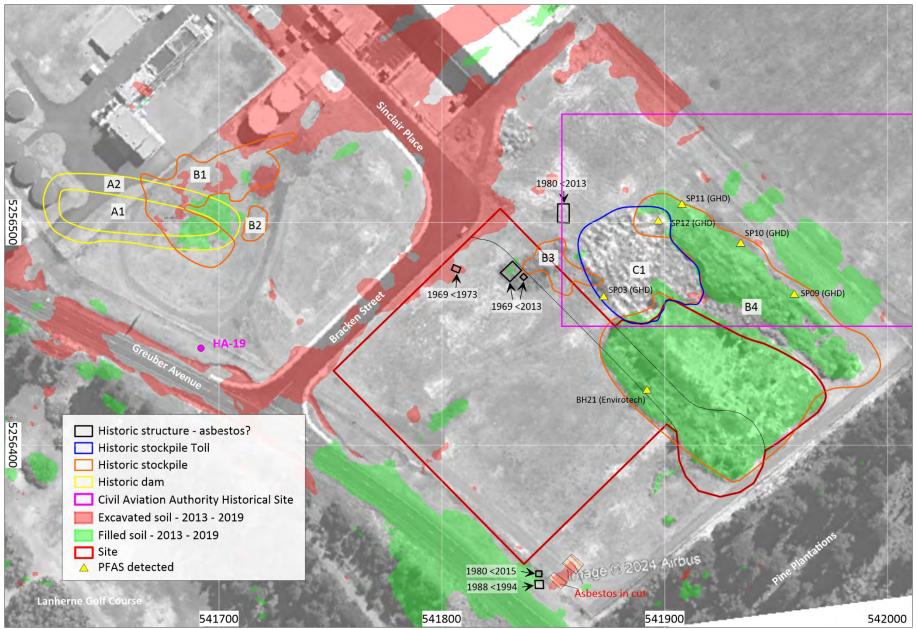
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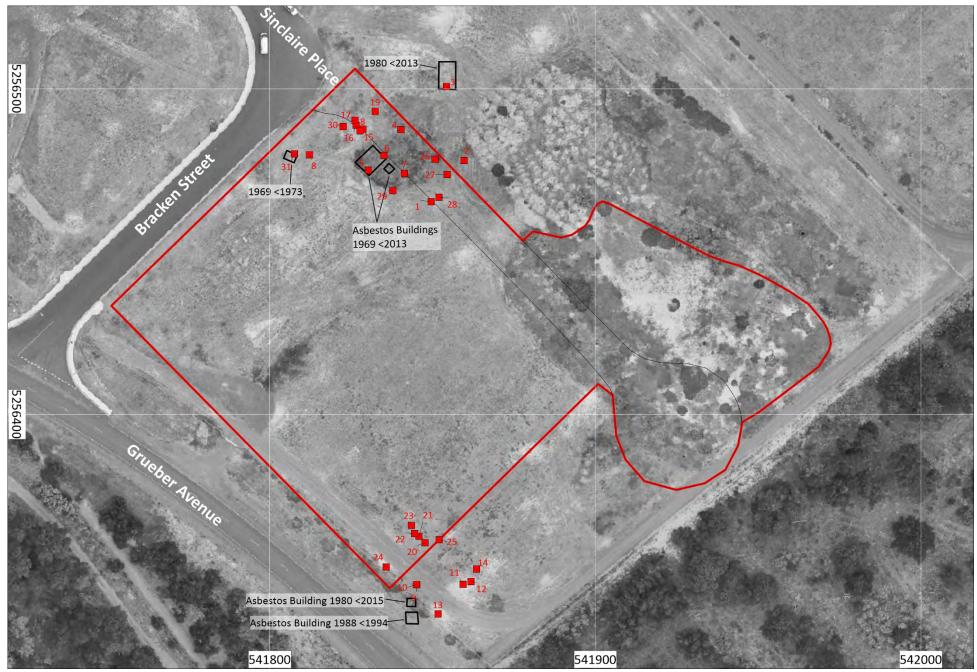


Appendix 1 Proposed Site Works

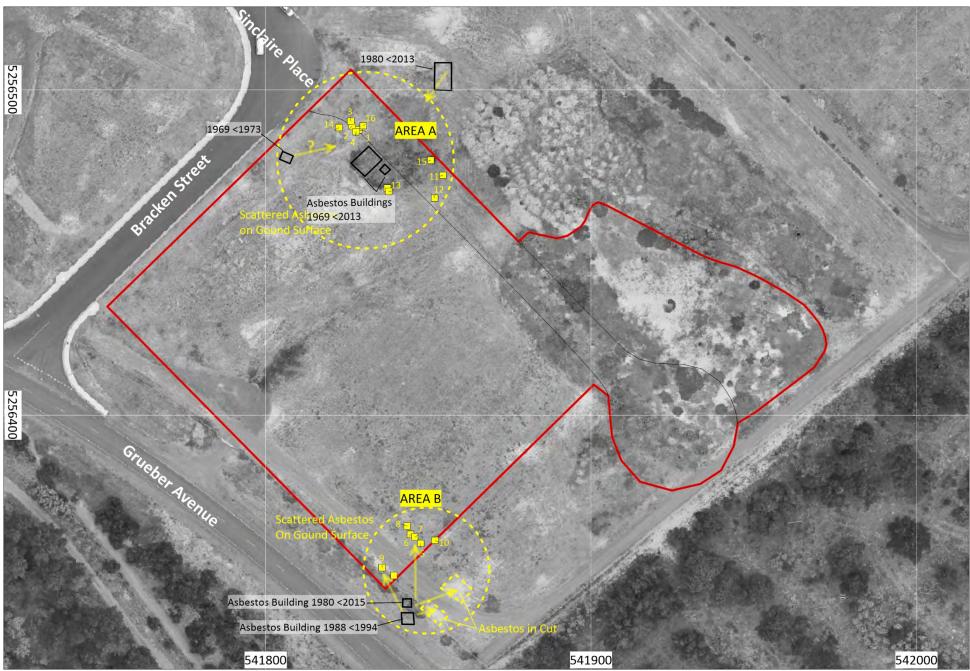
Appendix 2 Mapping



Map 1 Potential Contaminating Activities, Areas of Potential Concern and Surrounding Land Use

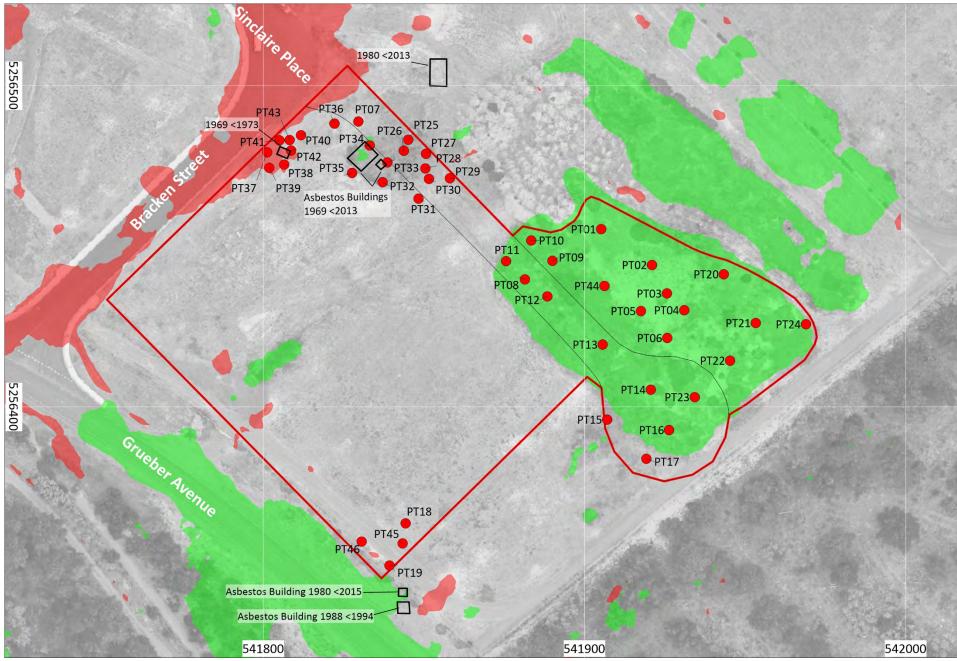


Map 2 Site Walkover Photographic Points



Map 3 Mapped Asbestos Distribution

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Map 4 Core Hole and Hand Excavation Testing Locations with Cut (red) and fill(green) locations.

Appendix 3 Borehole Logs

en	consultants	tion Kitchen ne 55): 5419 cone 55): 52	541905 LOGGED BY: M. Scaling 5): 5256455 ELEVATION.: 6.00 m A									
	ATION: 1309 Tasman H NT: Hobart Internationa			UIPMENT: AMS Powerprobe 9120 RAP ATIVE TO NATURAL SURFACE (RL):								
DEPTH (m)	DESCRIPTION			PIEZO MOISTURE		LAYER	GRAPHIC	DEPTH (m)	(mdd) Cl4	Soil Sample		
0	FILL: SAND trace grav brown, poorly sorted, t sandstone, dolerite	vel, trace silt, light yellowis fine to medium grained sa	sh nd,		Dry	3		0.0 - 0.5 - 1.0				
1.1 -		vel, trace silt, light yellowis fine to medium grained sa			Moist	4		- 1.5		PT01 2.0		
2.2	TOPSOIL: SAND with poorly sorted, fine to n	silt, trace clay, dark grey, nedium grained sand				8						
	Terminated at 2,3 m D	Depth										
GROU	NDWATER: Not Encou	ntered								GE 1 of 1		

en	viro-tech consultants	ASSESSMENT: Foundation STRUCTURE: Production Kit EASTING (GDA94 Zone 55) NORTHING (GDA94 Zone 55)	on Kitchen DATE TESTED: 14/01/202 2 55): 541921 LOGGED BY: M. Scalisi							
	ATION: 1309 Tasman H NT: Hobart Internationa	•		IT: AMS F						
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	10	DEPTH (m)	(mdd) CI4	Soil Sample	
0	FILL: SAND trace gray brown, poorly sorted, t roots , sandstone, dole	vel, trace silt, light yellowish fine to medlum grained sand, erite		Dry	3		0.0			
1,4	FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand			Moist	4		- 1.5			
	Terminated at 2.5 m D	Deoth								
	remmated at 2.3 M L	2001 1						<u> </u>		
GROU	NDWATER: Not Encou	ntered						РА	GE 1 of 1	

	consultants	STRUCTURE: Production Kite EASTING (GDA94 Zone 55): NORTHING (GDA94 Zone 55	5): 541926 LOGGED BY: M. Scalisi								
	ATION: 1309 Tasman H NT: Hobart Internationa	• •	JIPMENT: AMS Powerprobe 9120 RAP ATIVE TO NATURAL SURFACE (RL):								
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Ol9	Soil Sample		
0				-			0.0	-			
	FILL: SAND trace grav brown, poorly sorted, f bitumen, sandstone	vel, trace silt, light yellowish ine to medium grained sand,		Dry	3		- 0.5				
1							1,0				
		el, trace silt, light yellowish ine to medium grained sand			4		- 1.5				
				Slightly Moist			-2.0				
2.5	TOPSOIL: SAND with	silt, trace clay, dark grey,			8	III	2.5				
2.6	poorly sorted, fine to n	nedium grained sand	1		1.1						
	SAND, pale brown, we grained sand	Il sorted, fine to medi⊔m			9		3.0				
			-				- 3.5				
	Terminated at 3.5 m D	epth									
			1			1					
GROU	NDWATER: Not Encou	ntered						PA	GE 1 of 1		

er	viro-tech consultants	ASSESSMENT: Foundation STRUCTURE: Production Kir EASTING (GDA94 Zone 55) NORTHING (GDA94 Zone 5	KitchenDATE TESTED: 14/01/255): 541931LOGGED BY: M. Scalis						
	ATION: 1309 Tasman H NT: Hobart Internationa	•		NT: AMS I					
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Ol9	Soil Sample
0							0.0		
		el, trace silt, light yellowish ine to medlum grained sand, ite, wood fragments		Dry	2		- 0.5		
4							-		
1.4		vel, trace silt, light yellowish fine to medium grained sand		Slightly Moist	3		- 1.5		
2.2			-				-		
							2.5		
		vel, trace silt, light yellowish fine to medium grained sand		Moist	4		-3.0		
							- 3,5		
3.9 4.1	poorly sorted, fine to n SAND, pale brown, we grained sand	ell sorted, fine to medium		Slightly Moist	8	1111111	4.0		
	Terminated at 4.2 m D	Depth						,	
GROU	NDWATER: Not Encou	ntered						DA	GE 1 of 1

viro-tech consultants	EASTING (GDA94 Zone 55)	tchen DATE TESTED: 14/01/202 : 541918 LOGGED BY: M. Scalisi									
DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Olq	Soil Sample			
			Slightly Moist	3		0.0					
FILL: SAND trace grav brown, poorly sorted, f	el, trace silt, light yellowish ine to medium grained sand		Moist	4		- 1.0					
poorly sorted, fine to m	nedium grained sand			8		- 2.5 - <u>3.0</u>					
Terminated at 3 m Dep	pth						A				
•	CONSULTANTS ATION: 1309 Tasman H AT: Hobart International DESCRIPTION FILL: SAND trace grav brown, poorly sorted, f FILL: SAND trace grav brown, poorly sorted, f TOPSOIL: SAND with poorly sorted, fine to n SAND, pale brown, we grained sand	VIRO-tech CONSULTANTS EASTING (GDA94 Zone 55): NORTHING (GDA94 Zone 55): TOPSCRIPTION FILL: SAND trace gravel, light yellowish brown, poorly sorted, fine to medium grained sand FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand TOPSOIL: SAND with silt, trace clay, dark grey, poorly sorted, fine to medium grained sand SAND, pale brown, well sorted, fine to medium	CONSULTANTS NORTHING (GDA94 Zone 55): 525 ITION: 1309 Tasman Highway - Cambridge EQUIPMER THOBART International Airport RELATIVE DESCRIPTION Ogeneration FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand Proceeding Section (Section	VIRO-tech CONSULTANTS EASTING (GDA94 Zone 55): 541918 NORTHING (GDA94 Zone 55): 5256430 ITION: 1309 Tasman Highway - Cambridge EQUIPMENT: AMS I RELATIVE TO NATH RELATIVE TO NATH DESCRIPTION One of the termedium grained sand FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand Slightly Moist FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand Moist TOPSOIL: SAND with silt, trace clay, dark grey, poorly sorted, fine to medium grained sand Moist	VICO-tech CONSULTANTS STRUCTURE: Production Kitchen EASTING (GDA94 Zone 55): 5241918 NORTHING (GDA94 Zone 55): 5256430 TION: 1309 Tasman Highway - Cambridge EQUIPMENT: AMS Power RELATIVE TO NATURAL DESCRIPTION QI VI SI VI SI FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand Slightly Moist 3 FILL: SAND trace gravel, trace silt, light yellowish brown, poorly sorted, fine to medium grained sand Moist 4 TOPSOIL: SAND with silt, trace clay, dark grey, poorly sorted, fine to medium grained sand 8 9 TOPSOIL: SAND with silt, trace clay, dark grey, grained sand 8 9	STRUCTURE: Production Kitchen EASTING (GDA94 Zone 55): 541918 NORTHING (GDA94 Zone 55): 5256430 DATE LOGG LEEV TION: 1309 Tasman Highway - Cambridge T: Hobart International Airport EQUIPMENT: AMS Powerprobe RELATIVE TO NATURAL SURI DESCRIPTION 0	STRUCTURE: Production Kitchen EASTING (GDA94 Zone 55): 541918 NORTHING (GDA94 Zone 55): 5258430 DATE TES LOGGEDE ELEVATIO TION: 1309 Tasman Highway - Cambridge T: Hobart International Airport EQUIPMENT: AMS Powerprobe 9120 RELATIVE TO NATURAL SURFACE DESCRIPTION 01 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	STRUCTURE: Production Kitchen EASTING (GDA94 Zone 55): 5258430 DATE TESTED: LOGGED BY: M. ELEVATION: 1309 Taaman Highway - Cambridge T: Hobart International Airpot DATE TESTED: LOGGED BY: M. ELEVATION: 1807 RELATIVE TO NATURAL SURFACE (RL): DESCRIPTION Image: Comparison of the top of t			

	viro-tech consultants	ction Kitche one 55): 54	Point : PT06 Kitchen DATE TESTED: 14/01/202 55): 541926 LOGGED BY: M. Scalisi 55): 5256421 ELEVATION.: 6.00 m AHE							
	TION: 1309 Tasman H NT: Hobart Internationa				IT: AMS F					
(m)	DESCRIPTION			PIEZO MOISTURE		LAYER	10	DEPTH (m)	(mdd) Old	Soil Sample
0	FILL: SAND trace grav brown, poorly sorted, f	vel, trace silt, light yellow ine to medlum grained s	ish and		Slightly Moist	3		0.0		
1.5	FILL: SAND trace grav	vel, trace silt, light yellow	ish					- 1.5		
2.9	TOPSOIL: SAND with poorly sorted, fine to n	ine to medium grained s silt, trace clay, dark grey nedium grained sand	and		Moist	4 8 9		- 2.5		
	SAND, pale brown, we	Il sorted, fine to medium	·							
	Terminated at 3.1 m D	epth								

viro-tech consultants	ction Kitch one 55): 54	: 541830 LOGGED BY: M. Scalisi							
						SUR	FACE	(RI)-	
DESCRIPTION		ALLA	PIEZO	A	LAYER			-	Soil Sample
poorly sorted, fine to n charcoal, roots SAND trace silt/clay, li	nedium grained sand, asl ight yellowish brown, poo	bestos,		Slightly Moist Moist	7		0.0		
Terminated at 0.3 m D	Depth								
-	CONSULTANTS TION: 1309 Tasman H NT: Hobart Internationa DESCRIPTION TOPSOIL: SAND trace poorly sorted, fine to n charcoal, roots SAND trace silt/clay, li	VIRO-tech EASTING (GDA94 Zo CONSULTANTS NORTHING (GDA94 Zo NORTHING (GDA94 Zo NORTHING (GDA94 Zo NORTHING (SDA94 Zo NORTHING (GDA94 Zo NORTHING (SDA94 Zo NORTHING (GDA94 Zo NORTHING (SDA95 Zo NORTHING (SDA94 Zo DESCRIPTION DESCRIPTION TOPSOIL: SAND trace silt/clay, dark greyish bipoorly sorted, fine to medium grained sand, asl charcoal, roots	VIRO-tech EASTING (GDA94 Zone 55): 5- CONSULTANTS NORTHING (GDA94 Zone 55): NORTHING (GDA94 Zone 55): SOULD STAND ATION: 1309 Tasman Highway - Cambridge EQUIP NT: Hobart International Airport RELAT DESCRIPTION TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand, asbestos, charcoal, roots SAND trace silt/clay, light yellowish brown, poorly	VIRO-tech EASTING (GDA94 Zone 55): 54183 CONSULTANTS NORTHING (GDA94 Zone 55): 525 NORTHING (GDA94 Zone 55): 525 S25 DESCRIPTION RELATIVE DESCRIPTION SUB TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly SAND trace silt/clay, light yellowish brown, poorly	VIRO-tech EASTING (GDA94 Zone 55): 541830 CONSULTANTS NORTHING (GDA94 Zone 55): 5256489 ATION: 1309 Tasman Highway - Cambridge EQUIPMENT: Shove NT: Hobart International Airport RELATIVE TO NATL DESCRIPTION Description TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand, asbestos, charcoal, roots Slightly Moist SAND trace silt/clay, light yellowish brown, poorly Moist	VIRO-tech CONSULTANTS EASTING (GDA94 Zone 55): 541830 NORTHING (GDA94 Zone 55): 5256489 ATION: 1309 Tasman Highway - Cambridge NT: Hobart International Airport EQUIPMENT: Shovel RELATIVE TO NATURAL DESCRIPTION NORTHING (GDA94 Zone 55): 5256489 TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand, asbestos, charcoal, roots Silghtly Moist SAND trace silt/clay, light yellowish brown, poorly Moist	VIRO-tech CONSULTANTS EASTING (GDA94 Zone 55): 541830 NORTHING (GDA94 Zone 55): 5256489 LOGO ELEV ATION: 1309 Tasman Highway - Cambridge EQUIPMENT: Shovel NT: Hobart International Airport RELATIVE TO NATURAL SURI DESCRIPTION DESCRIPTION TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand, asbestos, charcoal, roots Silghtly 7 SAND trace silt/clay, light yellowish brown, poorly Moist 10	VIRO-tech CONSULTANTS EASTING (GDA94 Zone 55): 541830 NORTHING (GDA94 Zone 55): 5256489 LOGGED E ELEVATIO ATION: 1309 Tasman Highway - Cambridge NT: Hobart International Airport EQUIPMENT: Shovel RELATIVE TO NATURAL SURFACE DESCRIPTION NH Y SON NH Y SON NH Y SON TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand, asbestos, charcoal, roots Silghtly Moist 7 Moist 0,0 Moist	VIRO-tech CONSULTANTS EASTING (GDA94 Zone 55): 541830 NORTHING (GDA94 Zone 55): 5256489 LOGGED BY: M. ELEVATION.: 4.0 ATION: 1309 Tasman Highway - Cambridge NT: Hobart International Airport EQUIPMENT: Shovel RELATIVE TO NATURAL SURFACE (RL): DESCRIPTION VILL VILL TOPSOIL: SAND trace silt/clay, dark greyish brown, poorly sorted, fine to medium grained sand, asbestos, charcoal, roots Sillghtly Moist 7 SAND trace silt/clay, light yellowish brown, poorly Moist 10

er	viro-tech consultants	ASSESSMENT: Foundation C STRUCTURE: Production Kito EASTING (GDA94 Zone 55): NORTHING (GDA94 Zone 55)	Kitchen DATE TESTED: 16/01/20 5): 541882 LOGGED BY: M. Scalisi								
	ATION: 1309 Tasman H NT: Hobart Internationa		QUIPMENT: 50mm Christie Post Driver ELATIVE TO NATURAL SURFACE (RL):								
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI4	Soil Sample		
0	FILL: SAND with grav brown, poorly sorted,	el, trace silt, light yellowish fine to medium grained sand		Dry	2		0.0				
0.4	brown, poorly sorted,	vel, trace silt, light yellowish fine to medium grained sand,			3		0.5	5			
0.6		silt, trace clay, dark grey,	1	Slightly	8						
1.21	\poorly sorted, fine to r SAND, pale brown, we grained sand	nedium grained sand //		Moist	9		L1.0				
	Terminated at 1 m De	pth						A			
GROU	NDWATER: Not Encou	ntered						PA	GE 1 of 1		

en	viro-tech consultants	Kitchen 55): 54189	n ClassificationPoint : PT09KitchenDATE TESTED: 16/01/20255): 541890LOGGED BY: M. Scalisi55): 5256446ELEVATION.: 6.00 m AHD									
	ATION: 1309 Tasman H NT: Hobart Internationa			QUIPMENT: 50mm Christie Post Driver								
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Ol9	Soil Sample			
0	FILL: SAND, very pale	e yellow, well sorted		1	1		0.0					
0.3		el, trace silt, light yellowish fine to medium grained sand		Dry	2		-0.5					
0.7	TOPSOIL: SAND with	silt, trace clay, dark grey,			8							
0.8	poorly sorted, fine to r SAND, pale brown, we grained sand	ell sorted, fine to medium		-	9		1.0					
	Terminated at 1 m De	pth						A				

er	viro-tech consultants	ASSESSMENT: Foundation C STRUCTURE: Production Kit EASTING (GDA94 Zone 55): NORTHING (GDA94 Zone 55)	Citchen DATE TESTED: 16/01/202 i): 541883 LOGGED BY: M. Scalisi									
	ATION: 1309 Tasman H NT: Hobart Internationa	3			m Christie Post Driver							
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	10	DEPTH (m)	(mdd) GI4	Soil Sample			
0	FILL: SAND trace grav brown, poorly sorted, i	vel, trace silt, light yellowish fine to medium grained sand		Dry	3		0.0		PT10 0.5			
0.7		vel, trace silt, light yellowish fine to medium grained sand,		Slightly Moist	4		1.0					
<u>1.5</u> <u>1.6</u>	poorly sorted, fine to n	silt, trace clay, dark grey, nedium grained sand all sorted, fine to medium			89		- 1.5		PT10 1.5			
	Terminated at 1.7 m D	Depth										
GROU	NDWATER: Not Encou	ntered						PA	GE 1 of 1			

er	viro-tech consultants	ASSESSMENT: Foundation STRUCTURE: Production Kit EASTING (GDA94 Zone 55) NORTHING (GDA94 Zone 5	n Kitchen DATE TESTED: 16/01/20 55): 541876 LOGGED BY: M. Scalisi										
	ATION: 1309 Tasman H NT: Hobart Internationa				50mm Christie Post Driver								
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI4	Soil Sample				
0	FILL: SAND, very pale	yellow, well sorted		Dry	1		0.0						
0.3	brown, poorly sorted, t	el, trace silt, light yellowish fine to medium grained sand,			2		0.5						
0.6	dolerite SAND, pale brown, we grained sand	ell sorted, fine to medium		Slightly Moist	9								
	Terminated at 1 m De	pth											
19	Constant and a set		4					A. 44					
		0570		_		_			_				
GROU	NDWATER: Not Encou	ntered						PA	GE 1 of 1				

er	viro-tech consultants	ASSESSMENT: Founda STRUCTURE: Production EASTING (GDA94 Zono NORTHING (GDA94 Zono	uction KitchenDATE TESTED: 16/01/20Zone 55): 541888LOGGED BY: M. Scalisi									
	ATION: 1309 Tasman H NT: Hobart Internationa			QUIPMENT: 50mm Christie Post Driver								
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	1.	DEPTH (m)	(mqq) Ol9	Soil Sample			
0	FILL: SAND with grav brown, poorly sorted, dolerite	el, trace silt, light yellowish fine to medium grained san	d,	Dry	2		0.0		PT12 0.3			
0.6	TOPSOIL: SAND with poorly sorted, fine to r	silt, trace clay, dark grey, nedium grained sand			8		0.0		PT12 0.7			
	Terminated at 0.8 m I	Depth										
GROU	NDWATER: Not Encou	intered						РА	GE 1 of 1			

er	viro-tech consultants	ASSESSMENT: Foundation (STRUCTURE: Production Kit EASTING (GDA94 Zone 55): NORTHING (GDA94 Zone 55)	chen 54190)6		LOGO	TES GED E	TED: BY: M	16/01/2025 . Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa	• •		NT: 50mm					
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mdd) Old	Soil Sample
0		vel, trace silt, light yellowish fine to medium grained sand,		Dry	3		0.0		
0.2		el, trace silt, light yellowish fine to medium grained sand,		Slightly Moist	2		0.5		
0.9	TOPSOIL: SAND with poorly sorted, fine to r	silt, trace clay, dark grey, nedium grained sand	-		8		- 1,0		PT13 1,0
1.2	SAND, pale brown, we grained sand	ell sorted, fine to medium			9				
	Terminated at 1.3 m E	lepth							
GROU	INDWATER: Not Encou	ntered						РА	GE 1 of 1

en	viro-tech consultants	ASSESSMENT: Foun STRUCTURE: Produc EASTING (GDA94 Zo NORTHING (GDA94)	ction Kitchen ne 55): 54192	Kitchen DATI 55): 541921 LOG					16/01/2025 Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa								
(m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mdd) CI4	Soil Sample
0				2		0	0,0		
	FILL: SAND with grave brown, poorly sorted, t dolerite	el, trace silt, light yellowis fine to medium grained s	h and,	Slightly Moist	2		- 0.5		
1	TOPSOIL: SAND with poorly sorted, fine to n	silt, trace clay, dark grey nedium grained sand			8		- 1,0		
	Terminated at 1.2 m D	Depth							

er	viro-tech consultants	ASSESSMENT: Foundation C STRUCTURE: Production Kite EASTING (GDA94 Zone 55): NORTHING (GDA94 Zone 55)	chen 54190	07	à	LOGO	TES GED I	TED: BY: M.	16/01/2025 . Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa			NT: 50mm					
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI4	Soil Sample
0 0.1 0.2	brown, poorly sorted, dolerite, roots TOPSOIL: SAND with poorly sorted, fine to r	el, trace silt, light yellowish fine to medium grained sand, silt, trace clay, dark grey, medium grained sand ell sorted, fine to medium		Slightly Moist	2 8 9		0.0		
	Terminated at 0.3 m E	Depth							
GROU	INDWATER: Not Encou	intered	<u>.</u>					РА	GE 1 of 1

er	viro-tech consultants	ASSESSMENT: Found STRUCTURE: Product EASTING (GDA94 Zor NORTHING (GDA94 Z	ion Kitchen 1 e 55): 54192	26	đ	DATE	GED E	TED: BY: M	16/01/2025 . Scalisi 00 m AHD			
	ATION: 1309 Tasman H NT: Hobart Internationa			QUIPMENT: 50mm Christie Post Driver								
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mdd) Old	Soil Sample			
0	FILL: SAND trace gray brown, poorly sorted,	vel, trace silt, light yellowis fine to medium grained sa	h nd	Slightly Moist	3		0.0					
0.9	TOPSOIL: SAND with poorly sorted, fine to r	silt, trace clay, dark grey, nedium grained sand			8		- 1.0		PT16 1.0			
	Terminated at 1.1 m E	Jepth										

CI	viro-tech consultants	ASSESSMENT: Found STRUCTURE: Product EASTING (GDA94 Zon NORTHING (GDA94 Zon	ion Kitchen i e 55): 54191	9	1	LOGG	TES SED I	TED: BY: M.	16/01/2025 Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa		EQUIPMEN						
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Ol9	Soil Sample
0.1	grained sand, with gra % charcoal and roots, TOPSOIL: SAND with poorly sorted, fine to n	silt, trace clay, dark grey,	iilt, 5	Slightly Moist	5 8 9		0.0		

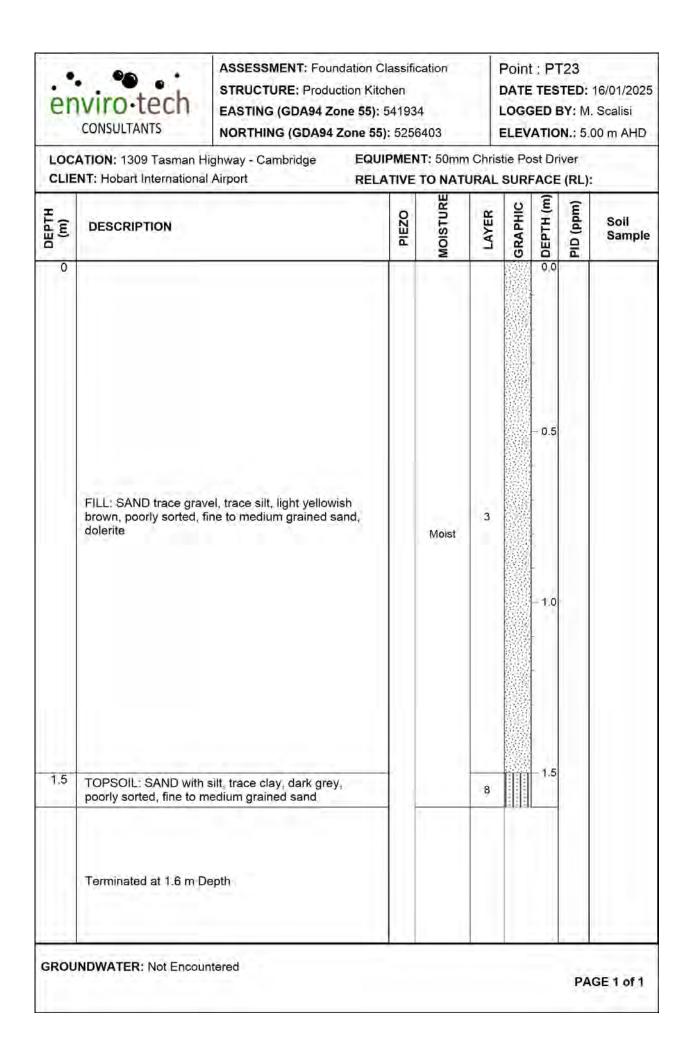
yish brown, ad edium	VE TO N	TATURAL	GRAPHIC	O DEPTH (m)	(mqq) OI4	Soil Sample
yish brown, nd	PIEZO MOISTURE		GRAPHIC	DEPTH (m)	(mqq) OI4	Soil
nd	Slight	ly	NARA			
	Mois	st				

er	viro-tech consultants	ASSESSMENT: Foun STRUCTURE: Produc EASTING (GDA94 Zo NORTHING (GDA94 Z	tion Kitchen ne 55): 54183	9	d d	LOGO	TES SED I	TED: BY: M.	16/01/2025 Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa		EQUIPME			SUR	ACE	(RL):	
(m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) CI4	Soil Sample
0	TOPSOIL: SAND trace	e silt/clay, dark greyish br	own,	2	7	0	0.0		
0.1	poorly sorted, fine to n TOPSOIL: SAND with poorly sorted, fine to n	silt, trace clay, dark grey		Slightly Moist	8				
0.3	and the second se	ell sorted, fine to medium			9				

•		IT: AMS F TO NATU BUDE NOISLOW	A 1 4 1 1 1 1		FACE (W) HLd30 0.0 - 0.5		
ace silt, light yellowish medium grained sand,	PIEZO	MOISTURE		GRAPHIC	0.0	PID (ppm)	Sample
ace silt, light yellowish medium grained sand,			3		0.0		PT20 0.5
ace silt, light yellowish medium grained sand,			3				
		Slightly Moist			- 1.5		
					2,0		
ace clay, dark grey, n grained sand	-		8		- 2.5		PT20 2.5
ted, fine to medium			9				
					3.0		
1	n grained sand	n grained sand	ed, fine to medium	ed, fine to medium	ed, fine to medium	ace clay, dark grey, n grained sand ed, fine to medium 9 3.0	ace clay, dark grey, n grained sand ed, fine to medium 9 3,0

en	viro-tech consultants	ASSESSMENT: Foun STRUCTURE: Produc EASTING (GDA94 Zo NORTHING (GDA94 Z	ction Kitchen one 55): 5419	53	ġ	DATE	GED E	TED: BY: M.	16/01/2025 Scalisi 00 m AHD	
	ATION: 1309 Tasman H NT: Hobart Internationa			EQUIPMENT: 50mm Christie Post Driver RELATIVE TO NATURAL SURFACE (RL):						
OEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	O DEPTH (m)	(mqq) OI4	Soil Sample	
2	brown, poorly sorted, f shells, sandtone, roots	silt, trace clay, dark grey	and,	Dry	3		- 1.5			
	grained sand	ell sorted, fine to medium		Moist	9		- 2.5			
GROU	Terminated at 2.5 m D								GE 1 of 1	

er	viro-tech consultants	ASSESSMENT: Foundation Classification STRUCTURE: Production Kitchen EASTING (GDA94 Zone 55): 541945 NORTHING (GDA94 Zone 55): 5256414					Point : PT22 DATE TESTED: 16/01/2029 LOGGED BY: M. Scalisi ELEVATION.: 5.00 m AHD				
	ATION: 1309 Tasman H NT: Hobart Internationa	· · · · · · · · · · · · · · · · · · ·	EQUIPMENT: 50mm Christie Post Driver RELATIVE TO NATURAL SURFACE (RL):								
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mdd) Old	Soil Sample		
0	FILL: SAND trace graves brown, poorly sorted, a dolerite, shells	vel, trace silt, light yellowish fine to medium grained sand,		Slightly Moist	3		0.0				
1.6	poorly sorted, fine to r	silt, trace clay, dark grey, nedium grained sand ell sorted, fine to medium		Moist -	8 9		- 1.5 				
	Terminated at 2 m De	pth									
GROU	Terminated at 2 m De							РА			



er	viro-tech consultants	ASSESSMENT: Foundation STRUCTURE: Production Ki EASTING (GDA94 Zone 55) NORTHING (GDA94 Zone 5	tchen : 54196	9	à	Point : PT24 DATE TESTED: 16/01 LOGGED BY: M. Scal ELEVATION.: 4.00 m						
	ATION: 1309 Tasman H NT: Hobart Internationa	· · · · ·				tie Post Driver SURFACE (RL):						
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI9	Soil Sample			
0	FILL: SAND trace grav brown, poorly sorted, t	vel, trace silt, light yellowish fine to medium grained sand		Dry	3	0	0,0	LL.				
0.4	TOPSOIL: SAND with poorly sorted, fine to n	silt, trace clay, dark grey, nedium grained sand		Slightly Molst	8		- 0.5					
0.6	SAND, pale brown, we grained sand	ell sorted, fine to medium		Dry	9							
	Terminated at 1 m De	pth										
GROU	INDWATER: Not Encou	ntered					1		GE 1 of 1			

LOCATION: 1309 Tasman Highway - Cambridge CLIENT: Hobart International Airport EQUIPMENT: 50mm Christie Post Driver RELATIVE TO NATURAL SURFACE (RL): Location: DESCRIPTION Relative To Natural Surface (RL): 0 TOPSOIL: SAND trace sil/clay, dark greyish brown, poorly sorted, fine to medium grained sand Dry 7 0 TOPSOIL: SAND trace sil/clay, dark greyish brown, poorly sorted, fine to medium grained sand Dry 7	er	viro-tech consultants	ASSESSMENT: Four STRUCTURE: Produ EASTING (GDA94 Zo NORTHING (GDA94	ction Kitchen one 55): 54184	15	i i	LOGO	TES GED I	TED: BY: M	22/01/2025 . Scalisi 00 m AHD
Hamilton Description No. 0 TOPSOIL: SAND trace silt/clay, dark greyish brown, Date Topsoil										
0 TOPSOIL: SAND trace silt/clay, dark greyish brown,					A second se		1			
Terminated at 0.1 m Depth		poorly sorted, fine to r	nedium grained sand	rown,	Dry	7				

er	viro-tech CONSULTANTS	dation Classific ction Kitchen one 55): 54184 Zone 55): 5256	4	a a	LOGO	TES	TED: BY: M.	22/01/2025 Scalisi 00 m AHD	
	ATION: 1309 Tasman H NT: Hobart Internationa		EQUIPMEN						~
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI4	Soil Sample
0	Terminated at 0.1 m E		rown,	Dry	7		0.0		
GROU	NDWATER: Not Encou	ntered						PA	GE 1 of 1

Hobart Internationa	e silt/clay, dark greyish bro		ΤΟ ΝΑΤυ					
ESCRIPTION	e silt/clay, dark greyish bro		A			AGE	(RL):	
DPSOIL: SAND trace porly sorted, fine to n	e silt/clay, dark greyish bro		MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mdd) QId	Soil Sample
arminated at 0.1 m F		<i>ν</i> η,	Dry	7		0.0		
	rminated at 0.1 m E	rminated at 0.1 m Depth		rminated at 0.1 m Depth				

E TO NATUR	RAL SU		(RL) (mdd) Old	Soil Sample PT28 0.0
MOISTURE	LAYER	GRAPHIC DEPTH (m)	(mqq) Olq	Soil Sample
	1953			PT28 0.0
				ΡΑ

er	viro-tech consultants	Classific itchen): 541856 55): 5256	8	i i	LOGO	E TES	TED: BY: M.	22/01/2025 Scalisi 00 m AHD	
	ATION: 1309 Tasman H NT: Hobart Internationa			T: 50mm					-
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI4	Soil Sample
0	TOPSOIL: SAND trac poorly sorted, fine to n	e silt/clay, dark greyish brown, nedium grained sand		Dry	7		0.0		
	Terminated at 0.3 m E	Depth							
GROU	NDWATER: Not Encou	ntered						PA	GE 1 of 1

TON: 1309 Tasman H T: Hobart Internationa DESCRIPTION		EQUIPMEN	T: 50mm	Christ				
			TO NATU					
		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Olq	Soil Sample
poorly sorted, fine to n		own,	Dry	7		0.0		
	erminated at 0.1 m D	erminated at 0.1 m Depth						

n Christie Post Driver TURAL SURFACE (RL): TURAL SURFACE (RL): THAT Soil Sample 7 0.0
LAYER LAYER GRAPHIC PID (ppm) 00 00 00 00 00 00 00
0.0

er	ASSESSMENT: Foundation Classification Point : PT STRUCTURE: Production Kitchen DATE TES EASTING (GDA94 Zone 55): 541837 LOGGED E NORTHING (GDA94 Zone 55): 5256470 ELEVATIO						TED: BY: M.	Scalisi	
	ATION: 1309 Tasman H NT: Hobart Internationa				Christie Post Driver RAL SURFACE (RL):				
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(udd) CId	Soil Sample
0	FILL: SAND trace gray brown, poorly sorted, dolerite, root fibres	vel, trace silt, light yellowish fine to medium grained sar	n rd.	Dry	3		0.0		
GROU	NDWATER: Not Encou	intered			1			PA	GE 1 of 1

er	viro-tech consultants	dation Classifi tion Kitchen ne 55): 54183 Zone 55): 5256	9	1	22/01/2025 Scalisi 00 m AHD				
	ATION: 1309 Tasman H NT: Hobart Internationa	EQUIPMEN						_	
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Old	Soil Sample
0	Terminated at 0.1 m E		own,	Dry	7		0.0		
GROU	NDWATER: Not Encou	ntered						PA	GE 1 of '

er	viro-tech consultants	ndation Classific ction Kitchen one 55): 541833 Zone 55): 5256	3	TES SED I	PT34 ESTED: 22/01/2025 D BY: M. Scalisi FION.: 4.00 m AHD						
	ATION: 1309 Tasman H NT: Hobart Internationa		UIPMENT: 50mm Christie Post Driver								
DEPTH (m)	DESCRIPTION		BEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	HD (mqq) CI4	Soil Sample		
0	TOPSOIL: SAND trac poorly sorted, fine to r	e silt/clay, dark greyish b nedium grained sand	rown,	Dry	7		0.0		PT34 0.1		
	Terminated at 0.1 m D	Depth		-							

er	viro-tech consultants	ASSESSMENT: Four STRUCTURE: Produ EASTING (GDA94 Zo NORTHING (GDA94	ction Kitch one 55): 5	nen 4182	8	ġ	LOGO	TES SED I	TED: BY: M.	22/01/2025 Scalisi 00 m AHD	
	ATION: 1309 Tasman H NT: Hobart Internationa		QUIPMENT: 50mm Christie Post Driver ELATIVE TO NATURAL SURFACE (RL):								
DEPTH (m)	DESCRIPTION			PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI4	Soil Sample	
0	brown, well sorted, fin	vel, trace clay, dark greyi e to medium grained san	d,		Slightly Moist	6		0.0			
	Terminated at 0.1 m D	Depth									

er	viro-tech consultants	Classific tchen : 54182 5): 5256	2		22/01/2025 I. Scalisi .00 m AHD						
	ATION: 1309 Tasman H NT: Hobart Internationa	QUIPMENT: 50mm Christie Post Driver									
DEPTH (m)	DESCRIPTION		PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI9	Soil Sample		
0	TOPSOIL: SAND trac poorly sorted, fine to r			Dry	7		0.0		PT36 0.0		
		sebut.									
GROU	INDWATER: Not Encou	intered							GE1 of1		
								PA	GE 1 of		

er	viro-tech consultants	ASSESSMENT: Four STRUCTURE: Produ EASTING (GDA94 Zo NORTHING (GDA94	ction Kitch one 55): 5	nen 641801	í.	ġ	LOGO	TES SED I	TED: BY: M.	22/01/2025 Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa			T: 50mm						
DEPTH (m)	DESCRIPTION			PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Olq	Soil Sample
	brown, well sorted, fin	vel, trace clay, dark greyi e to medium grained san	ıd,		Dry	6		0.0		
	Terminated at 0.1 m D	Depth								

en	viro-tech consultants	ndation Classific ction Kitchen one 55): 541807 Zone 55): 5256	7		22/01/2025 . Scalisi 00 m AHD						
	ATION: 1309 Tasman H NT: Hobart Internationa		QUIPMENT: 50mm Christie Post Driver ELATIVE TO NATURAL SURFACE (RL):								
DEPTH (m)	DESCRIPTION		OZU	MOISTURE	LAVER	GRAPHIC	DEPTH (m)	(mdd) Old	Soil Sample		
0	poorly sorted, fine to r	e silt/clay, dark greyish b nedium grained sand		Dry	7		0.0				
	Terminated at 0.1 m E	Jepth									

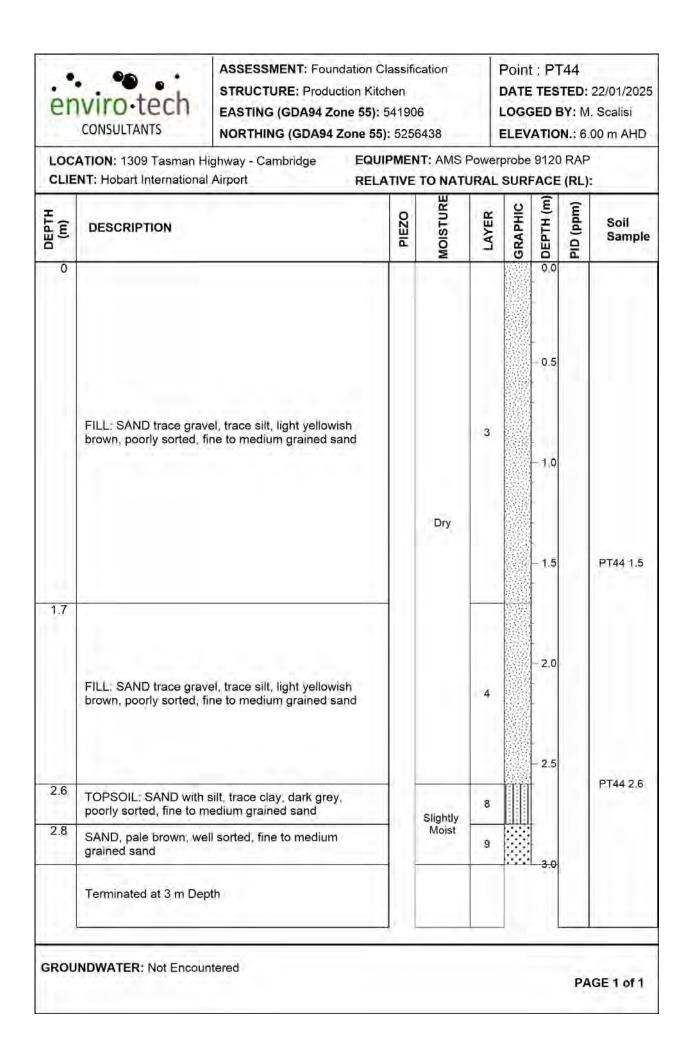
er	viro-tech consultants	ASSESSMENT: Four STRUCTURE: Produ EASTING (GDA94 Zo NORTHING (GDA94	ction Kitchen one 55): 541	1 802		ġ	LOGG	TES ED E	TED: 3 BY: M.	22/01/2025 Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa	EQUIPM							-	
DEPTH (m)	DESCRIPTION		DICTO	1	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mdd) QI4	Soil Sample
	<u>poorly sorted, fine to n</u>	e silt/clay, dark greyish b nedium grained sand, do	lerite		Dry	7				
	Terminated at 0.1 m E	Depth								

er	viro-tech consultants	ASSESSMENT: Four STRUCTURE: Produce EASTING (GDA94 Zoo NORTHING (GDA94	ction Kitch one 55): 5	nen 41812			LOGO	TES SED I	TED: BY: M	22/01/2025 I. Scalisi .00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa			T: 50mm TO NATU					:	
DEPTH (m)	DESCRIPTION			PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Old	Soil Sample
0	FILL: SAND trace gra brown, well sorted, fin dolerite	vel, trace clay, dark greyi e to medium grained san	sn d,		Dry	6		0.0		PT40.0.0
	Terminated at 0.1 m D	Depth								
GROL	INDWATER: Not Encou	intered							PA	GE 1 of 1

er	viro-tech consultants	ASSESSMENT: Four STRUCTURE: Produc EASTING (GDA94 Zo NORTHING (GDA94	ction Kitch one 55): 54	en 41805	6	d a	LOGG	TES SED I	TED: BY: M.	22/01/2025 Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa			T: 50mm TO NATU						
DEPTH (m)	DESCRIPTION			PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Ol9	Soil Sample
0	brown, well sorted, fin	vel, trace clay, dark greyi e to medium grained san	d,		Dry	6		0.0		
	Terminated at 0.1 m E	Depth								

er	viro-tech consultants	ASSESSMENT: Foun STRUCTURE: Produc EASTING (GDA94 Zo NORTHING (GDA94 Z	ction Kitch one 55): 5	nen 41809	ı		LOGO	TES SED I	TED: BY: M	22/01/2025 I. Scalisi .00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa			T: 50mm TO NATU						
DEPTH (m)	DESCRIPTION			PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Old	Soil Sample
0	brown, well sorted, fin	vel, trace clay, dark greyi e to medium grained san	d,		Dry	6		0.0		PT42 0.0
	Terminated at 0.1 m E	Depth								
GROU	INDWATER: Not Encou	ntered							PA	GE 1 of 1

er	viro-tech consultants	ASSESSMENT: Four STRUCTURE: Produc EASTING (GDA94 Zo NORTHING (GDA94	ction Kitch one 55): 5	ien 41808	1	đ	LOGO	TES SED I	TED: BY: M.	22/01/2025 Scalisi 00 m AHD		
	ATION: 1309 Tasman H NT: Hobart Internationa		EQUIPMENT: 50mm Christie Post Driver RELATIVE TO NATURAL SURFACE (RL):									
DEPTH (m)	DESCRIPTION			PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Ol9	Soil Sample		
	brown, well sorted, fin	vel, trace clay, dark greyi e to medium grained san	d,		Dry	6		0.0				
	Terminated at 0.1 m E	Depth										



er	viro-tech consultants	dation Classi ction Kitchen one 55): 5418 Zone 55): 52	43		22/01/2025 I. Scalisi 00 m AHD							
	ATION: 1309 Tasman H NT: Hobart Internationa		QUIPMENT: 50mm Christie Post Driver ELATIVE TO NATURAL SURFACE (RL):									
DEPTH (m)	DESCRIPTION	PIEZO	MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) Old	Soil Sample				
0	TOPSOIL: SAND trac poorly sorted, fine to n	e silt/clay, dark greyish bi nedium grained sand	rown,	Dry	7		0.0		PT45 0.0			
	Terminated at 0.1 m D	Depth										
GROU	NDWATER: Not Encou	intered	ji			10		PA	GE 1 of 1			

er	viro-tech consultants	ASSESSMENT: Foun STRUCTURE: Produc EASTING (GDA94 Zo NORTHING (GDA94 Z	ction Kitchen one 55): 541	831			LOGO	TES SED I	TED: BY: M	22/01/2025 . Scalisi 00 m AHD
	ATION: 1309 Tasman H NT: Hobart Internationa		EQUIPM							
DEPTH (m)	DESCRIPTION		DIEZO		MOISTURE	LAYER	GRAPHIC	DEPTH (m)	(mqq) OI9	Soil Sample
0	TOPSOIL: SAND track poorly sorted, fine to r	e silt/clay, dark greyish bi nedium grained sand	rown,		Dry	7		0.0		PT46 0.0
	Terminated at 0.1 m D	Depth								
GROU	NDWATER: Not Encou	intered				-	1		PA	GE 1 of 1

Appendix 4 Threshold Investigation and Screening Limits

Soil HILs – HIL D

Sample ID	Land Use	Arsenic	Cadmium	Copper	Lead	Nickel	Zinc	Mercury (inorganic)	Carcinogenic PAHs (as BaP TEQ)	Total PAHs	PFOA	PFHxS and PFOS
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PT01 2.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT10 0.5	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT10 1.5	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT12 0.3	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT12 0.7	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT13 1.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT16 1.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT20 0.5	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT20 2.5	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT28 0.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT34 0.1	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT36 0.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT40 0.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT42 0.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT44 1.5	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT44 2.6	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT45 0.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
PT46 0.0	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50
Duplicate	D	3000	900	240000	1500	6000	400000	730	40	4000	20	50

Land Use: Residential A; B: Residential B; C: Public Open Space; D: Commercial / Industrial

Soil HSL's – HSL D

Sample ID	Land Use	Grain Class	Depth Range (m)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	F1	F2
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PT10 0.5	D	S	0-1	3	NL	NL	230	NL	260	NL
PT10 1.5	D	S	1-2	3	NL	NL	NL	NL	370	NL
PT12 0.3	D	S	0-1	3	NL	NL	230	NL	260	NL
PT12 0.7	D	S	0-1	3	NL	NL	230	NL	260	NL
PT13 1.0	D	S	1-2	3	NL	NL	NL	NL	370	NL
PT16 1.0	D	S	1-2	3	NL	NL	NL	NL	370	NL
PT20 0.5	D	S	0-1	3	NL	NL	230	NL	260	NL
PT20 2.5	D	S	2-4	3	NL	NL	NL	NL	630	NL
PT28 0.0	D	S	0-1	3	NL	NL	230	NL	260	NL
PT34 0.1	D	S	0-1	3	NL	NL	230	NL	260	NL
PT36 0.0	D	S	0-1	3	NL	NL	230	NL	260	NL
PT40 0.0	D	S	0-1	3	NL	NL	230	NL	260	NL
PT42 0.0	D	S	0-1	3	NL	NL	230	NL	260	NL
PT44 1.5	D	S	1-2	3	NL	NL	NL	NL	370	NL
PT44 2.6	D	S	2-4	3	NL	NL	NL	NL	630	NL
PT45 0.0	D	S	0-1	3	NL	NL	230	NL	260	NL
Duplicate	D	S	0-1	3	NL	NL	230	NL	260	NL

Land Use: Residential A; B: Residential B; C: Public Open Space; D: Commercial / Industrial

Grain Class Soil Class: S (SAND / GRAVEL) Coarse-Grained Soil; M (SILT) Fine-grained soil - silts and clays (liquid limit <50%); C (CLAY) Fine-grained soil - silts and clays (liquid limit >50%)

Soil EIL's

Sample	Land Use	% Clay	рН	CEC	Zinc	Copper (CEC)	Copper (pH)	Chromium	Nickel	Lead	Arsenic	Naphthalene	PFOS - Indirect Exposure (HEPA 2025)	PFOA - Indirect Exposure (HEPA 2025)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PT01 2.0	C/I	5	5.3	10	420	280	190	530	55	1800	160	370	0.003	0.003
PT10 0.5	C/I	5	6.7	10	620	280	400	530	55	1800	160	370	0.003	0.003
PT10 1.5	C/I	5	5	10	290	280	147	530	55	1800	160	370	0.003	0.003
PT12 0.3	C/I	5	6.6	10	620	280	400	530	55	1800	160	370	0.003	0.003
PT12 0.7	C/I	5	5.6	10	420	280	190	530	55	1800	160	370	0.003	0.003
PT13 1.0	C/I	5	6.9	10	620	280	615	530	55	1800	160	370	0.003	0.003
PT16 1.0	C/I	5	5.4	10	420	280	190	530	55	1800	160	370	0.003	0.003
PT20 0.5	C/I	5	6.9	10	620	280	615	530	55	1800	160	370	0.003	0.003
PT20 2.5	C/I	5	5	10	290	280	147	530	55	1800	160	370	0.003	0.003
PT28 0.0	C/I	5	5.2	10	290	280	147	530	55	1800	160	370	0.003	0.003
PT34 0.1	C/I	5	6.6	10	620	280	400	530	55	1800	160	370	0.003	0.003
PT36 0.0	C/I	5	5.2	10	290	280	147	530	55	1800	160	370	0.003	0.003
PT40 0.0	C/I	5	5.4	10	420	280	190	530	55	1800	160	370	0.003	0.003
PT42 0.0	C/I	5	5.6	10	420	280	190	530	55	1800	160	370	0.003	0.003
PT44 1.5	C/I	5	6.2	10	620	280	280	530	55	1800	160	370	0.003	0.003
PT44 2.6	C/I	5	5.2	10	290	280	147	530	55	1800	160	370	0.003	0.003
PT45 0.0	C/I	5	5	10	290	280	147	530	55	1800	160	370	0.003	0.003
PT46 0.0	C/I	5	4.3	10	190	280	85	530	55	1800	160	370	0.003	0.003
Duplicate	C/I	5	5.6	10	420	280	190	530	55	1800	160	370	0.003	0.003

Land Use AES: Areas of Ecological Significance; UR/POS: Urban Residential / Public Open Space; C/I: Commercial and Industrial

pH Soil pH as tested by the laboratory using the method EA001: pH in soil using 0.01M CaCl extract

CEC Estimated from the soil type logged at the Site

Land Use AES: areas of ecological significance; UR/POS: urban residential/public open space; C/I: commercial/industrial land use

Soil ESL's

Sample	Land Use	Coarse /Fine	F1	F2	F3	F4	Benzene	Toluene	Ethylbenzene	Total Xylenes
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PT01 2.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT10 0.5	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT10 1.5	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT12 0.3	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT12 0.7	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT13 1.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT16 1.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT20 0.5	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT20 2.5	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT28 0.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT34 0.1	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT36 0.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT40 0.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT42 0.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT44 1.5	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT44 2.6	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT45 0.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
PT46 0.0	C/I	Coarse	215	215	1700	3300	75	135	165	180
Duplicate	C/I	Coarse	215	215	1700	3300	75	135	165	180

Land Use AES: Areas of Ecological Significance; UR/POS: Urban Residential / Public Open Space; C/I: Commercial and IndustrialCoarse /FineCoarse >50% SAND/GRAVEL; Fine >50% SILT/CLAY

Appendix 5 Chain of Custody & Sample Receipt Notification



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	EM2501174			
Client	ENVIRO-TECH CONSULTANTS PTY	Laboratory	. Environmer	ntal Division Melbourne
Contact	MR KRIS TAYLOR	Contact	: Katie Davis	
Address	162 Macquarie Street HOBART 7000	Address	4 Westall R 3171	d Springvale VIC Australia
E-mail	kris@ENVIROTECHTAS.COM.AU	E-mail	: katie davis(@alsglobal.com
Telephone	03 6224 9197	Telephone	: +61-3-8549	
Facsimile		Facsimile	+61-3-8549	9626
Project	J0790 Lot 1 Grueber Avenue Cambridge	Page	: 1 of 3	
Order number		Quote number	: EM2022EN	VTAS0001 (EN/222)
C-O-C number		QC Level	NEPM 2013	3 B3 & ALS QC Standard
Site				
Sampler	MARCO SCALISI			
Dates				
Date Samples Received	24-Jan-2025 11:10	issue Date		: 28-Jan-2025
Client Requested Due Date	: 03-Feb-2025	Scheduled Reporti	ng Date	03-Feb-2025
Delivery Details		and the second second		1 K.
Mode of Delivery	Carrier	Security Seal		: Intact.
No. of coolers/boxes	- 1	Temperature		: 15.2°C - Ice Bricks present
Receipt Detail		No. of samples red	hailand / analyzed	: 21/21

General Comments

This report contains the following information:

- Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 Requested Deliverables
- Please direct any queries related to sample condition / numbering / breakages to Client Services.
- Sample Disposal Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Melbourne, NATA accreditation no. 825, site no. 13778.
- Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical
 analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this
 temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS
 recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

right solutions. right partner.

 Issue Date
 28-Jan-2025

 Page
 2 of 3

 Work Order
 EM2501174 Amendment 0

 Client
 ENVIRO-TECH CONSULTANTS PTY LTD

 Sample Container(s)/Preservation Non-Compliances

1 1 1 1

1 1 1 1

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

No sample container / preservation non-compliance exists.

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package. If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time Short Suite (12 component 103 Matrix: SOIL 1L-EAD55-Conte EADD1 1080 Sample ID Laboratory sample Sampling date / U. time EM2501174-001 22-Jan-2025 00:00 PT01 2.0m 1 1 1 1 EM2501174-002 22-Jan-2025 00:00 PT10 0.5m 1 1 1 1 EM2501174-003 22-Jan-2025 00:00 PT10 1.5m 1 1 1 1 EM2501174-004 22-Jan-2025 00:00 PT12 0.3m 1 1 1 1 EM2501174-005 22-Jan-2025 00:00 PT12 0.7m 1 1 1 1 EM2501174-006 22-Jan-2025 00:00 PT13 1.0m 1 1 1 1 EM2501174-007 22-Jan-2025 00:00 PT16 1.0m 1 1 1 1 EM2501174-008 22-Jan-2025 00:00 PT20 0.5m 1 1 1 1 EM2501174-009 22-Jan-2025 00:00 PT20 2.5m 1 1 1 1 EM2501174-010 22-Jan-2025 00:00 PT28 0.0m 1 1 1 1 EM2501174-011 22-Jan-2025 00:00 PT34 0.1m 1 1 1 1 EM2501174-012 22-Jan-2025 00:00 PT36 0.0m 1 1 1 1 EM2501174-013 22-Jan-2025 00:00 PT40 0.0m 1 1 1 1 EM2501174-014 22-Jan-2025 00:00 PT42 0.0m 1 1 1 1 EM2501174-015 22-Jan-2025 00:00 PT44 1.5m 1 1 1 1 EM2501174-016 22-Jan-2025 00:00 PT44 2.6m 1 1 1 1 EM2501174-017 22-Jan-2025 00:00 PT45 0.0m 1 1 1 1

Matrix: WATER	Sampling date / time	Sample ID	MATER - W-26T TRHIBTEXNIPAHITotal 8 Metals
ID		Participants and the second second	1
EM2501174-020	22-Jan-2025 00:00	Rinse Blank	×

22-Jan-2025 00:00 PT46 0.0m

22-Jan-2025 00:00 Duplicate

EM2501174-018

EM2501174-019



Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables		
ALL INVOICES		
- A4 - AU Tax Invoice (INV)	Email	admin@envirotechtas.com.au
ALL RESULTS		
- *AU Certificate of Analysis - NATA (COA)	Email	OFFICE@ENVIROTECHTAS.COM.A U
- "AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	OFFICE@ENVIROTECHTAS.COM.A
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	OFFICE@ENVIROTECHTAS.COM.A
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	OFFICE@ENVIROTECHTAS.COM.A
- Chain of Custody (CoC) (COC)	Email	OFFICE@ENVIROTECHTAS.COM.A
- EDI Format - ENMRG (ENMRG)	Email	OFFICE@ENVIROTECHTAS.COM.A
KRIS TAYLOR		
- *AU Certificate of Analysis - NATA (COA)	Email	kris@ENVIROTECHTAS.COM.AU
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	kris@ENVIROTECHTAS.COM.AU
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	kris@ENVIROTECHTAS.COM.AU
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	kris@ENVIROTECHTAS.COM.AU
- A4 - AU Tax Invoice (INV)	Email	kris@ENVIROTECHTAS.COM.AU
- Chain of Custody (CoC) (COC)	Email	kris@ENVIROTECHTAS.COM.AU
- EDI Format - ENMRG (ENMRG)	Email	kris@ENVIROTECHTAS.COM.AU
MARCO		
- *AU Certificate of Analysis - NATA (COA)	Email	marco@envirotechtas.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	marco@envirotechtas.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	marco@envirotechtas.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	marco@envirotechtas.com.au
- Chain of Custody (CoC) (COC)	Email	marco@envirotechtas.com.au
- EDI Format - ENMRG (ENMRG)	Email	marco@envirotechtas.com.au

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LIENT:	ENVIROTECH CONSULTANTS PTY	LTD		OUND REQUIREMENTS :		ard TAT (List	due date)					FOR	LABORATO	RY USE C	INLY (Circle)
FFICE:	HOBART		(Standard T) Ultra Trace (AT may be longer for some lifets e.g Organics)	Non S	itandard or u	rgent TAT (L	st due date)					dy Seal Intact?		Yes No N
ROJECT	J0790 Lot 1 Grueber A	Avenue Cambridge	ALS QUO	TE NO.:						QUENCE NUMBER	R (Circle	receip			109 100 19
RDER N								COC:			5 6	1000	om Sample Tei	mperature o	n Receipt: "C
	MANAGER: KRIS TAYLOR		PH: 0476 5					OF:	1 2		5 6	100000	comment		La contra de la co
	MARCO SCALISI		MOBILE: 0		RELINQUIS			REC	EIVED BY			RELINQUE	SHED BY:		RECEIVED BY:
	led to ALS? (YES / NO)		IAT (or defau	m):	-	Kris Ta	ylor	247	E/TIME			DATE/TIM			DATE/TIME:
	orts to (will default to PM if no other i				DATE/TIME	23	10125	LAT	ETTOME			DATENTING			Diel, 11-
	Nce to (will default to PM if no other a		_		-	Activity			_						Martin II
OMMEN	TS/SPECIAL HANDLING/STORAGE	OR DISPOSAL:					_					_			
ALS USE		LE DETAILS LID (S) WATER (W)		CONTAINER INFO	ORMATION		ANALY Where M	SIS REQUIR atalis are req	ED Includi uited, speci	ng SUITES (NB. 3 fy Total (unfiltered requir	bottle rag	s must be listed aired) or Disse	i to attract sub lved (field fite	e price) red oottle	Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVAT (refer to codes below		TOTAL CONTAINERS	S-26	EP231	Hd						Comments on Tkely contaminant levels, distions, or earnples requiring specific GC analysis etc.
1	PT01 2.0m	22/01/2025	8	Jar		-1	×	×	×			-			
2	PT10 0.5m	22/01/2025	8	Jar		1	×	×	×						
3	PT10 1.6m	22/01/2025	s	Jar		1	x	×	×						
4	PT12 0.3m	22/01/2025	5	Jar.		4	×	×	×						
5	PT12 0.7m	22/01/2025	5	Jar		1	×	×	×						
6	PT13 1.0m	22/01/2025	s	Jar		1	х	x	x						
7	PT16 1.0m	22/01/2025	5	Jar		t	x	×	×						
8	PT20 0.5m	22/01/2025	s	Jar		×.	×	×	×	1.					Environmental Divisio
9	PT20 2.5m	22/01/2025	s	Jar			×	×	×						Melbourne
0	PT28 0.0m	22/01/2025	s	. Jar		1	×	×	x	-					Work Order Reference EM250117
11	PT34 0.1m	22/01/2025	8	Jar		1	×	×	×						
12	PT36 0.0m	22/01/2025	\$	Jar		1	×	×	×						
Water Con	terner Codes: P = Urpieserved Plastic: 1	N = Ninc Preserved Plastic, ORC = F	Unic Preserved	ORC: SH = Sodium Hydroxide/Cd ved: AV = Airfreight Unpreserved V	TOTAL	12 Sotium Hydri	xide Preserv	o Plastic, At	G = Amber	Glass Unpreserve	d; AP - Airi	reight Unprese	rvetl Plastic	Ī	

ALS	CHAIN OF CUSTODY ALS Laboratory please tick ->	Per In Source Less Seurce Per In State I LICEADATION	Contrast Analysis and a strength of a contrast of sense and a sense of a strength of a strength of a Contrast Analysis of a strength of a strength of a Biology memory and a transform (Capital Strength of a Biology memory and a strength of a strength of a Biology memory and a strength of a strength of a Biology memory and a strength of a strength o	UM-CPAY 15 Harbox 3x40 Max Ph 07 4044 0173 E-misson/gh # EMALIBOI RHS 24 Weshi His Ph 03 8559 0002 Kwellon RH DR00504E 27 Sertine Pool Ma Fill 021075 5755 E-magnetine	gabil son 6 Beingvale WIC 3171 Risbine (Lung obel son Iger HSW 2000	n LN De	04/04/5111 02/4014/05/ 05/4015/20 15/4015/20 5/4015/20 5/4015/20	NOE internet	ndes her letti vita in 200 de Maria Vi	A TORC		CEA LESCONCY OFFICIAL Price 201746 45555 E LEICONSAULE 14 1 246 07 14766 (556 C) LENCOLONIZIONE OF Price (55 C) 25 E	Wighes Withing (201) Lifestine Court State Strate Procession Komme Strate Venture	oj che son 6 (2.3 4516 rigengleta or rigen h5W 2	2
LIENT: ENVIROTECH CO		_	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Utra Trace Organics)	X Standard TAT (Lis Non Standard or u		e date)					Custo	LABORATORY USE ONLY dy Seal Intact?	Yes	No	N/A
ROJECT: J0790	Lot 1 Grueber Avenue Cambridge		ALS QUOTE NO .:			coc s	EQUENC 2 3		BER (C	Sircle)	receip	ce / frozen ice bricks present upo t? om Sample Temperature on Réci	101	No O	NA
ROJECT MANAGER: KR	IS TAYLOR	CONTACT P	H: 0476 695 889			OF: 1	2 3	4	5	6	7 Other	comment:			
AMPLER: MARCO SCAL	LISI	SAMPLER M	OBILE: 0436 123 087	RELINQUISHED BY:		RECEIVED	BY:	-	-		RELINQUE	SHED BY:	RECEIVED B	Y:	-
OC emailed to ALS? (YE	S / NO)	EDD FORMA	T (or default):	Kris Ta	ylor	1000							m	so	ng
mail Reports to (will defaul	t to PM if no other addresses are listed);		DATE/TIME: 33/	01/25	DATE/TIME					DATE/TIME	É, I	DATE/TIME:	r	
imail Invoice to (will default	to PM if no other addresses are listed)			2970.3426	#5 -5								24	E	11
OMMENTS/SPECIAL HAN	DLING/STORAGE OR DISPOSAL:														
ALS	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)	CONTAINER INFO	DRMATION								i to attract suite price). Ived (field filtered bottle	Additiona	Informati	on

USE	MATRIX: SOLID		-	CONTAINER INFORMATION		WINDER MA	etaits ent roqu	area specify	Total (unfiltered bottle required) or Disselved (field filter required)	ed bottle Additional information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	8-26	EP231	Hd		Comments on likely contaminant levels, distions, or samples requiring specific GC analysis etc.
13	PT40 0.0m	22/01/2025	s	Jar	1	×	×	ж		
14	PT42 0.0m	22/01/2025	5	Jar	. 1	×	×	×		
IS	PT44 1.5m	22/01/2025	s	Jar	T	x	×	×		
16	PT44 2.6m	22/01/2025	S	Jar	1	×	×	ж		
17	PT45 0.0m	22/01/2025	s	Jar	T	×	×	×		
18	PT46 0.0m	22/01/2025	\$	dar	1	×	×	×		
1.0	Duplicate	22/01/2025	s	Jar	1	×	x	×		
19		22/01/2025	w	1P.2V5.1AG	1	×	x			
20	Rinse Blank		-							
21	Field Blank	22/01/2025	w	1P.2VS.1AG	1	×	×	-		
					9					



SAMPLE RECEIPT NOTIFICATION (SRN) : EM2502406 Work Order Client ENVIRO-TECH CONSULTANTS PTY Laboratory Environmental Division Melbourne LTD MR KRIS TAYLOR Contact Contact Katie Davis Address Address 162 Macquarie Street : 4 Westall Rd Springvale VIC Australia HOBART 7000 3171 E-mail kris@ENVIROTECHTAS.COM.AU E-mail katie.davis@alsglobal.com Telephone 03 6224 9197 Telephone +61-3-8549 9600 Facsimile Facsimile +61-3-8549 9626 Project J0790 Lot 1 Grueber Avenue Page : 1 of 2 Cambridge Order number Quote number EM2022ENVTAS0001 (EN/222) C-O-C number QC Level NEPM 2013 B3 & ALS QC Standard - 64 Site Sampler MARCO SCALISI Dates 15-Feb-2025 14-Feb-2025 11:15 Issue Date Date Samples Received Client Requested Due 21-Feb-2025 Scheduled Reporting Date 21-Feb-2025 Date **Delivery Details** Mode of Delivery Carrier Security Seal Intact. No. of coolers/boxes 1 Temperature 17.6°C - Ice Bricks present Receipt Detail No. of samples received / analysed 3/3

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 - Requested Deliverables
- Please direct any queries related to sample condition / numbering / breakages to Client Services.
- Sample Disposal Aqueous (3 weeks), Solid (2 months) from receipt of samples
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Melbourne, NATA accreditation no. 825, site no. 13778.
- Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical
 analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this
 temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS
 recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit

right solutions. right partner.

Issue Date	15-Feb-2025
Page Work Order	- 2 of 2 - EM2502406 Amendment 0
Client	ENVIRO-TECH CONSULTANTS PTY LTD



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

No sample container / preservation non-compliance exists.

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: SOIL

Laboratory sample	Sampling date , time	/ Sample ID	SOIL - EA2 Asbestos Id
EM2502406-001	22-Jan-2025 00:00	PT07 0.0m	1
EM2502406-002	22-Jan-2025 00:00	PT19 0.0m	1
EM2502406-003	22-Jan-2025 00:00	PT32 0.0m	1

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

	In the land	
ALL	INVOICES	

ALLINVOIGES		
- A4 - AU Tax Invoice (INV)	Email	admin@envirotechtas.com.au
KRIS TAYLOR		
 "AU Certificate of Analysis - NATA (COA) 	Email	kris@ENVIROTECHTAS.COM.AU
- "AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	kris@ENVIROTECHTAS.COM.AU
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	kris@ENVIROTECHTAS.COM.AU
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	kris@ENVIROTECHTAS.COM.AU
- A4 - AU Tax Invoice (INV)	Email	kris@ENVIROTECHTAS.COM.AU
- Chain of Custody (CoC) (COC)	Email	kris@ENVIROTECHTAS.COM.AU
- EDI Format - ENMRG (ENMRG)	Email	kris@ENVIROTECHTAS.COM.AU

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	ALS Laborato plasse tick	F PN_01_0350 Y Definition Y Definition Implementation Definition		Belluditzball kom Salvatzball kom Salvtgort (2011) 4000 rhttpang/ballapletzball kom ah Drive Cliniton (2015) 4050	Disaction of the Ph. 07-does 0117 Ident Leocone 1 Ph. 07-d045 000 LIMITORE 27 Ser Ph. 07-6371 0715	E. micenight of Window Hou E. earnables mi brea Raise Mo	egobal com d Govergrafe ViC 1 Albourne@catedit.co tope ArtSW 2850	el com P	HEWCLASTLE (02.4014/2500 NOWRA 4/10x5 020420/2000	EIG Ale Andrew Hir M E simited revelue and Paser ware fa- investiging galaxies way fratigo ware fin any picture	ayî la xwa Seyî direa Wira MSVA Kare	a USW 22% ha kaw 25%	Phild2 Brail LTIDWASYA Chr 57 4760	2550 E. Alino Lui: 14 14 0e 1610 E. rovino	pale Novel Science No Winnspace Stead Start Start of Encommunity of Street Winn on Street Winn on Street Winn	lorenal et m e pl.12.4816 ndeologistice som
LIENT:	ENVIROTECH CONSULTANTS PTY LTD			UND REQUIREMENTS :	X Standa	ed TAT (Lis	t due date):					FOR LA	BORATORY USE C	ONLY (Cir	cla)	
FFICE:	HOBART		(Standard TA Ultra Trace O	T may be longer for some tests e.g (rganics)	Non S	tandard or u	rgent TAT (List	t due date)					seal Intact?		Yes	No
ROJECT	J0790 Lot 1 Grueber Avenu	e Cambridge	ALS QUOT	TE NO.:				COC	SEQUENCE	UMBER (Circ	ie)	Free ice / receipt?	frozen ice bricks presi	eni upon	Yes	No
RDER N	JMBER:							COC: 1	2 3	6 5	6 7	Random 1	Sample Temperature o	in Receipt:		°C
	MANAGER: KRIS TAYLOR		PH: 0476 59		-		_	OF: 1	2 3	4 5	6 7	Other con		14		
AMPLER	MARCO SCALISI		MOBILE: 04		RELINQUIS			RECEIVED	BY:		REL	INQUISHI	D BY:	R	ECEIVED B	Y:
	led to ALS? (YES / NO)		AT (or defaul	it):	1.000	Kris Ta	vior				10				ms	nu
	orts to (will default to PM if no other addres				DATE/TIME			DATE/TIM	E2		DAT	E/TIME:		D	ATE/TIME:	12
mail Invo	lice to (will default to PM if no other address	ses are listed)				13/02/20	125	_			_	_			14	LI
OMMEN	IS/SPECIAL HANDLING/STORAGE OR D	ISPOSAL:														
ALS USE	SAMPLE D MATRIX: SOLID (S			CONTAINER INFO	ORMATION								attract suite price) I (field filtered bottle		Additional	Informatio
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATI (refer to codes below)		TOTAL	EA200						nmental Div	dilutions	ts on likely ca or samples r ato	anteminant k equiring spe
0	PT07 0.0m	22/01/2025	s	Bag		1	×				N	Work	Order Refere	nce		
a	PT19 0.0m	22/01/2025	s	Bag		t.	×					EN	12502	406		-
(3)	PT32 0.0m	22/01/2025	S	Bag		1	×									
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-			-						-					2111	-	
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State of the local division of the local div					TOTAL	3	· · · · · · · · · · · · · · · · · · ·									

Appendix 6 Laboratory Certificate of Analysis

	CERI	FIFICATE OF ANALYSIS		
Work Order	EM2501174	Page	: 1 of 22	-
Client	ENVIRO-TECH CONSULTANTS PTY LTD	Laboratory	Environmental Division	Melbourne
Address	: MR KRIS TAYLOR : 162 Macquarie Street	Contact Address	: Katie Davis : 4 Westall Rd Springvale	VIC Australia 3171
	HOBART 7000		(1997) - All (1997	
Telephone Project	: 03 6224 9197 : J0790 Lot 1 Grueber Avenue Cambridge	Telephone Date Samples Received	: +61-3-8549 9600 : 24-Jan-2025 11:10	
Order number		Date Analysis Commenced	: 29-Jan-2025	unun Martin
C-O-C number Sampler	MARCO SCALISI	Issue Date	04-Feb-2025 09:17	Hac-MRA N/
Site	the second se			
Quote number No. of samples received	EN/222 21			Accredited for compl
No. of samples analysed	: 21			ISO/IEC 1702
Quality Review and Sam Signatories This document has been	I Limits pertinent to this report will be found in the fo ple Receipt Notification. electronically signed by the authorized signatories below.	Electronic signing is carried out in compliance	with procedures specified in	
Signatories Andrew Lu	Position VOC Section Supervisor	Accreditation Categ	nory nics, Springvale, VIC	
Eric Chau	Metals Team Leader	Melbourne Inorga	anics, Springvale, VIC	
Nancy Wang Xing Lin	2IC Organic Chemist Senior Organic Chemist		nics, Springvale, VIC anics, Springvale, VIC	
	r	ight solutions. right partner.		
2 of 22 Order EM350		ight solutions. right partner.		
Order EM2501 ENVIR	174 O-TECH CONSULTANTS PTY LTD	ight solutions. right partner.		
Order EM2501 t ENVIR et J0790 L	174 O-TECH CONSULTANTS PTY LTD of 1 Grueber Avenue Cambridge			
Order EM2501 EM2502 et ENVIR et 207900 Internal Comments analytical procedures used to ity validated and are often at the we mosture determination tax we unotative determination tax we unotative determination tax to a response of a reported result di sampling time information is no tosos of a result is required to meet con CAS Number = CAS in LOR = Link of reportin * = This result is comp	174 O-TECH CONSULTANTS PTY LTD of 1 Grueber Avenue Cambridge y ALS have been developed from established international client request. en performed, results are reported on a dry weight basis. Is higher than the LOR, this may be due to primary sample extract first from standard LOR, this may be due to primary sample extract first from standard LOR, this may be due to high motisture content t provided by the client, sampling dates are shown without a time or inpliance limits the associated uncertainty must be considered. Ref ogistry number from database maintained by Chemical Abstracts S	ly recognised procedures such as those publ digestate dilution and/or insufficient sample for anal , insufficient sample (reduced weight employed) or component. In these instances, the time component ler to the ALS Contract for details. Services. The Chemical Abstracts Service is a divisi	ysis. matrix interference. I has been assumed by the labo	ratory for processing
Order EM2501 EM2501 et EM260 e	174 O-TECH CONSULTANTS PTY LTD ort 1 Grueber Avenue Cambridge y ALS have been developed from established international client request. en performed, results are reported on a dry weight basis. is higher than the LOR, this may be due to primary sample extract flers from atlandard LOR, this may be due to high molisture content provided by the client, sampling dates are shown without a time o mpliance limits the associated uncertainty must be considered. Ref egistry number from database maintained by Chemical Abstracts S 19 Justed from individual analyte detectors at or above the level of rep sociedited for these texts.	y recognised procedures such as those publ digestate diution and/or insufficient sample for and insufficient sample (induced weight employed) or component. In these instances, the time component is to the ALS Contract for details. Services. The Chemical Abstracts Service is a divisi sorting 2013) is the sum total of the concentration of the eig thracene (0.1), Chrysene (0.01), Benzo(b+i) & Benz Ork results for TEQ Zero' are treated as zero. compared by the sum total of the concentration of the eig thracene (0.1), Chrysene (0.01), Benzo(b+i) & Benz Ork results for TEQ Zero' are treated as zero. contration of the eight corrisoprice PAHs multiples re(0.01), Benzo(b+i) & Benzo(fituoarathene (0.1), treated as zero. for TEQ 1/2.02 are treated as your on the LOR. not and 3.4 AMethylphenol at or above the LOR.	An artix interference. That been assumed by the labor an of the American Chemical Sc Ant carcinogenic PAHs multiplied to(t)/llucrarthene (0.1), Banzo(a is by their Toxicity Equivalence F Benzo(a)pyrene (1.0), Indeno(' at the reported LOR, and for 'TE I of the eight TEQ PAHs.	ratory for processing ociety. I by their Toxicity Equivalence p)pyrene (1 0). Factor (TEF) relative to 1.2.3.od/pyrene (0 1). EQ LOR are treated as being

	174 D-TECH CONSULTANTS of 1 Grueber Avenue Cambrid		. 27					AL
Analytical Results	1 10 10 10			1		1	1	
Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	PT01 2.0m	PT10 0.5m	PT10 1.5m	PT12 0.3m	PT12 0.7m
(Matrix: SOIL)		Sampli	ing date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00
Compound	CAS Number	LOR	Unit	EM2501174-001	EM2501174-002	EM2501174-003	EM2501174-004	EM2501174-00
				Result	Result	Rijste	Rinsult	Result
EA001: pH in soil using 0.01M C	aCl extract	-		1.1				
pH (CaCi2)	-	0,1	pH Unit	5.3	6.7	5.0	6.6	5.6
EA055: Moisture Content (Dried								1
Moisture Content	-	1.0	16	5.3	2.8	2,0	1.6	2.0
EG005(ED093)T: Total Metals by								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	.4.	mg/kg	41	<1	\$1	¢]	*1
Chromium	7440-47-3	2	mg/kg	3	8	3	7	
Copper	7440-50-8	5	mg/kg	<5	<5	6	<5	<5
Lead	7439-92-1	5	mg/kg	\$	<5	-5		<5
Nickel	7440-02-0	2	mg/kg	\$2	12	2	13	4
Zinc	7440-66-6	5	mg/kg	\$	10	7	6	6
EG035T: Total Recoverable Mer	coury by FIMS			A	-			
Mercury	7439-97-6	0.1	mg/kg.	⊲01	<0.1	<0.1	<0.1	-40.1
EP075(SIM)B: Polynuclear Aron	natic Hydrocarbons			· · · · · · · · · · · · · · · · · · ·				A
Naphthalene	91-20-3	0.5	mg/kg	-0.5	<0.5	<0,5	<0.5	10.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	+0.5
Fluorene	86-73-7	0.5	mg/kg	-<0.5	<0.5	<0.5	<0.5	-<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	ma/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	40.5	-0.5	<0.5	<0.5	-0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	⊲0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	40.5	-0.5	<0.5	<0.5	-0.5
Children and the	218-01-9	0.5	mg/kg mg/kg	-0.5	<0.5	<0,5	<0.5	<0.5
Chrysene	218-01-9	0.0	markg	-4.4	-40	-0.0	-v.2	-0.5

41.5

<0.5

-0.5

<0.5

<0.5

<0.5

<0.5

<0.5



10.5

\$0.5

<0.5

⊲0.5

<0.5

<0.5

Work Order Client Project

Ben to(a)pyrene

Benzo(b+j)/luorant

Benzo(k)fluoranth

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19-2 205-82-3 0.5

207-08-9 0.5 50-32-8 0.5

mg/kg

mg/kg mg/kg

Matrix: SOIL		Sample I.	PT01 2.0m	PT10 0.5m	PT10 1.5m	PT12 0.3m	PT12 0.7m
manix. soit)	-	Sampling date / tim	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00
Compound CAS	Number L	OR Unit	EM2501174-001	EM2501174-002	EM2501174-003	EM2501174-004	EM2501174-005
			Result	Resot	Resit	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbo					Anna and an anna anna anna anna anna ann		
Indeno(1.2.3.cd)pyrene		0.5 mg/kg	<0.5	-0.5	<05	40.5	-0.5
Dibenz(a.h)anthracene	53-70-3	0.5 mg/kg	⊲0.5	<0.5	<0,5	<0.5	<0.5
Benzo(g.h.i)pesylene	191-24-2	0.6 mgikg	×0.5	-0.5	<0.5	⊲0.5	40.5
Sum of polycyclic aromatic hydrocarbons		0.5 mg/kg	-0.5	<0.5	<0.5	*0.5	-0.5
Benzo(a)pyrene TEQ (zero)		0.5 mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (half LOR)		0,5 mg/kg	0,6	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (LOR)		0,5, mg/kg	1.2	1.2	1.2	1.2	1.2
EP090/071: Total Petroleum Hydrocarbons							
C6 - C9 Fraction		10 mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	-	50 mg/kg	<\$0	<50	<50	<50	<50
C15 - C28 Fraction		100 mg/kg	<100	<100	<100	×100	<100
C29 - C36 Fraction		100 mg/kg	<100	<100	<100	<100	<100
C10 - C36 Fraction (sum)	-	50 mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - N	EPM 2015 F	ractions					
C6 - C10 Fraction	CB_C10	10 mg/kg	<10	<10	<10	<10	<10
C6 - C10 Fraction minus BTEX C6_C1 (F1)	O-BTEX	10 mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	-	50 mg/kg	<0	<0	<50	⊲50	<50
>C16 - C34 Fraction	-	100 mg/kg	<100.	<100	<100	<100	<100
>C34 - C40 Fraction		100 mg/kg	<100	<100	<100	<100	<100
>C10 - C40 Fraction (sum)		50 mg/kg	<50	<0	<\$0	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	1-1	50 mg/kg	-50	≪0	<50	<50	<50
POBO: BTEXN	Sec. 2	The second	he man the	a	4		
Benzene	71-43-2	0.2 mg/kg	402	-02	<0.2	<0.2	40.2
Tolsene	108-88-3	0.5 mg/kg	40.5	<0.5	<0.5	<0.5	-<0.5
Ethylbenzene	109-41-4	0.5. mg/kg	-0.5	≪0,5	<0.5	<0.5	-0.5
meta- & para-Xylene 108-38-3 1	06-42-3	0.5 mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

ent E	of 22 M2501174 NVIRO-TECH CONSULTANTS 1790 Lot 1 Grueber Avenue Cambri							AL
nalytical Results	rad bot i Grueber Avenue Camore	alle						
ub-Matrix: SOIL			Sample ID	PT01 2.0m	PT10 0.5m	PT10 1.5m	PT12 0.3m	PT12 0.7m
Matrix: SOIL)		Bampin	ng date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025-00:00	27-Jan-2025 00:00	22-Jan-2025 00:0
Compound	CAS Number	LOR	Unit	EM2501174-001	EM2501174-002	EM2501174-003	EM2501174-004	EM2501174-005
	A Deve demote			Result	Resot	Resit	Result	Result
EP080: BTEXN - Continued		2		and the second				
ortho-Xylene	95-47-8	0,5	mg/kg	40.5	40.5	<05	<0.5	40.5
Sum of BTEX		0,2	mg/kg	⊲0,2	<0.2	<0,2	<0.2	≪0.2
Total Xylenes	-	0.5	mgikg	40.5	-0.5	<0.5	<0.5	+0.5
Naphthalene	91-20-3	$r = \Psi^{1} r + \eta$	mgåig	-	st	4	<1	(ef)
P231A: Perfluoroalkyl Se	Ilfonic Acids	-		1	A Longer	and the second s	And the second second	
Perfluorobutane sulfonic a (PFBS)		0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic ((PFHxS)	acid 355-36-4	0,0002	maika	0.0008	0.0004	0.0004	<0.0002	0,0005
Perfluorooctane sulfonic a (PFOS)	cid 1763-23-1	10,0002	mg/kg	0.0020	0.0014	0.0008	<0.0002	0.0009
EP231B: Pertiluoroalkyi C	arboxylic Acids							
Perfluorobutanoic acid (PI	BA) 375-22-4	0.001	mg/kg	<0.001	<0,001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (F	(FPeA) 2708-90-3	0,0002	mgikg	<0.0002	<0.0002	<0.0002	40.0002	<0.0002
Perfluorohexanoic acid (P	FHxA) 307-24-4	0.0002	mg/kg	0.0003	<0.0002	≺0.0002	<0,0002	<0.0002
Perfluoroheptanoic acid (F	(FHpA) 375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0,0002	-0.0002	<0.0002
Perfluorooctanoic acid (PF	OA) 335-67-1	0.0002	mg/kg	<0,0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelor	per Sullanic Acids		-					
4:2 Fluorotelomer sulfonic (4:2 FTS)		8.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic (6:2 FTS)	acid 27619-97-2	0.0005	mý/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic (8:2 FTS)	acid 39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	-<0,0005	<0.0005
10:2 Fluorotelomer sulfoni (10:2 FTS)	c acid 120226-50-0	0,0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
P231P: PFAS Sums							and the second second	and the second second
Sum of PEHxS and PEOS	355-46-4/1763-23-	0,0002	mg/kg	0,0028	0,0018	0.0012	<0.0002	0,0014
Sum of PEAS (WA DER Lit	1	0.0002	mg/kg	0.0031	0.0018	0.0012	<0.0002	0,0014



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Inalytical Results								
ub-Matrix: SOIL Matrix: SOIL)			Sample ID	PT01 2.0m	PT10 0.5m	PT10 1.5m	PT12 0.3m	PT12 0.7m
		Samplin	g date / time	22-Jan-2025 00:00				
Compound	CAS Number	LOR	Unit	EM2501174-001	EM2501174-002	EM2501174-003	EM2501174-004	EM2501174-005
				Result	Result	Result	Result	Result
EP075(SIM)S: Phenolic Compound	d Surrogates - Continued	0						
Phenol-d6	13127-88-3	0.5	%	77.8	83.6	78.6	82.4	82.0
2-Chlorophenol-D4	93951-73-6	0.5	%	91.4	97.5	90.9	95.0	93.6
2.4.6-Tribromophenol	118-79-6	0.5	%	64.6	80.0	75.6	78.7	80.5
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	85.2	88.6	93,0	84.6	98,1
Anthracene-d10	1719-06-8	0.5	%	104	115	103	106	108
4-Terphenyl-d14	1718-51-0	0.5	%	100	108	98.2	104	105
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	74,2	94.7	86.2	92.2	86.2
Toluene-D8	2037-26-5	0.2	%	72.8	83.7	84.1	82.7	84.2
4-Bromofluorobenzene	460-00-4	0.2	%	86.1	98.9	98.0	96.4	96.4
EP231S: PFAS Surrogate								
13C4-PFOS		0.0002	%	99.9	109	108	112	105
13C8-PFOA	<u></u>	0.0002	%	112	119	115	116	119

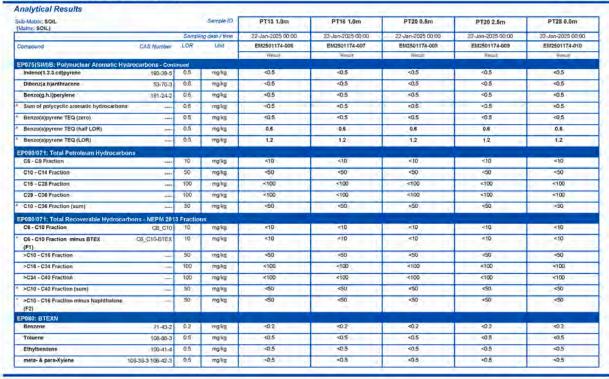
	1 FECH CONSULTANTS F Grueber Avenue Cambridg		r C					ALS
Analytical Results								
Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	PT13 1.0m	PT16 1.0m	PT20 0.5m	PT20 2.5m	PT28 0.0m
		Gampi	ing date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00
Compound	CAS Number	LOR	Unit	EM2501174-005	EM2501174-007	EM2501174-008	EM2501174-009	EM2501174-010
		_		Result	Risut	Rest	Rinsult	Result
EA001: pH in soil using 0.01M Cat pH (GaCl2)	H extract	0.1	pHUnit	6.9	54	6.9	5.0	5.2
		-	Postara					
EA055; Moisture Content (Dried @ Moisture Content	(US+110*C)	10	- 16	9.5	5.7	3.6	2.4	1.0
Tarrent Carteria	DO AEC							
EG005(ED093)T: Total Metals by it Arsenic	7440-38-2	5	mgikg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	ma/kg	41	<1	č (<1	
Chromium	7440-47-3	2	mg/kg	3	3	4	4	3
Copper	7440-50-8	5	mg/kg	đ	<5	Ś	\$	1
Lead	7439-92-1	5	mg/kg	<5	<5	\$		-5
Nickel	7440-02-0	2	marka	2	<2	2	42	2
	1114-1	1.12			1.0	3	4	2.44
Zinc	7440-66-6	5	mg/kg	. 6 .	9	50	-6	10
EG035T: Total Recoverable Mercu Mercury	7439-97-6	0.1	mg/kg	<01	<q1< td=""><td><0,1</td><td><0.1</td><td>-40.1</td></q1<>	<0,1	<0.1	-40.1
EP075(SIM)B: Polynuclear Aromat	in Hydrocathons			a	-			
Naphthalene	91-20-3	0.5	mg/kg	<0.5	≪0.5	<0.5	<0.5	-0,5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	+0.5
Fluorene	86-73-7	0.5	mg/kg	-40.5	<0.5	<05	<0.5	-<0.5
Phenanthrene	85-01-8	0.5	ma/ka	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	ma/kg	<0.5	<0.5	<0,5	⊲0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg.	40.5	-0.5	<0.5	<0.5	40.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	⊲0.5	<0.5	-0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	ma/kg	40.5	-0.5	<0.5	<0.5	40.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+)/luoranthene	205-99-2 205-82-3	0.5	malka	415	40.5	<0.5	<0.5	+0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	-0.5	<0.5	<0.5	<0.5	-05
1.7.7.9.4.175 5553				0.4	114	PC	\$107	19.1
Benzo(a)pyrene	50-37-8	0.5	mg/kg	⊲0.5	<0.5	<0.5	<0.5	<0.5



Client Project

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ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge



ent - EN	2501174 VIRO-TECH CONSULTANTS							A
nalytical Results	90 Lot 1 Grueber Avenue Cambri	oge						
ub-Matrix: SOIL			Sample ID	PT13 1.0m	PT16 1.0m	PT20 0.5m	PT20 2.5m	PT28 0.0m
Matrix: SOIL)								
		LOR	ng date / time Unit	22-Jan-2025 00:00 EM2501174-005	22-Jan-2025 00:00 EM2501174-007	22-Jan-2025 00:00 EM2501174-008	22-Jan-2025 00:00 EM2501174-009	22-Jan-2025 00:0 EM2501174-010
Compound	CAS Number	Low		Result	Resot	Rest	Realt	Result
EP080: BTEXN - Continued				(Quality	(man)	Thiss.	maus	(result
ortho-Xylene	95-47-8	0.5	mg/kg	40.5	40.5	<0.5	<0.5	40.5
Sum of BTEX	-	0,2	mg/kg	⊲0,2	<0.2	<0,2	<0.2	≪0.2
Total Xylenes	-	0.5	mgikg	×0.5	-0.5	<0.5	<0.5	-0.5
Naphthalene	91-20-3	1.00	ang/ag	41	st	et.		ist?
EP231A: Perfluoroalkyl Sult	anie Aeide	-		and the second second				
Perfluorobutane sulfonic aci (PFBS)		0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic ac (PFHxS)	id 355-46-4	0,0002	mg/kg	0.0057	0.0007	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic aci (PFOS)	d 1763-23-1	10,0002	mg/kg	0.0011	0.0016	0.0077	0.0006	0.0011
EP231B: Pertiluoroalkyl Car	boxylic Acids							
Perfluorobutanoic acid (PFB	A) 375-22-4	0.001	mg/kg	<0.001	<0,001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PF	PeA) 2708-90-3	0,0002	mg/kg	<0.0002	<0.0002	<0.0002	40,0002	<0.0002
Perfluorohexanoic acid (PFH	IXA) 307-24-4	0.0002	mg/kg	<0.0002	0.0003	≺0.0002	<0,0002	<0.0002
Perfluoroheptanoic acid (PF	HpA) 375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0,0002	-40,0002	<0.0002
Perfluorooctanoic acid (PFO	A1 335-67-1	0.0002	mg/kg	0,0003	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelom	er Sullanic Acids							
4:2 Fluorotelomer sulfonic a (4:2 FTS)	A REPORTED AND A REPORT OF A	8.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic a (6:2 FTS)	cid 27619-97-2	0.0005	mý/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic a (8:2 FTS)	cid 39108-34-4	0.0005	-mg/kg	<0.0005	<0.0005	<0.0005	<0,0005	<0.0005
10:2 Fluorotelomer sulfanic (10:2 FTS)	acid 120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	×0.0005	<0.0005	<0.0005
EP231P: PFAS Sums							and the second	
Sum of PFHxS and PFOS	355-46-4/1763-23-	0,0002	mg/kg	0,0068	0,0023	0.0077	0.0006	0,0011
Sum of PFAS (WA DER List)	1	0.0002	mg/kg	0.0071	0.0026	0.0077	0.0006	0.0011

Work Orde Client

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ub-Matrix: SOIL Matrix: SOIL)			Sample ID	PT13 1.0m	PT16 1.0m	PT20 0.5m	PT20 2.5m	PT28 0.0m
		Samplin	g date / time	22-Jan-2025 00:00				
Compound	CAS Number	LOR	Unit	EM2501174-006	EM2501174-007	EM2501174-008	EM2501174-009	EM2501174-010
				Result	Result	Result	Result	Result
EP075(SIM)S: Phenolic Compoun	d Surrogates - Continued							
Phenol-d6	13127-88-3	0.5	%	86.9	72.6	77.7	79.8	80.3
2-Chlorophenol-D4	93951-73-6	0.5	%	103	85.2	90.4	91.7	92.5
2.4.6-Tribromophenol	118-79-6	0.5	%	89.1	75.3	76.3	75.8	84.9
EP075(SIM)T: PAH Surrogates							T.C.	
2-Fluorobiphenyl	321-60-8	0.5	%	105	88.0	81.8	96.7	98.5
Anthracene-d10	1719-06-8	0.5	%	119	98.8	104	108	110
4-Terphenyl-d14	1718-51-0	0.5	%	114	94.9	101	98.7	104
EP080S: TPH(V)/BTEX Surrogates	5							
1.2-Dichloroethane-D4	17060-07-0	0.2	%	82.5	82.1	82.0	95.2	84.3
Toluene-D8	2037-26-5	0.2	%	84.7	81.3	81.9	88.1	84.1
4-Bromofluorobenzene	460-00-4	0.2	%	97.8	93.3	95.3	101	98.0
EP231S: PFAS Surrogate		-				-		
13C4-PFOS		0.0002	%	104	105	105	106	111
13C8-PFOA		0.0002	%	112	123	116	105	107

/ork Order E	1 of 22 M2501174 NVIRO-TECH CONSULTANTS 0790 Lot 1 Grueber Avenue Cambrid							AL
Analytical Results								
ub-Matrix: SOIL Matrix: SOIL)			Sample ID	PT34 0.1m	PT36 0.0m	PT40 0.0m	PT42 0.0m	PT44 1.5m
		Gampling	date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:0
Compound	CAS Number	LOR	Unit	EM2501174-011	EM2501174-012	EM2501174-013	EM2501174-014	EM2501174-015
	A State of Course of Cours			Result	Result	Rest	Result	Result
EA001: pH in soil using 0 pH (GaCl2)	.01M CaCl extract	0.1	pH Unit	6.6	5.2	5.4	5.6	6.2
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	UII	provin	0.0		0.4	3.0	0.2
EA055: Moisture Content Moisture Content	(Dried @ 105-110"C)	10	16	<1.0	<1.0	<10	1.0	1.1
The second se		110		11.0	11.0	410	1.0	4.1
EG005(ED093)T: Total Me Arsenic	tals by ICP-AES 7440-38-2	5	malika	-5	<5	<5	<5	<5
Cadmium	1100.05.0	1	mg/kg	41	<1		45	41
7.000	7440-43-9			114	- 2.	H		
Chromium	7440-47-3	2	mg/kg	5	1	4	1	4
Copper	7440-50-8	5	mg/kg	-65	1	-5	<5	<5
Lead	7439-92-1	5	mg/kg	<5	6	<5	<5	<5
Nickel	7440-02-0	2	mg/kg	2	<2	2	<2·	42
Zinc	7440-66-6	5	mg/kg	8	16	10	9	<5
EG035T: Total Recoveral	ble Mercury by FIMS							
Mercury	7439-97-6	0.1	mg/kg	⊲01	<q.1< td=""><td><0.1</td><td><0.1</td><td>-40.1</td></q.1<>	<0.1	<0.1	-40.1
EP075(SIM)B: Polynuclea	r Aromatic Hydrocarbons	And a second	-	1000				
Naphthalene	91-20-3	0.5	mg/kg	40.5	⊲0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mgikg	×0.5	<0.5	<0.5	<0.5	+0.5
Fluorene	86-73-7	0.5	mg/kg	-<0.5	<0.5	<05	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	-0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0,5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mgikg	-0.5	-0.5	<0.5	<0.5	-0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	⊲0.5	<0.5	-0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	40.5	-0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)/luoranthene	205-99-2 205-82-3	0.5	marka.	42.5	40.5	<0.5	<0.5	40.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	-0.5	-0.5	<0.5	<0.5	-0.5
Benzo(k)fluoranthene Benzo(a)pyrene	207-08-9 50-32-8	0.5	mg/kg	40.5	<0.5	<0.5	<0.5	40.5



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ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge



	CH CONSULTANTS							ALS
nalytical Results		-						
ub-Matrix: SOIL Matrix: SOIL)			Sample ID	PT34 0.1m	PT36 0.0m	PT40 0.0m	PT42 0.0m	PT44 1.5m
		Samplij	ig date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00
Dompound	CAS Number	LOR	Unit	EM2501174-011	EM2501174-012	EM2501174-013	EM2501174-014	EM2501174-015
				Result	Resot	Resit	Rinsult	Result
P080: BTEXN - Continued		1						
ortho-Xylene	95-47-6	0,5	mg/kg	40.5	40.5	<05	<0.5	-0.5
Sum of BTEX		0,2	mg/kg	⊲0,2	<0.2	<0,2	<0.2	≪0.2
Total Xylenes		0.5	mgikg	40.5	< 0.5	<0.5	<0.5	40.5
Naphthalene	91-20-3	$i = \frac{1}{2} \left[i - \frac{1}{2} \right]$	mg/kg	41	st	ব	<1	ist i
P231A: Perfluoroalkyl Sulfonic Aci	ds	-		100 million	A Decision of the		And the second second	
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0,0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	(0,0002)	mg/kg	0.0004	0.0008	0.0030	0.0012	0,0194
EP231B: Perfluoroalkyl Carbozylic	Acids	-					and the second sec	
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0,001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0,0002	mg/kg	<0.0002	<0.0002	<0.0002	40.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PEHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
P231D: (n:2) Fluorotelomer Sulfon	ic Acide	_						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mgilkg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005.	mý/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mgikg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-50-0	0,0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
P231P: PFAS Sums	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							1
Sum of PFHxS and PFOS	355-46-4/1763-23-	0,0002	mgilig	0.0004	0,0008	0.0030	0.0012	0,0194
Sum of PFAS (WA DER List)	_	0.0002	mg/kg	0.0004	0.0008	0.0030	0.0012	0.0194

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ub-Matrix: SOIL Matrix: SOIL)			Sample ID	PT34 0.1m	PT36 0.0m	PT40 0.0m	PT42 0.0m	PT44 1.5m
		Samplin	g date / time	22-Jan-2025 00:00				
Compound	CAS Number	LOR	Unit	EM2501174-011	EM2501174-012	EM2501174-013	EM2501174-014	EM2501174-015
		2.1		Result	Result	Result	Result	Result
EP075(SIM)S: Phenolic Compoun	d Surrogates - Continued							
Phenol-d6	13127-88-3	0.5	%	81.1	98.4	87.1	81.8	79.2
2-Chlorophenol-D4	93951-73-6	0.5	%	93.8	114	102	93.7	91.0
2.4.6-Tribromophenol	118-79-6	0.5	%	78.1	106	91.6	81.1	73.7
EP075(SIM)T: PAH Surrogates								1 2.
2-Fluorobiphenyl	321-60-8	0.5	%	88,8	122	107	98,1	86,3
Anthracene-d10	1719-06-8	0.5	%	110	120	119	109	109
4-Terphenyl-d14	1718-51-0	0.5	%	103	129	110	101	102
EP080S: TPH(V)/BTEX Surrogates	5							
1.2-Dichloroethane-D4	17060-07-0	0.2	%	88,3	92.9	87.6	95.6	89.9
Toluene-D8	2037-26-5	0.2	%	79.7	84.4	79.4	85.5	86.4
4-Bromofluorobenzene	460-00-4	0.2	%	94.7	98.3	91.8	99.2	101
EP231S: PFAS Surrogate								
13C4-PFOS	شير ا	0.0002	%	106	110	106	110	108
13C8-PFOA	<u></u>	0.0002	%	100	105	99.0	103	102

nalytical Results			Sample ID	PT44 2.6m	PT45 0.0m	PT46 0.0m	Burthata	
Matrix: SOIL)			Sautowito	P144 2.6m	P 145 0.0m	P146 0.000	Duplicate	
		Gampi	ing date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	
Tompound	CAS Number	LOR	Unit	EM2501174-016	EM2501174-017	EM2501174-018	EM2501174-019	1
A manage default and the state	-	_		Result	Result	Rest	Result	
A001: pH in soil using 0.01M Ci pH (CaCl2)	aCl'extract	0.1	pH Unit	5.2	5.0	4.3	5.6	-
	and the second second	Vit	prione	2.2	5.0	4.2	5.0	_
A055: Moisture Content (Dried Moisture Content	@ 105-110"C)	1.0	- %	9.4	1.4	<10	11	
	No. of Concession, Name	1.44		3,4	1.4	10	1.1	-
G005(ED093)T: Total Metals by Arsenic	1CP-AES 7440-38-2	5	mgikg	<5	<5	5	-5	
Cadmium	1108-13-5			4	4	et .		
	7440-43-9	4	mg/kg	0.3		1	¢]	
Chromium	7440-47-3	2	mg/kg	3	3	3	4	
Copper	7440-50-8	5	mg/kg	<5	<5	45	<5	-
Lead	7439-92-1	5	mg/kg	<5	<5			_
Nickel	7440-02-0	2	mg/kg	\$2	<2	2	42	
Zinc	7440-66-6	5	mg/kg	5	8	9	8	-
G035T: Total Recoverable Mer	cury by FIMS					1 1 N		
Mercury	7439-97-6	0.1	mg/kg.	<0.1	<0.1	<0.1	<0.1	-
P075(SIM)B: Polynuclear Arom	atic Hydrocarbons		-		100 million (100 m			
Naphthalene	91-20-3	0.5	mg/kg	<0.5	⊲0.5	<0,5	<0.5	-
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	-
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	-
Fluorene	86-73-7	0.5	mg/kg	+0.5	<0.5	<0.5	<0.5	-
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0,5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg.	40.5	-0.5	<0.5	<0.5	-
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	-
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	-0.5	<0,5	<0.5	-
Chrysene	218-01-9	0.5	mg/kg	~0.5	⊲0.5	<0.5	<0.5	-
Benzo(b+j)/luoranthene	205-99-2 205-82-3	0.5	mg/kg	42.5	×0.5	<0.5	<0.5	-
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	-0.5	<0.5	<0.5	<0.5	-
Benzo(a)pyrene	50-37-8	0.5	maika	40.5	<0.5	<0.5	<0.5	

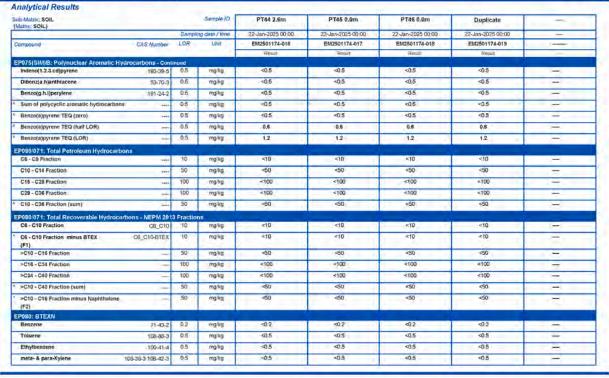


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ENVIRO-TECH CONSULTANTS PTY LTD





Circler El	of 22 A2501174 IVIRO-TECH CONSULTANTS							ALS
nalytical Results	790 Lot 1 Grueber Avenue Cambri	sge						
Matrix: SOIL			Sample ID	PT44 2.6m	PT45 0.0m	PT46 0.0m	Duplicate	~
Matrix: SOIL)		Gampi	ing date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	
Compound	CAS Number	LOR	Unit	EM2501174-016	EM2501174-017	EM2501174-018	EM2501174-015	1
				Result	Result	Resit	Result	-
EP080: BTEXN - Continued								
ortho-Xylene	95-47-6	0.5	mg/kg	0.5	40.5	<05	<0.5	
Sum of BTEX		0.2	mg/kg	⊲0,2	<0.2	<0,2	<0.2	
Total Xylenes	-	0.5	mgikg	40.5	-0.5	<0.5	<0.5	-
Naphthalene	91-20-3		mg/kig	-	st	त	c1	-
EP231A: Perfluoroalkyl Su	Itonic Acids	-			-			
Perfluorobutane sulfonic a (PFBS)		0.0002	mg/kg	<0.0002	<0.0002	<0.0002	+0.0002	1997 (S
Perfluorohexane sulfonic a (PEHxS)	cid 355-36-4	0,0002	mgikg	0,0802	<0.0002	<0.0002	40,0002	
Perfluorooctane sulfonic an (PFOS)	cid 1763-23-1	10,0002	mg/kg	0.0010	0,0005	0.0006	0.0014	-
EP231B: Pertiuoroalkyl Ca	rboxylic Acids							
Perfluorobutanoic acid (PF	BA) 375-22-4	0.001	mg/kg	<0.001	<0,001	<0.001	<0.001	-
Perfluoropentanoic acid (P	FPeA) 2706-90-3	0,0002	mg/kg	<0.0002	<0.0002	<0.0002	40.0002	
Perfluorohexanoic acid (PF	HxA) 307-24-4	0.0002	mg/kg	<0.0002	<0.0002	≺0.0002	<0.0002	-
Perfluoroheptanoic acid (P	FHpA) 375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0,0002	-010002	-
Perfluorooctanoic acid (PF	OA) 335-67-1	0.0002	mg/kg	<0,0002	<0.0002	<0.0002	<0.0002	
P231D: (n:2) Fluorotelon	er Sulfonic Acids							
4:2 Fluorotelomer sulfonic (4:2 FTS)	THE REPORT OF A DECK OF A	0.0005	mgikg	<0.0005	<0.0005	<0.0005	<0.0005	-
6:2 Fluorotelomer sulfonic (6:2 FTS)	acid 27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	~
8:2 Fluorotelomer sulfonic (8:2 FTS)	acid 39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	~0,0005	
10:2 Fluorotelomer sulfanie (10:2 FTS)	acid 120226-50-0	0,0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	
EP231P: PEAS Sums							and the second	
Sum of PFHxS and PFOS	355-46-4/1763-23-	0.0002	mg/kg	0,0012	0,0005	0.0006	0.0014	
Sum of PFAS (WA DER Lis		0,0002	mg/kg	0,0012	0,0005	0.0006	0.0014	

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ub-Matrix: SOIL			Sample ID	PT44 2.6m	PT45 0.0m	PT46 0.0m		
(Matrix: SOIL)			Sample ID				Duplicate	
		Samplin	g date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	
Compound	CAS Number	LOR	Unit	EM2501174-016	EM2501174-017	EM2501174-018	EM2501174-019	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Result	Resut	Result	Result	
EP075(SIM)S: Phenolic Compoun	d Surrogates - Continued							
Phenol-d6	13127-88-3	0.5	%	83.7	78.7	78.7	83,5	÷
2-Chlorophenol-D4	93951-73-6	0.5	%	99.8	90.9	91.3	95.0	
2.4.6-Tribromophenol	118-79-6	0.5	%	86.2	78.3	79.6	87.4	()
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	105	84.3	93.2	97.3	
Anthracene-d10	1719-06-8	0.5	%	126	108	105	114	
4-Terphenyl-d14	1718-51-0	0.5	%	113	98.6	99.4	105	, 60 (
EP080S: TPH(V)/BTEX Surrogates	5							
1.2-Dichloroethane-D4	17060-07-0	0.2	%	86.3	82.3	91.8	89.2	
Toluene-D8	2037-26-5	0.2	%	83.4	82.2	85.0	82.8	~
4-Bromofluorobenzene	460-00-4	0.2	%	95.1	99.3	99.1	94.6	
EP231S: PFAS Surrogate								
13C4-PFOS	شير ا	0.0002	%	110	111	113	112	()
13C8-PFOA		0.0002	%	105	105	97.3	104	

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ub-Matrix: WATER (Matrix: WATER)			Sample ID	Rinse Blank	Field Blank		-	
		Sampli	ng date / time	22-Jan-2025 00:00	22-Jan-2025 00:00			
Compound	CAS Number	LOR	Unit	EM2501174-020	EM2501174-021	3	·	1
				Result	Result		(****	-
EG020T: Total Metals by ICP-					<0.001			
Arsenic	7440-38-2	0,001	mg/L	<0.001			-	-
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	-	-	
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001		·	(++-)
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001			
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	-		
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	· · · · ·		1
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	-	-	· · · · ·
EG035T: Total Recoverable M	Aercury by FIMS							à
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001		· ·	-
EP075(SIM)B: Polynuclear Ar	omatic Hydrocarbons							
Naphthalene	91-20-3	1.0	pg/L	<1.0	<1.0			
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	<1.0			
Acenaphthene	83-32-9	1.0	µg/L	<1.0	<1.0		-	
Fluorene	86-73-7	1.0	µg/L	<1.0	<1.0		-	a since a
Phenanthrene	85-01-8	1.0	µg/L	<1.0	<1.0		-	
Anthracene	120-12-7	1.0	µg/L	<1.0	<1.0			
Fluoranthene	206-44-0	1.0	µg/L	<1.0	<1.0			
Pyrene	129-00-0	1.0	pg/L	<1.0	<1.0		-	· `
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0			
Chrysene	218-01-9	1.0	μg/L	<1.0	<1.0	, ,		
Benzo(b+j)/luoranthene	205-99-2 205-82-3	1.0	hð\r	<1.0	<1.0	-		
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0		-	-
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5			
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	-	-	
Dibenz(a.h)anthracene	53-70-3	1.0	pg/L	<1.0	<1.0		1. 1. 1. 1. 1 . 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	1
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0			· · · ·
Sum of polycyclic aromatic hy	drocarbons	0.5	µg/L	<0.5	<0.5		-	



Page Work Order Client Project

20 of 22 EM2501174 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge

Analytical Results

ub-Matrix: WATER Matrix: WATER)			Sample ID	Rinse Blank	Field Blank		-	
		Sampli	ng date / time	22-Jan-2025 00:00	22-Jan-2025 00:00			0
Compound	CAS Number	LOR	Unit	EM2501174-020	EM2501174-021			· · · · · · · · · · · · · · · · · · ·
				Result	Result		(
P075(SIM)B: Polynuclear Aromatic Hyd	rocarbons - Cont							
Benzo(a)pyrene TEQ (zero)	-	0.5	hg/L	<0.5	<0.5			سنه
P080/071: Total Petroleum Hydrocarbo	ns							
C6 - C9 Fraction		20	µg/L	<20	<20			· · · · · · · · · · · · · · · · · · ·
C10 - C14 Fraction		50	Hg/L	<50	<50		(
C15 - C28 Fraction		100	µg/L	<100	<100			· · · · · · · · · · · · · · · · · · ·
C29 - C36 Fraction	<u></u>	50	µg/L	<50	<50		-	-
C10 - C36 Fraction (sum)		50	µg/L	<50	<50			
P080/071: Total Recoverable Hydrocart	ons - NEPM 201	Eraction	is					
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	-	-	
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20		-	
>C10 - C16 Fraction		100	µg/L	<100	<100			
>C16 - C34 Fraction		100	µg/L	<100	<100		-	
>C34 - C40 Fraction	شسر	100	µg/L	<100	<100	-	-	
>C10 - C40 Fraction (sum)		100	µg/L	<100	<100			1
>C10 - C16 Fraction minus Naphthalene (F2)	-	100	µg/L	<100	<100		-	
P080: BTEXN								6 C
Benzene	71-43-2	1	µg/L	<1	<1			
Toluene	108-88-3	2	Hg/L	<2	<2			
Ethylbenzene	100-41-4	2	µg/L	2	<2			
meta- & para-Xylene 1	08-38-3 106-42-3	2	µg/L	<2	<2			l Dán (
ortho-Xylene	95-47-6	2	µg/L	~2	<2			1 3 .
Total Xylenes		2	µg/L	<2	<2		-	· · · · · · · · · · · · · · · · · · ·
Sum of BTEX	-	1	µg/L	<1	<1			
Naphthalene	91-20-3	5	µg/L	<5	<5			
P075(SIM)S: Phenolic Compound Surro	dates							
Phenol-d6	13127-88-3	1.0	%	38.1	33.8			

Work Order Client	Page	
Client		
	Client	
Project	Project	

21 of 22 EM2501 174 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge



ALS

Analytical Results								
Sub-Matrix: WATER (Matrix: WATER)			Sample ID	Rinse Blank	Field Blank		-	
		Sampli	ng date / time	22-Jan-2025 00:00	22-Jan-2025 00:00			00
Compound	CAS Number	LOR	Unit	EM2501174-020	EM2501174-021			
				Result	Resut		1000	
EP075(SIM)S: Phenolic Compoun	d Surrogates - Continued							
2-Chlorophenol-D4	93951-73-6	1.0	%	77.4	71.1		-	
2.4.6-Tribromophenol	118-79-6	1.0	%	107	99.6			-
EP075(SIM)T: PAH Surrogates								-
2-Fluorobiphenyl	321-60-8	1.0	%	99.9	92.9			
Anthracene-d10	1719-06-8	1.0	%	98.6	91.3			
4-Terphenyl-d14	1718-51-0	1.0	%	95.9	89.5			
EP080S: TPH(V)/BTEX Surrogates	5							
1.2-Dichloroethane-D4	17060-07-0	2	%	97.2	97.2	-	-	
Toluene-D8	2037-26-5	2	%	98.5	98.7			
4-Bromofluorobenzene	460-00-4	2	%	111	112		-	

	CONSULTANTS PTY LTE er Avenue Cambridge	i.				
Surrogate Control Limits						
Sub-Matrix: SOIL		Recover	y Limits (%)	1		
Compound	GAS Number	Low	High			
EP075(SIM)S: Phenolic Compound Surro	igates					
Phenol-d6	13127-88-3	54	125			
2-Chlorophenol-D4	93951-73-6	65	123	1		
2.4.6-Tribromophenol	118-79-6	34	122	1		
EP075(SIM)T: PAH Surrogates						
2-Fluorobiphenyl	321-60-8	61	125	1		
Anthracene-d10	1719-06-8	62	130	1		
4-Terphenyl-d14	1718-51-0	67	133	1		
EP080S: TPH(V)/BTEX Surrogates				1		
1.2-Dichloroethane-D4	17060-07-0	51	125			
Toluene-D8	2037-26-5	55	125	1		
4-Bromofluorobenzene	460-00-4	56	124			
EP231S: PFAS Surrogate				4		
13C4-PFOS		68	136	1		
13C8-PFOA		69	133	1		
Sub-Matrix: WATER		Recover	y Limits (%)	1		
Compound	CAS Number	Low	High	1		
EP075(SIM)S: Phenolic Compound Surro						
Phenol-d6	13127-88-3	10	51	1		
2-Ghlorophenol-D4	93951-73-6	30	114	1		
2.4.6-Tribromophenol	118-79-6	26	133	1		
EP076(SIM)T: PAH Surrogates						
2-Fluorobiphenyl	321-60-8	35	127			
Anthracene-d10	1719-06-8	44	122	1		
4-Terphenyl-d14	1718-51-0	44	124	1		
EP080S: TPH(V)/BTEX Surrogates	and the second secon	and the second second	Statement Statement			
1.2-Dichloroethane-D4	17060-07-0	73	129			
Toluene-D8	2037-26-5	70	125	1		
4-Bromofluorobenzene	460-00-4	71	129	1		

CERTIFICATE OF ANALYSIS

Work Order	: EM2502406	Page	: 1 of 3
Client	ENVIRO-TECH CONSULTANTS PTY LTD	Laboratory	Environmental Division Melbourne
Contact	MR KRIS TAYLOR	Contact	: Katie Davis
Address	162 Macquarie Street HOBART 7000	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: 03 6224 9197	Telephone	: +61-3-8549 9600
Project	: J0790 Lot 1 Grueber Avenue Cambridge	Date Samples Received	: 14-Feb-2025 11:15
Order number		Date Analysis Commenced	17-Feb-2025
C-O-C number		Issue Date	20-Feb-2025 08:22
Sampler	MARCO SCALISI		ACTED-2025 08.22
Site			
Quote number	: EN/222		Accreditation No. 82
No. of samples received	: 3		Accredited for compliance wit
No. of samples analysed	3		ISO/IEC 17025 Testin

General Comments
 Analytical Results
 Descriptive Results
 Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with
 Quality Review and Sample Receipt Notification.

Signatories This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11. Signatories Position Accreditation Category

MINNIE TRAN Approved Asbestos Identifier Melbourne Asbestos, Springvale, VIC

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Page Work Order Client Project	2 Of 3 EM2502406 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge	ALS
General	I Comments	
	cal procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed dated and are often at the client request.	d procedure:
Where moist	ture determination has been performed, results are reported on a dry weight basis.	
Where a rep	sorted less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.	
Where the L	OR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.	
When sample purposes	ing time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing	
Where a res	ult is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.	
Key :	CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society. LOR = Link of reporting * = This result is computed from individual analyte detections at or above the level of reporting = ALS is not NATA accredited for these tests. ~ = Indicates an actimated value.	
• EA200	'Am' Amosite (brown asbestos)	
 EA200 		
	Trace' + Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres	
	Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.	
	Lagerto (Ori ' Chrystelle (Write asbestos)	
	UMF* Unknown Mineral Fibres. ** indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended	
• EA200:	For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909.2008(E) Sect 6.3.2-2	
• EA200	Yes' - Asbestos detected by polarised light microscopy including dispension stalning.	
be below	*No* - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to w 0.1g/kg. *No - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.	



A

3 of 3 EM2502406 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge



Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	PT07 0.0m	PT19 0.0m	PT32 0.0m	-	
		Samplin	ng date / time	22-Jan-2025 00:00	22-Jan-2025 00:00	22-Jan-2025 00:00	-	
Compound	CAS Number	LOR	Unit	EM2502406-001	EM2502406-002	EM2502406-003		
		_	-	Resut	Result	Result	-18	
EA200: AS 4964 - 2004 Identificati	on of Asbestos in Soils							
Asbestos Detected	1332-21-4	0.1	g/kg	Yes	Yes	Yes		-
Asbestos (Trace)	1332-21-4	-		No	No	No		-
Asbestos Type	1332-21-4	1.00		Ch + Cr	Ch	Ch		
Synthetic Mineral Fibre				No	No	No	-	-
Organic Fibre		100		Yes	Yes	Yes		
Sample weight (dry)		0.01	9	233	233	592		· · · · · · · · · · · · · · · · · · ·
APPROVED IDENTIFIER:	<u></u>	-		M. TRAN	M. TRAN	M. TRAN		

Analytical Results Descriptive Results Sub-Matrix: SOIL

Method: Compound	Sample ID - Sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identificat	ion of Asbestos in Soils	
EA200: Description	PT07 0.0m - 22-Jan-2025 00:00	Brown sandy soil with organic matter plus multiple asbestos containing material fragments approx 35 x 25 x 3mm.
EA200: Description	PT19 0.0m - 22-Jan-2025 00:00	Brown sandy soil with organic matter plus one asbestos containing material fragment approx 20 x 15 x 3mm and one asbestos fibre bundle approx 0.5 x 0.5 x 0.5mm.
EA200: Description	PT32 0.0m - 22-Jan-2025 00:00	Brown sandy soil with organic matter plus one asbestos containing material fragment approx 15 x 10 x 3mm.

Appendix 7 Laboratory Quality Control



QA/QC Compliance Assessment to assist with Quality Review

Work Order	:EM2501174	Page	: 1 of 12
Client	ENVIRO-TECH CONSULTANTS PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: MR KRIS TAYLOR	Telephone	: +61-3-8549 9600
Project	: J0790 Lot 1 Grueber Avenue Cambridge	Date Samples Received	: 24-Jan-2025
Site	:	Issue Date	:04-Feb-2025
Sampler	: MARCO SCALISI	No. of samples received	:21
Order number	2	No. of samples analysed	: 21

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

- This report highlights outliers flagged in the Quality Control (QC) Report.
 - NO Method Blank value outliers occur.
 NO Laboratory Control outliers occur.

 - Duplicate outliers exist please see following pages for full details.
 Matrix Spike outliers exist please see following pages for full details.
 - For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

- <u>NO</u> Analysis Holding Time Outliers exist.
- **Outliers : Frequency of Quality Control Samples**
 - Quality Control Sample Frequency Outliers exist please see following pages for full details.

	Avenue Cambridge											~
Dutliers : Quality Control Samples Duplicates, Method Blanks, Laboratory Contri	al Samples and Matrix S	olkas										
Matrix: SOIL	or ourigines and mainte of	pinos										
Compound Group Name	Laboratory Sample ID	Clent Sample	D .	Analyte			CAS Number	Data	Limits	Comment		
Duplicate (DUP) RPDs	and the second second		Č.,					11 M		100 100		
EG005(ED093)T: Total Metals by ICP-AES	EM2501200014	Anonymous		Copper			7440-50-8	116 %	0% - 20%	RPD exceeds LO	R based limits	
Matrix: WATER												
Compound Group Name	Laboratory Sample ID	Clent Sample	0	Analyte		_	CAS Number	Data	Lenis	Comment		
Atrix Spike (MS) Recoveries EG020T: Total Metals by ICP-MS	EM2501054011	Anonymous					7110 50 0			1		
EGUZUT: Total Metals by ICP-MS	EM2001004-011	Anonymous		Copper			7440-50-8	Not Determined		MS recovery not background leve equal to 4x spike	I greater than or	
EG020T: Total Metals by ICP-MS	EM2501054011	Anonymous		Zinc		-	7440-66-6	Not Authorised	74.0-120%	MS recovery not background leve equal to 4x spike	d greater than or	
aboratory Duplicates (DUP) RH - Semivolatile Fraction fatrix Spikes (MS)		EP071	1	12	8.33	10.00	-	13 B3 & ALS (
		EP075(SIM)	U	8	0.00	5,00	NEPM 20	13 83 & ALS (QC Standard			_
PAH/Phenois (GC/MS - SIM) Analysis Holding Time Com												
MHPhenois (GC/MS - SIM) Analysis Holding Time Com samples are identified blow as having been anal his report summixes oxtraction / preparati rovided. Dates reported represent first date of exi- oliding time for leachate methods (e.g. TCLF 4 days, mercury 28 days & other metals 180 days oliding times for <u>VOC in soits</u> vary accordin	ysed or extracted outside o on and analysis times a raction or analysis and prec of vary according to the A recorded breach does n og to analytes of interest	ind compares lude subsequer analytes repor of guarantee a l . Vinyl Chlor	each with a t dilutions and ted. Assess reach for all a de and Styl	ALS recommen I reruns. A listing sment compares non-volatile para- rene holding tir	ded holding tim of breaches (If ai s the leach date meters, ne is 7 days; c	es (refere ny) is provid with the	incing USE ded herein. shortest a	PA SW 846 nalyte holdin	g time for t	ne equivalent soil	method. These a	ire: orgar
AM-Phenois (GC/MS - SIM): Analysis Holding Time Com samples are identified below as having been anal her report sumarizes extraction / preparati- tionided. Dates reported represent first date of ext belong time for leachate methods (e.g. TCLE) 4 days, mercury 28 days & other metals 180 days loding times for <u>VOC in soifs</u> vary accordin hould be verified in case the reported breach is a t lativic SOIL.	ysed or extracted outside o on and analysis times a raction or analysis and prec of vary according to the A recorded breach does n og to analytes of interest	ind compares lude subsequer analytes repor of guarantee a l . Vinyl Chlor	each with a t dilutions and ted. Assess reach for all a de and Styl	ALS recommen I reruns. A listing sment compares non-volatile para- rene holding tir	ded holding tim of breaches (if ai a the leach date meters, ne is 7 days; c d/concorn.	es (refere ny) is provid with the	ancing USE led herein. shortest. ai ays. A re	PA SW 846 nalyte holdin, corded break	g time for ti ch does not Evaluatio	ne equivalent soil guarantee a bres	method, These a ach for all VOC breach ; - = Within	ire: orgar analytes a
PAH/Phenois (GC/MS - SIM)	ysed or extracted outside o on and analysis times a raction or analysis and prec of vary according to the A recorded breach does n og to analytes of interest	ind compares lude subsequer analytes repor of guarantee a l . Vinyl Chlor	each with a t dilutions and ted. Assess reach for all a de and Styl	ALS recommen I reruns. A listing sment compares non-volatile para- rene holding tir	ded holding tim of breaches (If ai s the leach date meters, ne is 7 days; c	es (refere ny) is provid with the	encing USE ted herein. shortest ai ays. A re Extractor	PA SW 846 nalyte holdin	g time for t ch does not Evaluatio	ne equivalent soil guarantee a bres	method, These a ach for all VOC	ire: orgar analytes a

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Page Work Orden Client Project	3 of 12 EMZ501174 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge							ALS
Matrix: SOIL					Evaluation	1: = Holding time	breach ; * = With	n holding tim
Method		Sample Date	Ex	traction / Preparation		-	Analysis	
Container / Client Sar	nple (D(s)		Date extracted	Due ior extraction	Evaluation	Date analysed	Due for analysis	Evaluation
	sing 0.01M CaCl extract							
Soil Glass Jar - Unp		22-Jan-2025	29-Jan-2025	29-Jan-2025	,	29-Jan-2025	29-Jan-2025	
PT01 2.0m.	PT100.5m,	22-Jan-2025	29-Jan-2025	29-Jan-2020	1	29-Jan-2025	29-Jan-2025	1
PT10.1.5m	PT12.0.3m,							
PT12 0.7m	PT131.0m,							
PT16 1.0m,	PT20 0.5m,							
PT20 2.5m. PT34 0.1m.	PT28 0.0m, PT36 0.0m,							
PT40 0.0m, PT44 1.5m,	PT42 0.0m. PT44 2.6m.							
PT45 0.0m	P144 2.5m, PT46 0.0m,							
Duplicate	P1460.0m							
			l.			-		
Soil Glass Jar - Unp	ntent (Dried @ 105-110°C)			-	-	r	ř	<u> </u>
PT01 2.0m,	PT10.0.5m.	22-Jan-2025		1.00	-	30-Jan-2025	05-Feb-2025	1
PT10 1.5m.	PT12 0.3m.							
PT12 0.7m,	PT131.0m,							
PT16 1.0m.	PT20.0.5m							
PT20 2.5m	PT28.0.0m,							
PT34 0.1m	PT36 0.0m.							
PT40.0.0m.	PT42.0.0m,							
PT44 1.5m.	PT44 2.6m.							
PT45 0.0m.	PT46 0.0m,							
Duplicate								
EG005(ED093)T: To	tal Metals by ICP-AES	-42						
Soil Glass Jar - Unp		and here and	1.0.0			1		
PT01 2.0m,	PT10 0.5m,	22-Jan-2025	30-Jan-2025	21-Jul-2025	1	30-Jan-2025	21-Jul-2025	1
PT10 1.5m,	PT12 0.3m,							
PT12 0.7m,	PT13 1.0m,							
PT16 1.0m.	PT20 0.5m.							
PT20 2.5m	PT28 0.0m,							
PT34 0.1m.	PT36 0.0m,							
PT40.0.0m,	PT42 0.0m,							
PT44 1.5m	PT44 2.6m,							
PT45 0.0m,	PT46 0.0m,							
Duplicate							A contraction of the second se	

Nork Order E Dient E	4 of 12 EM2501174 ENVIRO-TECH CONSULTANTS PTY LTD J0750 Lot 1 Grueber Avenue Cambridge							ALS
latrix: SOIL						n: 🛪 = Holding time	breach ; * = With	in holding ti
Vethad		Sample Date		Iraction / Preparation			Analysis	
Container / Client Sample (D(s)	T.		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable								
Soil Glass Jar - Unpreserved	1 (EG035T)					200000		
PT01 2.0m,	PT100.5m,	22-Jan-2025	30-Jan-2025	19-Feb-2025	5	30-Jan-2025	19-Feb-2025	1
PT10.1.5m	PT12.0.3m,							
PT12 0.7m	PT13 1.0m,							
PT16 1.0m,	PT20 0.5m,							
PT20 2.5m,	PT28 0.0m,							
PT34 0.1m	PT36 0.0m,							
PT40 0.0m	PT42.0.0m,							
PT44 1.5m,	PT44 2.6m,							
PT45 0.0m,	PT46 0.0m,						1	
Duplicate								
P075(SIM)B: Polynuclear A								_
ioil Glass Jar - Unpreserved		and the second second	All and an and	1.525.00		The second second	and a second sec	-
PT01 2.0m,	PT10.0.5m,	22-Jan-2025	30-Jan-2025	05-Feb-2025	1	31-Jan-2025	11-Mar-2025	1
PT10.1.5m,	PT12 0.3m,		1.000					1.2
PT12 0.7m,	PT13 1.0m,							
PT16 1.0m,	PT20.0.5m,							
PT20.2.5m,	PT28.0.0m,							
PT340.1m.	PT36 0.0m.							
PT40 0.0m,	PT42 0.0m,							
PT44 1.5m.	PT44 2.6m.							
PT45 0.0m,	PT46 0.0m,							
Duplicate						h		

Nork Order B Blient B	5 of 12 EM2501174 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Gruebar Avenue Cambridge							ALS
Matrix: SOIL		and the second second			Evaluation	n: 💌 = Holding time	breach ; * = With	in holding ti
Method		Sample Date	, Ex	draction / Preparation			Analysis	
Container / Client Sample (D(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum	Hydrocarbons							
Soil Glass Jar - Unpreserved			•	A STORES I		100000000	Contraction of the second	-
PT01 2.0m.	PT10 0.5m,	22-Jan-2025	29-Jan-2025	05-Feb-2025	1	30-Jan-2025	05-Feb-2025	1
PT10.1.5m	PT12.0.3m,			and a second second				
PT12 0.7m	PT13 1.0m,		_					
PT16.1.0m	PT20 0.5m,							
PT20 2.5m.	PT28 0.0m,							
PT34 0.1m	PT36 0.0m,							
PT40 0.0m	PT42.0.0m,							
PT44 1.5m,	PT44 2.6m,							
PT45 0.0m	PT46 0.0m,							
Duplicate								
Soil Glass Jar - Unpreserved		and here the Te	Contra Tant	In the store	1000	C.S. amountain	A DESCRIPTION OF	
PT01 2.0m.	PT10 0.5m,	22-Jan-2025	30-Jan-2025	05-Feb-2025	~	31-Jan-2025	11-Mar-2025	1
PT10 1.5m,	PT12 0.3m,					1.00		
PT12 0.7m	PT13.1.0m,							
PT16 1.0m	PT20 0.5m							
PT20 2.5m,	PT28 0.0m,							
PT34 0.1m,	PT36 0.0m,							
PT40 0.0m.	PT42 0.0m.							
PT44 1.5m,	PT44 2.6m,							
PT45 0.0m.	PT46 0.0m.							
Duplicate			1.					

	NSULTANTS PTY LTD ar Avenue Cambridge						2	ALS
Aatrix: SOIL					Evaluation	n: = Holding time	breach ; 🖌 = With	in holding t
Method		Sample Date	Ex	traction / Preparation			Analysis	-
Container / Client Sample (D(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons -	NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080)	Lough 5	Anna Canada	1.	1.357003		2222222	12.2.1200	
PT01 2.0m.	PT10 0.5m,	22-Jan-2025	29-Jan-2025	05-Feb-2025	5	30-Jan-2025	05-Feb-2025	1
PT10.1.5m	PT12 0.3m,				100			
PT12 0.7m	PT13 1.0m,							
PT16 1.0m	PT20 0.5m,							
PT20 2.5m.	PT28 0.0m,							
PT34 0.1m	PT36 0.0m,							
PT40 0.0m	PT42 0.0m.							
PT44 1.5m	PT44 2.6m,							
PT45 0.0m	PT46 0.0m.							
Duplicate								
Soll Glass Jar - Unpreserved (EP071)	PT10 0.5m	22-Jan-2025	30-Jan-2025	05-Feb-2025	1	31-Jan-2025	11-Mar-2025	
PT01 2.0m. PT10 1.5m.	PT12 0.3m	22-0211-2025	30-381-2023	00-160-2023		a1-uari-2025	(1=widi+2020	1
PT12 0.7m	PT13 1.0m.		1.1.1.1.1.1.1					
PT16.1.0m	PT20 0.5m							
PT20 2.5m.	PT28 0.0m.							
PT340.1m,	PT36 0.0m.							
PT40 0.0m.	PT42 0.0m.							
PT44 1.5m.	PT44 2.6m.							
PT45 0.0m.	PT46 0.0m.							
Duplicate	1 The second							
EP080: BTEXN				1			1	
Soil Glass Jar - Unpreserved (EP080)		1				1		
PT01 2.0m.	PT10 0.5m,	22-Jan-2025	29-Jan-2025	05-Feb-2025	5	30-Jan-2025	05-Feb-2025	1
PT10.1.5m,	PT12 0.3m,		and the second					1.1
PT12 0.7m,	PT13 1.0m,							
PT16 1.0m,	PT20.0.5m,							
PT20 2.5m,	PT28 0.0m,							
PT34 0.1m.	PT36 0.0m.							
PT40 0.0m.	PT42 0.0m.							
PT44.1.5m,	PT44 2.6m,							
PT45 0.0m.	PT46 0.0m.							
Duplicate								

Page Work Order Client Project	7 of 12 EMZ501174 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Let 1 Grueber Avenue Cambridge							ALS
Matrix: SOIL					Evaluation	n: 💌 = Holding time	breach ; * = With	in holding tin
Method		Sample Date	E	draction / Preparation		-	Analysis	
Container / Client Se	imple (D(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
	alkyl Sulfonic Acids							
	preserved (EP231X)		1.	Constant Sector		75233.0	CAL STATE	
PT01 2.0m.	PT100.5m,	22-Jan-2025	29-Jan-2025	21-Jul-2025	1	29-Jan-2025	10-Mar-2025	1
PT10.1.5m	PT12.0.3m,		A					
PT12 0.7m.	PT131.0m,							
PT16 1.0m	PT20.0.5m,							
PT20 2.5m.	PT28 0.0m,							
PT34 0.1m	PT36 0.0m,							
PT40 0.0m	PT42 0.0m.							
PT44 1.5m.	PT44 2.6m.							
PT45 0.0m	PT46 0.0m							
Duplicate		1 1 1 1 m						
	alkyl Carboxylic Acids		-					
	preserved (EP231X)	and the second second	and the second	The Contractory		The second second	Talling and a	
PT01 2.0m,	PT10.0.5m,	22-Jan-2025	29-Jan-2025	21-Jul-2025	1	29-Jan-2025	10-Mar-2025	1
PT10 1.5m,	PT12 0.3m,		1.				and the second second	
PT12 0.7m,	PT13 1.0m,							
PT16 1.0m	PT20.0.5m							
PT20 2.5m,	PT28.0.0m,							
PT34 0.1m	PT36 0.0m.							
PT40 0.0m,	PT42 0.0m,							
PT44 1.5m	PT44 2.6m.							
PT45 0.0m,	PT46 0.0m,							
Duplicate								1
EP231D: (n:2) Fluc	protelomer Sulfonic Acids							
	preserved (EP231X)		1000	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		100000	1510 7700	
PT01 2.0m,	PT10 0.5m,	22-Jan-2025	29-Jan-2025	21-Jul-2025	1	29-Jan-2025	10-Mar-2025	1
PT10 1.5m,	PT12 0.3m,					C		
PT12 0.7m,	PT13 1.0m,							
PT16 1.0m	PT20 0.5m.							
PT20 2.5m	PT28 0.0m,							
PT34 0.1m.	PT36 0.0m,							
PT40.0.0m	PT42 0.0m,							
PT44 1.5m	PT44 2.6m,							
PT45 0.0m.	PT46 0.0m.							
Duplicate								

inge 8 of 12 Nork Order EM2501174 Illinot ENVIRO-TECH CONSULTAN roject J0790 Lot 1 Grueber Avenue						-	_	ALS
atrix: SOIL		Sector Se			Evaluation) = Holding time	breach ; - With	in holding ti
Method		Sample Date	P	disction / Preparation			Analysia	
Container / Connt Samponi (D(s)		and the second se	Date extracted	Due its extinction	Evaluation	Date analysed	Day for availysis	Evaluatio
EP231P: PFAS Sums								
Soll Glass Jar - Unpreserved (EP231X)								
PT01 2.0m.	PT100.5m.	22-Jan-2025	29-Jan-2025	21-Jui-2025	1	29-Jan-2025	10-Mar-2025	1
PT10 1.5m.	PT12 0.3m.		1				1	
PT12 0.7m.	PT13 1.0m.							
PT16 1.0m.	PT20 0.5m.						Constant of the	
PT20 2.5m	PT28.0.0m,							
PT34 0 1m.	PT360.0m.							
PT40.0 m.	PT42 0.0m.							
PT44 1.5m.	PT442.6m.							
PT45.0.0m.	PT46 0.0m.							
Duplicate	The state.			Concerned in				
					1000		100 March 100	
atrix: WATER					Evaluation	i = Holding time	breach ; < = With	in helding li
Nethod		Sample Date	E	tráction / Preparation			Analysia	-
Container / Chunt Samphi (D(s)		All and the second s	Date extracted	Due for extrestion	Evaluation	Date analysed	Due for energies	Freideric
G020T: Total Metals by ICP-MS								
Clear Plastic Bottle - Nitric Acid; Unfittered (EG020A-T) Rinse Blank;	Field Blank	22-Jan-2025	30-Jan-2025	21-Jul-2025	1	30-Jan-2025	21-Jul-2025	1
EG035T: Total Recoverable Mercury by FIMS								
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T)								
Rinse Blank.	Field Blank	22-Jan-2025				30-Jan-2025	19-Feb-2025	1
P075(SIM)B: Polynuclear Aromatic Hydrocarbons			-		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Amber Glass Bottle - Unpreserved (EP075(SIM))			-			-		
Rinso Blank,	Field Blank	22-Jan-2025	29-Jan-2025	29-Jan-2025	1	30-Jan-2025	10-Mar-2025	5
Contract of the local data and the	a record and the				-			
P080/071: Total Petroleum Hydrocarbrins			in the second se					
Amber Glass Bottle - Unpreserved (EP071)	Field Blank	22-Jan-2025	29-Jan-2025	29-Jan-2025	1	30-Jan-2025	10-Mar-2025	12
Rinse Blank,	Pielo Blank	22-Jan-2025	20-3411-20/25	CLUSTINGES	~	-0-0411-2020	10-1441-2023	1
Amber VOC Vial - Sulfuric Acid (EP080) Rinse Blank.	Field Blank	22-Jan-2025	30-Jan-2025	05-Feb-2025	1	30-Jan-2025	05-Feb-2025	1
P080/071: Total Recoverable Hydrocarbons - NEPM 20			and a state of the			a contractor		
POBO/071: Total Recoverable Hydrocarbons - NEPM 20 Amber Glass Bottle - Unpreserved (EP071)	is machinas							
Rinse Blank	Field Blank	22-Jan-2025	29-Jan-2025	29-Jan-2025	1	30-Jan-2025	10-Mar-2025	1
mber VOC Vial - Sulfutic Acid (EP080)	1 tong carding	an out whit	and shall a state		-	CC CALL NYMY	in the state	Y
Rinse Blank.	Field Blank	22-Jan-2025	30-Jan-2025	05-Feb-2025	1	30-Jan-2025	05-Feb-2025	1
PORO: BTEXN				And in case of the second		-		-
mber VOC Vial - Sulfuric Acid (EP080)			-		-		-	
Rinse Blank.	Field Blank	22-Jan-2025	30-Jan-2025	05-Feb-2025	1	30-Jan-2025	05-Feb-2025	1
TMINER MERITS/	T IVIM MAINK	£6-vd11-2025	-unedimev20	and concords		-0-vall-2020	warn eenewed	v



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the superior of backhair is structure in structure in the superior of Calient

Buality Control Sample Type	and the second	0	ount		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC.	Requise	Actual	Expected	Eveluation	
aboratory Duplicates (DUP)							
Moisture Content	EA055	3	27	11.11	10,00	1	NEPM 2013 B3 & ALS QC Standard
PAH/Phenois (SIM)	EP075(SIM)	2	19	10.53	10.00	1	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	19	10,53	10,00	×	NEPM 2013 B3 & ALS QC Standard
aH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	1	NEPM 2013 B3 & ALS QC Standard
otal Mercury by FIMS	EG035T	4	35	11,43	10,00	1	NEPM 2013 B3 & ALS QC Standard
otal Metals by ICP-AES	EG005T	5	35	14.29	10.00	1	NEPM 2013 B3 & ALS QC Standard
RH - Semivolatile Fraction	EP071	2	19	10,53	10,00	1	NEPM 2013 B3 & ALS QC Standard
RH Volatiles/BTEX	EP080	2	19	10.53	10.00	1	NEPM 2013 B3 & ALS QC Standard
aboratory Control Samples (LCS)							
AH/Phenols (SIM)	EP075(SIM)	1	19	5.26	5.00	4	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	1	NEPM 2013 B3 & ALS QC Standard
H in soll using a 0.01M CaCl2 extract	EA001	2	20	10,00	10.00	1	NEPM 2013 B3 & ALS QC Standard
otal Mercury by FIMS	EG035T	2	35	5.71	5.00	1	NEPM 2013 B3 & ALS QC Standard
otal Metals by ICP-AES	EG005T	2	35	5.71	5,00	1	NEPM 2013 B3 & ALS QC Standard
RH - Semivolatile Fraction	EP071	1	19	5.26	6.00	1	NEPM 2013 B3 & ALS QC Standard
RH Volatiles/BTEX	EP080	1	19	5.26	5,00	1	NEPM 2013 B3 & ALS QC Standard
fethod Blanks (MB)							
AH/Phenols (SIM)	EP075(SIM)	1	19	5.26	5.00	1	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	1	NEPM 2013 B3 & ALS QC Standard
fotal Morcury by FIMS	EG035T	2	35	5.71	5.00	1	NEPM 2013 B3 & ALS QC Standard
otal Metals by ICP-AES	EG005T	2	35	5.71	5.00	1	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	5.26	6.00	4	NEPM 2013 B3 & ALS QC Standard
RH Volatiles/BTEX	EP080	1	19	5.26	6,00	1	NEPM 2013 B3 & ALS QC Standard
fatrix Spikes (MS)							
PAH/Phenois (SIM)	EP075(SIM)	1	19	5,26	5.00	1	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.25	5.00	1	NEPM 2013 B3 & ALS QC Standard
Fotal Mercury by FIMS	EG035T	2	35	5.71	5.00	1	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	35	5.71	5.00	1	NEPM 2013 B3 & ALS QC Standard
IRH - Semivolatile Fraction	EP071	1	19	5.26	5,00	4	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	5.26	5.00	1	NEPM 2013 B3 & ALS QC Standard
atrix: WATER				Evaluatio	n - Ouality Co	antrol frequency	not within specification Quality Control frequency within specific
Sunity Control Sample Type	and the second s	. (cunt		Rate (%)		Quality Control Specification
Inalytical Methods	Method	QC	Resource	Actual	Expected	Evaluation	
aboratory Duplicates (DUP)		-				and the second second	a service and the second second
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	8	12.50	10.00	1	NEPM 2013 B3 & ALS QC Standard

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lient	ENVIRO-TECH CONSULTA	NTS PTV (TD						ALS
Project	J0790 Lot 1 Grueber Avenue							
Matrix: WATER					Evaluatio	n: 🗴 = Quality Co	introl frequency	not within specification ; - = Quality Control frequency within specificat
Quality Control Sample T	Туре		C	ount		Rate (%)		Quality Control Specification
Analytical Methods		Method	QC Reoular		Actual Expected Ev		Evaluation	
Laboratory Duplicates	(DUP) - Continued							
Total Mercury by FIMS	S	EG035T	2	10	20,00	10.00	1	NEPM 2013 B3 & ALS QC Standard
fotal Metals by ICP-M	AS - Suite A	EG020A-T	2	17	11.76	10.00	1	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fra	action	EP071	1	12	8.33	10.00	*	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX		EP080	2	14	14.29	10.00	1	NEPM 2013 B3 & ALS QC Standard
aboratory Control Sa	amples (LCS)							
PAH/Phenols (GC/MS	S - SIM)	EP075(SIM)	1	8	12.50	5.00	1	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	s	EG035T	1	10	10.00	5.00	1	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-M	AS - Suite A	EG020A-T	1	17	5.88	5.00	1	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fra	action	EP071	1	12	8.33	5.00	1	NEPM 2013 B3 & ALS QC Standard
RH Volatiles/BTEX		EP080	1	14	7.14	5.00	1	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)								
PAH/Phenols (GC/MS	s - SIM)	EP075(SIM)	1	8	12.50	5.00	1	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	s	E.G035T	1	10	10.00	5.00	1	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-M	/IS - Suite A	EG020A-T	1	17	5.88	5.00	1	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fra	action	EP071	1	12	8,33	5,00	1	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX		EP080	1	14	7.14	5.00	1	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)	1	and the second second						An Thomas and a second
PAH/Phonols (GC/MS	S-SIM)	EP075(SIM)	0	8	0.00	5.00	1 .	NEPM 2013 B3 & ALS QC Standard
fotal Mercury by FIMS	S	EG035T	1	10	10.00	5.00	1	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-M	AS - Suite A	EG020A-T	1	17	5.88	5.00	1	NEPM 2013 B3 & ALS QC Standard
RH - Semivolatile Fra	action	EP071	1	12	8.33	5.00	1	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX		EP080	1	14	7.14	5.00	1	NEPM 2013 B3 & ALS QC Standard

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EM2501174
ENVIRO-TECH CONSULTANTS PTY LTD
10700 Lat 4 Country August Combridges



Brief Method Summaries

Page Work Order Client Project

The analytical procedures used by the Environmental Diversion have been developed from established internationally recognized procedures such as these published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the above of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis, Sources from which ALS methods have been developed are provided within the Mothod Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl2 extract	EA001	SOIL	In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01 M CaCI2 and tumbled end over end for 1 hour, pH is measured from the continuous suspension. This method is compliant with NEPM Schedule (8(3).
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule 8(3).
Total Metals by ICP-AES	EG0057	SOIL	In house, Referenced to APHA 3120, USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soli. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3).
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCi2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCi2 which is then purged into a heated guartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	BOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40, Compliant with NEPM Schedule B(3)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EPOBO	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule BY(3) amended.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 54, table B-15 requirements.
Total Metats by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer. Which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EGOUST	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCi2)(Cold Vapour generation) AAS) FIM-AAS is an automated flamelies atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCi2 which is then purged into a heated quark cell. Oursenfacturon is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).

limit	EM2501174 ENVIRO-TECH CONSL J0790 Lot 1 Grueber Av			
Analytical Methods		Method	Matrix	Method Descriptions
TRH - Semivolatile Fraction	on	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quartification is by comparison against an established 5 point salit/arition curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule 8(3)
PAH/Phenois (GC/MS - S	iM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 845 - 6270 Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule 8(3)
TRH Volatiles/BTEX	-3	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by companion against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a treadspace diversion of the headspace determined by GCMS analysis. This method is compliant with the GC requirements of NEPM Schedule B(3)
Proparation Methods		Method	Matrix	Method Descriptions
pH in soil using a 0.03M (CaCl2 extract	EADG1-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCi2 and tumbled and over and for 1 hour, pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3).
Hot Block Digest for meta sediments and sludges	ils in soils	EN89	SOIL	In house: Referenced to USEPA 200.2. "Hot Block Acid Digestion 1.0g of sample is heated with Nitrio and Hydrochteric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge. sediments, and soits. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of S and Trap	Soils for Purge	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Sol	ids.	ORG17	SOIL	In house: Mechanical agitation (tumbler), 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1;1 DCMAcetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
OuECheRS Extraction of		ORG71	SOIL	In house: Sequential extractions with Acetonthia/Methanol by shaking. Extraction efficiency aided by the addition of salks under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Digestion for Total Recov	erable Metals	EN25	WATER	In house: Referenced to USEPA SW848-3005. Method 3005 is a NitricHydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEIPM Schedule 8(3)
Separatory Funnel Extrac		ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory furnel and senally extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) ALS default excludes sediment which may be resident in the container:
Volatiles Water Preparation	on	ORG16-W	WATER	A 5 mL aliguot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

QUALITY CONTROL REPORT

Work Order	: EM2501174	Page	: 1 of 15
Client	ENVIRO-TECH CONSULTANTS PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: MR KRIS TAYLOR	Contact	Katie Davis
Address	: 162 Macquarie Street HOBART 7000	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	03 6224 9197	Telephone	: +61-3-8549 9600
Project	: J0790 Lot 1 Grueber Avenue Cambridge	Date Samples Received	24-Jan-2025
Order number		Date Analysis Commenced	29-Jan-2025
C-O-C number		Issue Date	: 04-Feb-2025
Sampler	MARCO SCALISI		Hac-MRA NATA
Site	the second s		
Quoto number	: EN/222		Accredition No. 875
No. of samples received	: 21		Accredited for compliance with
No. of samples analysed	21		ISO/IEC 17025 - Testing

Metrod Bank (MS) and Laboratory Control Spike (LCS) Rep Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories This document has been electron	ically signed by the authorized signatories below. Electronic s	signing is carried out in compliance with procedures specified in 21 CFR Part 11.	
Signatories	Position	Accreditation Category	
Andrew Lu	VOC Section Supervisor	Melbourne Organics, Springvale, VIC	
Eric Chau	Metals Team Leader	Melbourne Inorganics, Springvale, VIC	
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC	
Xing Lin	Senior Organic Chemist	Melbourne Inorganics, Springvale, VIC	

right solutions, right partner

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General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result and the provide of a cynologic case.
Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to optimize case.
Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

CR = Limit of reporting RPD = Relative Percentage Difference # = Indicates Bield OC * = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomty selected intrababoratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit, Result between 10 and 20 times LOR: 0% - 50%, Result > 20 times LOR: 0% - 20%.

ub-Matrix: SOIL						Laboratory	Dupricate (DUP) Report		
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (PQ	Acceptable RPD Di
EG005(ED093)T: To	tal Metals by ICP-AES	(QC Lot: 6342128)							
EM2501123-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1		0.0	No Limit
	and the second second	EG005T: Chromium	7440-47-3	2	mg/kg	24	25	00 60 18.8 00 00 27.6 27.3 00 00 00 00 00 00 00 00 00 00 00 00 00	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	12	10	18.8	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mgikg	7	7	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	64	49	27.6	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	65	49	27.3	0% - 50%
EM2501174-007	PT16 1.0m	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	3	3	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	-5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	9	8	0.0	No Limit
EG005(ED093)T: To	tal Metals by ICP-AES	(QC Lot: 6342129)							
EM2501200-014	Anonymous	EG005T: Copper	7440-50-8	5	mg/kg	122	# 460	116	0% - 20%
EM2501174-018	PT46 0.0m	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	3	3	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	~2	2	118 0.0 0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit

Page Work Order Client Project		NISULTANTS PTY LTD er Avenue Cambridge							ALS		
Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (N)	Acceptable RPD (11)		
EG005(ED093)T: To	tal Metals by ICP-AES	(QC Lot: 6342129) - continued							A		
EM2501174-018	PT46 0,0m	EG005T: Lead	7439-92-1	5	mg/kg	<5		0.0	No Limit,		
		EG005T: Zinc	7440-66-6	5	mg/kg	9	7	22.7	No Limit		
EM2501200-014	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	ব	<1	0.0	No Limit		
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	EG005T: Chromium	7440-47-3	2	mg/kg	2	4	0.0	No Limit		
		EG005T: Nickel	7440-02-0	2	mg/kg	2	4	0,0	No Limit.		
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit		
		EG005T: Lead	7439-92-1	5	mg/kg	28	15	60.5	No Limit.		
		EG005T: Zinc	7440-68-6	5	mg/kg	140	149	6,3	0% - 20%		
EA001: pH in soil us	sing 0.01M CaCl extra	ct (QC Lot: 6339079)									
EM2500853-025	Anonymous	EA001: pH (CaCl2)		0.1	pH Unit	4.5	4.5	0.0	0% - 20%		
EM2501174-009	PT20 2.5m	EA001: pH (CaCl2)		0.1	pH Unit	5.0	5.0	0.0	0% - 20%		
EA055: Moisture Co	ntent (Dried @ 105-11	0°C) (QC Lot: 6343550)									
EM2501128-001	Anonymous	EA055: Moisture Content		0.1 (1.0)*	96	22	2.6	14.1	No Limit		
EM2501174-003	PT10.1.5m	EA055: Moisture Content		0.1 (1.0)*	96	20	2.8	31,0	No Limit		
EA055: Moisture Co	ntent (Dried @ 105-11	0°C) (QC Lot: 6343551)									
EM2501174-013	PT40 0.0m	EA055: Moisture Content		0.1 (1.0)*	%	<1.0	1.0	0.0	No Limit		
FG035T Total Recu	overable Mercury by F	IMS (QC Lot: 6342127)									
EM2501123-001	Anonymous	EG035T Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit		
EM2501174-007	PT16 1.0m	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit		
G035T: Total Recu	overable Mercury by B	IMS (QC Lot: 6342130)									
EM2501174-018	PT4B 0.0m	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	-40.1	0.0	No Limit		
EM2501200-014	Anonymous	EG0351: Mercury	7439-97-6	01	mg/kg	<0.1	<0.1	0.0	No Limit		
		ocarbons (QC Lot: 6339501)				1		-			
EM2501174-001	PT01 2.0m	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No-Limit.		
CHILDOITHOUT	L' TOT L'ON	EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	40.5	0.0	No Limit		
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	40.5	0.0	No Limit		
		EP075(SIM): Fluoreno	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM), Anthraciana	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit.		
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0,5	mg/kg	<0,5	<0.5	0.0	No Limit,		
		EP075(SIM): Benzoli()fluoranthene	207-08-9	0.5	mg/kg	<0.5	-\$0.5	0.0	No Limit		

Page Vork Order Slient Project		DNSULTANTS PTY LTD er Avenue Cambridge				277			ALS		
ub-Matrix: SOIL				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (N)	Acceptable RPD M.		
EP075(SIM)B: Poly	nuclear Aromatic Hyd	rocarbons (QC Lot: 6339501) - continued									
EM2501174-001	PT01 2.0m	EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	-0.5	0.0	No Limit		
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EM2501174-011	PT34 0.1m	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	-0.5	0.0	No Limit		
		EP075(SIM) Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Pyréne	129-00-0	0.5	mg/kg	<0.5	-0.5	0.0	No Limit		
		EP075(SIM): Benz(a)anthracene	56-55-3	0,5	mg/kg	<0.5	40.5	0.0	No Limit		
		EP075(SIM): Chrysone	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(b+j)fluoranthone	205-99-2 205-82-3	0.5	mg/kg	<0,5	-0.5	0.0	No Limit		
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0,5	40.5	0.0	No Limit		
		EP075(SIM): Indenb(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0,5	~0.5	0.0	No Limit		
		EP075(SIM): Dibenz(a h)anthracene	53-70-3	0.5	mg/kg	<0.5	40.5	0.0	No Limit		
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0,5	mg/kg	<0,5	<0,5	0.0	No Limit,		
EP080/071: Total P	etroleum Hydrocarbor	is (QC Lot: 6339357)									
EM2501174-001	PT01 2.0m	EP080: C6 - C9 Fraction		10	mg/kg	<10	<10	0.0	No Limit		
EM2501174-011	PT34 0.1m	EP080: C6 - C9 Fraction	-	10	mg/kg	<10	<10	0.0	No Limit,		
P080/071: Total P	etroleum Hydrocarbor	s (QC Lot: 6339502)					-		and the second second		
EM2501174-001	PT01.2.0m	EP071: C15 - C28 Fraction		100	mg/kg	<100	<100	0.0	No Limit		
		EP071: C29 - C36 Fraction		100	mg/kg	<100	<100	0,0	No Limit		
		EP071: C10 - C14 Fraction		0.5 mg/kg <0.5 <0.5 <0.5 0.5 mg/kg <0.5	<50	0.0	No Limit				
EM2501174-011	PT34 0.1m	EP071: C15 - C28 Fraction		100	mg/kg	4100	<100	0.0	No Limit		
		EP071: C29 - C36 Fraction		100	mg/kg	<100	<100	0.0	No Limit		
		EP071: C10 - C14 Fraction		-50	mg/kg	<50	<50	0.0	No Limit,		
EP080/071: Total R	ecoverable Hydrocarb	ons - NEPM 2013 Fractions (QC Lot: 6339357)	1000						Contraction of the		
EM2501174-001	PT01 2.0m	EP080: C6 - C10 Fraction	C6 C10	10	mg/kg	<10	<10	0.0	No Limit		
EM2501174-011	PT34 0.1m	EP080: C6 - C10 Fraction	C6_C10					0.0	No Limit.		
(d) (d)	1 12 12 10 10	ons - NEPM 2013 Fractions (QC Lot: 6339502)		-							
M2501174-001	PT01 2.0m	EP071:>C16 - C34 Fraction		100	mg/kg	<100	<100	0.0	No Limit		
and a state of the	To Table	EP071: >C34 - C40 Fraction		100	mg/kg	<100	<100	0.0	No Limit		
		EP071:>C10 - C16 Fraction		50	mg/kg	<50	<50	0.0	No Limit		

Page Nork Ordor Silent Project		NISULTANTS PTY LTD er Avenue Combridge							ALS
Sub-Matrix: SOIL					-	Laboratory	Duplicate (DUP) Report		
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicato Result	RPD (NI)	Acceptable RPD D
EP080/071: Total Re	coverable Hydrocarb	ons - NEPM 2013 Fractions (QC Lot: 6339502) - continue	ed			-			2
EM2501174-011	PT34 0.1m	EP071: >C16 - C34 Fraction		100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction		100	mg/kg	<100	<100	0.0	No Limit
		EP071; >C10 - C16 Fraction		50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEXN (QC	Lot: 6339357)								
EM2501174-001	PT01 2.0m	EP080: Benzene	71-43-2	0.2	mg/kg	<0,2	-0.2	0.0	No Limit
		EP080: Toluone	105-88-3	0,5	mg/kg	<0.5	<0.5	0.0	No Limit.
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5		0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0,5	mg/kg	<0.5	<0,5	0.0	No Limit,
		EP080: otthio-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	15	<1		No Limit
EM2501174-011	PT34 0.1m	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2		No Limit
		EP080 Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080; meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
	Concern contents	EP080 Naphthalene	91-20-3	1	mig/kg	<1	<1	0.0	No Limit
P231A: Perfluoroa	lkyl Sulfonic Acids (C L pt: 63390361							
EM2501174-001	PT01 2.0m	EP231X: Perfluorobutane sulfonic acid (PEBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane suffonic acid (PFHxS)	355-48-4	0.0002	mg/kg	0.0008	0.0008	0.0	No Limit
		EP231X: Perfluoroectane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0020	0.0023	9.7	0% - 50%
EM2501174-011	PT34 0.1m	EP231X: Perfluerobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
	a ser a s	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0004	0.0005	00 00 00 00 00 00 00 00 00 00 00 00 00	No Limit
P231B: Perfluoro	alkyl Carboxylic Acids	(QC Lot: 6339036)	4						
EM2501174-001	PT01 2.0m	EP231X: Perfluoropentanoic acid (PEPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X. Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroectanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0,0002	0.0	No Limit
		EP231X: Perfluorobutancic acid (PFBA)	375-22-4	0,001	mg/kg	<0.001	<0.001	0.0	No Limit
EM2501174-011	PT34 0,1m	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHkA)	307-24-4	0.0002	mg/kg	<0.0002	<0,0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perflueroectanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PEBA)	375-22-4	0,001	mg/kg	<0.001	<0.001	0.0	Ma Limit

Page Nork Order Slient Project		DNSULTANTS PTY LTD er Averwe Cambridge							ALS
Sub-Matrix: SOIL						Liboratory	Duplicate (DUP) Report		
Laboratory sample (D	Sample ID	Method: Compound	CAS Number	LOR	Lipit	Original Result	Duplicate Result	RPD (N)	Acceptable RPD (
EP231D: (n:2) Flug	protelomer Sulfonic Ad	dids (QC Lot: 6339036) - continued						-	
EM2501174-001	PT01 2,0m	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotolomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0,0005	<0.0005	0.0	No Limit
		EP231X. B/2 Fluorotelomer sulfonic acid (8/2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0,0	No Limit.
EM2501174-011	PT34 0.1m	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mġ/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0,0005	<0,0005	0.0	No Limit
16		EP231X: 10:2 Fluorotalomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0,0005	0.0	No Limit
EP231P: PFAS Sun	ns (QC Lot: 6339036)								
EM2501174-001	PT01 2.0m	EP231X: Sum of PFHxS and PFOS	355-46-4/1763- 23-1	0.0002	mg/kg	0.0028	0.0031	10.2	0% - 50%
	-	EP231X: Sum of PFAS (WA DER List)	<u> </u>	0.0002	mg/kg	0,0031	0,0034	9,2	0% - 50%
EM2501174-011	PT34 0.1m	EP231X: Sum of PFHxS and PFOS	355-46-4/1763- 23-1	0.0002	mg/kg	0,0004	0,0005	22.2	No Limit,
		EP231X: Sum of PFAS (WA DER List)		0.0002	mg/kg	0.0004	0.0005	22.2	No Limit
ub-Matnx: WATER						Laboratory	Duplicate (DUP) Report		
Leboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD	Acceptable RPD (
EG020T: Total Meta	ats by ICP-MS (QC Lo	: 6342972)							
EM2501054-011	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.590	0.595	0.8	0% - 20%
	1.1	EG020A-T: Arsenic	7440-38-2	0.001	mg/L	1.37	1.36	0.9	0% - 20%
		EG020A-T: Chromium	7440-47-3	0:001	mg/L	0.012	0.012	0.0	0% 50%
		EG020A-T: Copper	7440-50-8	0.001	mg/L	8.94	8.84	1.1	0% - 20%
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.905	0.910	0.6	0% - 20%
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.255	0.252	1.0	0% - 20%
		EG020A-T: Zino	7440-66-6	0.005	mg/L	15,1	14.7	3.1	0% - 20%
EM2501125-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0003	0.0003	0.0	No Limit
		EG020A-T: Arsanio	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.005	0.005	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.580	0,575	26	0% - 20%
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0,038	0.039	0.0	0% - 20%
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	D.010	0,009	0.0	No Limit

Bub-Matrix: WATER: Laboratory: sample /D Sample /D Ec0201: Total Metals by ICP-MS (OC Lot: EM2501125-001 Anonymous EC0301: Total Recoverable Mercury by F EM2501136-010 Anonymous EM2501136-010 Anonymous EM2501136-010 Anonymous EP05010515 Anonymous EP05010501 Anonymous EP0500508-051 Anonymous EP0500071: Total Petroleum Hydrocarbons EM2500958-051 Anonymous EP0500071: Total Petroleum Hydrocarbons EM250108-001 Anonymous EP0500071: Total Recoverable Hydrocarbons EM250108-001 Anonymous EM25009503-051 Anonymous	ONSULTANTS PTY LTD ber Avenue Cambridge							ALS
EP080/071: Total Metals by ICP-MS (OC Lot: EN2201135-001 Anonymous EG035T: Total Recoverable Mercury by FF EN2201136-010 Anonymous EN2201218-015 Anonymous EN2201218-015 Anonymous EN2200958-051 Anonymous EN2200958-051 Anonymous EN2200958-051 Anonymous EN2200958-051 Anonymous EN22000502-051 Anonymous EN2201018-001 Anonymous EN2201018-001 Anonymous EN2201018-001 Anonymous EN2201018-001 Anonymous					Laboratory	Duplicate (DUP) Report		
EM2501125-001 Anonymous E00367* Total Recoverable Mercury by F E00367* Total Recoverable Mercury by F EM250136-010 Anonymous EM2501218-015 Anonymous EM2501218-015 Anonymous EM2500958-051 Anonymous EM2500958-051 Anonymous EM2500958-051 Anonymous EM2500958-051 Anonymous EM2501148-001 Anonymous EM250105-001 Anonymous EM250105-001 Anonymous EM250105-001 Anonymous EM250105-001 Anonymous	Method: Compound	CAS Number	LOR	Linit	Original Result	Duplicate Result	RPD (N)	Acceptable RPD (
EQ0361: Total Recoverable Mercury by FI EN250138-010 Anonymous EN2501218-015 Anonymous EN2501218-015 Anonymous EN2500958-051 Anonymous EN2500958-051 Anonymous EN2500958-051 Anonymous EN2500958-051 Anonymous EN2500148-001 Anonymous EN250105-001 Anonymous EN250105-001 Anonymous EN250105-001 Anonymous EN250105-001 Anonymous EN250105-001 Anonymous EN250105-001 Anonymous	t: 6342972) - continued					and the second division of the		
EM2501136-010 Anonymous EM250128-015 Anonymous EM2502128-015 Anonymous EM2500958-051 Anonymous EM2500958-051 Anonymous EM2500958-051 Anonymous EM2500958-051 Anonymous EM2500958-051 Anonymous EM25000501-04-001 Anonymous EM250103-001 Anonymous EM250103-001 Anonymous EM250103-001 Anonymous EM250103-001 Anonymous EM250103-001 Anonymous	EG020A-T: Zino	7440-66-6	0.005	mg/L	0.692	0.878	1.5	0% - 20%
EN250136-010 Anonymous EN250136-016 Anonymous EN250138-015 Anonymous EN2500958-051 Anonymous EN2500958-051 Anonymous EN2500958-051 Anonymous EN2500958-051 Anonymous EN2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EN250103-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	FIMS (QC Lot: 6340120)							
EP05(SIM)B: Polynuclear Aromatic Hydro EM2500955-051 Anerymous EP050(071: Total Petroleum Hydrocarbons EM2500958-051 Anerymous EP050(071: Total Petroleum Hydrocarbons EM2501148-001 Anerymous EP050(148-001 Anerymous EP050(171: Total Recoverable Hydrocarbo	EG035T: Mercury	7439-97-6	0.0001	mgL	<0.0001	<0.0001	0.0	No Limit
EN2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EN2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EG035T Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit.
EN2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EN2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo					1			
EM2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM): Benzo(a)pyrane	50-32-8	0.5	µg/L	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM): Naphthalene	91-20-3	1	µg/L	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM) Acenaphthylene	208-96-8	1	µg/L	<1.0	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM) Acenaphthene	83-32-9	1	µg/L	<1.0	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM) Fluorene	86-73-7	1	µg/L	<1.0	<10	0.0	No Limit
EM2500858-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EV080/071: Total Recoverable Hydrocarbo	EP075(SIM) Phenanthrane	85-01-8	1	µg/L	<10	<1.0	0.0	No Limit
EM2500858-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EV080/071: Total Recoverable Hydrocarbo	EP075(SIM) Anthracene	120-12-7	1	µg/L	<1.0	<10	0.0	No Limit
EM2500858-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EV080/071: Total Recoverable Hydrocarbo	EP075(SIM): Fluoranthene	205-44-0	- 1	µg/L	<1.0	<1.0	0.0	No Limit,
EM2500858-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EV080/071: Total Recoverable Hydrocarbo	EP075(SIM), Pyrene	129-00-0	1	µg/L	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM): Benz(a)anthracene	58-55-3	1	µg/L	<1.0	<1.0	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM) Chrysens	218-01-9	1	ug/L	<1.0	<1.0	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM) Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	hâlt	<1.0	~1,0	0.0	No Limit.
EM2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM). Benzo(k)fluorarithene	207-08-9	1	µg/L	<1.0	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons EP080/071: Total Petroleum Hydrocarbons EN2501148-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	0.0	No Limit
EM2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM). Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1,0	=10	0.0	No Limit
EM2500958-051 Anonymous EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP075(SIM): Benzo(g.h.l)perylene	191-24-2	1	µg/L	<1.0	<1.0	0.0	No Limit.
EP080/071: Total Petroleum Hydrocarbons EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	ns (QC Lot: 6339091)							
EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP071: C15 - C28 Fraction		100	µg/L	400	410	2.9	No Limit
EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP071: C10 - C14 Fraction		50	ug/L	100	100	0.0	No Limit.
EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	EP071: C29 - C36 Fraction	Late	50	ugit	170	190	15.0	No Limit
EM2501148-001 Anonymous EM2501005-001 Anonymous EP080/071: Total Recoverable Hydrocarbo	ns (QC Lot: 6339992)					1		
P080/071: Total Recoverable Hydrocarbo	EP080: C6 - C9 Fraction		20	Ug/L	<20	<20	0.0	No Limit
A COMPANY OF A REAL PROPERTY OF A R	EP080: C6 - C9 Fraction	5-44	20	µg/L	230	260	13.2	0% - 50%
EM2500958-051 Anonymous	oons - NEPM 2013 Fractions (QC Lot: 6339091)							
	EP071: >C10 - C16 Fraction	_	100	µg/L	260	280	11.1	No Limit
	EP071: >C16 - C34 Fraction		100	Hg/L	360	380	3.7	No Limit
	EP071 >C34 - C40 Fraction		100	µg/L	110	140	21.4	No Limit
P080/071: Total Recoverable Hydrocarbo	bons - NEPM 2013 Fractions (QC Lot: 6339992)				1			
EM2501148-001 Anonymous	EP080: C6 - C10 Fraction	C6 C10	20	ugL	<20	<20	0.0	No Limit
EM2501005-001 Anonymous	EP080: C6 - C10 Fraction	C6 C10	20	ugi.	220	250	12.6	0% - 50%



Page Nork Order Client Project	A service of the service s	DNSULTANTS PTY LTD er Avenue Cambridge							ALS
Sub-Matrix: WATER						Laboratory	Duplicate (DUP) Report	1	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC	Lot: 6339992) - cont	inued							
EM2501148-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-36-3 106-42-3	2	µg/∟	<2	~2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
	-	EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
EM2501005-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	1	1	0.0	No Limit
	and the second s	EP080: Toluene	108-88-3	2	µg/L	2	2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	Hg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	.2	µg/L	23	25	7.9	0% - 50%
		EP080: ortho-Xylene	95-47-6	2	µg/L	8	8	0.0	No Limit
		EP080: Naphthalene	91-20-3	- 5 -	µg/L	<5	<5	0.0	No Limit

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ENVIRO-TECH CONSULTANTS PTY LTD
J0790 Lot 1 Grueber Avenue Cambridge

Page Work Ords Client Project



Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method I Laboratory Blank refers to an analytic free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix splevel with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL				Method Blank (MB)		Laboratory Control Spike (LC)		
		_		Report	Spike	Spille Recovery (%)	Acceptabl	Limits (%)
Method: Compound	GAS Number	LOR	Unit	Result	Concentration	LCS	LOW	Hig
EG005(ED093)T: Total Metals by ICP-AES (0	RCLot: 6342128)							
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	94.4	70.0	130
EG005T; Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	66.4	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	106	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	96.0	70,0	130
EG005T-Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	96.6	70,0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	.97.1	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	75.3	70.0	130
EG005(ED093)T: Total Metals by ICP-AES (0	2CLot: 6342129)		and the second second					
EG005T Arsenic	7440-38-2	5	mg/kg	4	123 mg/kg	91.7	70,0	130
EG005T: Cadmium	7440-43-9	1.	mg/kg	<1	1.23 mg/kg	64.3	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	103	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55,9 mg/kg	96.3	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	93.9	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	95.2	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	73.5	70.0	130
EA001: pH in soil using 0.01M CaCl extract	(DCI at: 6339079)							
EA001: pH (CaCl2)	-	-	pH Unit	-	4 pH Unit	100	98.8	101
					7 pH Unit	100	99.3	10
EG035T: Total Recoverable Mercury by FIM	S (OCL of: 6342127)							
EG035T: Mercury	7439-97-6	0.1	marka	<0.1	0.64 mg/kg	91.4	69.0	128
EG035T: Total Recoverable Mercury by FIM	S (DCI of: 8342130)							
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	86.7	69.0	128
EP075(SIM)B: Polynuclear Aromatic Hydroc	achons (OCI of: 6339501)		1					
EP075(SIM): Naphthalene	§1-20-3	0.5	mg/kg	<0.5	3 mg/kg	104	85.7	12
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	107	81.0	123
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	102	83.6	120
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	100	81.3	128
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	104	79.4	123
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	107	81.7	12
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	109	78.3	12

tage 10 of 15 Work Order EM2501174								
	H CONSULTANTS PTY LTD							6
	rueber Avenue Cambridge							
ub-Matrix: SOIL				Meshod Blank (MB)		Laboratory Control Spike (LC	1. 10 PD 12	
			1	Report	Spike	Spike Recovery (%)		e Limits (%)
Method; Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	Night
	Hydrocarbons (QCLot: 6339501) - co 129-00-0	0.5	ma/kg	<0.5	3 mg/kg		79.9	1 dan
P075(5IM): Pyrene	56-55-3	0.5	-	<0.5	3 mg/kg	111	76.9	128
EP075(SIM): Benz(a)anthracene	218-01-9	0.5	mg/kg	40.5		104	80.9	123
P075(SIM) Chrysene		0.5	mg/kg	<0.5	3 mg/kg	108	70.0	130
P075(SIM): Benzo(b+)/fluoranthene	205-99-2 205-82-3	0.5	mg/kg	40.5	3 mg/kg	103	10.0	121
EP075(SIM): Benzo(k)fluoranthene	203-02-5	0.5	mg/kg	<0.5	3 mg/kg	115	80.4	130
P075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<05	3 mg/kg	103	70.2	123
P075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mafka	<0.5	3 mg/kg	104	67.9	122
P075(SIM) Dibenz(a h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	105	65.8	123
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	105	65.8	127
EP080/071: Total Petroleum Hydrocar	1001 -1. 0000000					100		Ter
P080: C6 - C9 Fraction	Dons (UCEDI: 6339367)	10	mg/kg	<10	36 mg/kg	90.3	58.6	131
			111210			-DU M		131
EP080/071: Total Petroleum Hydrocar EP071: C10 - C14 Fraction	bons (QCLot: 6339502)	50	(mg/kg	-50	790 mg/kg	100	75.0	128
P071: C15 - C28 Fraction	-	100	mg/kg	≪100	2730 mg/kg	100	82.0	120
EP071: C29 - C36 Fraction		100	mg/kg	<100	1410 mg/kg	100	82.4	123
Cardena and Cardena			myng		intering high	100		121
EP080/071: Total Recoverable Hydroc EP080: C6 - C10 Fraction	arbons - NEPM 2013 Fractions (QCL) C6 C10	10 tt 6339357)	mg/kg	<10	45 mg/kg	89.3	59.3	120
and the second			myrey	sig	NY INGING	99.3	20.0	128
	arbons - NEPM 2013 Fractions (QCL	50 50	- minihus	<50	1080 mg/kg	1	77.0	
EP071: >C10 - C16 Fraction EP071: >C16 - C34 Fraction		100	mg/kg mg/kg	<100	3640 mg/kg	102	81.5	130
EP071: >C16 - C34 Fraction EP071: >C34 - C40 Fraction		100	mg/kg	<100	270 mg/kg	99.6	73.3	120
		100	Ingrag	\$100	270 mg kg	92.3	1313	137
EP080; BTEXN (QCLot: 6339357)	71-43-2	0.0	i inter	<0.2	D medin	1	PI C	
EP080: Benzene	108-88-3	0.2	mg/kg	<0.5	2 mg/kg	90.2	61.6	717
EP080: Toluene	100-60-3	0.5	mg/kg	<0.5	2 mg/kg	92.0	65.8	125
EP080: Ethylbenzene		0.5	mg/kg	40.5	2 mg/kg	91.1	65,8	124
EP080: meta- & para-Xylene	108-38-3 106-42-3	05	mg/kg	40.5	4 mg/kg	.96.1	D4.6	134
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	99.2	68.7	132
P080: Naphthalene	91-20-3	1	mg/kg	. </td <td>0.5 mg/kg</td> <td>89.3</td> <td>61.8</td> <td>123</td>	0.5 mg/kg	89.3	61.8	123
EP231A: Perfluoroalkyl Sulfonic Acid								180
EP231X: Perfluorobutane sulfonic acid (PFE		0.0002	mp/kg	<0.0002	0.00111 mg/kg	80.9	72.0	128
EP231X: Perfluorohexane sulfonic acid (PF)		0.0002	mg/kg.	<0.0002	0.00114 mg/kg	81.9	67.0	130
P231X: Perfluorooctane sulfonic acid (PFC	(00)	0.0002	mg/kg	<0.0002	0.00116 mg/kg	82.1	68.0	130

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Sub-Matrix: SOIL					Method Blank (MB)		Laboratory Control Spike (LC	S) Report	
				-	Ruport	SpiAn	Spike Recovery (%)	Acceptair	le Lbuits
Method; Compound		CAS Number	LOR	Unit	Result	Concentration	LCS	Low	-
EP231B: Perfluoro	alkyl Carboxylic Acids (QCLot: 6339	036) - continued							
EP231X: Perfluorobut	anoic acid (PFBA)	375-22-4	0.001	mg/kg	<0,001	0,00625 mg/kg	86.4	71.0	1
EP231X: Perfluoroper	tanoic acid (PFPeA)	2706-50-3	0.0002	mg/kg	-\$0.0002	0.00125 mg/kg	84.0	69.0	

EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6	339036) - continued							
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0,001	0,00625 mg/kg	86.4	71.0	135
P231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	-\$0.0002	0.00125 mg/kg	84.0	69.0	132
P231X: Perliuorohexanoic acid (PFHxA)	307-24-4	0.0002	maika	<0.0002	0.00125 mg/kg	80.3	70.0	132
P231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0 00125 mg/kg	84.2	71.0	131
P231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0,00125 mg/kg	82.9	69.0	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot	6339036)			(
P231X: 42 Fluorotelomer sulfonic acid (42 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	84.2	62.0	.145
P231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	D.0005	mg/kg	<0.0005	0.00119 mg/kg	88.1	84.0	140
P231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.0012 mg/kg	88.6	65.0	137
P231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	-<0.0005	0.00121 mg/kg	130	70.0	130
P231P: PFAS Sums (QCLot: 6339036)				10 Tool 10		the state of the s		-
P231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.0002	mg/kg	-<0.0002				-
EP231X: Sum of PFAS (WA DER List)		0.0002	mg/kg	<0.0002		-	1	-
Adp-Matrix: WATER		-		Method Blank (MB)		Laboratory Control Spike (LC	S) Report	
				Report	Spike	Spike Recovery (%)		e Limits (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	LOW	High
EG020T: Total Metals by ICP-MS (QCLot: 6342972)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	96.9	89.2	110
EG020A-T Cadmium	7440-43-9	0,0001	mg/L	<0,0001	0,1 mg/L	88.8	86.4	115
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	99.3	89.0	112
G020A-T: Copper	7440-50-8	0,001	mg/L	<0.001	0,1 mg/L	97.7	88.3	111
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	95.4	88.3	112
G020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	96.8	88.8	113
G020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	110	90.0	115
G035T: Total Recoverable Mercury by FIMS (QCLc	ot: 6340120)			1				
EG035T: Mercury	7439-97-6	0.0001	mg/L	40.0001	0.01 mg/L	96.2	73.4	119
P075(SIM)B: Polynuclear Aromatic Hydrocarbons	(QCLot: 6339092)							1000
P075(SIM) Naphthalane	91-20-3	- 1	Led.	<1.0	5 µg/L	82.5	42,8	114
P075(SIM): Acenaphthylene	208-96-8	1	pg/L	<1.0	5 µg/L	94.0	48.6	119
P075(5IM). Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	94.6	47.0	117
P075(SIM); Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	99.1	49.5	119
			1100	<1.0	5 µg/L	102	49.4	121
EP075(SIM): Phenanthrene	85-01-8		HO/L	31.0	2000	102	40.4	121



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Sub-Matrix: WATER				Method Blank (MB)		Laboratory Control Spike (LCS) Report	
				Ruport	SpiAn	Spike Recovery (%)	Acceptabl	Limits (%)
Method; Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarl	oons (QCLot: 6339092) - con	tinued						
EP075(SIM): Fluoranthene	206-44-0	.1	491	<1.0	5 µg/L	103	50,3	124
EP075(SIM): Pyrene	129-00-0	••••	här	<1.0	S µg/L	108	50.0	126
EP075(SIM) Benz(a)anthracene	56-55-3	+ 1 +	µg/L	<1.0	5 µg/L	103	49,4	127
EP075(SIM): Chrysene	218-01-9	1	pg/L	<1.0	5 µg/L	122	48.7	126
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	H0/L	<1.0	5 µg/L	102	54.5	134
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	hð/r	<1.0	5 µg/L	103	56.1	134
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	104	55.6	135
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	- 1	µg/L	<1.0	5 µg/L	108	54,4	126
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	119	54.5	126
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	105	54.4	126
EP080/071: Total Petroleum Hydrocarbons (Q0	CLot: 6339091)	a	and the second second	14		10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	100 M	30 - 20 - 2
EP071 C10 - C14 Fraction		50	µg/L	<50	4421 µg/L	79.2	47.2	122
EP071: C15 - C28 Fraction		100	µg/L	≈100	15219 µg/L	85.5	52.9	131
EP071: C29 - C36 Fraction		50		<50	7904 µg/L	82.8	50.4	127
EP080/071: Total Petroleum Hydrocarbons (Q0	CLot: 6339992)							
EP080: C6 - C9 Fraction		20	1/9/L	<20	360 µg/L	104	66.2	134
EP080/071: Total Recoverable Hydrocarbons -	NEPM 2013 Fractions (QCLo	t: 6339091)						
EP071: >C10 - C16 Fraction		100	Hg/L	<100	6085 µg/L	79.5	49,1	125
EP071: >C16 - C34 Fraction		100	µg/L	<100	20300 pg/L	84.3	51.6	128
EP071: >C34 - C40 Fraction		100	HO/L	<100	1456 µg/L	83.5	47.2	130
EP080/071: Total Recoverable Hydrocarbons -	NEPM 2013 Fractions (QCLo	t: 6339992)		Provide states of the second s	and the second se		The second	1. S.
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	450 µg/L	102	66.2	132
EP080: BTEXN (QCLot: 6339992)								
EP080: Benzene	71-43-2	t	µg/L	4	20 µg/L	101	68.8	127
EP080: Toluane	108-88-3	2	Hg/L	<2	20 µg/L	106	72.9	129
EP080: Ethylbenzene	100-41-4	2	µg/L	12	20 µg/L	104	71.7	130
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	2	40 µg/1.	109	72.3	136
EP080: ontho-Xylene	95-47-6	2	pg/L	.12	20 µg/L	101	75,9	134
EP080: Naphthalene	B1-20-3	5	P0/L	<5	5 ug/L	106	68.3	131

Matrix Spike (MS) Report

A

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Cirent Project	ENVIRONED HONROLINIS PITELD	(ALS)

ub-Matrix: SOIL				M	utrix Spike (MS) Report		
	6			Spike	SpikeRecovery(%)	Acceptable	Limits (%)
aboratory sample ID	Sample ID	Method: Commound	CAS Number	Concentration	MS	Low	High
G005(ED093)T: T	otal Metals by ICP-AES (QCLot: 6342	128)					
EM2501135-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	89.6	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	94.9	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	88.1	79.0	121
	and the second se	EG005T: Copper	7440-50-8	250 mg/kg	96.6	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	93.5	0.06	120
		EG005T: Nickel	7440-02-0	50 mg/kg	94,7	78,0	120
	and the second second	EG005T: Zinc	7440-66-6	250 mg/kg	88.7	80.0	120
EG005(ED093)T: 1	otal Metals by ICP-AES (QCLot: 6342	(129)					
EM2501174-019	Duplicate	EG005T: Arsenic	7440-38-2	50 mg/kg	103	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	102	79,7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	102	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	104	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	104	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	103	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	98.6	80.0	120
G035T: Total Re	coverable Mercury by FIMS (QCLot:	342127)					
EM2501135-001	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	105	70.0	130
Ennes en la entre april			1400-01-0	0,5 mg/kg	105	10.0	150
	coverable Mercury by FIMS (QCLot:)					-	
EM2501174-019	Duplicate	EG035T: Mercury	7439-97-6	0.5 mg/kg	107	70.0	130
EP075(SIM)B: Pol	nuclear Aromatic Hydrocarbons (QC	CLot: 6339501)					
EM2501174-003	PT10 1.5m	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	93.2	77.2	116
	1 Martin Contractor	EP075(SIM): Pyrene	129-00-0	3 mg/kg	101	65.5	136
EP080/071: Total I	Petroleum Hydrocarbons (QCLot: 633	9357)			1		
EM2501174-002	PT10.0.5m	EP080: C6 - C9 Fraction		28 mg/kg	75.1	33.4	124
P080/071: Total	Petroleum Hydrocarbons (QCLol: 633	9502)					
EM2501174-002	PT10 0.5m	EP071: C10 - C14 Fraction		790 mg/kg	102	71.2	125
	1 in the	EP071: C15 - C28 Fraction		2730 mg/kg	102	75.6	122
		EP071: C29 - C36 Fraction		1410 mg/kg	103	78.0	120
EP080/071: Total	Recoverable Hydrocarbons - NEPM 20						
EM2501174-002	PT10 0.5m	EP080: C6 - C10 Fraction	C6_C10	33 mg/kg	65.2	30.8	120
			00_010	55 mg/ng	044	30.0	120
	Recoverable Hydrocarbons - NEPM 20					-	_
EM2501174-002	PT10 0.5m	EP071: >C10 - C16 Fraction		1080 mg/kg	103	72.2	128
	No. of the local data and the	EP071: >C16 - C34 Fraction	-	3640 mg/kg	102	76.5	119
		EP071: >C34 - C40 Fraction	-	270 mg/kg	102	66.8	138

epe	14 of 15						
Nork Order	- 14 01 15 EM2501174						
Airent	ENVIRO-TECH CONSULTANTS PTY LTD						ALS
roject	J0790 Lot 1 Grueber Avenue Cambridge						
ub-Matrix: SOIL				ALC: NO	trix Spike (MS) Report		
Sub-Matrix, SOIL				Spike	SpikeRecovery(N)	Acceptable	Limits (%)
Laboratory sample ID	Samply ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EPOSO: BTEXN (C	CL at: 6339357)	Lucator a strategical	and the second second	-	100 C		and the second
EM2501174-002	PT10 0.5m	EP080: Benzene	71-43-2	2 mg/kg	106	54.4	127
Lincourtine		EP080 Toluene	108-88-3	2 mg/kg	107	57.1	131
EP231A: Perfluor	palkyl Sulfonic Acids (OCLot: 6339036)	AP WAR TOWNER			1		1.040
EM2501174-002	PT10 0.5m	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	85.4	72.0	128
Link op i i frome		EP231X: Perfluorobexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	86.5	67.0	130
		EP231X: Perfluorooctane sulfonic acid (PF0S)	1763-23-1	0.00116 mg/kg	71.6	68.0	136
EP231R: Perluor	oalkyl Carboxylic Acids (QCLot: 6339036)	and a state of the		-			
EM2501174-002	PT1005m	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	94.0	71.0	135
Marriel I I Marriel	TTTO STATE	EP231X: Perfluoropentanoic acid (PFBA) EP231X: Perfluoropentanoic acid (PFPA)	2706-96-3	0.00125 mg/kg	90.2	69.0	132
		EP231X: Perfluorobexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	86.1	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	91.2	71.0	131
		EP231X: Perfluoreoctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	89.1	69.0	133
EP231D: (n:2) Flu	orotelomer Sulfonic Acids. (OCLot: 6339036)	and the second se	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		and some of		
EM2501174-002	PT10 0.5m	EP231X: 4:2 Fluorotelomer suffonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	95.9	62.0	145
and the second		EP231X: 6:2 Fluorotelomer sulfanic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	99.6	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	96.1	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FT5)	120226-80-0	0.00121 mg/kg	73.0	70.0	130
up-Matrix: WATER				Mt.	trix Spike (MS) Report		
				Spike	SpikeRecovery(%)	Acceptable	Limits (%)
Laboratory sample ID	Sample (D	Method: Commound	CAS Number	Concentration	MS	Linw	High
EG020T: Total Me	tals by ICP-MS (QCLot: 6342972)						
EM2501054-011	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	100	82.0	123
		EG020A-T: Cadmum	7440-43-9	0.25 mg/L	87.1	81.8	123
		EG020A-T: Chromium	7440-47-3	1 mg/L	89,8	78.9	119
		EG020A-T: Copper	7440-50-8	1 mg/L	# Not Determined	80,4	118
		EG020A-T: Lead	7439-92-1	1 mg/L	103	80.5	121
		EG020A-T: Nickel	7440-02-0	1 mg/L	103	80.0	118
		EG020A-T: Zinc	7440-56-5		# Not Authorised	74,0	120
EG035T: Total Re	coverable Mercury by FIMS (QCLot: 5340120)						
EM2501136-011	Anonymous	EG035T: Morcury	7439-97-6	0.01 mg/L	94.5	70.0	130
EP080/071: Total 1	Petroleum Hydrocarbons (QCLot: 6339091)				and the second second		
EM2501200-018	Anonymous	EP071: C10 - C14 Fraction		4421 µg/L	86.8	48.0	126
		EP071; C15 - C28 Fraction	-	15219 µg/L	69.5	517	132
		EP071 C29 - C36 Fraction	_	7904 µg/L	87.3	50.5	127

Page Work Order Client Project	15 of 15 EM2501174 ENVIRO-TECH CONSULTANTS F J0790 Lot 1 Grueber Avenue Cam						CAL
Sub-Matrix: WATER					atrix Spike (MS) Report		
	1			Spike	SpikeRecovery(%)	Acceptable	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total F	Petroleum Hydrocarbons (QGLot: 63	39992)					
EM2501069-001	Anonymous	EP080: C6 - C9 Fraction		280 µg/L	96.8	33.9	126
EP080/071: Total F	Recoverable Hydrocarbons - NEPM 2	013 Fractions (QCLot: 6339091)					
EM2501200-018	Anonymous	EP071: >C10 - C16 Fraction		6085 µg/L	87.1	48.0	128
	1	EP071: >C16 - C34 Fraction		20300 µg/L	87.6	50.4	130
		EP071: >C34 - C40 Fraction		1456 µg/L	86,4	47.4	131
EP080/071: Total F	Recoverable Hydrocarbons - NEPM 2	013 Fractions (QCLot: 6339992)					
EM2501069-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	330 µg/L	92.8	34.0	122
EP080: BTEXN (Q	CLot: 6339992)						
EM2501069-001	Anonymous	EP080: Benzene	71-43-2	20 µg/L	107	56.3	133
	and the second	EP080: Toluene	108-88-3	20 µg/L	111	60.4	132



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2502406	Page	: 1 of 4
Client	ENVIRO-TECH CONSULTANTS PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: MR KRIS TAYLOR	Telephone	: +61-3-8549 9600
Project	: J0790 Lot 1 Grueber Avenue Cambridge	Date Samples Received	: 14-Feb-2025
Site		Issue Date	: 20-Feb-2025
Sampler	: MARCO SCALISI	No. of samples received	:3
Order number	2	No. of samples analysed	:3

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- <u>NO</u> Method Blank value outliers occur.
- <u>NO</u> Duplicate outliers occur.
- NO Laboratory Control outliers occur.
 NO Matrix Spike outliers occur.
- For all regular sample matrices, where applicable to the methodology, <u>NO</u> surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

<u>NO</u> Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

<u>NO</u> Quality Control Sample Frequency Outliers exist.

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Work Order	EM2502406
Client	ENVIRO-TECH CONSULTANTS PTY LTD
Project	J0790 Lot 1 Grueber Avenue Cambridge



Analysis Holding Time Compliance

Analysis Holding time Compliance It samples are identified below as having been analysis of extracted outside of recommended holding times, this should be taken into consideration when interpreting results. This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extracted outside of recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extracted outside of extracted outside subsequent dilutions and rerurs. A listing of breaches (if any) is provided herein. Holding time for leachate methods (e.g. TOLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters. Holding times for <u>VOC in a loging</u> vary according to Inherest. Unity Choleid and Syrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a faile positive <u>or</u> Vinyl Choleid and Styrene are not key analytes of interest/concern.

Matrix: SOIL Evaluation: × = Holding time breach ; ✓ = Within holding ti										
Method		Sample Date	E	straction / Preparation		Analysis				
Container / Client Sample (D(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation		
EA200: AS 4964 - 2004 Identification of A	Asbestos in Soils									
Snap Lock Bag (EA200) PT07 0.0m, PT32 0.0m	PT190.0m.	22-Jan-2025	-	1.ex	-	17-Feb-2025	21-Jul-2025	4		

Page	3 of 4	
Work Order	EM2502406	
Client	ENVIRO-TECH CONSULTANTS PTY LTD	
Project	J0790 Lot 1 Grueber Avenue Cambridge	
		-



Quality Control Parameter Frequency Compliance

No Quality Control data available for this section.

Page Work Order Clent Project Brief Method S		ue Cambridge	oped from establ	ished internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house	AS
developed procedures are Certificate of Analysis, Sou				ist. The following report provides brief descriptions of the analytical procedures employed for results reported in the hin the Method Descriptions.	
developed procedures are	employed in the absence of d				

QUALITY CONTROL REPORT

Client : ENVIRO-TECH C Contact : MR KRIS TAYLC Address : 162 Macquarie S HoBART 7000		Laboratory Contact Address	: Environmental Division Melbourne : Katie Davis : 4 Westall Rd Springvale VIC Australia 3171	
Address : 162 Macquarie S				
Toz Macquario a	treet	Address	4 Westall Rd Springvale VIC Australia 3171	
			. + Westan nu opinigvale vio Australia orni	
Telephone : 03 6224 9197		Telephone	+61-3-8549 9600	
Project : J0790 Lot 1 Grue	ber Avenue Cambridge	Date Samples Received	: 14-Feb-2025	
Order number		Date Analysis Commenced	17-Feb-2025	~
C-O-C number		Issue Date	20-Feb-2025	ALATA
Sampler MARCO SCALIS			Hac-MRA	NATA
Site				
Quoto number : EN/222			and the state	Accreditation No. 875
No. of samples received 3			Acc	redited for compliance with
No. of samples analysed 3				ISO/IEC 17025 - Testing

Signatories This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11. Accreditation Category Position Signatories MINNIE TRAN Melbourne Asbestos, Springvale, VIC Approved Asbestos Identifier

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Page Work Order Client Project 2 of 3 EM2502406 ENVIRO-TECH CONSULTANTS PTY LTD J0790 Lot 1 Grueber Avenue Cambridge



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :

Anonymous Federa to angle measure content, and and the queue of the other employee) of matter methemeterics. Anonymous Federa to camples which are not specifically part of this work order but formed part of the QC process lot CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting RPD = Relative Percentage Difference # = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control lerm Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

No Laboratory Duplicate (DUP) Results are required to be reported.



Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a contified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

No Method Blank (MB) or Laboratory Control Spike (LCS) Results are required to be reported.

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory spit sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recovery canady state Recovery Limits as per laboratory Data Quality Objectives (DQOs), Ideal recovery ranges stated may be varied in the event of sample matrix interference. No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.

Appendix 8 Quality Assurance

The data quality assurance and control (QA/QC) procedures adopted by Envirotech provide a uniform approach to estimate whether the required data quality objectives (DQO) have been achieved. The procedure involves an assessment of the reliability and precision of the data in making inferences about the environment being assessed. The method is based on guidance from the following sources:

- Australian Standard (AS) 4482.1-2005: Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Nonvolatile and semivolatile compounds.
- National Environment Protection Council (NEPC), National Environment Protection (Assessment of Site Contamination) Amendment Measure No. 1 2013 (NEPM), Schedule B2: Guideline on site characterisation.
- NEPC National Environment Protection (Site Contamination Assessment) Amendment Measure No. 1 2013 (NEPM), Schedule B3: Guideline on Laboratory Analysis of Potentially Contaminated Soils.
- United States Environmental Protection Agency (USEPA) Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4).
- USEPA Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8).

Quality Assurance Procedure

The following data quality objectives, measures, and acceptance criteria were adopted to verify compliance with the planned QA procedures:

Quality Assurance Process	Data Quality Element	Objectives and Measure	Acceptance Criteria
Standard Procedures	Comparability, Reproducibility, Representativeness	Standard field sampling procedures and forms used	No deviation from standard procedure and forms used
Equipment Calibration	Accuracy	All equipment calibrated in accordance with manufacturers specifications	All equipment calibrated in accordance with manufacturers specifications
Testing Method Accreditation	Accuracy and Comparability	NATA accredited methods used for all analyses determined	Primary laboratory to use NATA accredited methods for all analytes determined
Quality Control Sampling Frequency	Precision and Repeatability	Field QC sampling frequency in accordance with AS4482.1- 2005	Field Duplicates $- \ge 1$ in 20 primary samples
	Accuracy, Precision and Comparability	Laboratory QC analysis frequency in accordance with NEPC (2013), Schedule B3	Method Blanks – at least 1 per process batch Matrix Spikes – at least 1 per matrix type per process batch Matrix Spikes Duplicates – at least 1 per matrix type per process batch
Sample Preservation, Handling and Holding Times	Accuracy	Samples appropriately preserved upon collection, stored, and transported, and analyzed within holding times	Sample containers, holding times and preservation in accordance laboratory specific method requirements.
Data Management	t Accuracy	No errors in data transcription	Entry of field data verified by peer.
Data Useability	Completeness	Limits of reporting less than adopted beneficial use investigation levels. Sample volumes and analytical methods selected to enable required limits of reporting to be achieved	Limits of reporting less than investigation levels.

Quality Control Sampling and Analysis

The following data quality objectives, measures and acceptance criteria were adopted to evaluate the validity of the analytical data produced

Quality Data Quality Assurance Element Process		Objectives and Measure	Acceptance Criteria						
Field Duplicate Sampling and Analysis	Precision and Field Repeatability	Field duplicate samples used to assess the variability in analyte concentration between samples collected from the sample location and the reproducibility of the laboratory analysis. Where required, resubmission of previously analyzed samples for chemicals within their holding times may be undertaken to further assess level of precision	Analyzed for same chemicals as primary sample relative percentage difference (RPD) <30% of mean concentration where both concentrations >20 x limit of reporting RPD <50% of mean concentration where higher concentration 10 – 20 x limit of reporting. RPD - No limit where both concentrations <10 x limit of reporting						
Laboratory Laboratory QC Precision an Analysis Accuracy	Precision and	Method Blank	Below limit of reporting						
		Matrix spike recovery	Recovery 70% – 130% or dynamic recovery limits specified by laboratory. However, note that recovery of phenols is generally significantly lower and a recovery in the range 20% to 130% is considered acceptable by most laboratories.						
		Matrix spike recovery duplicate	RPD < 30%, or as specified by the laboratory.						

Data Verification and Validation

The data validation process involved the checking of analytical procedure compliance with acceptance criteria and an assessment of the accuracy and precision of analytical data from the range of quality control indicators generated from both the sampling and analytical programmes.

The checks undertaken are summarised in the attached data validation checklist tables (Table A) (one table per sample batch/delivery group). Field replicate analytical results and blank sample reports relevant to the project are summarised in Tables B and Table C respectively in this attachment.

Field Duplicate RPDs

All of the calculated RPDs were below the adopted acceptance criteria.

Rinse Blanks

There were no laboratory detections in rinse blanks indicating a low risk of cross contamination whilst sampling and during transit.

Data Suitability

Based on the quality assurance procedures applied, and the results of the quality control samples, the sample data is representative of chemical concentrations in the environmental media sampled at the time of sampling and considered suitable to be used for the intended purpose in forming conclusions relating to the contamination at the site.

Table A Data Validation Checklist – includes WMS

Quality Assurance Process	Objectives and Measures	Acceptance Criteria	Source of Information	Acceptance	ALS Soil Sample
				Criteria Met?	Notes/Details of Nonconformance
Standard Procedures	Standard field sampling procedures and forms used	No deviation from standard procedure and forms used	Bore logs, field sheets, COC's data tables	Yes	
Equipment Calibration	Al equipment calibrated in accordance with manufacture specifications	Al equipment calibrated in accordance with manufacture specifications	Calibration certificate/records	Yes	PID not used in this instance given volatile were not a contaminant of primary concern
Testing Method Accreditation	NATA accredited methods for all analysis methods determined	Primary and secondary laboratories to used NATA accredited methods for all analytes determined	Laboratory report	Yes	
		Field duplicates >= 1 in 20 primary samples	QA/QC register (within field book)	Yes	100% of the samples complied for duplica comparison pair PT12 0.7 and Duplicate.
	Field QC sampling frequency in accordance with	Secondary duplicates >= 1 in 20 primary samples	QA/QC register (within field book)	No	No secondary laboratory used in this instance
	A\$4482.1-2005	Rinse blanks >= 1 per day, per matrix, per equipment	QA/QC register (within field book)	Yes	No exceedances above LOR
		Trip blanks >= 1 per esky containing samples for volatiles	QA/QC register (within field book)	NA	Volatiles were not a contaminant of concern.
Quality Control Sampling Frequency		Laboratory duplicates at least 1 in 10 analysis or 1 per process batch	Laboratory reports	Yes	
		Method blanks – al lease 1 per process batch	Laboratory reports	Yes	
	Laboratory QC analysis frequency in accordance with NEPC 2013	Surrogate recoveries – all samples spiked where appropriate	Laboratory reports	Yes	
		Laboratory control samples – at least 1 per process batch	Laboratory reports	Yes	
		Matrix spike – at least 1 per matrix type per process batch	Laboratory reports	Yes	
Sample Preservation Holding and Handling Times	Samples appropriately preserved upon collection, stored, and transported and analysed within holding times	In accordance with laboratory specific method requirements. Unless specific method indicates otherwise, soil and water samples should be stored, transported, and received by the laboratory at <6°	Laboratory reports	Yes	Within holding times. Samples sent at 3°(and arrived at the lab at 15.2°C with ice bricks present.
Data Management	No errors in data transcription	Entry of field data verified by peer	10% check of electronically imported data. 100% check of manually entered data (field parameters, gauging data) Evidence of checks recorded in project file	Yes	
Data Usability	Limits of reporting less than investigation limits	Limits of reporting less than relevant investigation levels	Results tables	Yes	
Quality Assurance Process	Objectives and Measures	Acceptance Criteria	How	Acceptance Criteria Met?	Notes/Details of Nonconformance
Field duplicate (interlaboratory field duplicate) Sampling and Analysis	Field Duplicate samples used to assess the variability in analyte concentration between samples collected from sample location and reproducibility of the laboratory analysis. Where required submission of the previous analysed samples for chemicals within their holing times may be undertaken to further assess the level of precision	Analysed for the same chemicals as the primary sample RPD <30% of mean concentration where both concentration >20 x LOR RPD <50% of mean concentration where both concentration 10-20 x LOR RPD no limit where both concentrations <20 x LOR	- Automated excel formulation	Yes	
Secondary duplicate Interlaboratory field duplicate) Sampling and Analysis	Results and accurate and free from laboratory error. Secondary duplicate samples sent to a secondary laboratory to assess the accuracy of the analyte concentration reported by the primary laboratory.	Analysed for the same chemicals as the primary sample RPD <30% of mean concentration where both concentration >20 x LOR RPD <50% of mean concentration where both concentration 10-20 x LOR RPD no limit where both concentrations <20 x LOR	Automated excel formulation	No	No secondary laboratory used in this instance
Field and Rinse Blank Preparation & Analysis	between sampling locations due to carry over from	Analyte concentrations <lor's< td=""><td>Automated excel formulation</td><td>Yes</td><td></td></lor's<>	Automated excel formulation	Yes	
Frip Blank Sampling & Analysis	Cross contamination between samples does not occur in transit or as an artefact of the sampling handling procedures Method blanks are prepared to represent the sample	Analyte concentrations <lor's< td=""><td>Automated excel formulation</td><td>NA</td><td>Volatiles were not a contaminant of concern.</td></lor's<>	Automated excel formulation	NA	Volatiles were not a contaminant of concern.
aboratory Method Blanks	Field QC sampling frequency in accordance with AS4482.1-2005 Field QC sampling frequency in accordance with AS4482.1-2005 Laboratory QC analysis frequency in accordance with NEPC 2013 L Samples appropriately preserved upon collection, stored, and transported and analysed within holding times N No errors in data transcription E Limits of reporting less than investigation limits L Objectives and Measures A Field Duplicate samples used to assess the variability in analyte concentration between samples collected from sample location and reproducibility of the laboratory analysis. Where required submission of the previous analysed samples for chemicals within their holing times may be undertaken to further assess the level of precision A Results and accurate and free from laboratory error. Secondary duplicate samples sent to a secondary laboratory to assess the accuracy of the analyte concentration reported by the primary laboratory. A Cross contamination between samples does not occur in transit or as an artefact of the sampling handling procedures. A Method blanks are used by the laboratory to assess contamination introduced during the samples are similar in composition to environmental samples, and contain known amounts of analytes. Spiking occurs prior to sample preparation and analysis, and results are used to assess the bias of a method in a given sample matrix. A Surrogates are organic compounds that are similar in chemical composition to analytes of interest and are sinker intor environmental samp	Analyte concentrations <lor< td=""><td>Laboratory reports</td><td>Yes</td><td></td></lor<>	Laboratory reports	Yes	
aboratory Duplicates		As specified by laboratory	Laboratory reports	No	RPD exceeds LOR based limits for Copper (Anonymous): 116 % achieved and 0% - 20% expected Low levels of copper detected in all samp and result not of concern in this instance
aboratory controls	method performance. In general, these samples are similar in composition to environmental samples, and	Dynamic recovery limits as specified by laboratory	Laboratory reports	Yes	
Natrix Spike Recovery	known concentration of target analytes. Spiking occurs prior to sample preparation and analysis, and results are used to assess the bias of a method in a	Recovery 70 – 130% or dynamic recovery limits if specified by laboratory	Laboratory reports	No	MS recovery not determined, backgroun level greater than or equal to 4x spike lev (Anonymous): Copper - MS recovery not determined Zinc - 74.0-120% expected and data resul not authorised Low levels of copper and zinc detected ir samples and result not of concern in this instance.
Surrogate Recovery	chemical composition to analytes of interest and are spiked into environmental samples prior to sample preparation and analysis. Surrogate recoveries are used to evaluate matrix interference on a sample	Dynamic recovery limits as specified by laboratory	Laboratory reports	Yes	

	used to evaluate matrix interference on a sample				
	specific basis.				
Quality Control Sample Frequency Outliers	If one or two data points appear to be too high or low for the set of data, they should not be included when calculating QC ranges.		Laboratory reports	No	Laboratory Duplicates (DUP): TRH - Semivolatile Fraction 8.33% expected and 10.00% Expected Matrix Spikes (MS): PAH/Phenols (GC/MS - SIM) 0.0% Actual and 5.0% Expected Low levels of copper detected in all samples and result not of concern in this instance. Very low detection PAH's (<lor) and<br="">semivoltine (<lor) and="" not="" of<br="" outliers="">concern.</lor)></lor)>
Certified Reference Material	CRM samples are used to monitor the accuracy of analysis performed by the laboratory.	As specified by laboratory (generally dynamic recovery limits). Usually not performed and assessed based on LCS results	Laboratory reports	Yes	

Table B Soil Duplicate Pair Comparisons

Imbact frend NY NY	Analyte LOR PT12 0.7 Duplicate RPD % Impact Level Compliance	Moisture Content 2.0 1.1 58.1 NL YES	SaA SaA SaA SaA SaA SaA SaA SaA SaA SaA	1 2 3 4 2 5 7 2 9 0.0 0 .0 0 2 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7	2 2 4.0 4.0 0.0 NL YES	5 5 5 5 5 5 75 75 0.0 0.0 75 75 75	Pear 5 <5 <5 0.0 NL YES	a b c 4.0 <2 66.7 NL YES	2 iz 5 6.0 8.0 28.6 NL YES	Cincuration 0.1 0.1 0.0 NL YES	enabelia and a second s	Image: Safety of the second secon	0.5 Acenaphthene 0.7 Acenaphthene 0.7 Since	elanorene 0.5 0.5 0.0 NL YES	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	0.5 0.5 0.0 NL YES	_	<0.5 0.0 NL	0.5 5 <0. 5 <0. 0.0	5 0. 5 <0 5 <0 0 0.	5 0 .5 <0 .5 <0 0 0	.5 0).5 <0).5 <0 .0 0 IL N	0.5 <0	5 0.5 5 <0. 5 <0. 0 0.0	3 3	5 < .5 < 0 L	Z Z Z 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Note Sum of polycyclic aromatic 12 0.0 5.0 5.0 6.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 7.0 5.0 8.0 5.0 8.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0 9.0 5.0	XE Senzo(a)pyrene TEQ (zero) AE 0.0 0.2
LOR 0.5 1.0 50 100 50 10 10 50 100 100 50 0.2 0.5 0.5 0.5 0.2 1 PT12 0.7 0.6 1.2 <10	Analyte	Benzo(a)pyrene TEQ (half LOR)	Benzo(a)pyrene TEQ (LOR)	C6 - C9 Fraction	- C14 Fr	1	- C36 Fr	- C36	- C10	F1	1	1	- C40			Benzene	Toluene	Ethylbenzene	ø	ortho-Xylene	Total Xylenes	Sum of BTEX	Naphthalene						
Duplicate 0.6 1.2 <10 <50 <10 <50 <10 <50 <100 <50 <100 <50 <50 <50 <50 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.														-).2	0.5												
RPD % 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0			-																										
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Compliance YES	· ·								-					_															

NL - No Limit Applies (complies)

NO LOR - No Limits of Reporting Available for comparison

LOW - Low level detections require RPD <50% to comply

MEDIUM - Medium level detections require RPD <30% to comply

HIGH - High level detections require RPD <15% to comply

Analyte	Perfluorobutane sulfonic acid (PFBS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 F	Sum of PFHxS and PFOS	Sum of PFAS (WA DER List)
LOR	0.0002	0.0002	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.0002
PT12 0.7	<0.0002	0.0	0.0	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0	0.0
Duplicate	<0.0002	<0.0002	0.0	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0	0.0
RPD %	0.0	85.7	43.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impact Level	NL	NL	LOW	NL	NL	NL	NL	NL	NL	NL	NL	NL	LOW	LOW
Compliance	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

NL - No Limit Applies (complies)

NO LOR - No Limits of Reporting Available for comparison

LOW - Low level detections require RPD <50% to comply

MEDIUM - Medium level detections require RPD <30% to comply

HIGH - High level detections require RPD <15% to comply

Table C Soil Rinse and Filed Blanks

Sample	Date	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Benzo(a) pyrene	Indeno(1.2.3.cd)pyrene	Dibenz(a.h)anthracene	Benzo(g.h.i)perylene	Sum of polycyclic aromatic hydrocarbons	Benzo(a) pyrene TEQ (zero)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR		0.001	0.0001	0.001	0.001	0.001	0.001	0.005	0.0001	1	1	1	1	1	1	1	1	1	1	1	1	0.5	1	1	1	0.5	0.5
Rinse Blank	22/01/2025	< 0.001	< 0.0001	< 0.001	< 0.001	<0.001	<0.001	<0.005	< 0.0001	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5
Field Blank	22/01/2025	< 0.001	< 0.0001	< 0.001	< 0.001	< 0.001	< 0.001	<0.005	< 0.0001	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5

Sample	Date	C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 Fraction (sum)	C6 - C10 Fraction	C6 - C10 Fraction minus BTEX (F1)	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction	>C10 - C40 Fraction (sum)	>C10 - C16 Fraction minus Naphthalene (F2)	Benzene	Toluene	Ethylbenzene	meta- & para-Xylene	ortho-Xylene	Total Xylenes	Sum of BTEX	Naphthalene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR		20	50	100	50	50	20	20	100	100	100	100	100	1	2	2	2	2	2	1	5
Rinse Blank	22/01/2025	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<5
Field Blank	22/01/2025	<20	<50	<100	<50	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<5