APPENDIX M

DETAILED SITE INVESTIGATION

Proposed Industrial Subdivision - 2 Reddall Street, Yass

Detailed Site Investigation

Diverse Project Solutions

20 February 2025

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Executive Summary

D&N Geotechnical Pty Ltd were previously engaged by Diverse Project Solutions to conduct a Preliminary Site Investigation to support a proposed industrial subdivision of Lot 4 DP255064, located at 2 Reddall Street, Yass NSW. The proposed development area is a rural site located in a mixed-use (i.e., commercial/industrial and urban/rural residential) area and has historically (i.e., since at least 1952) been primarily vacant agricultural (grazing) land.

D&N's Preliminary Site Investigation identified four (4) Areas of Environmental Concern (AEC) that potentially represent risks to current and future sensitive (human and ecological) receptors likely associated with the redevelopment, namely:

1. Agricultural Activities; with indications of a historical market garden/orchard in operation east of the homestead (circa 1952).
2. Legacy Building(s); with the potential for hazardous building materials noting all structures on-site are to be demolished under and existing complying development certificate.
3. Waste Dumping; with historical and site observations indicating an area west of the homestead has been subject to waste dumping and burial; and
4. Historical Set Down and Storage Areas; with potential chemical storage and various equipment (i.e., cars, shipping containers etc.) set down areas were identified in historical aerial imagery.

D&N were subsequently engaged to undertake a Detailed Site Investigation to qualify the identified plausible risks. The detailed site investigation subsequently identified risks to human and ecological receptors associated with past land uses, namely concentrations of hydrocarbons that exceed the relevant adopted site assessment criteria in AEC 3 (Waste Dumping) and AEC 4 (Historical Set Down and Storage Areas). In addition, demolition and associated asbestos removal works, conducted under a separate complying development certificate were incomplete at the time of reporting and additional asbestos clearance works are required.

Whilst the current testing effort suggests the elevated concentrations of hydrocarbons, notably polycyclic aromatic hydrocarbons detected in Areas of Environmental Concern AEC3 and AEC4, are limited in their extent, the exact lateral and vertical extent of impacts is unconfirmed.

The isolated areas of soils impacted by hydrocarbons in AEC 3 and 4 will require remediation, preferably conducted as part of the proposed subdivision works. The remedial works are to be guided by a remedial action plan prepared by a suitably qualified and experienced environmental consultant. The remedial action plan will provide procedures and guidance for the delineation and excavation of impacted soil(s), inform soil disposal requirements and confirm residual hydrocarbon risks have been suitably remediated.

To ensure all identified residual risks on-site are sufficiently remediated and validated, the remedial action plan should also consider the findings and limitations of the asbestos clearance certificate completed following the removal of remaining construction and demolition waste stockpiles (associated with the demolition of structures on-site) and corresponding residual subsurface structures.

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Document Register

Revision	Date	Description	Written by	Reviewed by	Approved by
R1	6 January 2025	For Issue	MB	ND	ND
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Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AF	Asbestos Fines
AFFF	Aqueous Film Forming Foams
ANSIS	Australian National Soil Information System
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure
ASS	Acid Sulfate Soil
AST	Aboveground Storage Tank
BGL	Below Ground Level
BoM	Bureau of Meteorology
BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene
C&D	Construction and Demolition (waste)
CDC	Complying Development Certificate
CEMP	Construction Environment Managemental Plan
CLM Act	Contaminated Land Management Act 1997
CLR	Contaminated Land Register
COPC	Contaminants of Potential Concern

Term	Definition
CSM	Conceptual Site Model
DECC	NSW Department of Environment and Climate Change
D&N	D&N Geotechnical Pty Ltd
DPS	Diverse Property Solutions
DSI	Detailed Site Investigation
EPA	NSW Office of the Environment Protection Authority
EPA Act	Environmental Planning and Assessment Act 1979
EPA Regulation	Environmental Planning and Assessment Regulation 2021
EPL	Environment Protection License
FA	Friable Asbestos
FRNSW	Fire and Rescue NSW
GDE	Groundwater Dependent Ecosystem
LEP	Local Environmental Plan
LPG	Liquified Petroleum Gas
NEPC	National Environmental Protection Council
NPI	National Pollutant Inventory
NSW EPA	NSW Environment Protection Authority
NSWRFS	NSW Rural Fire Service
OCP	Organochlorine Pesticides
OPP	Organophosphorus Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PFAS	Per- and Poly Fluoro Alkyl substances
POEO Act	Protection of the Environment Operations Act 1997
PPE	Personal Protective Equipment
PSI	Preliminary Site Investigation
SEPP	State Environmental Planning Policy
SES	State Emergency Services
S-P-R	Source – Pathway - Receptor
STP	Sewage Treatment Plant

Term	Definition
TRH	Total Recoverable Hydrocarbons
UFP	Unexpected Finds Protocol
UST	Underground Storage Tank
WTS	Waste Transfer Station

Units

Unit	Definition
AHD	Australian Height Datum
Ha	Hectares
km	Kilometre
m	metres
m^2	Square metres
L	Litres
m BGL	Metres below ground level

1 Introduction

1.1 Introduction

As part of a development application for a proposed industrial subdivision of the property at 2 Reddall Street, Yass NSW (hereafter referred to as the 'Site'), D&N Geotechnical Pty Ltd (D&N) were engaged by Diverse Project Solutions (DPS) in September 2024 to prepare a baseline contamination assessment (in the form of a Preliminary (contamination) Site Investigation [PSI]). Figure F1 (after text) shows the regional location of the Site (north-east of Yass Valley Way) and the current Site layout with the proposed subdivision layout provided in Appendix A.

The PSI (report reference C-2435.00 R1, dated 28 October 2024) identified plausible contamination risks potentially present on-site and further assessment was required to qualify these risks. DPS subsequently engaged D&N conduct a Detailed Site Investigation (DSI) of the Site. This report summarises the works conducted per D&N's proposal C-2435.01 P1 dated 11 November 2024 and presents the findings of the DSI.

These DSI findings are based on D&N's review of available previous reporting, observations made by D&N during the intrusive field investigations (conducted 3rd and 5th December 2024) and the results of the subsequent analytical (soil) testing conducted.

1.2 Background

The Site was previously occupied by a rural residential homestead and four (4) associated sheds. All structures on-site have subsequently been demolished via a separate Complying Development Certificate (CDC). D&N understands that the proposed development is to include the subdivision of one (1) existing allotment into nine (9) individual allotments of areas ranging between 4,078 square metres (m^2) and 22,130 m^2. The subdivision will be accompanied by the construction of access and internal roads and services.

To inform DPS of the status of the Site (regarding potential contamination), pursuant to the requirements of the National Environment Protection Council, National Environment Protection (Assessment of Site Contamination) Measure (1999, amended 2013) (ASC NEPM) and relevant state (i.e., New South Wales) requirements, D&N prepared the baseline contamination assessment (i.e., PSI) for the Site.

The PSI identified four (4) Areas of Environmental Concern (AEC), namely:

1. Agricultural Activities
2. Legacy Building(s)
3. Waste Dumping
4. Historical Set Down and Storage Areas

Figure F2 (after text) depicts the general location and extent of identified AEC.

Based on the findings of the PSI, in the Site's current state, D&N considered that the plausible risks identified required further assessment (i.e., a detailed site investigation) and, if risks to current and future receptors are qualified, remediation and/or site management may be required.

2 Objective

The objectives of this DSI are to qualify plausible risks of potential contamination (to the extent practicable) with respect to the sensitive human and environmental receptors relevant to the Site.

To meet the above objective of the DSI included the completion of the following:

- Assess the presence (or absence) of Chemicals of Potential Concern (COPC) associated with the identified AEC and, where COPC are present, delineate the lateral and vertical extent (to the extent practical) of potential contamination.
- Qualify the plausible risks identified with respect to the sensitive human and ecological receptors relevant to the Site; and
- Identify the need for site management and/or site remediation, or if deemed necessary, the need for further investigation.

3 Scope of Works

3.1 Legislative Framework and Guidance

The Commonwealth National Environment Protection Council Act 1994 (NEPM Act), and complementary State and Territory legislation allow the National Environment Protection Council (NEPC) to make National Environment Protection Measures (NEPMs). NEPMs are a special set of national objectives designed to assist in protecting or managing particular aspects of the environment.

The assessment of land contamination in Australia is principally guided by the ASC NEPM. It provides the policy framework for a nationally consistent approach to contamination assessment. Schedule A-Recommended General Process for Assessment of Site Contamination (ASC NEPM) outlines the staged site assessment approach with Schedule B2 – Site Characterisation (ASC NEPM) providing guidance for the individual stages of site characterisation that are generally required to achieve appropriate assessment of health and environmental risks associated with contamination.

The NSW planning process for regulating contaminated land is guided by the following legislation:

- *Environmental Planning and Assessment Act 1979 (EPA Act)* and *Environmental Planning and Assessment Regulation 2021* (EPA Regulation).
- *Contaminated Land Management Act 1997* (CLM Act) and *Contaminated Land Management Regulation 2022* (CLM Regulation); and
- State Environmental Planning Policy or SEPP (Resilience and Hazards) 2021.

To meet these legislative requirements, this DSI was conducted in general accordance with the following guidelines:

- NSW EPA (2020) Contaminated Land Guidelines - Consultants Reporting on contaminated land.
- NSW Environment Protection Authority (2022) Contaminated Land Guidelines Sampling Design Part 1 - application; and
- NSW Environment Protection Authority (2022) Contaminated Land Guidelines Sampling Design Part 2 - interpretation.

3.2 Scope of Works

The scope of works undertaken as part of this DSI included the following:

- Project safety and access planning, including the preparation of a site- and project-specific field (safety) advice.
- Site walkover and service/utility identification and clearance, to identify indications of buried services and/or wastes.
- Intrusive investigations and collection of representative soil samples to assess the presence (or absence) of COPC associated with relevant AEC, and where COPC are present, delineate the lateral and vertical extent (to the extent practical) of potential contamination. Intrusive investigations included:
  - Twenty-one (21) shallow test-pits (i.e., up to depths of up to 0.5 metres [m] below ground level [BGL]); and,
  - Nine (9) test-pits to depths of up to 2 m BGL.
- Chemical testing for relevant COPC in select soil samples; and
- The preparation of this DSI report, in general accordance with the reporting requirements outlined by the ASC NEPM (1999, amended 2013) and the NSW EPA Contaminated Land Guideline - Consultants reporting on contaminated land (2020).

4 Site Description

4.1 Site Details

The Site is wholly within Lot 4 DP 255064, an irregularly shaped parcel of land approximately 10 hectares (Ha) in area, situated immediately north of Reddall Street in Yass, NSW. A rural residential dwelling (i.e., the homestead) and associated sheds previously occupied the central portion with the remainder of the Site predominantly cleared vacant grassland with mature vegetation stands extending along the western boundary. All aboveground structures have been removed from Site with the asphalt sealed pavement remaining in place across the central portion of the Site.

Table 1 below presents a summary of the Site details.

Table 1 – Site Details Summary

Attribute		Details
Property Identification		Lot 4 DP255064
Street Address		2 Reddall Street, Yass NSW 2582
Approximate Property Area (Ha)		10
Local Government Area		Yass Valley Council (YVC)
	Zoning	E3: Productivity Support (Yass Valley Local Environmental Plan 2013)

Attribute		Details
Planning Controls (EPI)	State (SEPP)	SEPP (Biodiversity and Conservation)2021 SEPP (Resilience and Hazards) 2021 SEPP (Transport and Infrastructure) 2021 SEPP (Sustainable Buildings) 2022 SEPP (Primary Production) 2021 SEPP (Resources and Energy) 2021 SEPP (Exempt and Complying Development Codes) 2008 SEPP (Housing) 2021 SEPP (Industry and Employment) 2021 SEPP (Planning Systems) 2021
Current Land Use		Agricultural and Rural Residential
Proposed Land Use		Industrial Subdivision

Table 1 Notes:

1. EPI- Environmental Planning Instruments

The surrounding land use consists of a mixture of SP2 – Infrastructure (Rail facility and Sewerage system) to the north and west, a mixture of E4 – General Residential, R1 – General Residential, and R5 – Large lot residential to the east, and a mixture of E3 – Productivity support and E1 – Local centre to the south and west.

A summary of land uses surrounding the Site is provided in Table 2 below.

Table 2 – Surrounding Land Use Summary

Direction	Land Uses
North	Lands immediately north of the Site are designated as SP2 – Infrastructure and comprise sewerage system and rail infrastructure. A large dam is situated upon the vacant land to the north. The Yass Sewage Treatment Plant (Yass STP) and Waste Transfer Station (Yass Tip) are located approximately 300 metres (m) north-west of the Site. The heritage-listed Yass Junction train station is located approximately 1 kilometre (km) north of the Site on the Main Southern line with the former Yass Tramway running from Yass Junction station along the Site's western boundary and continuing south into Yass Township.
East	To the east, lands consist of a mixture of R1 – General Residential and R5 – Large lot residential. BR Durham & Sons, a manufacturer and supplier of drainage products for water, sewer, electrical, communication and infrastructure, is located immediately east (approximately 30 m) of the Site upon E4 – General Residential lands with large lot residential and suburban development further to the east.

Direction	Land Uses
South	Reddall Street forms the southern boundary of the Site with land to the south (of the Site) zoned as E3 – Productivity support and E1 – Local centre and generally comprises commercial premises (including Nutrien Ag Solutions, a distributor of both farming supplies and fertiliser and Complete Fleet, a heavy vehicle and plant repairer). A former Shell fuel depot, previously serviced by the Yass Tramway, is located 60 m south of the Site on E3– Productivity support lands. A Services NSW depot (i.e., Transport for NSW – formerly Roads and Transport Authority) is located on the southern side of Yass Valley Way along with various industrial premises (including car yard, transport operations and warehousing and vehicle [smash] repairs) extending west toward Bango Creek, approximately 650 m west of the Site.
West	Land directly west of the Site comprises a mixture of SP2 – Infrastructure (Rail facility and Sewerage system) and E3 – Productivity support. A commercial unit block occupies the lands immediately adjacent to the Site's southwestern boundary, with various mechanical and electrical repair business' operating within (refer Section 5.1.4). The Yass Valley Rural Fire Service (RFS) and State Emergency Service (SES) Yass Unit depots are further to the west along with a depot operated by Yass Valley Council and the Yass Community Centre. The former Yass Tramway, running north to south, separates the commercial unit block and the RFS, SES and Council depots. The Yass River is situated approximately 500 m west of the Site at its closest point.

4.2 Environmental Setting

Table 3 below presents a summary of the Site's environmental setting.

Table 3 – Site Environmental Setting Summary

Attribute	Details
Topography and Hydrology	The Site is located upon the undulating low hills typically encountered between Yass and Boorowa. A low spine runs north to south through the centre of the Site, sloping west (at ~8%) and east (at ~4%), with surface elevation between 490 to 504 m Australian Height Datum (AHD). The land surface (of the Site) is predominantly grassed with the demolished homestead and associated structures situated centrally within the Site. Runoff is expected to be directed to surface and, along with rainfall that does not penetrate unsealed surfaces, is expected to flow overland, predominantly west, toward the existing dam on-site (located centrally on the western boundary) with lands east of the access road and previous homestead flowing to the southeast toward stormwater infrastructure (kerb, gutter, and pit drains) servicing Reddall Street. The municipal stormwater system is expected to flow to south, delivered to a swale drain and culvert crossing Yass Valley Way (from east to west) before ultimately flowing towards the Yass River, approximately 570 m west of the Site.

Attribute	Details
Soil Landscape	The Soil Landscapes of the Goulburn 1:250 000 Sheet (Hird, 1991) identifies the Site as within the *Binalong* (**YEbi**) colluvial soil landscape. These soils are of the undulating low hills between Yass and Boorowa and are typically described as Xanthozems (Gn2 and Dy3), Red Earths and Non-calcic Brown Soils (Dr2). Soils have formed *in situ* from alluvial-colluvial material derived from the parent rock, with possible aeolian influences. The National Acid Sulfate Soils (ASS) map layer (Fitzpatrick et al, 2011) available on the Australian National Soil Information System (ANSIS)[1] portal indicates the Site is located within an area mapped as "low probability of ASS occurrence", with acid sulfate soils generally within upper 1 m in wet/riparian areas. The confidence of ASS mapping in this class is described as low with inland ASS classifications derived from state soil classification, hydrography and landscape coverage. Nevertheless, the geomorphological conditions at the Site are unlikely to have resulted in the widespread formation of ASS layers with potential reduced sulfide rich layers likely limited to permanently inundated sediments.
Geology	The Yass Special 1:50 000 Geological Map (Colquhoun & Cameron, 2013) indicates that the Site is generally underlain by the Hawkins Volcanic Formation, part of the Silurian aged Douro Group, consisting of pyroclastic rock units including blue-grey, massive, welded, porphyritic biotite-cordierite-garnet rhyolitic to dacitic ignimbrite; sporadic quartz+dioritic xenoliths; flow-banded, vesicular rhyodacitic-dacite; volcanic sandstone, minor rhyodacitic agglomerate and rhyolitic lapilli tuff. Colluvial and Alluvial formations surround the protruding volcanic unit, including: • *Colluvium* (**Qc**), of Quaternary (base) to Current (top) age, comprising of poorly sorted, weakly cemented to unconsolidated colluvial lenses of polymictic conglomerate with medium-to very coarse-grained matrix, interspersed with unconsolidated clayey and silty red-brown sand layers; and • *Alluvium* (**Qa**), comprising of unconsolidated grey to brown to beige humic (±) micaceous silty clay, quartz-(±)lithic silt, fine- to medium-grained quartz-rich to quartz-lithic sand, polymictic pebble to cobble gravel (as sporadic lenses); sporadic paleosol horizons.
Hydrogeology and Groundwater Use	The Bureau of Meteorology (BoM) National Australian Groundwater Explorer[2] identifies the Site as within a hydrogeological unit comprising fractured or fissured aquifers of low to moderate productivity with BoM records showing eighty-one (81) licensed groundwater bores within two (2) km of the Site. No registered groundwater bores were identified on-site. Six (6) licensed bores are located within 1 km of the Site. The two (2) nearest registered groundwater bores, GW402468 (approximately 140 m) and GW402927 (approximately 400m) are located south of the Site and are both drilled to a depth of 13.0 m below ground level (BGL), likely accessing moderately shallow (~10 m BGL) aquifers within fractured or fissured rock. The northern half of the Site is mapped as a groundwater protected area under Clause 6.4 of the Yass Valley Local Environmental Plan (LEP) 2013, and the Yass and Bango Rivers (over 500 m west of the Site) are mapped as a high potential aquatic Groundwater Dependent Ecosystems (GDE).

[1] https://portal.ansis.net/
[2] http://www.bom.gov.au/water/groundwater/explorer/

5 Preliminary Site Conceptual Model

5.1.1 Site Land Use Summary

Historical aerial photography indicate the Site was originally occupied by a homestead and an associated shed (constructed prior to 1952), with imagery and historical land title information indicating the Site and surrounding area were primarily used for agricultural (animal husbandry and grazing) purposes. No obvious indications of extensive cropping or horticulture were identified in the available historical imagery however a small homogeneous planted area was identified east of the homestead (in 1952 historical aerial imagery), potentially indicating a market garden, or orchard.

Three (3) additional farm sheds were constructed on-site between 1973 and 2008 and alterations to the homestead also occurred during this period with the extensions in the built footprint to the north, south and east identified in historical aerial imagery. During D&N's PSI site walkover, and as confirmed in available reporting reviewed as part of the PSI preparation, three (3) of the four (4) the remaining structures on-site, namely Sheds 2, 3, and 4, had been demolished with demolition of Shed 1 and the homestead actively underway.

Historical title information indicates agricultural activities (grazing) were the dominant land use on-site until at least 1965, however; D&N note that this grazing is likely to have continued with sheep observed in the northern and western paddocks during D&N's PSI site walkover along with the presence of stock watering troughs encountered across the Site.

Various equipment set down areas were identified in relatively close proximity to the homestead and sheds on-site, with what appeared to be primarily vehicles and shipping containers apparent in the 1997 historical aerial imagery. The equipment set down areas expanded to the north in between 1997 and 2008, in conjunction with the creation of a now removed alternate access road to Site (along the eastern boundary).

The expanded set down area coincided with an area of land disturbance located northwest of the homestead which, when inspected during D&N's PSI site walkover was observed to be an area of hummocky ground with evidence of construction and demolition (C&D) wastes and engine parts observed at surface.

The bulk of equipment observed in historical aerial images (i.e., cars, shipping containers etc.) has been periodically removed from Site, however; various relict farm equipment items were observed on-site during our PSI inspection and intrusive investigations, including a former fuel storage tank inferred to have been historically used for fuel storage at an off-site location prior to being used for on-site stock water storage.

5.1.2 Areas of Environmental Concern and COPC

The PSI (D&N, 2024) reviewed and assessed potential contaminant sources identified both on- and off-site. Table 4 below summarises the AEC that have been identified as relevant to the Site and identifies the key COPC associated with these activities that were selected for assessment during the preliminary investigation.

Figure F2 (after text) depicts the inferred locations and/or approximate extent of each AEC.

Table 4 – AEC and COPC Summary

AEC	Activity	Source Description	Media	Key COPCs
1 - Agricultural Activities	Historical Horticulture (market garden/orchard)	Chemical use and leaks and spills	Soils Groundwater	Metals (Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Zinc, Mercury), Organochlorine pesticides (OCP), Organophosphorus Pesticides (OPP), Herbicides
2 - Legacy Building(s)	Hazardous Building Materials	Residual hazardous building materials	Soils	Asbestos containing material/asbestos fines/friable asbestos (ACM/AF/FA), Metals - Lead, Zinc
3 - Waste Dumping	Hazardous Building Materials, Buried Wastes (C&D wastes, engine parts, electrical transmission parts) and Impacted Soils	Residual hazardous building materials	C&D wastes Fill Soils	ACM/AF/FA, Metals (Lead, Zinc)
		Persistent chemicals	Fill Soils Groundwater	Metals, OCP, OPP, Polychlorinated Biphenyls (PCB)
		Volatile and semi-volatile chemicals		Total Recoverable Hydrocarbons (TRH), Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene (BTEXN), Polycyclic Aromatic Hydrocarbons (PAH)
4 – Historical Set Down and Storage Areas	Chemical Storage, Leaks and Spills	Residual hazardous materials	Soils	ACM/AF/FA
		Persistent chemicals	Soils Groundwater	Metals, OCP, OPP
		Volatile and semi-volatile chemicals		TRH, BTEXN, PAH

5.1.3 Identified Receptors

Human Receptors

The Site is zoned E3 (Productivity Support), with permissible land uses including (but not limited to) building identification signs, environmental protection works, home-based childcare, home businesses, home occupations, animal boarding or training establishments, centre-based child-care facilities, community facilities, depots, industrial retail outlets, and industrial training facilities. D&N notes the proposed subdivisions is primarily for industrial lots; however, the permissibility of sensitive uses such as home-based child-care and centre-based child-care facilities requires consideration of potential childcare centre users as sensitive receptors.

Groundwater abstraction does not currently occur on-site however bore GW402468, approximately 140 m south of the Site, is registered for household uses, possibly including consumption. Noting the northern half of the Site is mapped as a groundwater protected area (refer Section 4.2), there are no restriction on future abstraction on or near the Site.

Sensitive human receptors relevant to the proposed residential development include:

- On-site:
  - Intrusive maintenance and construction workers conducting incidental maintenance and construction activities.
  - Current and future commercial/industrial workers/occupants and transient visitors.
  - Potential future home- and centre-based childcare users' patrons; and
  - Future beneficial groundwater users.
- Off-site:
  - Current and future beneficial groundwater users.

Given the buildings on-site are currently being demolished, D&N have not included rural residential occupants as a sensitive human receptor in this investigation.

Ecological Receptors

The Site is predominantly well-grassed with stands of mature vegetation along the western boundary and isolated mature trees located around and south of the homestead. No records for threatened ecological communities or threatened/vulnerable/critically endangered species are listed for the Site on the NSW bionet Atlas[3].

The northern half of the Site is mapped as a groundwater protected area (refer Section 4.2), and the Yass and Bango Rivers (over 500 m west of the Site) are mapped as a high potential aquatic GDE. The Site is connected to the Yass River via overland flows (refer Section 4.2). The northern and western dams are considered to be associated with stock watering activities and have not been considered as aquatic ecological receiving environments for this investigation.

Sensitive ecological receptors relevant to the Site (current and future) include:

- On-site:
  - Terrestrial biota supporting ecological processes (including microorganisms and soil invertebrates) and transitory wildlife.
- Off-site:
  - Aquatic (surface water) ecosystems in Yass River, located 570 m west of the Site, including transitory wildlife; and
  - Local groundwater (GDE associated with Yass and Bango Rivers and vulnerable or sensitive groundwater areas).

5.1.4 Transport Mechanisms and Exposure Pathways

The preliminary conceptual site model (CSM), prepared as part of the PSI (D&N, 2024) is presented in Table B1 (in Appendix B) and depicts the plausible Source-Pathway-Receptor (S-P-R) linkages requiring further assessment and consideration. For a source to present a significant risk of harm to a specific receptor, a linkage between a contaminant and a receptor must be either established or plausible. Table A1 assessed the potential for relevant pathways for COPC at each source to affect a given receptor. The linkage is either:

[3] https://atlas.bionet.nsw.gov.au/AtlasMapViewer/index.html

- Complete – a source has been confirmed with a complete pathway between the source and receptor.
- Plausible – a complete pathway is plausible between a source and receptor however further information is required to confirm the linkage.
- Incomplete – a complete pathway between source and receptor is not present.
- The Incomplete classification can be expanded to include the following:
- Incomplete E (engineered) – the pathway between the source and receptor is considered incomplete due to an existing or proposed engineered management measure. In this instance, commercial and industrial premises are expected to include slab on ground construction, excluding direct contact with soils.
- Incomplete A (administration) – the pathway between the source and receptor is considered incomplete due to an administrative management measure. In this instance, the proposed demolition and redevelopment is assumed to include hazardous materials assessment and demolition under a separate complying development certificate, including an asbestos or hazardous materials register and associated removal control plan in accordance with Clause 425 of the Work Health and Safety Regulation 2017. D&N has assumed that following demolition of structures on-site, an asbestos clearance certificate will be issued for footprints of the former homestead and sheds (1-4).
- Incomplete PPE (personal protective equipment) – the pathway between the source and receptor is considered incomplete due to personal protective equipment (PPE) measures. For example, in this instance, the construction and maintenance workers would employ workplace, health, and safety measures, including assessing risks in accordance with Clause 425 of the Work Health and Safety Regulation 2017 and implementing the use of appropriate PPE.

6 Data Gaps and Investigation Rationale

Table 5 below outlines the plausible risks identified in each AEC (as depicted on Figure F2 after text) that require qualification as well as the corresponding scope of works required to adequately achieve characterisation.

Table 5 – Data Gap and Assessment Scope (and Rationale) Summary

AEC	Risks	Desktop Investigations	Intrusive Investigation Requirements
AEC 1- Agricultural Activities	Indications of a historical market garden/orchard in operation in an area of approximately 2,000 square metres [m^2] located to the east of the homestead (circa 1952). The potential for historical storage of farm chemicals in sheds (which occupied an area of approximately 4,000 m^2) for use across the Site was also noted.	Nil	AEC 1 and 4 are located either in (and overlapping) or around the former homestead and shed structures (i.e., AEC 2), with a combined footprint of approximately 1 hectare (Ha). To meet the minimum sampling requirements outlined in NSW EPA (2022), up to twenty-one (21) shallow test pits (i.e., to depths of up to 0.5 metres [m] below ground level [BGL]) across the combined footprint of AECs 1, 2 and 4 is required. Notably, sampling of former building footprints is limited to estimated locations of respective structures. Representative soil samples (and suspect construction and demolition [C&D] materials) are to be collected and analysed for the COPC respective of each COPC as outlined in Table 4.
AEC 2 - Legacy Building(s)	The potential for hazardous building materials to have been used in construction, noting that the former homestead and four (4) associated shed structures on-site have been demolished under an existing complying development certificate.	Obtain and review the Asbestos Clearance Certificate (ACC) prepared following the removal of asbestos materials from structures on-site	
AEC 4 - Historical Set Down and Storage Areas	Potential chemical storage and various equipment (i.e., cars, shipping containers etc.) set down areas were identified in historical aerial imagery, principally within an area of approximately 7,000 m^2 north and northeast of the former homestead and sheds on-site.	Nil	
AEC 3 - Waste Dumping	Historical indications and site observations identifying an area (of approximately 1,000 m^2) west of the homestead had been subject to waste dumping and burial.	Nil	AEC 3 is located approximately 100 m northwest of the former homestead and occupies an estimated area of approximately 0.1 Ha. To meet the minimum sampling requirements outlined in NSW EPA (2022), up to eight (8) test pits (to depths of up to 2 m BGL across the footprint of AEC 3 is required. Representative soil samples (and suspect C&D materials) are to be collected and analysed for the COPC respective of each COPC as outlined in Table 4.

7 Detailed Site Investigation Methodology

D&N undertook the scope of works outlined in Section 3.2 to meet the recommendations of the D&N (2024) PSI report. The following sections (7.1 to 7.5) outline the rationale, quality objectives and methodologies employed to undertake these works in a manner consistent with the ASC NEPM (1999, amended 2013) and relevant supporting guidelines and requirements either endorsed or supported by NSW EPA.

7.1 Data Quality Objectives

The ASC NEPM (1999, amended 2013) presents a process for establishing Data Quality Objectives (DQOs) for an investigation site, adopted from the US Environmental Protection Agency's seven step DQO Process. To determine the type, quantity and quality of data needed to support decisions relating to the environmental condition of the Site. Table 6 below presents the DQO process applied during this assessment.

Table 6 – Data Quality Objectives

DQO	Response and Activities
Step 1: State the Problem	The potential for contamination associated with historical and current land use activities that have occurred (both on-site and off-site) to be present on-site presents potential risks to future site users and relevant ecological receptors.
Step 2: Identify the Decisions	• Are legacy or residual infrastructure and/or waste materials present on-site, including hazardous building materials, dangerous goods (or vessels) and chemically or biologically hazardous wastes? • Is contamination (associated with current and historical activities) present in soils and/or groundwater on-site at concentrations exceeding relevant site assessment criteria appropriate for the proposed and/or permissible land use setting? • Is there an unacceptable risk posed by contamination (if present) to human health (current and future site users) and ecological receptors (if relevant), and will contamination risks require management during occupation and/or construction? • If contamination that poses an unacceptable risk to human and ecological receptors is present, is there a need for further assessment or management of the contamination?
Step 3: Identify Inputs to the Decisions	The soil sampling program is required to provide information to evaluate the Step 2 decision questions. The inputs include: • Visual inspection and non-invasive survey of Site and AEC, along with subsurface observations (i.e., soils encountered at the test-pit locations). • Collection of soil samples, to provide characterisation data on which to base assessment decisions. • Comparing analytical results to adopted screening and investigation levels (below) to evaluate the potential for identified contamination to adversely affect receptors. • Comparing analytical results to applicable guidelines to evaluate the potential for identified contamination to adversely affect receptors.
Step 4: Define the Study Boundaries	With regard to physical boundaries, the lateral boundaries of the Site are limited to the extent of Lot 4 DP 255064, as represented (approximately) in Figure 1 (after text). The vertical extent of the investigation is up to 2 m BGL (refer Section 7.4.1), which is the maximum depth of intrusive investigation noting the vertical extent of analytical investigation is 1.2 m BGL.

DQO	Response and Activities
Step 5: Develop a Decision Rule	The degree of impact by contaminants and the decisions associated with accepting data was assessed with reference to the chosen site investigation levels. The decision rule is: • If the data has been collected in an appropriate manner to establish completeness, comparability, representativeness, precision and accuracy, it will be considered suitable for the purposes of this assessment; and • If soil contamination is identified on-site at concentrations exceeding the adopted site investigation levels (refer Section 7.3), then further assessment and/or management of the contamination may be required.
Step 6: Specify Limits on Decision Errors	Two primary decision error-types may occur due to uncertainties or limitations in the project data set: • A sample/area may be deemed to pass the nominated criteria, when in fact it does not. This may occur if contamination is 'missed' due to limitations in the sampling plan, or if the project analytical data set is unreliable. • A sample/area may be deemed to fail the nominated criteria, when in fact it does not. This may occur if the project analytical data set is unreliable, due to inappropriate sampling, sample handling, or analytical procedures.
Step 7: Optimise the Design for Obtaining Data	This will be achieved through the implementation of an appropriate sampling and analytical strategy, reviewed and refined as necessary during the assessment, evaluating field observations and analytical results. This is to include collection and analysis of field measurements, and soil samples, along with visual observation for hazardous building materials, including asbestos containing materials and biological and chemical contaminants.

7.2 Data Quality Indicators

To ensure that the investigation data collected was of an acceptable quality, the investigation data set was assessed against the Data Quality Indicators (DQI) as presented in Table 7 below.

Table 7 – Data Quality Indicators

DQI	Response and Activities
Data Representativeness - expresses the degree which sample data accurately and precisely represents a characteristic of a population or an environmental condition.	Representativeness is achieved by collecting samples in an appropriate pattern across the site, and by using an adequate number of sample locations to characterise the site (where accessible). Consistent and repeatable sampling techniques and methods are utilised throughout the sampling.
Completeness - defined as the percentage of measurements made which are judged to be valid measurements.	The completeness goal is set at there being sufficient valid data generated during the study. If there is insufficient valid data, then additional data are required to be collected
Comparability - is a qualitative parameter expressing the confidence with which one data set can be compared with the other set.	This is achieved through maintaining a level of consistency in techniques used to collect samples and ensuring analysing laboratories use consistent analysis techniques and reporting methods.

DQI	Response and Activities
Precision - measures the reproducibility of measurements under a given set of conditions.	The precision of the data is assessed by calculating the Relative Percent Difference (RPD) between duplicate sample pairs. $RPD(\%) = \frac{\lvert C_o - C_d \rvert}{C_o + C_d} \times 200$ Where C_o = Analyte concentration of the original sample C_d = Analyte concentration of the duplicate sample D&N adopts a nominal acceptance criterion of 30% RPD for field duplicates and splits for inorganics and a nominal acceptance criterion of 50% RPD for field duplicates and splits for organics. However, it is noted that this will not always be achieved, particularly in heterogeneous soil or fill materials, or at low analyte concentrations.
Accuracy - measures the bias in a measurement system.	Accuracy can be undermined by such factors as field contamination of samples, poor preservation of samples, poor sample preparation techniques and poor selection of analytical techniques by the analysing laboratory. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes, laboratory blanks and analyses against reference standards. Accuracy of field works is assessed by examining the level of contamination detected in trip blanks. Blanks should return concentrations of all organic analytes as being less than the practical quantitation limit of the testing laboratory.

7.3 Adopted Site Assessment Criteria and Rationale

The Site is zoned E3 (Productivity Support), with permissible land uses including (but not limited to) building identification signs, environmental protection works, home-based childcare, home businesses, home occupations, animal boarding or training establishments, centre-based child-care facilities, community facilities, depots, industrial retail outlets, and industrial training facilities. The proposed development is to subdivide Lot 4 into nine (9) industrial allotments which would be considered consistent with the generic land use scenario for “Commercial/Industrial”. However, noting the permissible uses of the Site include sensitive uses such as home-based child-care and centre-based child-care facilities and as no rezoning is proposed, D&N have adopted the application of conservative investigation and screening criteria, as the most appropriate land use scenario for the Site.

To meet the soil characterisation requirements of this detailed site investigation, relevant investigation and screening levels have been adopted from the following guidelines:

- ASC NEPM (1999, amended 2013) National Environment Protection (Assessment of Site Contamination) Amendment Measure, NEPC:
  - Human health:
    - Table 1(A)1 Health Investigation Levels (HIL) for soil contaminants.
    - Table 1A(3) Soil Health Screening Levels (HSL) for vapour intrusion.
    - Table 1(B)7 Management Limits for TRH Fractions F1-F4 in soil.
    - Table 7 Health screening levels for asbestos contamination in soil.
  - Ecological:
    - Table 1B(5) Generic Ecological Investigation Levels (EILs) for aged arsenic, fresh dichlorodiphenyltrichloroethane (DDT) and fresh naphthalene in soils irrespective of their physicochemical properties; and

  - Table 1B(6) Ecological Screening Values (ESLs) for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil.
- Western Australian Department of Health (WA DoH) (2021) Guidelines for Remediation and Management of Asbestos Contaminated Sites in Western Australia noting the NSW EPA Position statement[4] on the WA guidelines for asbestos contaminated sites.
- Classifying wastes:
  - NSW Waste Classification Guidelines (2014):
    - Tables 1 and 2 of Part 1: Classifying Waste.

D&N note the "Residential A" investigation and screening levels presented in the ASC NEPM (1999, amended 2013) do not provide adequate protection for intrusive maintenance and construction workers. Therefore, the guidance provided in Cooperative Research Council for Contamination Assessment and Remediation of the Environment (CRC-CARE) *Technical Report no. 10 – Health Screening Levels for petroleum hydrocarbons in soil and groundwater - Part 1: Technical Development Document* (2010) has been adopted, with the values presented in Table A4 – Soil Health Screening Levels for direct contact (intrusive maintenance worker) adopted for volatile and semi-volatile petroleum hydrocarbon COPC. No similar guidance is available for non-volatile COPC therefore the ASC NEPM (1999, amended 2013) criteria (nominated above) will be applied as screening criteria.

Table 8 below presents the assessment criteria adopted for assessing human health and ecological risks for this preliminary assessment, along with the relevant site-specific considerations (i.e., soil type, depth etc.) and the rationale for the applicability of individual criterium.

Table 8 – Adopted Site Assessment Criteria

Source Guideline(s)	Adopted Assessment Criteria	Soil Type	Depth	Rationale
ASC NEPM (1999 amended 2013)	Soil Health-based Investigation Level - A (HIL-A) for non-petroleum hydrocarbon chemical contaminants	n/a	n/a	Given the permissible uses of the Site include sensitive uses such as childcare centres, D&N have adopted the Residential with garden/accessible soil (home grown produce <10% and vegetable intake), also includes childcare centers, preschools and primary schools" land use scenario for this assessment.
	Soil Health-based Screening Level – A&B (HSL-A&B for fuel derived petroleum hydrocarbons [Sand]	Silt	0 m to <1 m 1 m to <2 m 2 m to < 4 m	
	Generic and Calculated Ecological Investigation Levels (EIL) for aged contaminants – commercial/industrial	n/a	0 m to 2 m	Ecological receptors on-site are considered limited to future landscaped portions of the Site, however given the intended industrial development (of the Site) will likely entail construction of

[4] https://www.epa.nsw.gov.au/your-environment/contaminated-land/other-contamination-issues/managing-asbestos-in-and-on-land/position-statement-wa-managment-of-asbestos-sites#:~:text=The%20WA%20Asbestos%20Guidelines%20state,been%20imported%20to%20the%20site

Source Guideline(s)	Adopted Assessment Criteria	Soil Type	Depth	Rationale
ASC NEPM (1999 amended 2013) cont'd	Ecological Screening Levels (ESL) for petroleum hydrocarbons – commercial and industrial	Fine	0 m to 2 m	hardstand surfaces and structures founded into natural subgrades (i.e., topsoils removed), the commercial/industrial land use scenario has been applied. Noting soil characterisation data will not be obtained as part of this investigation, the most conservative generic EILs have been adopted for this assessment, generated using data, where available, for the **YEbi** colluvial soil landscape information available on eSPADE. EIL calculation outputs are presented in Appendix C. As fine soil types were encountered during the intrusive investigation, the more conservative ESLs for fine soils are considered appropriate for this assessment.
	Management Limits (ML) for TRH fractions F1-F4 in soil. Residential parkland and public open space.	Fine	n/a	Given the permissible uses of the Site include sensitive uses such as childcare centres, D&N have adopted the Residential with garden/accessible soil (home grown produce <10% and vegetable intake), also includes childcare centres, preschools and primary schools" land use scenario for this assessment.
CRC-CARE) Technical Report no. 10 (2010)	Table A4 – Soil Health Screening Levels for direct contact (intrusive maintenance worker)	n/a	n/a	The subdivision development will entail construction works. Risks to construction/maintenance workers through direct contact pathways require assessment.
WA DoH (2021) (as presented in the ASC NEPM Schedule B1 (1999, amended 2013)	Asbestos on soil screening levels per Table 3 All Site Uses – AF & FA	n/a	n/a	The criteria for FA and AF remain fixed for all site uses as there is high uncertainty associated with quantifying asbestos concentrations below 0.001% w/w asbestos.
	Asbestos in soil health screening levels per Table 3 Recreational A – Bonded ACM	n/a	n/a	Given the permissible uses of the Site include sensitive uses such as childcare centres, the "Residential with garden/accessible soil" land use scenario is considered appropriate for this preliminary assessment.
	Asbestos in soil health screening levels per Table 3 All forms of Asbestos at surface	n/a	n/a	The criteria for all forms of asbestos at surface remains fixed for all site uses as no visible asbestos for surface soils.

7.4 Intrusive Investigations and Sample Collection

7.4.1 Intrusive Investigations

A total of thirty (30) test-pits were completed on the 3 December 2024. Following service and utility identification and clearance in intrusive investigation locations potentially affected by services (i.e., sewer rising main easement), at total of twenty-five (25) test-pits were mechanically excavated (by track-mounted excavator with a 300 mm wide ripper bucket) to depths between 0.5 m to 2.0 m BGL. An additional five (5) test pits (TP11, TP12, TP14, TP17, and TP22) were excavated manually (i.e., hand auger).

Figure F2 (after text) depicts the location of each intrusive investigation location with:

- Nine (9) test pits excavated across AEC 3; and
- Twenty-one (21) test pits excavated or manually dug across the combined footprint of AECs 1, 2 and 4.

7.4.2 Soil Sampling and Quality Control/Assurance

Representative environmental soil samples were collected from each test pit with samples transferred directly from the excavator bucket or drilling implement (hand auger) to appropriate laboratory-supplied containers with (disposable nitrile) gloved hands (with gloves changed between sample depths and sampling locations). Each sample was subsequently placed directly into a chilled esky for storage and transport to the primary environmental laboratory. A corresponding sub-sample was collected in a plastic zip-loc bag for field screening (to determine the presence of Volatile Organic Compounds [VOC]) using a Photoionisation Detector (PID) equipped with a 10.6 electron Volt (eV) lamp, calibrated with 100 part-per-million (ppm) isobutylene.

The soil profile for each test pit was recorded and described, in general accordance with the Unified Soil Classification System (USCS), along with observed or detected indications of potential contamination (e.g., staining or odours).

Three (3) additional fibre cement samples, which showed indications of potential asbestos containing materials were opportunistically collected from mixed waste piles in AEC 3.

A total of forty-seven (47) primary samples were collected, including forty-four (44) soil samples and three (3) fibre cement samples. A corresponding eight (8) Quality Control (QC) samples, comprising five (5) intra-laboratory (duplicate) samples and three (3) inter-laboratory (triplicate) samples, were concurrently collected for data validation purposes. Table T1 (after text) presents a summary of the soil (including QC samples) and fibre cement samples collected along with field screening results and observations made as part of the intrusive investigations. Test-pit logs are provided in Appendix D.

Manual drilling implements were decontaminated by cleaning equipment prior to the use (of the equipment) and between investigation locations and depths (as necessary). The equipment was washed in a suitable detergent (i.e., Liquinox) solution, rinsed in clean water with a final rinse with laboratory supplied deionised water and air dried.

Surplus soils were used to backfill their respective test pit locations and tamped to match the existing surrounding surface level.

7.5 Analytical Program

The analytical suite selected for this assessment included a broad range of analytes generally consistent with the COPC outlined in Table 4 above.

A total of thirty-eight (38) primary soil samples and six (6) corresponding QC samples[5] were analysed as part of the soil chemical assessment effort. Testing included:

- Thirty-eight (38) primary soil samples and the seven (6) corresponding QC samples for analysis of TRH, BTEXN, PAH, OCP, PCB, and Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg).
- Fourteen (14) primary samples for analysis of acid herbicides; and
- Twenty (20) primary samples for (qualitative) analysis of asbestos.

In addition, three (3) fibre cement sheet samples were submitted for qualitative analysis of asbestos.

The primary laboratory for analysis was Eurofins Environment Testing (Canberra or CBR), and the secondary laboratory was ALS Environmental (Sydney or SYD). Both laboratories are National Association of Testing Authorities (NATA)-accredited for the testing conducted. Samples were submitted to Eurofins Environment Testing (Canberra) and the secondary laboratory. Two (2) batches of soil samples (and associated QA samples) were submitted including:

- Batch 1167410, to Eurofins CBR on 4 December 2024.
- Batch 1168408, to Eurofins CBR on 6 December 2024; and
- Batch ES2440268 to ALS SYD (by Eurofins on behalf of D&N) on 9 December 2024.

Laboratory certificates, including COC documentation, is provided in Appendix E.

8 Results and Discussion

8.1 Site Conditions

The Site conditions were observed to be consistent with the findings of the PSI with the following key observations made as part of our inspection conducted during the detailed site investigation intrusive assessment effort:

1. The Site is predominantly vacant land with the existing homestead and sheet metal sheds having been demolished to ground level (refer Photographs 1 and 3 in Appendix F), with stockpiles of segregated and mixed wastes observed across the demolition areas (refer Photographs 2 to 5).
2. Fibre cement sheeting was observed across the demolition area however D&N note that an Asbestos Clearance Certificate (ACC; refer Appendix G) prepared following an inspection by a licensed asbestos assessor to independently assess the removal of asbestos materials from structures on-site prior to their demolition.
3. Waste materials in AEC 3 were limited to a mix of C&D waste (bricks, concrete and mortar, fibre cement sheet, steel and electrical wiring), vegetation wastes (including indications of burn piles), soils, vehicle and engine parts as well as electrical insulators (refer Photographs 6 to 10). Fragments of fibre cement materials that appeared to potentially contain asbestos were observed upon the surface near TP07 (refer Photograph 11).
4. Natural soils were typically encountered within 0.2 m of the existing ground surface in AEC 3 (refer Photograph 12 and 13), noting TP07 was excavated within a soil and waste C&D stockpile approximately 0.5 m high.
5. Natural soils were typically encountered at surface within AEC 1 and 4 (refer Photographs 14 to 16).

[5] Note the primary sample corresponding to QC sample Q102, TP06_0.0-0.2, was not analysed therefore QC102 has been considered as a primary sample in this investigation.

6. Although various types and quantities of waste materials were observed across AEC 3 and the demolition area, no obvious odours (such as petroleum hydrocarbons) were detected. Staining, associated with charcoal, of surface soils and surfaces of stockpiles were however observed.

8.2 Asbestos Clearance Certificate

An independent licensed asbestos assessor from L&D Consulting Pty Ltd (L&D – LAA002013) performed a visual clearance inspection post the removal of asbestos materials prior to the demolition of the structures on-site. The inspection, performed 3 October 2024, found no visible asbestos residue associated with the asbestos removal works within the inspected area and the assessor was satisfied that the removal works have been satisfactorily completed. The ACC (refer Appendix G) does however note that ACM formwork remains *in situ* to the ground floor bathroom slab and this remaining asbestos material has been sealed with black paint and is to be removed during the demolition process. D&N assumes that post removal of the slab and associated ACM formwork, a follow up inspection by an independent licensed asbestos assessor will be performed to confirm no asbestos materials remain within the demolition area.

8.3 Subsurface Conditions

The subsurface profile encountered during these DSI works generally comprised fill material in the western portion of the Site associated with AEC 3, underlain by natural alluvial sediments and topsoils underlain by residual soils in the central east. The shallow ground conditions were generally consistent with those reported in Section 4.2.

Table 9 provides a summary of the main geotechnical units encountered during our investigation; for specific detail regarding subsurface conditions at each investigation location, reference should be made to the logs included in Appendix D.

Notably, fill and buried wastes within AEC 3 were found to be limited primarily to surface or to generally within 0.2 m of surface. Only TP07 encountered fill to a depth of approximately 1 m however we note the depth of fill is primarily within the stockpile in which TP07 is located.

Groundwater was not encountered during test pitting, with no observations of sub-surface waters entering test pits.

Table 9 – Summary of Main Geotechnical Units

Unit	Unit Name	Description
1	Topsoil	Topsoil (brown, clayey silt with traces of roots). Various waste materials (bricks, concrete and mortar, fibre cement sheet, steel and electrical wiring), vegetation wastes (including indications of burn piles), soils, vehicle and engine parts as well as electrical insulators) were observed atop the land surface across the Site, primarily within the nominated AEC (1-4) extents.
2	Fill	Clayey Silt, consistent with disturbed topsoils and alluvium present on-site, generally mixed with waste materials within AEC 3 and predominantly present as stockpiles at and near the natural land surface.
3	Colluvium	Sandy clay, medium to high plasticity brown soils with fine to coarse sands and rounded to sub-angular gravels, predominantly encountered in AEC 3 and TP09.
4	Residual	Silty clay, low to medium plasticity orange to orange-brown soils with trace fine to medium sub-rounded to sub-angular gravels, typically encountered in AEC 1, 2 and 4.

8.4 Field and Data Assessment

8.4.1 Field QA/QA

Quality Control Samples

A total of forty-two (42) primary samples (noting sample QC102 has been treated as a primary sample per footnote #5 above) were analysed by the primary and secondary laboratories in three (3) batches; batch 1167410 and batch 1168408 by Eurofins CBR and batch ES2440268 by ALS SYD. In addition, three (3) intra-laboratory QC samples (QC100, QC101 and QC108) were analysed as well as two (2) inter-laboratory sample (QC200 and QC201). Thirty-nine (39) primary soil samples were analysed for chemical COPC, with twenty (20) primary soil samples and three (3) fibre cement samples qualitatively analysed for asbestos. Asbestos and ASS testing are qualitative methods and there are no QC frequency requirements for qualitative testing.

Overall, the frequency of intra- and inter-laboratory soil samples analysed was 7% and 5% respectively, however the with regard to chemical testing, the frequency of intra- and inter-laboratory soil samples analysed was 8% and 5% respectively. The frequency of inter-laboratory QC samples analysed is consistent with the quality control analysis frequency set forth in the ASC NEPM (1999, amended 2013) however, noting the omission of testing in the on the primary sample for QC102 (TP06_0.0-0.2), the frequency of intra-laboratory QC samples analysed is below the recommended. Whilst acknowledging this non-conformance, when considering the outcomes of the data validation below, D&N consider the data collected as reliable for the purpose of this investigation.

Relative Percentage Difference and Representativeness

Table H1 (in Appendix H) presents a summary of the analytical results for duplicate and triplicate soil samples compared to the analytical results for corresponding primary samples, along with calculated Relative Percentage Difference (RPD).

For analytes with detectable concentrations, RPDs for all duplicate and triplicate soil samples were within acceptable ranges with the following exceptions:

- The concentration of benzene in primary sample TP01_0.0-0.3 was <0.1 mg/kg, whilst the concentration of benzene in the corresponding intra-laboratory duplicate sample (QC100) was 1.2 mg/kg, with an RPD of at least 169%.
- The concentration of PAH (sum of total) in primary sample TP01_0.0-0.3 was below the laboratory limit of reporting (LOR) (i.e., <0.5 mg/kg), whilst the concentration of PAH (sum of total) in the corresponding intra-laboratory duplicate sample (QC100 was 2.0 mg/kg, with an RPD of at least 120%. The PAH detected in QC100 were benzo(b+j)fluoranthene, chrysene, fluoranthene and pyrene, with all recorded at below LOR (i.e., <0.5 mg/kg), resulting in a non-conformance for the RPD of these individual compounds. The concentrations of benzo(b+j)fluoranthene, chrysene, fluoranthene and pyrene in the corresponding inter-laboratory triplicate sample, QC200) were also below LOR (i.e., <0.5 mg/kg).
- The concentration of PAH (sum of total) in primary sample TP29_0.0-0.25 was 2.1 mg/kg, whilst the concentration of PAH (sum of total) in the corresponding intra-laboratory duplicate sample (QC101) and inter-laboratory triplicate sample (QC201) were both below LOR (i.e., <0.5 mg/kg), resulting in RPD of at least 123% for both. PAH detected in QC101 and QC201 were benzo(a) pyrene, benzo(b+j)fluoranthene and benzo(k)fluoranthene with all recorded at below LOR (i.e., <0.5 mg/kg), resulting in a non-conformance for the RPD of these individual compounds.
- The concentration of lead in primary sample TP29_0/0-0.25 was 190 mg/kg, whilst the concentration of lead in the corresponding inter-laboratory triplicate sample (QC106) was 36 mg/kg, with an RPD of 136%; and

- The concentration of zinc in primary sample TP01_0.0-0.3 was 140 mg/kg, whilst the concentration of zinc in the corresponding inter-laboratory triplicate sample (QC200) was 192 mg/kg, with an RPD of 31%.

The difference in analytical results for benzene, PAH, lead and zinc in these samples may be attributed to inherent heterogeneity od soil materials, particularly where fill materials were encountered (for benzene and zinc inconsistencies) with laboratory sub-sampling techniques also potentially contributing to the discrepancies (observed between primary and QC sample results). For the purpose of this assessment, the highest concentration has been considered and the sample collection and sample handling methodologies employed during this investigation are considered sufficient.

Field Rinsate and Decontamination

Samples from mechanically excavated test pits (i.e., excavator) were either collected from the middle of the bucket or directly from the test pit with gloved hands and no field equipment rinsate sample was necessary.

The hand auger was decontaminated (refer Section 7.4.2) between sample locations and depths however a field equipment rinsate sample was not collected as part of this investigation. Whilst no empirical data is available to confirm the appropriateness of the decontamination, the absence of widespread contamination from the sampling results indicates cross-contamination did not occur and that decontamination procedures were effective.

8.4.2 Laboratory QA/QC

Holding Times

No exceedances of recommended holding times for targeted soil analytes were reported by the laboratories.

Surrogate and Spike Recoveries

Results for surrogate recoveries for soil samples were reported within acceptable limits by the laboratories.

Matrix Spikes

Results for matrix spike recoveries for soil samples were reported within acceptable limits by the laboratories.

Laboratory Duplicate Samples

Results for Laboratory Duplicate Samples (LDS) for soil samples were reported within acceptable limits by the laboratories, with the exception of the RPD for lead in LDS R24-De0008374 (in batch 1167410), reported as 81%, along with RPD for lead in LDS R24-De0008385 (in batch 1167410), reported as 35% and 72 % respectively. Similar to the variation observed in results for field duplicate samples, variation may be attributed to inherent soil sample heterogeneity and variation introduced during laboratory sub-sampling techniques. The primary laboratory reported the non-conforming RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria.

No similar non-conformances were reported in batch 1168408 or in the secondary laboratory report, ES2440268

Laboratory Blank Samples

Results for Laboratory Blank Samples (LBS) for soil samples were reported within acceptable limits by the laboratories.

8.4.3 Quality Control and Assurance Conclusion

On the basis of the field and laboratory quality control results and the rationale provided above, it is considered that the field and laboratory programs have provided acceptable quality assurance and control results. The results of this sampling and analysis program (noting the qualifications outlined in the data adequacy statements above) are sufficiently reliable to achieve the objectives of this detailed soil investigation.

8.5 Analytical Results

Table T2 (after text) presents a summary of the analytical results in soil as compared to the adopted site assessment criteria, and Table T3 (after text) presents a summary of the analytical results for asbestos in soil.

8.5.1 Metals

All analysed metals were detected at concentrations above the laboratory LOR, noting detectable concentrations of:

- Cadmium was only recorded in QC102 (i.e., the intra-laboratory QC sample corresponding to TP06_0.0-0.2, which per footnote #5 above, was not analysed) from TP6 at AEC 3 (waste dump) at 1.4 mg/kg and in TP28_0.0-0.2 (0.4 mg/kg) from AEC2 (former structure); and
- Mercury was only recorded in TP07_0.0-0.3 (0.3 mg/kg) from AEC 3 (waste dump) and in TP27_0.0-0.2 (0.1 mg/kg) from AEC2 (former structure).

The concentrations of other targeted metals were generally consistently detected, with:

- Arsenic concentrations ranging between 2.7 mg/kg and 33 mg/kg with an average concentration of 8.1 mg/kg.
- Chromium (CrIII + CrVI) concentrations ranging between 15 mg/kg and 61mg/kg with an average concentration of 32 mg/kg.
- Copper concentrations ranging between 5.4 mg/kg and 66 mg/kg with an average concentration of 16 mg/kg.
- Lead concentrations ranging between 12 mg/kg and 190 mg/kg with an average concentration of 36 mg/kg.
- Nickel concentrations ranging between <2 mg/kg (i.e., below LOR) and 30 mg/kg with an average concentration of 9.1 mg/kg; and
- Zinc concentrations ranging between 14 mg/kg and 390 mg/kg with an average concentration of 74 mg/kg.

Although Zinc (and metal concentrations in general), were elevated across the Site, particularly within the waste area AEC 3, no detected metal concentration exceeded the adopted site assessment criteria.

8.5.2 Petroleum Hydrocarbons

Benzene and toluene were detected in QC100, an intra-laboratory duplicate sample of TP01_0.0-0.3 from AEC3 (waste dump). The concentration of benzene exceeds the adopted HIL-A, indicating a potential risk to human receptors in a residential setting. However, the concentrations of benzene and toluene in the underlying sample, TP01_0.3-0.6, were both below the respective laboratory LOR, suggesting impact is likely isolated at surface. Noting the volatile nature of benzene and toluene, impacts are likely the result of *recent* deposition.

TRH >C_{10}-C_{16} Fraction (F2 minus Naphthalene) was detected above the adopted ESL in surface soils at TP17 at AEC1/2/4, indicating of potential risk to terrestrial ecological receptors, however; earthworks are likely to disturb soils in this location as part of clearing and grubbing in preparation for construction.

Whilst concentrations of TRH >C_{16}-C_{34} Fraction (F3) were detected in samples from TP01 (i.e., TP01_0.0-0.3 and TP1_0.3-0.6) as well as in samples from TP04 (TP04_0.3-0.5), TP07 (TP07_0.0-0.3) from AEC3 (waste dump) and TP17 (TP17_0.0-0.1), the recorded concentrations did not exceed the adopted site assessment criteria.

Detectable concentrations of TPH in the C_{15}-C_{28} and C_{29}-C_{36} fractions were also recorded in TP01, TP04, TP07 and TP17 from AEC1/2/4, as well as in TP12 and TP14 from AEC4 (set down area), however; the recorded concentrations did not exceed the adopted site assessment criteria.

PAH were detected in samples from TP01 (i.e., QC100, the corresponding intra-laboratory QC sample from TP01_0.0-0.3 and primary sample TP01_0.3-0.6), TP04 (TP04_0.3-0.5) and TP17 (i.e., TP17_0.0-0.1) with the concentration of benzo(a)pyrene in samples TP04_0.3-0.5 and TP17_0.0-0.1 (5.3 mg/kg and 3.5 mg/kg respectively), exceeding the adopted ESL, indicating of potential risk to terrestrial ecological receptors in AEC3 (waste dump). In addition to the potential ecological risks, the cumulative sum of PAH compounds detected in TP04_0.3-0.5 and TP17_0.0-0.1 represents a potential human health risk in residential and recreational land use settings, with the calculated Toxicity Equivalent Quotient (TEQ), based on the eight (8) carcinogenic PAHs and their Toxicity Equivalence Factors (TEFs or potency relative to benzo[a]pyrene).

8.5.3 Phenols

No Phenols were detected in any sample above the respective laboratory LOR.

8.5.4 Pesticides (OCP)

The OCP Dieldrin was detected in the surface sample from TP07 (1.8 mg/kg), however, the recorded concentration did not exceed the adopted site assessment criteria. No other pesticides were detected in any sample above the respective laboratory LOR.

8.5.5 Herbicides

No herbicides were detected in any sample above the respective laboratory LOR.

8.5.6 PCB

No herbicides were detected in any sample above the respective laboratory LOR.

8.5.7 Asbestos

Whilst suspect asbestos containing fibre cement and tile fragments were observed on-site, testing of selected samples, as well as testing of soils across the Site did not identify the presence of asbestos. D&N do however note that, per Section 8.2 above, asbestos is known to remain on-site in formwork associated with the residual sub-surface structures (building slabs) that remain on-site.

9 Revised Conceptual Site Model

Based on the findings of the intrusive fieldworks, observations made, and analytical results recorded during this assessment, the CSM has been revised. Table 10 below presents the revised CSM.

Table 10 – Revised CSM: Potential Human Receptors and Exposure Pathways

AEC	COPC	Secondary Source/s	Exposure Route	Receptors							
				On-site					Off-site		
				Intrusive Construction & Maintenance Workers	Current and Future commercial/industrial workers & visitors	Home- and centre-based childcare users'	Future Groundwater Users	Terrestrial Biota	Current & Future Groundwater Users	Aquatic ecosystems (Yass River)	Local GDE
1 – Agriculture	Metals, OCP, OPP, Herbicides	Soils Groundwater	Dermal contact and Ingestion	Incomplete (A, PPE)	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
2 - Legacy Building(s)	ACM/AF/FA	Soils	Inhalation	Incomplete (A, E, PPE)	Incomplete (A, E)	Incomplete (A, E)	n/a	n/a	n/a	n/a	n/a
	Lead, Zinc		Dermal contact, ingestion	Incomplete (A, E, PPE)	Incomplete (A, E)	Incomplete	Incomplete (A)	Incomplete	Incomplete (A)	Incomplete (A)	Incomplete (A)
3 - Waste Dumping	ACM/AF/FA	C&D wastes Fill Soils	Inhalation	Incomplete (A, E, PPE)	Incomplete (A, E)	Incomplete (A, E)	n/a	n/a	n/a	n/a	n/a
	TRH, BTEXN, PAH	Fill Soils Groundwater	Dermal contact, Ingestion, Inhalation	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
	Metals		Dermal contact, Ingestion	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
4 – Historical Set Down and Storage Areas	ACM/AF/FA	Soils Groundwater	Inhalation	Incomplete (A, E, PPE)	Incomplete (E)	Incomplete (A, E)	n/a	n/a	n/a	n/a	n/a
	Metals, OCP, OPP		Dermal contact, Ingestion,	Incomplete (A, PPE)	Incomplete (A, E)	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete	Incomplete
	TRH, BTEXN, PAH		Dermal contact, Ingestion, Inhalation	Incomplete (A, PPE	Incomplete (A, E)	Plausible	Incomplete	Plausible	Incomplete	Incomplete	Incomplete

10 Recommendations

On the basis of the findings of this assessment, in its current state, D&N consider that whilst impacts have been confirmed that indicate the Site is not suitable for the uses permissible under its current land zoning classification, the impacts, namely isolated occurrence of petroleum hydrocarbon in shallow soils (i.e., to 0.6 m BGL) and residual asbestos risks (identified in the ACC), are expected to able to be suitably managed by:

- Completion of the demolition and asbestos removal works conducted under the separate CDC; and
- Remedial works conducted as part of the subdivision construction works with suitable remedial works mitigating the identified risks posed to ecological and human receptors. The remedial activities are to be outlined and guided by a Remedial Action Plan (RAP), prepared in accordance with the ASC NEPM (1999, amended 2013).

The recommendations presented below should be implemented to support future development of the Site.

10.1 AEC 2 – Legacy Building(s)

The removal of remaining asbestos containing materials on-site is to be completed by a licensed asbestos removalist as part of the removal of the remaining C&D waste stockpiles (associated with the demolition of structures on-site) and corresponding residual subsurface structures under the existing CDC. Asbestos removal is to be completed in accordance with an appropriately prepared and approved Asbestos Removal Control Plan (ARCP) with a second ACC obtained (post-removal) from a licensed asbestos assessor. The subsequent ACC should extend to and include the sub-slab areas as well as the surrounding building footprint(s).

10.2 AEC 2 – Waste Dumping and AEC 4 - Historical Set Down and Storage Areas

The isolated areas of soils impacted by petroleum hydrocarbons in AEC 3 and 4 will require remediation, preferably conducted as part of the proposed subdivision works. A RAP should be prepared by a suitably qualified and experienced environmental consultant to document, in detail, the procedures to remediate the identified petroleum hydrocarbon risks identified in soils on-site as well as outlining procedures for validating impacted areas post the completion of the recommended remedial works. The RAP should also include:

- Remedial action criteria as well as guidance on delineating the extent of impact through visual and olfactory indications of contamination as well as chemical testing, and if appropriate, statistical analysis.
- Protocols and actions for the management of potential instances of buried materials that may be unexpectedly encountered on-site (i.e., an Unexpected Finds Protocol [UFP]).
- Guidance for soil testing to support off-site disposal in accordance with the requirements of the NSW DECC Waste Classification Guidelines (2014), specifically Part 1 – Classifying Wastes; and
- Consider the findings, and limitations, of the ACC provided by the LAA post-removal of remaining C&D waste stockpiles and corresponding residual subsurface structures.

Following completion of the remedial works, a subsequent Site Validation Report (SVR), summarising the remedial activities undertaken, should be prepared (by a suitably qualified and experienced environmental consultant).

11 Conclusions

D&N's detailed site investigation has identified risks to human and ecological receptors associated with past land uses, namely concentrations of petroleum hydrocarbons that exceed the relevant adopted site assessment criteria in AEC 3 (Waste Dumping) and AEC 4 (Historical Set Down and Storage Areas). In addition, demolition and associated asbestos removal works, conducted under a separate CEC were incomplete at the time of reporting and additional asbestos clearance works are required.

The detailed investigation testing effort (which is consistent with the testing frequency recommended in NSW EPA [2020] as outlined in Table 5 above) suggests the elevated concentrations of hydrocarbons, notably PAH detected in AEC 3 (i.e., TP01 and TP04) and AEC 4 (i.e., TP17), are limited in their extent. However, the exact lateral and vertical extent of these isolated impacts is unconfirmed.

The isolated areas of soils impacted by hydrocarbons in AEC 3 and 4 will require remediation, preferably conducted as part of the proposed subdivision works. The remedial works are to be guided by a remedial action plan prepared by a suitably qualified and experienced environmental consultant. The remedial action plan will provide procedures and guidance for the delineation and excavation of impacted soil(s), inform soil disposal requirements and confirm residual hydrocarbon risks have been suitably remediated.

To ensure all identified residual risks on-site are sufficiently remediated and validated, the remedial action plan should also consider the findings and limitations of the ACC completed following the removal of remaining C&D waste stockpiles (associated with the demolition of structures on-site) and corresponding residual subsurface structures.

12 Limitations

This report is provided for the exclusive use by Diverse Project Solutions (DPS) for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of D&N, does so entirely at its own risk and without recourse to D&N for any loss or damage. In preparing this report D&N has necessarily relied upon information provided by the client and/or their agents, and other individuals and organisations. Except as otherwise stated in the report, D&N has not verified the accuracy or completeness of the data obtained. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report (conclusions) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. D&N will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented, or otherwise not fully disclosed to D&N.

D&N's advice is based upon the conditions identified during this investigation. The results provided in the report are indicative of the conditions on the site only within the limits of the information obtained and reviewed in the preparation of this report. The accuracy of the advice provided by D&N in this report may be affected by additional information either not available or not included as a scoped item which may identify a change in conditions and inherent risks present or otherwise affecting the Site.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. D&N cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome, or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by D&N. This is because this report has been written as advice and opinion rather than instructions for construction.

D&N will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.

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Figures

Figure 1 – Site Location and Layout

Figure 2 –AEC and Intrusive Investigation Locations

C-2435.01 - 2 Reddall Street, Yass, NSW: Detailed Site Investigation

Legend

Lot 4 DP255064

Project Number: C-2435.01

Project Title: 2 Reddall Street, Yass NSW

Figure Number: 1

Figure Title: Site Location & Layout

Data Source:
https://maps.six.nsw.gov.au/arcgis/rest/services/public/NSW_Imagery/MapServer

Cartographic Data and Orientation:

N

1:3,500
Datum: MGA2020
Coordinate Unit: Metres
0 100 m

D&N Geotechnical

Company: D&N Geotechnical
Drawn: SC
Approved: ND
Original size: A3
Date Drawn: 05/12/2024
Client: DPS

C-2435.01 - 2 Reddall Street, Yass, NSW: Detailed Site Investigation

Legend

- Site Boundary
- AEC 1 - Agriculture (market garden)
- AEC 3 - Waste Dumping (hummocky area)
- AEC 4 - Equipment Set Down Area
- Approximate Test Pit Location

Project Number: C-2435.01

Project Title: 2 Reddall Street, Yass NSW

Figure Number: 2

Figure Title: Potentially Contaminating Activities and Identified AEC

Data Source: https://maps.six.nsw.gov.au/arcgis/rest/services/public/NSW_Imagery/MapServer

Cartographic Data and Orientation:

N

Datum: MGA2020
Coordinate Unit: Metres
0 1:2,500 100 m

D&N Geotechnical

Company: D&N Geotechnical
Drawn: MB
Approved: ND
Original size: A3
Date Drawn: 05/12/2024
Client: DPS

Tables

Table T1 – Soil Sampling Summary

Table T2 – Analytical Results (Soil)

Table T3 – Analytical Results (Asbestos)

Table T1
Soil Sample Summary

Borehole ID	Sample ID	Date	Soil texture	Depth (top of sample)	Depth (base of sample)	VOC	Observations	Glass Jars	Asbestos Bags	Asbestos (ID Only)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals	Acid Herbicides (Phenoxy Acetic Acid) (AH)	HOLD
-			-	m BGL	m BGL	ppm	-	-	-	-	-	-	-
TP01	TP01_0.0-0.3	03 Dec 2024	clayey silt	0.0	0.3	0.0	FILL	1	1	X	X		
	QC100	03 Dec 2024	clayey silt	0.0	0.3		FILL	1			X		
	QC101	03 Dec 2024	clayey silt	0.0	0.3		FILL	1			X		
	TP01_0.3-0.6	03 Dec 2024	Silty Clay	0.3	0.6	0.0	Colluvium	1	1	X	X		
	QC200	03 Dec 2024	Silty Clay	0.3	0.6		Colluvium	1			X		
	QC201	03 Dec 2024	Silty Clay	0.3	0.6		Colluvium	1			X		
TP03	TP03_0.0-0.1	03 Dec 2024	clayey silt	0.0	0.1		Topsoil	1	1	X	X		
	TP03_0.1-0.3	03 Dec 2024	Silty Clay	0.1	0.3		Colluvium	1	1	X	X		
TP04	TP04_0.0-0.3	03 Dec 2024	clayey silt	0.0	0.3		FILL	1	1	X	X		
	TP04_0.3-0.5	03 Dec 2024	Silty Clay	0.3	0.5		Colluvium	1	1	X	X		
TP06	TP06_0.0-0.3	03 Dec 2024	clayey silt	0.0	0.2	0.0	FILL	1	1	X	X		
	QC102	03 Dec 2024	clayey silt	0.0	0.2		FILL	1	1		X		
	QC202	03 Dec 2024	clayey silt	0.0	0.2		FILL	1					X
	TP06_0.3-0.6	03 Dec 2024	Silty Clay	0.2	0.6	0.0	Colluvium	1	1	X	X		
	QC103	03 Dec 2024	Silty Clay	0.2	0.6		Colluvium	1					X
	QC203	03 Dec 2024	Silty Clay	0.2	0.6		Colluvium	1					X
TP07	TP07_0.0-0.3	03 Dec 2024	clayey silt	0.0	0.3	0.1	FILL	1	1	X	X		
	TP07_0.3-1.2	03 Dec 2024	Sandy Silt	0.3	1.2	0.0	Colluvium	1	1	X	X		
TP09	TP09_0.0-0.15	03 Dec 2024	clayey silt	0.0	0.15	0.0	Topsoil	1	1		X		
	TP09_0.15-0.45	03 Dec 2024	Silty Clay	0.15	0.45	0.0	Residual	1	1		X		
TP10	TP10_0.0-0.2	03 Dec 2024	clayey silt	0.0	0.2	0.0	Topsoil	1	1		X		
	TP10_0.2-0.5	03 Dec 2024	Silt	0.2	0.5	0.0	Residual	1	1				X
TP11	TP11_0.0-0.1	05 Dec 2024	clayey silt	0.0	0.1	0.2	Topsoil	1	1	X	X		
TP12	TP12_0.0-0.1	05 Dec 2024	clayey silt	0.0	0.1	0.1	Topsoil	1	1	X	X		
TP13	TP13_0.0-0.2	03 Dec 2024	clayey silt	0.0	0.2	0.1	Topsoil	1	1		X	X	
	TP13_0.2-0.5	03 Dec 2024	Silty Clay	0.2	0.5	0.0	Residual	1	1				X
TP14	TP14_0.0-0.1	05 Dec 2024	clayey silt	0.0	0.1	0.1	Topsoil	1	1	X	X		
	QC108	05 Dec 2024	clayey silt	0.0	0.1		Topsoil	1			X		
	QC208	05 Dec 2024	clayey silt	0.0	0.1		Topsoil	1					X
TP15	TP15_0.0-0.15	03 Dec 2024	clayey silt	0.0	0.2	0.0	Topsoil	1	1	X			
	TP15_0.15-0.3	03 Dec 2024	Silty Clay	0.15	0.3	0.0	Residual	1	1	X	X	X	
TP16	TP16_0.0-0.2	03 Dec 2024	clayey silt	0.0	0.2	0.1	Topsoil	1	1		X	X	
	TP16_0.2-0.4	03 Dec 2024	Silty Clay	0.2	0.4	0.0	Residual	1	1				X
TP17	TP17_0.0-0.1	05 Dec 2024	clayey silt	0.0	0.1	0.3	Topsoil	1	1	X	X		
TP18	TP18_0.0-0.2	03 Dec 2024	clayey silt	0.0	0.2	0.1	Topsoil	1	1		X	X	
	TP18_0.2-0.5	03 Dec 2024	Silty Clay	0.2	0.5	0.1	Residual	1	1				X
TP19	TP19_0.0-0.3	03 Dec 2024	clayey silt	0.0	0.3	0.2	Topsoil	1	1	X	X	X	
	TP19_0.3-0.6	03 Dec 2024	Silty Clay	0.3	0.6	0.1	Residual	1	1				X
TP20	TP20_0.0-0.2	03 Dec 2024	clayey silt	0.0	0.2	0.1	Topsoil	1	1	X	X	X	
	TP20_0.2-0.4	03 Dec 2024	Silty Clay	0.2	0.4	0.1	Residual	1	1				X
TP21	TP21_0.0-0.2	03 Dec 2024	clayey silt	0.0	0.2	0.1	Topsoil	1	1		X	X	
	TP21_0.2-0.5	03 Dec 2024	Silty Clay	0.2	0.4	0.0	Residual	1	1				X
TP22	TP22_0.0-0.1	05 Dec 2024	clayey silt	0.0	0.1	0.1	Topsoil	1	1	X	X		
TP23	TP23_0.0-0.2	03 Dec 2024	clayey silt	0.0	0.2	0.0	Topsoil	1	1	X	X	X	
	TP23_0.2-0.4	03 Dec 2024	Silty Clay	0.2	0.4	0.0	Residual	1	1				X
TP24	TP24_0.0-0.25	03 Dec 2024	clayey silt	0.0	0.25	0.0	Topsoil	1	1		X	X	
	QC104	03 Dec 2024	clayey silt	0.0	0.25		Topsoil	1					X
	TP24_0.25-0.5	03 Dec 2024	Silty Clay	0.25	0.5	0.0	Residual	1	1		X	X	
	QC105	03 Dec 2024	Silty Clay	0.25	0.5		Residual	1					X
TP25	TP25_0.0-0.2	03 Dec 2024	Clayey Silt	0.0	0.2	0.1	Topsoil	1	1		X	X	
	TP25_0.2-0.4	03 Dec 2024	Silty Clay	0.2	0.4	0.0	Residual	1	1		X		
TP26	TP26_0.0-0.2	03 Dec 2024	Clayey Silt	0.0	0.2	0.0	Topsoil	1	1			X	
	TP26_0.2-0.4	03 Dec 2024	Silty Clay	0.2	0.4	0.0	Residual	1	1		X	X	
TP27	TP27_0.0-0.2	03 Dec 2024	Clayey Silt	0.0	0.2	0.0	Topsoil	1	1	X	X	X	
	TP27_0.2-0.4	03 Dec 2024	Silty Clay	0.2	0.4	0.0	Residual	1	1		X		
TP28	TP28_0.0-0.2	03 Dec 2024	Clayey Silt	0.0	0.2	0.1	Topsoil	1	1	X	X		
	TP28_0.2-0.4	03 Dec 2024	Silty Clay	0.2	0.4	0.0	Residual	1	1		X		
TP29	TP29_0.0-0.25	03 Dec 2024	Silty Sand	0.0	0.25	0.1	FILL	1	1	X	X		
	QC106	03 Dec 2024	Silty Sand	0.0	0.25		FILL	1			X		
	TP29_0.25-0.5	03 Dec 2024	Silty Clay	0.25	0.4	0.0	Residual	1	1	X	X		
	QC107	03 Dec 2024	Silty Clay	0.25	0.4		Residual	1					X
TP30	TP30_0.0-0.3	03 Dec 2024	Silty Clay	0.0	0.3	0.1	FILL	1	1	X	X		
	TP30_0.4-0.7	03 Dec 2024	clayey silt	0.4	0.7	0.1	Colluvium	1	1		X		
S-01	S-01	05 Dec 2024							1	X			
S-02	S-02	05 Dec 2024							1	X			
S-03	S-03	05 Dec 2024							1	X			

Statistics

Number of Primary Samples	49	-	-	-	-	-	-	28	39	14	8
Number of Duplicate Samples	9	-	-	-	-	-	-	0	5	0	4
Number of Triplicate Samples	5	-	-	-	-	-	-	0	2	0	3
Number of Rinsate Samples	-			-	-	-	-	-	-	-	-
Number of TS Samples	-			-	-	-	-	-	-	-	-
Number of TB Samples	-			-	-	-	-	-	-	-	-
Minimum	n/a	0.0	0.1	0.0	n/a	0.0	n/a	n/a	n/a	n/a	n/a
Maximum	n/a	0.4	0.7	0.3	n/a	1	n/a	n/a	n/a	n/a	n/a

Table T2
Analytical Results - Soil Chemical

D&N Geotechnical

			Metals								BTEX								TRH								TPH					Phenols
			Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Naphthalene (VOC)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	C6- C10 Fraction (F1)	C6- C10 (F1 minus BTEX)	>C10-C16 Fraction (F2)	>C10-C16 Fraction (F2 minus Naphthalene)	>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	>C10-C40 Fraction (Sum)	C6- C9 Fraction	C10- C14 Fraction	C15- C28 Fraction	C29- C36 Fraction	C10- C36 Fraction (Sum)	4,6-Dinitro-2 -methylphenol
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			2	0.4	2	5	5	0.1	2	5	0.5	0.1	0.1	0.1	0.2	0.1	0.3	0.2	10	10	50	50	100	100	50	10	20	50	50	50	0.5
CRC Care HSL-A Residential (Low Density)											1,400	100	14,000	4,500			12,000	-	4,400		3,300		4,500	6,300								
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																			800[#3]		1,000[#3]		3,500	10,000								
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay											5 | NL | NL | NL[#2]	0.7 | 1 | 2 | 3	480 | NL | NL | NL[#2]	NL | NL | NL | NL[#2]			110 | 310 | NL | NL[#2]			50 | 90 | 150 | 290[#3]		280 | NL | NL | NL[#4#5]								
>=0m, <1m											5	0.7	480	NL[#2]			110			50[#3]		280[#4]										
>=1m, <2m											NL[#2]	1	NL[#2]	NL			310			90		NL[#2]										
>=2m, <4m											NL	2	NL	NL			NL[#2]			150		NL										
>=4m											NL	3	NL	NL			NL			290		NL										
NEPM 2013 Table 1B(5) Generic EIL - Commercial/Industrial			160[#5]		710	210	1800		90	450	370																					
NEPM 2013 Table 1B(6) ESLs for Commercial and Industrial, Fine Soil							-					95	135	185			95			170[#6]	170[#7]	170[#8]	2500	6600								
>=0m, <2m														185			95				170[#7]	170[#8]										
NEPM 2013 Table 1A(1) HILs Res A Soil			160[#9]	20		6,000	300[#10]	40[#11]	400	7,400																						
Field ID	**Location Code**	**Date**																														
TP01_0.0-0.3	**TP01**	**03 Dec 2024**	23	<0.4	40	30	29	<0.1	5.5	140	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	180	<100	180	<20	<20	140	75	215	-
QC100	**TP01**	**03 Dec 2024**	28	<0.4	29	30	37	<0.1	5.2	180	<0.5	1.2	0.2	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	160	<100	160	<20	<20	110	57	167	-
QC101	**TP01**	**03 Dec 2024**	8.1	<0.4	37	13	20	<0.1	6.8	22	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP01_0.3-0.6	**TP01**	**03 Dec 2024**	9.1	<0.4	32	13	15	<0.1	5.5	26	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
QC200	**TP01**	**03 Dec 2024**	33	<1	32	35	44	<0.1	11	192	<1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<10	<50	<50	310	<100	310	<10	<50	280	<100	280	-
QC201	**TP01**	**03 Dec 2024**	8	<1	27	12	14	<0.1	5	38	<1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<10	<50	<50	130	<100	130	<10	<50	<100	<100	<50	-
TP03_0.0-0.1	**TP03**	**03 Dec 2024**	5.9	<0.4	23	11	17	<0.1	<5	63	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP04_0.0-0.3	**TP04**	**03 Dec 2024**	4.8	<0.4	35	16	16	<0.1	6.5	25	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP04_0.3-0.5	**TP04**	**03 Dec 2024**	5.7	<0.4	33	14	18	<0.1	11	27	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	210	<100	210	<20	<20	150	96	246	-
QC102	**TP06**	**03 Dec 2024**	5.3	1.4	37	66	100	<0.1	14	390	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP07_0.0-0.3	**TP07**	**03 Dec 2024**	7.7	<0.4	36	23	180	0.3	8.6	220	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	100	<100	100	<20	<20	75	54	129	-
TP07_0.3-1.2	**TP07**	**03 Dec 2024**	6.3	<0.4	24	9.6	15	<0.1	<5	14	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP09_0.0-0.15	**TP09**	**03 Dec 2024**	6.5	<0.4	34	11	19	<0.1	8.3	42	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP09_0.15-0.45	**TP09**	**03 Dec 2024**	15	<0.4	61	23	22	<0.1	30	34	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP10_0.0-0.2	**TP10**	**03 Dec 2024**	2.7	<0.4	19	7.3	12	<0.1	<5	18	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP11_0.0-0.1	**TP11**	**05 Dec 2024**	3.0	<0.4	25	7.3	12	<0.1	5.3	20	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP12_0.0-0.1	**TP12**	**05 Dec 2024**	3.9	<0.4	22	9.1	18	<0.1	6.7	29	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	56	56	-
TP13_0.0-0.2	**TP13**	**03 Dec 2024**	4.6	<0.4	30	11	20	<0.1	7.5	36	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP14_0.0-0.1	**TP14**	**05 Dec 2024**	4.6	<0.4	19	13	13	<0.1	11	42	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
QC108	**TP14**	**05 Dec 2024**	4.8	<0.4	17	12	12	<0.1	10	36	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	57	69	126	-
TP15_0.15-0.3	**TP15**	**03 Dec 2024**	11	<0.4	37	18	19	<0.1	10	16	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP16_0.0-0.2	**TP16**	**03 Dec 2024**	5.3	<0.4	35	11	30	<0.1	6.0	64	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP17_0.0-0.1	**TP17**	**05 Dec 2024**	7.3	<0.4	37	14	92	<0.1	5.0	240	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	170	170	790	180	1,140	<20	96	610	340	1,046	-
TP18_0.0-0.2	**TP18**	**03 Dec 2024**	6.6	<0.4	27	17	16	<0.1	15	59	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP19_0.0-0.3	**TP19**	**03 Dec 2024**	8.5	<0.4	36	22	63	<0.1	11	100	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP20_0.0-0.2	**TP20**	**03 Dec 2024**	14	<0.4	45	15	39	<0.1	6.4	190	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP21_0.0-0.2	**TP21**	**03 Dec 2024**	7.9	<0.4	52	12	27	<0.1	6.7	45	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP22_0.0-0.1	**TP22**	**05 Dec 2024**	4.1	<0.4	27	9.2	19	<0.1	<5	73	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP23_0.0-0.2	**TP23**	**03 Dec 2024**	3.5	<0.4	28	7.4	17	<0.1	5.1	17	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP24_0.0-0.25	**TP24**	**03 Dec 2024**	3.7	<0.4	30	7.7	15	<0.1	5.4	22	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP24_0.25-0.5	**TP24**	**03 Dec 2024**	7.5	<0.4	39	15	18	<0.1	14	19	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP25_0.0-0.2	**TP25**	**03 Dec 2024**	3.6	<0.4	29	8.7	17	<0.1	6.0	25	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP25_0.2-0.4	**TP25**	**03 Dec 2024**	5.6	<0.4	32	13	14	<0.1	11	19	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP26_0.0-0.2	**TP26**	**03 Dec 2024**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
TP26_0.2-0.4	**TP26**	**03 Dec 2024**	8.2	<0.4	40	17	37	<0.1	11	17	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP27_0.0-0.2	**TP27**	**03 Dec 2024**	9.8	<0.4	23	22	82	0.1	8.0	210	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5
TP27_0.2-0.4	**TP27**	**03 Dec 2024**	7.4	<0.4	51	20	28	<0.1	27	50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP28_0.0-0.2	**TP28**	**03 Dec 2024**	6.6	0.4	36	12	49	<0.1	7.5	70	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP28_0.2-0.4	**TP28**	**03 Dec 2024**	8.4	<0.4	43	15	20	<0.1	15	26	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP29_0.0-0.25	**TP29**	**03 Dec 2024**	2.7	<0.4	15	5.6	190	<0.1	8.8	130	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
QC106	**TP29**	**03 Dec 2024**	2.9	<0.4	16	5.4	36	<0.1	11	85	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP30_0.0-0.3	**TP30**	**03 Dec 2024**	12	<0.4	42	19	28	<0.1	17	30	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
TP30_0.4-0.7	**TP30**	**03 Dec 2024**	5.1	<0.4	19	16	14	<0.1	7.7	25	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	-
Statistics																																
Number of Results			**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**2**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**14**
Minimum Concentration			**2.7**	**0.4**	**15**	**5.4**	**12**	**0.1**	**5**	**14**	**<0.5**	**<0.1**	**<0.1**	**<0.1**	**<0.2**	**<0.1**	**<0.3**	**<0.2**	**<10**	**<10**	**<50**	**<50**	**100**	**<100**	**100**	**<10**	**<20**	**<50**	**<50**	**<50**	**<0.5**
Maximum Concentration			**33**	**1.4**	**61**	**66**	**190**	**0.3**	**30**	**390**	**<1**	**1.2**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.2**	**<20**	**<20**	**170**	**170**	**790**	**180**	**1,140**	**<20**	**96**	**610**	**340**	**1,046**	**<0.5**
Average Concentration *			**8.1**	**0.25**	**32**	**16**	**36**	**0.057**	**9.1**	**74**	**0.26**	**0.08**	**0.063**	**0.06**	**0.11**	**0.06**	**0.15**	**0.1**	**9.8**	**9.8**	**28**	**28**	**86**	**53**	**95**	**9.8**	**13**	**55**	**40**	**74**	**0.25**
Median Concentration *			**6.55**	**0.2**	**32**	**13**	**19.5**	**0.05**	**7.6**	**37**	**0.25**	**0.05**	**0.05**	**0.05**	**0.1**	**0.05**	**0.15**	**0.1**	**10**	**10**	**25**	**25**	**50**	**50**	**50**	**10**	**10**	**25**	**25**	**25**	**0.25**
Standard Deviation *			**6.4**	**0.2**	**10**	**10**	**40**	**0.039**	**5.7**	**82**	**0.054**	**0.18**	**0.048**	**0.043**	**0.032**	**0.043**	**0.022**	**0**	**1.1**	**1.1**	**22**	**22**	**123**	**20**	**174**	**1.1**	**14**	**100**	**50**	**166**	**0**

* A Non Detect Multiplier of 0.5 has been applied.

Comments

#1 Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2

#2 Derived soil HSL exceeds soil saturation concentraiton

#3 To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#4 To obtain F2 subtract napthalene from the >C10 - C16 fraction.

#5 Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.

#6 Moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#7 ERRATA Updated 30 April 2014 . Naphthalene should not be subtracted.

#8 Errata 30 April 2014. Naphthalene should not be subtracted from >C

#9 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).

#10 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.

#11 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.

#12 Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing

#13 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)

#14 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken

#15 EIL calcualted for CrIII

#16 Per errata updated 30 April 2014

Environmental Standards

DoE, 2000, CRC Care HSL-A Residential (Low Density)

NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil

2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

Table T2
Analytical Results - Soil Chemical

D&N Geotechnical

	Organochlorine Pesticides																												
	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
CRC Care HSL-A Residential (Low Density)																												
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																												
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay																												
>=0m, <1m																												
>=1m, <2m																												
>=2m, <4m																												
>=4m																												
NEPM 2013 Table 1B(5) Generic EIL - Commercial/Industrial													640															
NEPM 2013 Table 1B(6) ESLs for Commercial and Industrial, Fine Soil																												
>=0m, <2m																												
NEPM 2013 Table 1A(1) HILs Res A Soil						6		50						240		270				10				6		300	20

Field ID	Location Code	Date																											
TP01_0.0-0.3	**TP01**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC100	**TP01**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC101	**TP01**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP01_0.3-0.6	**TP01**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC200	**TP01**	**03 Dec 2024**	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
QC201	**TP01**	**03 Dec 2024**	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
TP03_0.0-0.1	**TP03**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP04_0.0-0.3	**TP04**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP04_0.3-0.5	**TP04**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC102	**TP06**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP07_0.0-0.3	**TP07**	**03 Dec 2024**	**1.8**	<0.1	<0.05	<0.05	**1.8**	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	**1.8**	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP07_0.3-1.2	**TP07**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP09_0.0-0.15	**TP09**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP09_0.15-0.45	**TP09**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP10_0.0-0.2	**TP10**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP11_0.0-0.1	**TP11**	**05 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP12_0.0-0.1	**TP12**	**05 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP13_0.0-0.2	**TP13**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP14_0.0-0.1	**TP14**	**05 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC108	**TP14**	**05 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP15_0.15-0.3	**TP15**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP16_0.0-0.2	**TP16**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP17_0.0-0.1	**TP17**	**05 Dec 2024**	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
TP18_0.0-0.2	**TP18**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP19_0.0-0.3	**TP19**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP20_0.0-0.2	**TP20**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP21_0.0-0.2	**TP21**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP22_0.0-0.1	**TP22**	**05 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP23_0.0-0.2	**TP23**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP24_0.0-0.25	**TP24**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP24_0.25-0.5	**TP24**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP25_0.0-0.2	**TP25**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP25_0.2-0.4	**TP25**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP26_0.0-0.2	**TP26**	**03 Dec 2024**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26_0.2-0.4	**TP26**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP27_0.0-0.2	**TP27**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP27_0.2-0.4	**TP27**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP28_0.0-0.2	**TP28**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP28_0.2-0.4	**TP28**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP29_0.0-0.25	**TP29**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QC106	**TP29**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP30_0.0-0.3	**TP30**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP30_0.4-0.7	**TP30**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5

Statistics

Number of Results	40	40	42	42	42	42	42	42	2	2	42	42	42	42	42	2	42	42	42	42	42	42	42	42	42	42	42	40
Minimum Concentration	**<0.1**	**<0.1**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.05**	**<0.5**
Maximum Concentration	**1.8**	**<1**	**<0.5**	**<0.5**	**<0.5**	**1.8**	**<0.5**	**<1**	**<0.05**	**<0.05**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**1.8**	**<0.05**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<10**
Average Concentration *	**0.1**	**0.061**	**0.03**	**0.03**	**0.03**	**0.073**	**0.03**	**0.06**	**0.025**	**0.025**	**0.03**	**0.03**	**0.034**	**0.03**	**0.073**	**0.025**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.034**	**0.37**	
Median Concentration *	**0.05**	**0.05**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.05**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.025**	**0.25**	
Standard Deviation *	**0.28**	**0.071**	**0.035**	**0.035**	**0.035**	**0.28**	**0.035**	**0.07**	**0**	**0**	**0.035**	**0.035**	**0.038**	**0.035**	**0.28**	**0**	**0.035**	**0.035**	**0.035**	**0.035**	**0.035**	**0.035**	**0.035**	**0.035**	**0.035**	**0.038**	**0.75**	

* A Non Detect Multiplier of 0.5 has been applied.

Comments

#1 Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2

#2 Derived soil HSL exceeds soil saturation concentraiton

#3 To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#4 To obtain F2 subtract napthalene from the >C10 - C16 fraction.

#5 Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.
#6 Moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#7 ERRATA Updated 30 April 2014 . Naphthalene should not be subtracted.

#8 Errata 30 April 2014. Naphthalene should not be subtracted from >C

#9 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).

#10 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.
#11 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.
#12 Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing
#13 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)
#14 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken
#15 EIL calcualted for CrIII
#16 Per errata updated 30 April 2014

Environmental Standards

DoE, 2000, CRC Care HSL-A Residential (Low Density)

NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil

2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

Table T2
Analytical Results - Soil Chemical

D&N Geotechnical

	PAH																					Halogenated Benzenes	Herbicides											Other	PCBs								Inorganics	
	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(b+j)perylene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	Hexachlorobenzene	2,4,5-Trichlorophenoxy Acetic Acid	2,4,5-TP (Silvex)	2,4-Dichlorophenoxyacetic acid (2,4-D)	2,4-Dichloropropp	4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB)	Dicamba	Dinoseb	2-Methyl-4-chlorophenoxyacetic acid	2-Methyl-4-Chlorophenoxy Butanoic Acid	Mecoprop	Actril (Ioxynil)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Sum of total)	% Moisture Content	% Moisture Content (dried @ 103°C)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	1
CRC Care HSL-A Residential (Low Density)															1,400																													
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																																											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay															5 | NL | NL | NL [#7]																													
>=0m, <1m															5																													
>=1m, <2m															NL [#2]																													
>=2m, <4m															NL																													
>=4m															NL																													
NEPM 2013 Table 1B(5) Generic EIL - Commercial/Industrial															370																													
NEPM 2013 Table 1B(6) ESLs for Commercial and Industrial, Fine Soil					1.4 [#16]																																						
>=0m, <2m					1.4 [#16]																																								
NEPM 2013 Table 1A(1) HILs Res A Soil																		3 [#12]	3 [#12]	3 [#12]	300 [#13]	10	600		900					600	600	600										1 [#14]		
Field ID	**Location Code**	**Date**																																										
TP01_0.0-0.3	**TP01**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	19
QC100	**TP01**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	0.5	0.6	1.2	<0.5	2.0	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	21
QC101	**TP01**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	13
TP01_0.3-0.6	**TP01**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	0.7	0.7	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	1.5	0.8	2.1	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	13
QC200	**TP01**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.1	-
QC201	**TP01**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.8	-
TP03_0.0-0.1	**TP03**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	17
TP04_0.0-0.3	**TP04**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	14
TP04_0.3-0.5	**TP04**	**03 Dec 2024**	<0.5	<0.5	0.9	4.8	5.3	4.2	<0.5	3.8	4.2	0.9	9.2	<0.5	<0.5	<0.5	2.0	10.0	7.5	7.6	7.5	45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	17
QC102	**TP06**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	27
TP07_0.0-0.3	**TP07**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	12
TP07_0.3-1.2	**TP07**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	6.5
TP09_0.0-0.15	**TP09**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	13
TP09_0.15-0.45	**TP09**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	19
TP10_0.0-0.2	**TP10**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	14
TP11_0.0-0.1	**TP11**	**05 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	15
TP12_0.0-0.1	**TP12**	**05 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	12
TP13_0.0-0.2	**TP13**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	14
TP14_0.0-0.1	**TP14**	**05 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	17
QC108	**TP14**	**05 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	16
TP15_0.15-0.3	**TP15**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	17
TP16_0.0-0.2	**TP16**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	16
TP17_0.0-0.1	**TP17**	**05 Dec 2024**	<0.5	<0.5	0.7	2.0	3.5	4.0	1.8	4.9	3.2	1.2	1.0	<0.5	2.1	<0.5	<0.5	1.2	6.1	6.1	6.1	26	<0.5	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-	16
TP18_0.0-0.2	**TP18**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	19
TP19_0.0-0.3	**TP19**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	12
TP20_0.0-0.2	**TP20**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	16
TP21_0.0-0.2	**TP21**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	13
TP22_0.0-0.1	**TP22**	**05 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	16
TP23_0.0-0.2	**TP23**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	9.9
TP24_0.0-0.25	**TP24**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	17
TP24_0.25-0.5	**TP24**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	16
TP25_0.0-0.2	**TP25**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	14
TP25_0.2-0.4	**TP25**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	13
TP26_0.0-0.2	**TP26**	**03 Dec 2024**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	16
TP26_0.2-0.4	**TP26**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	11
TP27_0.0-0.2	**TP27**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	24
TP27_0.2-0.4	**TP27**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	22
TP28_0.0-0.2	**TP28**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	13
TP28_0.2-0.4	**TP28**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	19
TP29_0.0-0.25	**TP29**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	8.3
QC106	**TP29**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	7.6
TP30_0.0-0.3	**TP30**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	14
TP30_0.4-0.7	**TP30**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	7.4
Statistics																																											
Number of Results			**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**42**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**42**	**2**	**41**
Minimum Concentration			**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**0.5**	**<0.5**	**<0.5**	**0.5**	**<0.5**	**0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**0.5**	**0.6**	**1.2**	**<0.5**	**<0.5**	**<0.05**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**10.8**	**6.5**
Maximum Concentration			**<0.5**	**<0.5**	**0.9**	**4.8**	**5.3**	**4.2**	**1.8**	**4.9**	**4.2**	**1.2**	**9.2**	**<0.5**	**2.1**	**<0.5**	**2**	**10**	**7.5**	**7.6**	**7.5**	**45**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**19.1**	**27**
Average Concentration *			**0.25**	**0.25**	**0.28**	**0.4**	**0.46**	**0.45**	**0.29**	**0.46**	**0.42**	**0.29**	**0.49**	**0.25**	**0.29**	**0.25**	**0.29**	**0.51**	**0.91**	**1.5**	**0.57**	**2**	**0.03**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.061**	**0.061**	**0.061**	**0.061**	**0.061**	**0.061**	**0.061**	**0.061**	**15**	**15**
Median Concentration *			**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.6**	**1.2**	**0.25**	**0.25**	**0.025**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**14.95**	**15**
Standard Deviation *			**0**	**0**	**0.12**	**0.75**	**0.92**	**0.83**	**0.24**	**0.89**	**0.75**	**0.18**	**1.4**	**0**	**0.29**	**0**	**0.27**	**1.5**	**1.3**	**1.2**	**1.4**	**7.9**	**0.035**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.071**	**0.071**	**0.071**	**0.071**	**0.071**	**0.071**	**0.071**	**0.069**	**5.9**	**4.3**

* A Non Detect Multiplier of 0.5 has been applied.

Comments

#1 Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2

#2 Derived soil HSL exceeds soil saturation concentraiton

#3 To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#4 To obtain F2 subtract napthalene from the >C10 - C16 fraction.

#5 Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.

#6 Moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#7 ERRATA Updated 30 April 2014 . Naphthalene should not be subtracted.

#8 Errata 30 April 2014. Naphthalene should not be subtracted from >C

#9 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).

#10 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.

#11 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.

#12 Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing

#13 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)

#14 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken

#15 EIL calcualted for CrIII

#16 Per errata updated 30 April 2014

Environmental Standards

DoE, 2000, CRC Care HSL-A Residential (Low Density)

NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil

2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

Table T3
Analytical Results - Asbestos

		Asbestos						Mass			
		ACM - Comment	AF - Comment	Bonded Asbestos	FA- Comment	Friable Asbestos (FA & AF)	Organic Fibres - Comment	Approximate Sample Mass	Mass ACM	Mass AF	Mass FA
		Comment	Comment	%w/w	Comment	%w/w	Comment	g	g	g	g
EQL											
NEPM 2013 Table 7 Res A HSL for Asbestos in Soil				0.01		0.001					
Field ID	**Date**										
S-01	**05 Dec 2024**	No asbestos detected	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	n/a	54	0.0000	0.0000	0.0000
S-02	**05 Dec 2024**	No asbestos detected	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	n/a	212	0.0000	0.0000	0.0000
S-03	**05 Dec 2024**	No asbestos detected	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	n/a	152	0.0000	0.0000	0.0000
TP01_0.0-0.3	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	286	0.0000	0.0000	0.0000
TP01_0.3-0.6	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	521	0.0000	0.0000	0.0000
TP03_0.0-0.1	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	279	0.0000	0.0000	0.0000
TP04_0.0-0.3	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	336	0.0000	0.0000	0.0000
TP04_0.3-0.5	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	303	0.0000	0.0000	0.0000
TP07_0.0-0.3	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	305	0.0000	0.0000	0.0000
TP07_0.3-1.2	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	370	0.0000	0.0000	0.0000
TP11_0.0-0.1	**05 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	322	0.0000	0.0000	0.0000
TP12_0.0-0.1	**05 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	314	0.0000	0.0000	0.0000
TP14_0.0-0.1	**05 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	386	0.0000	0.0000	0.0000
TP15_0.0-0.15	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	246	0.0000	0.0000	0.0000
TP15_0.15-0.3	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	247	0.0000	0.0000	0.0000
TP17_0.0-0.1	**05 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	305	0.0000	0.0000	0.0000
TP19_0.0-0.3	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	203	0.0000	0.0000	0.0000
TP20_0.0-0.2	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	267	0.0000	0.0000	0.0000
TP22_0.0-0.1	**05 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	257	0.0000	0.0000	0.0000
TP23_0.0-0.2	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	324	0.0000	0.0000	0.0000
TP27_0.0-0.2	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	269	0.0000	0.0000	0.0000
TP28_0.0-0.2	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	198	0.0000	0.0000	0.0000
TP29_0.0-0.25	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	310	0.0000	0.0000	0.0000
TP30_0.0-0.3	**03 Dec 2024**	No asbestos detected at the reporting limit of 0.01% w/w	No trace asbestos detected	0.0000	No trace asbestos detected	0.0000	Organic fibre detected	267	0.0000	0.0000	0.0000

Statistics

Number of Results	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**

Environmental Standards
NEPM, 2013, NEPM 2013 Table 7 Res A HSL for Asbestos in Soil

Appendix A Proposed Subdivision Layout

PLAN OF LOT 4 DP 255064
10 REDDALL STREET
YASS, N.S.W.
SHOWING PROPOSED LAYOUT

CLIENT: ANDREW TURNBULL

A3 SHEET	1 OF 1
DATE OF SURVEY	FEB 2025
JOB REFERENCE	4900
COMPUTER REFERENCE	4900_PPS4.dwg
LEVEL DATUM	
ORIGIN OF LEVELS	
CONTOUR INTERVAL	

REDUCTION RATIO:
1:2000 @ A3

0 50 100 150

ALL DISTANCES IN METRES

NOTE:

THIS LAYOUT PLAN ONLY AND AS SUCH IS NOT REGISTERED BY THE TITLES OFFICE OF NSW LAND REGISTRY SERVICES. SUBSEQUENT REGISTERED OR OTHER SURVEYS IN THIS AREA MAY AFFECT THE BOUNDARY DEFINITION AS SHOWN ON THE PLAN. ANY DIFFERENCES SO CAUSED TO THE BOUNDARY DEFINITION SHOWN ON THIS PLAN ARE BEYOND THE CONTROL OF DIVERSE PROJECT SOLUTIONS WHO CAN ACCEPT NO RESPONSIBILITY FOR SUCH DIFFERENCES. UNDERGROUND SERVICES ARE NOT SHOWN ON THIS PLAN. AS UNDERGROUND STRUCTURES AND CABLES MAY EXIST THEY MUST BE LOCATED BEFORE CONSTRUCTION – PLEASE DIAL 1100 BEFORE YOU DIG. THIS NOTE IS AN INTEGRAL PART OF THIS PLAN.

LEGEND:

SEWER MANHOLE — SEWER MAIN

BEFORE YOU DIG www.byda.com.au

DPS DIVERSE PROJECT SOLUTIONS
7 ADELE STREET, YASS NSW 2582
P.O. BOX 5, YASS NSW 2582
(PH) 02 6226 3322
info@dpsyass.com.au

ABN: 31 602 010 006

Appendix B Preliminary Conceptual Site Model (D&N 2024)

Table B1 – Preliminary CSM: Potential Human Receptors and Exposure Pathways (D&N 2024)

AEC	COPC	Secondary Source/s	Exposure Route	Receptors							
				On-site					Off-site		
				Intrusive Construction & Maintenance Workers	Current and Future commercial/industrial workers & visitors	Home- and centre-based childcare users'	Future Groundwater Users	Terrestrial Biota	Current & Future Groundwater Users	Aquatic ecosystems (Yass River)	Local GDE
1 – Agriculture	Metals, OCP, OPP, Herbicides	Soils Groundwater	Dermal contact and Ingestion	Incomplete (A, PPE)	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
2 - Legacy Building(s)	ACM/AF/FA	Soils	Inhalation	Incomplete (A, E, PPE)	Incomplete (A, E)	Incomplete (A, E)	n/a	n/a	n/a	n/a	n/a
	Lead, Zinc		Dermal contact, ingestion	Incomplete (A, E, PPE)	Incomplete (A, E)	Plausible	Incomplete (A)	Plausible	Incomplete (A)	Incomplete (A)	Incomplete (A)
3 - Waste Dumping	ACM/AF/FA	C&D wastes Fill Soils	Inhalation	Plausible	Plausible	Plausible	n/a	n/a	n/a	n/a	n/a
	TRH, BTEXN, PAH	Fill Soils Groundwater	Dermal contact, Ingestion, Inhalation	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
	Metals		Dermal contact, Ingestion	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
4 – Historical Set Down and Storage Areas	ACM/AF/FA	Soils Groundwater	Inhalation	Incomplete (A, E, PPE)	Incomplete (E)	Plausible	n/a	n/a	n/a	n/a	n/a
	Metals, OCP, OPP		Dermal contact, Ingestion,	Incomplete (A, PPE)	Incomplete (A, E)	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
	TRH, BTEXN, PAH		Dermal contact, Ingestion, Inhalation	Incomplete (A, PPE	Incomplete (A, E)	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible

Appendix C EIL Calculation Outputs

Inputs
Select contaminant from list below
Cu
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
7.5
Enter soil pH (calcium chloride method) (values from 1 to 14)
5.5
Enter organic carbon content (%OC) (values from 0 to 50%)
2
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
0.1
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Cu soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	35	60
Urban residential and open public spaces	70	150
Commercial and industrial	100	210

Inputs
Select contaminant from list below
Ni
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
7.5
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
0.1
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Ni soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	5	20
Urban residential and open public spaces	30	90
Commercial and industrial	55	150

Inputs
Select contaminant from list below
Zn
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
7.5
Enter soil pH (calcium chloride method) (values from 1 to 14)
5.5
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
0.1
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Zn soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	25	130
Urban residential and open public spaces	95	320
Commercial and industrial	150	450

Inputs
Select contaminant from list below
Cr_III
Below needed to calculate fresh and aged ACLs
Enter % clay (values from 0 to 100%)
12
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
0.1
or for aged ABCs only
Enter State (or closest State)
NSW
Enter traffic volume (high or low)
low

Outputs		
Land use	Cr III soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	60	140
Urban residential and open public spaces	170	430
Commercial and industrial	280	710

Appendix D Test Pit Logs

D&N Geotechnical

Trial/Test pit No.

PIS_TP01

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674657.0 m E 6145055.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.30 m PID 0.00 m 0.0 ppm		ML	FILL Clayey SILT: low plasticity, brown, black, with charcoal, iron, rubber, wood and brick fragments. Moist, dry of plastic limit.	0.00-0.20: Fill
	0.4		0.0	ES 0.30-0.60 m PID 0.30 m 0.0 ppm		CI-CH	Sandy CLAY: medium to high plasticity, brown, with fine to coarse, rounded to sub-angular gravel gravel. Moist, dry of plastic limit - moist.	0.20-0.60: Colluvial Soil
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP02

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674665.0 m E 6145053.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered				ML	TOPSOIL Clayey SILT: low plasticity, dark brown, trace fine grained sand; trace root fibres. Moist, dry of plastic limit.	0.00-0.15: Topsoil
						CI	Silty CLAY: medium plasticity, brown, with fine to medium, sub-rounded to sub-angular gravel. moist.	0.15-0.35: Colluvial Soil
	0.4					CL	Silty CLAY: low plasticity, orange brown, mottled dark orange. Moist, dry of plastic limit.	0.35-0.60: Colluvial Soil
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Support

T - Timbering

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP03

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674653.0 m E 6145039.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered		ES 0.00-0.10 m ES 0.10-0.30 m		ML CI	TOPSOIL Clayey SILT: low plasticity, dark brown, trace root fibres. Moist, dry of plastic limit. Silty CLAY: medium plasticity, dark brown, with fine to medium, sub-rounded to sub-angular gravel. moist.	0.00-0.10: Fill 0.10-0.40: Colluvial Soil
	0.4						Hole Terminated at 0.40 m Target depth	
	0.6							
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP04

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674659.0 m E 6145064.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered		ES 0.00-0.30 m		ML	FILL Clayey SILT: low plasticity, brown, orange brown, trace boulders, glass, coal and fibrous sheet fragments. Moist, dry of plastic limit.	0.00-0.30: Fill
	0.4			ES 0.30-0.50 m		CH	@0.3m found clothing fibres Silty CLAY: high plasticity, orange yellow, trace fine, sub-rounded to sub-angular gravel; trace fine grained sand. moist.	0.30-1.00: Colluvial Soil
	0.6							
	0.8							
	1.0					CH	Silty CLAY: high plasticity, orange brown, pale brown, trace fine, sub-rounded to sub angular, mottled black gravel. moist.	1.00-1.20: Extremely Weathered
	1.2						Hole Terminated at 1.20 m Target depth	
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP05

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674646.0 m E 6145064.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered				ML	TOPSOIL Clayey SILT: low plasticity, orange brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.10: Topsoil
						CI-CH	Silty CLAY: medium to high plasticity, orange brown, trace fine to medium, sub-rounded to sub-angular gravel. Moist, dry of plastic limit - moist.	0.10-0.40: Colluvial Soil
	0.4						Hole Terminated at 0.40 m Target depth	
	0.6							
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP06

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674644.0 m E 6145058.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.20 m PID 0.00 m 0.0 ppm		ML	FILL Clayey SILT: low plasticity, dark brown, with charcoal, glass, carpet, plastic fragments. Moist, dry of plastic limit.	0.00-0.30: Fill
			0.0	PID 0.20 m 0.0 ppm				
	0.4			ES 0.30-0.60 m		CI-CH	Silty CLAY: medium to high plasticity, orange, trace fine to coarse grained sand; with sub-rounded to sub-angular gravel. moist.	0.30-0.60: Colluvial Soil
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP07

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674647.0 m E 6145046.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.30 m PID 0.00 m 0.1 ppm		ML	FILL Clayey SILT: low plasticity, brown, trace fine to coarse, sub-rounded to sub angular gravel; with bricks, concrete, rubber and tile fragments. Moist, dry of plastic limit.	0.00-0.90: Fill
	0.4		0.0	ES 0.30-1.20 m PID 0.30 m 0.0 ppm			@0.2 found small piece of redundant electric wire;	
	0.6							
	0.8							
	1.0					ML	Sandy SILT: low plasticity, orange, sand is fine to coarse grained; trace fine to coarse, sub-rounded to sub angular gravel. Moist, dry of plastic limit.	0.90-1.20: Colluvial Soil
	1.2						Hole Terminated at 1.20 m Target depth	
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP08

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674635.0 m E 6145054.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered				ML	TOPSOIL Clayey SILT: low plasticity, dark brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.25: Fill
	0.4					CH	Silty CLAY: high plasticity, dark brown, trace fine to medium, sub-rounded to sub angular gravel. moist.	0.25-0.40: Colluvial Soil
	0.6						Hole Terminated at 0.40 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP09

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674677.0 m E 6145163.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.15 m PID 0.00 m 0.0 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.15: Topsoil
	0.4		0.0	ES 0.15-0.45 m PID 0.15 m 0.0 ppm		CH	Silty CLAY: high plasticity, orange, trace fine, sub-rounded to sub-angular gravel. moist.	0.15-0.45: Residual Soil
						CL	Silty CLAY: low plasticity, pale orange, trace fine to medium, sub-rounded to sub-angular gravel. Moist, dry of plastic limit.	0.45-0.55: Residual Soil
	0.6						Hole Terminated at 0.55 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP10

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674767.0 m E 6145103.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.20 m PID 0.00 m 0.0 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.50 m PID 0.20 m 0.0 ppm		ML	SILT: low plasticity, orange, pale brown, trace fine, sub-rounded gravel. Moist, dry of plastic limit.	0.20-0.50: Residual Soil
	0.6						Hole Terminated at 0.50 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP11

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674763.0 m E 6145045.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.2	ES 0.00-0.10 m PID 0.00 m 0.2 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.30: Topsoil
	0.4					CL-CI	Silty CLAY: low to medium plasticity, orange brown, trace fine grained sand; trace fine to medium, sub-rounded to angular gravel. Moist, dry of plastic limit.	0.30-0.80: Colluvial Soil
	0.6							
	0.8						Hole Terminated at 0.80 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP12

Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674734.0 m E 6145037.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.0	Not Encountered	0.1	ES 0.00-0.10 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.15: Topsoil
	0.2					CL-CI	Silty CLAY: low to medium plasticity, orange brown, mottled orange, trace fine to coarse, sub-rounded to sub-angular gravel. Moist, dry of plastic limit - moist.	0.15-0.60: Residual Soil
	0.4							
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP13

Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674709.0 m E 6145026.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.20 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.50 m PID 0.20 m 0.0 ppm		CL-CI	Silty CLAY: low to medium plasticity, dark orange, mottled red, trace fine to coarse, sub-rounded to sub-angular gravel. Moist, dry of plastic limit - moist.	0.20-0.70: Residual Soil
	0.6							
	0.8						Hole Terminated at 0.70 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Support

T - Timbering

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP14

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674721.0 m E 6145011.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.10 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres, plastic sheets. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4					CL-CI	Silty CLAY: low to medium plasticity, orange brown, trace fine, sub-angular gravel. Moist, dry of plastic limit - moist.	0.20-0.60: Residual Soil
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP15

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674753.0 m E 6145021.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.15 m . PID 0.00 m 0.0 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres, tiles, glass; trace fine to coarse, sub-rounded to sub-angular gravel. Moist, dry of plastic limit.	0.00-0.15: Topsoil
	0.4		0.0	ES 0.15-0.30 m PID 0.15 m 0.0 ppm		CL	Silty CLAY: low plasticity, dark brown, mottled red, trace fine to coarse, sub-rounded to sub-angular gravel. Moist, dry of plastic limit.	0.15-0.60: Residual Soil
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP16

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674787.0 m E 6145026.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.20 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.40 m PID 0.20 m 0.0 ppm		CI-CH	Silty CLAY: medium to high plasticity, orange brown, trace fine to medium, sub-rounded to sub-angular gravel; trace fine grained sand. moist.	0.20-0.80: Colluvial Soil
	0.6							
	0.8						Hole Terminated at 0.80 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP17

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674732.0 m E 6144993.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.3	ES 0.00-0.10 m PID 0.00 m 0.3 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, pale brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.25: Topsoil
	0.4					CL	Silty CLAY: low plasticity, orange, orange brown, trace fine to medium, sub-rounded to sub-angular gravel; trace fine grained sand. Moist, dry of plastic limit.	0.25-0.70: Colluvial Soil
	0.6							
	0.8						Hole Terminated at 0.70 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP18

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674759.0 m E 6145000.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.20 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.15: Topsoil
	0.4		0.1	ES 0.20-0.50 m PID 0.20 m 0.1 ppm		CH	Silty CLAY: high plasticity, orange, mottled orange brown, trace fine to medium, sub-rounded to sub-angular gravel. moist.	0.15-0.50: Colluvial Soil
	0.6						Hole Terminated at 0.50 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP19

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674729.0 m E 6144964.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.2	ES 0.00-0.30 m PID 0.00 m 0.2 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres; trace fine to medium, sub-rounded to sub-angular gravel. Moist, dry of plastic limit.	0.00-0.30: Topsoil
	0.4		0.1	ES 0.30-0.60 m PID 0.30 m 0.1 ppm		CI-CH	Silty CLAY: medium to high plasticity, orange, trace fine to medium, sub-rounded to sub-angular gravel; trace fine grained sand. Moist, dry of plastic limit - moist.	0.30-0.90: Residual Soil
	0.6							
	0.8							
	1.0						Hole Terminated at 0.90 m Target depth	
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP20

Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674765.0 m E 6144976.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.20 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.1	ES 0.20-0.40 m PID 0.20 m 0.1 ppm		CI	Silty CLAY: medium plasticity, orange, trace fine to medium, sub-rounded to sub-angular gravel; trace fine grained sand. moist.	0.20-0.70: Residual Soil
	0.6							
	0.8						Hole Terminated at 0.70 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP21

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674786.0 m E 6144984.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.20 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.30: Topsoil
	0.4		0.0	ES 0.20-0.40 m PID 0.20 m 0.0 ppm		CL	Silty CLAY: low plasticity, orange, trace fine to medium, sub-rounded to sub-angular gravel; trace fine sand. Moist, dry of plastic limit.	0.30-0.60: Residual Soil
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP22

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674783.0 m E 6144960.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.10 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.25: Topsoil
	0.4					CL	Silty CLAY: low plasticity, pale orange, pale brown, trace fine to medium, sub-rounded to sub-angular gravel. Moist, dry of plastic limit.	0.25-0.80: Colluvial Soil
	0.6							
	0.8						Hole Terminated at 0.80 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Support

T - Timbering

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP23

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674784.0 m E 6144957.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.20 m PID 0.00 m 0.0 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres; with fine to coarse, sub-rounded to sub-angular gravel. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.40 m PID 0.20 m 0.0 ppm		CL-CI	Silty CLAY: low to medium plasticity, orange, mottled orange brown, trace fine to medium, sub-rounded to sub-angular gravel; trace fine grained sand. Moist, dry of plastic limit - moist.	0.20-0.80: Residual Soil
	0.6							
	0.8						Hole Terminated at 0.80 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP24

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674813.0 m E 6144967.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.25 m PID 0.00 m 0.0 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres and hay/lucerne. Moist, dry of plastic limit.	0.00-0.25: Topsoil
	0.4		0.0	ES 0.25-0.50 m PID 0.25 m 0.0 ppm		CL-CI	Silty CLAY: low to medium plasticity, orange, trace fine to medium, sub-rounded to sub-angular gravel; trace fine grained sand. Moist, dry of plastic limit - moist.	0.25-0.50: Residual Soil
	0.6						Hole Terminated at 0.50 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP25

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674789.0 m E 6144941.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.20 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres; with wood. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.40 m PID 0.20 m 0.0 ppm		Cl	Silty CLAY: medium plasticity, orange, mottled orange brown, trace fine to medium, sub-rounded to sub-angular gravel. moist.	0.20-0.80: Residual Soil
	0.6							
	0.8						Hole Terminated at 0.80 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP26

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674814.0 m E 6144949.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.20 m PID 0.00 m 0.0 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace root fibres. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.40 m PID 0.20 m 0.0 ppm		CL	Silty CLAY: low plasticity, orange, mottled orange brown, trace fine to medium, sub-rounded to sub-angular gravel; trace fine grained sand. Moist, dry of plastic limit.	0.20-0.50: Residual Soil
	0.6						Hole Terminated at 0.50 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP27

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674722.0 m E 6144956.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					***Soil Description***			***Observations***
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.0	ES 0.00-0.20 m PID 0.00 m 0.0 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, black, trace root fibres. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.40 m PID 0.20 m 0.0 ppm		CI-CH	Silty CLAY: medium to high plasticity, orange, pale orange, trace fine to medium, sub-angular gravel; with cobbles. Moist, dry of plastic limit - moist.	0.20-0.80: Residual Soil
	0.6							
	0.8						Hole Terminated at 0.80 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method
N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water
Level (Date)
Inflow

Samples and Tests
U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support
T - Timbering

Classification Symbols and Soil Descriptions
Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP28

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674720.0 m E 6144918.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.20 m PID 0.00 m 0.1 ppm		ML	TOPSOIL Clayey SILT: low plasticity, brown, trace cobbles and root fibres. Moist, dry of plastic limit.	0.00-0.20: Topsoil
	0.4		0.0	ES 0.20-0.40 m PID 0.20 m 0.0 ppm		CL-CI	Silty CLAY: low to medium plasticity, orange, red, trace fine to coarse, sub-rounded to sub-angular gravel. Moist, dry of plastic limit.	0.20-0.60: Residual Soil
	0.6						Hole Terminated at 0.60 m Target depth	
	0.8							
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP29

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Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674739.0 m E 6144935.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.25 m PID 0.00 m 0.1 ppm			FILL Silty SAND: fine to coarse grained, pale brown, silt is low plasticity. moist.	
	0.4		0.0	ES 0.25-0.50 m PID 0.25 m 0.0 ppm		CI-CH	Silty CLAY: medium to high plasticity, yellow, yellow brown, trace fine to medium, sub-angular gravel. moist.	
	0.6							
	0.8						Hole Terminated at 0.70 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Support

T - Timbering

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

D&N Geotechnical

Trial/Test pit No.

PIS_TP30

Page 1 of 1

Log - Borehole

Project No.: C-2435.01

Client:	Diverse Project Solutions	Commenced:	3/12/2024
Project Name:	Proposed Industrial Subdivision	Completed:	
Hole Location:	2 Reddall Street, Yass, NSW	Logged By:	MB
Hole Position:	674621.0 m E 6145059.0 m N MGA2020-55	Checked By:	ND
		RL Surface:	No survey
		Datum:	AHD Operator:

Drilling Information					Soil Description			Observations
Method	Depth (m)	Water Level	PID (ppm)	Samples Tests Remarks	Graphic Log	Group Symbol	Material Description	Structure and Additional Observations
E	0.2	Not Encountered	0.1	ES 0.00-0.30 m PID 0.00 m 0.1 ppm		CH	FILL Silty CLAY: high plasticity, orange brown, trace fine to medium, sub-rounded to sub-angular gravel; with root fibres. Moist, dry of plastic limit.	
	0.4		0.1	ES 0.40-0.70 m PID 0.40 m 0.1 ppm		ML	Clayey SILT: low plasticity, orange brown, trace fine to medium, sub-rounded to sub-angular gravel; with fine to coarse grained sand. Moist, dry of plastic limit.	
	0.6							
	0.8						Hole Terminated at 0.70 m Target depth	
	1.0							
	1.2							
	1.4							
	1.6							
	1.8							

Method

N - Natural Exposure
X - Existing Excavation
BH - Backhoe Bucket
R - Ripper
E - Excavator

Water

Level (Date)
Inflow

Samples and Tests

U - Undisturbed Sample
D - Disturbed Sample
SPT - Standard Penetration Test
CBR - CBR Mould Sample

Support

T - Timbering

Classification Symbols and Soil Descriptions

Based on Unified Soil Classification System

Appendix E Laboratory Certificates

D & N Geotechnical Pty Ltd
Unit 11/22-38 Thynne St
Bruce
ACT 2617

Attention: **Nick Davison**

Report **1167410-S**
Project name Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID C-2435.01
Received Date Dec 04, 2024

Client Sample ID			**TP01_0.0-0.3**	**TP01_0.3-0.6**	**TP03_0.0-0.1**	**TP04_0.0-0.3**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**R24-De0008358**	**R24-De0008359**	**R24-De0008360**	**R24-De0008362**
Date Sampled			**Dec 03, 2024**	**Dec 03, 2024**	**Dec 03, 2024**	**Dec 03, 2024**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	140	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	75	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	215	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	91	102	84	73
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	0.8	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.1	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.5	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP01_0.0-0.3	TP01_0.3-0.6	TP03_0.0-0.1	TP04_0.0-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008358	R24-De0008359	R24-De0008360	R24-De0008362
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	2.1	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	126	115	118	100
p-Terphenyl-d14 (surr.)	1	%	146	143	135	121
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	95	100	81	97
Tetrachloro-m-xylene (surr.)	1	%	146	138	133	118
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	95	100	81	97
Tetrachloro-m-xylene (surr.)	1	%	146	138	133	118
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	180	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	180	< 100	< 100	< 100

Client Sample ID			TP01_0.0-0.3	TP01_0.3-0.6	TP03_0.0-0.1	TP04_0.0-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008358	R24-De0008359	R24-De0008360	R24-De0008362
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Metals M8						
Arsenic	2	mg/kg	23	9.1	5.9	4.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	40	32	23	35
Copper	5	mg/kg	30	13	11	16
Lead	5	mg/kg	29	15	17	16
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	5.5	5.5	< 5	6.5
Zinc	5	mg/kg	140	26	63	25
Sample Properties						
% Moisture	1	%	19	13	17	14

Client Sample ID			TP04_0.3-0.5	TP07_0.0-0.3	TP07_0.3-1.2	TP09_0.0-0.15
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008363	R24-De0008366	R24-De0008367	R24-De0008368
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	150	75	< 50	< 50
TRH C29-C36	50	mg/kg	96	54	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	246	129	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	96	81	92	98
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	7.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	7.5	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	7.6	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	0.9	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	4.8	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	5.3	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	4.2	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	3.8	< 0.5	< 0.5	< 0.5

Client Sample ID			TP04_0.3-0.5	TP07_0.0-0.3	TP07_0.3-1.2	TP09_0.0-0.15
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008363	R24-De0008366	R24-De0008367	R24-De0008368
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Chrysene	0.5	mg/kg	4.2	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	0.9	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	9.2	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	2.0	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	10.0	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	45	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	106	107	93	71
p-Terphenyl-d14 (surr.)	1	%	122	116	116	53
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	1.8	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	1.8	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	1.8	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	91	73	95	56
Tetrachloro-m-xylene (surr.)	1	%	125	119	113	57
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	91	73	95	56
Tetrachloro-m-xylene (surr.)	1	%	125	119	113	57

Client Sample ID			TP04_0.3-0.5	TP07_0.0-0.3	TP07_0.3-1.2	TP09_0.0-0.15
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008363	R24-De0008366	R24-De0008367	R24-De0008368
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	210	100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	210	100	< 100	< 100
Metals M8						
Arsenic	2	mg/kg	5.7	7.7	6.3	6.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	33	36	24	34
Copper	5	mg/kg	14	23	9.6	11
Lead	5	mg/kg	18	180	15	19
Mercury	0.1	mg/kg	< 0.1	0.3	< 0.1	< 0.1
Nickel	5	mg/kg	11	8.6	< 5	8.3
Zinc	5	mg/kg	27	220	14	42
Sample Properties						
% Moisture	1	%	17	12	6.5	13

Client Sample ID			TP09_0.15-0.45	TP10_0.0-0.2	TP13_0.0-0.2	TP15_0.15-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008369	R24-De0008370	R24-De0008371	R24-De0008373
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	79	88	91	92
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP09_0.15-0.45	TP10_0.0-0.2	TP13_0.0-0.2	TP15_0.15-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008369	R24-De0008370	R24-De0008371	R24-De0008373
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	84	95	98	103
p-Terphenyl-d14 (surr.)	1	%	91	82	76	126
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	103	104	85	105
Tetrachloro-m-xylene (surr.)	1	%	91	87	77	125

Client Sample ID			TP09_0.15-0.45	TP10_0.0-0.2	TP13_0.0-0.2	TP15_0.15-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008369	R24-De0008370	R24-De0008371	R24-De0008373
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	103	104	85	105
Tetrachloro-m-xylene (surr.)	1	%	91	87	77	125
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Metals M8						
Arsenic	2	mg/kg	15	2.7	4.6	11
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	61	19	30	37
Copper	5	mg/kg	23	7.3	11	18
Lead	5	mg/kg	22	12	20	19
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	30	< 5	7.5	10
Zinc	5	mg/kg	34	18	36	16
Sample Properties						
% Moisture	1	%	19	14	14	17
Acid Herbicides						
2.4-D	0.5	mg/kg	-	-	< 0.5	< 0.5
2.4-DB	0.5	mg/kg	-	-	< 0.5	< 0.5
2.4.5-T	0.5	mg/kg	-	-	< 0.5	< 0.5
2.4.5-TP	0.5	mg/kg	-	-	< 0.5	< 0.5
Actril (loxynil)	0.5	mg/kg	-	-	< 0.5	< 0.5
Dicamba	0.5	mg/kg	-	-	< 0.5	< 0.5
Dichlorprop	0.5	mg/kg	-	-	< 0.5	< 0.5
Dinitro-o-cresol	0.5	mg/kg	-	-	< 0.5	< 0.5
Dinoseb	0.5	mg/kg	-	-	< 0.5	< 0.5
MCPA	0.5	mg/kg	-	-	< 0.5	< 0.5
MCPB	0.5	mg/kg	-	-	< 0.5	< 0.5
Mecoprop	0.5	mg/kg	-	-	< 0.5	< 0.5
Warfarin (surr.)	1	%	-	-	100	105

Client Sample ID			TP16_0.0-0.2	TP18_0.0-0.2	TP19_0.0-0.3	TP20_0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008374	R24-De0008375	R24-De0008376	R24-De0008377
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	112	84	98	107
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	90	90	87	67
p-Terphenyl-d14 (surr.)	1	%	78	81	76	65
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			TP16_0.0-0.2	TP18_0.0-0.2	TP19_0.0-0.3	TP20_0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008374	R24-De0008375	R24-De0008376	R24-De0008377
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	104	117	74	131
Tetrachloro-m-xylene (surr.)	1	%	79	75	76	69
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	104	117	74	131
Tetrachloro-m-xylene (surr.)	1	%	79	75	76	69
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Metals M8						
Arsenic	2	mg/kg	5.3	6.6	8.5	14
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	35	27	36	45
Copper	5	mg/kg	11	17	22	15
Lead	5	mg/kg	30	16	63	39
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.0	15	11	6.4
Zinc	5	mg/kg	64	59	100	190
Sample Properties						
% Moisture	1	%	16	19	12	16

Client Sample ID			TP16_0.0-0.2	TP18_0.0-0.2	TP19_0.0-0.3	TP20_0.0-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008374	R24-De0008375	R24-De0008376	R24-De0008377
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Acid Herbicides						
2.4-D	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-DB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-T	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-TP	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Actril (loxynil)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dicamba	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinitro-o-cresol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinoseb	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPA	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Mecoprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Warfarin (surr.)	1	%	96	101	108	111

Client Sample ID			TP21_0.0-0.2	TP23_0.0-0.2	TP24_0.0-0.25	TP24_0.25-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008378	R24-De0008379	R24-De0008380	R24-De0008381
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	96	105	113	84
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP21_0.0-0.2	TP23_0.0-0.2	TP24_0.0-0.25	TP24_0.25-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008378	R24-De0008379	R24-De0008380	R24-De0008381
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	94	76	88	86
p-Terphenyl-d14 (surr.)	1	%	78	71	83	79
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	99	117	135	119
Tetrachloro-m-xylene (surr.)	1	%	78	76	92	76
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			TP21_0.0-0.2	TP23_0.0-0.2	TP24_0.0-0.25	TP24_0.25-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008378	R24-De0008379	R24-De0008380	R24-De0008381
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	99	117	135	119
Tetrachloro-m-xylene (surr.)	1	%	78	76	92	76
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Metals M8						
Arsenic	2	mg/kg	7.9	3.5	3.7	7.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	52	28	30	39
Copper	5	mg/kg	12	7.4	7.7	15
Lead	5	mg/kg	27	17	15	18
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.7	5.1	5.4	14
Zinc	5	mg/kg	45	17	22	19
Sample Properties						
% Moisture	1	%	13	9.9	17	16
Acid Herbicides						
2.4-D	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-DB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-T	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-TP	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Actril (loxynil)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dicamba	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinitro-o-cresol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinoseb	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPA	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Mecoprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Warfarin (surr.)	1	%	97	85	86	97

Client Sample ID			TP25_0.0-0.2	TP25_0.2-0.4	TP26_0.0-0.2	TP26_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008382	R24-De0008383	R24-De0008384	R24-De0008385
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	-	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	-	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	-	< 50

Client Sample ID			TP25_0.0-0.2	TP25_0.2-0.4	TP26_0.0-0.2	TP26_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008382	R24-De0008383	R24-De0008384	R24-De0008385
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	95	102	-	88
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	-	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	104	96	-	80
p-Terphenyl-d14 (surr.)	1	%	85	83	-	78
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05

Client Sample ID			TP25_0.0-0.2	TP25_0.2-0.4	TP26_0.0-0.2	TP26_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008382	R24-De0008383	R24-De0008384	R24-De0008385
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	117	112	-	116
Tetrachloro-m-xylene (surr.)	1	%	83	89	-	82
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	117	112	-	116
Tetrachloro-m-xylene (surr.)	1	%	83	89	-	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-	< 100
Metals M8						
Arsenic	2	mg/kg	3.6	5.6	-	8.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	29	32	-	40
Copper	5	mg/kg	8.7	13	-	17
Lead	5	mg/kg	17	14	-	37
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Nickel	5	mg/kg	6.0	11	-	11
Zinc	5	mg/kg	25	19	-	17
Sample Properties						
% Moisture	1	%	14	13	16	11
Acid Herbicides						
2.4-D	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4-DB	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4.5-T	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4.5-TP	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Actril (loxynil)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dicamba	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			TP25_0.0-0.2	TP25_0.2-0.4	TP26_0.0-0.2	TP26_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008382	R24-De0008383	R24-De0008384	R24-De0008385
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Acid Herbicides						
Dichlorprop	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dinitro-o-cresol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dinoseb	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
MCPA	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
MCPB	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Mecoprop	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Warfarin (surr.)	1	%	105	-	84	61

Client Sample ID			TP27_0.0-0.2	TP27_0.2-0.4	TP28_0.0-0.2	TP28_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008386	R24-De0008387	R24-De0008388	R24-De0008389
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	56	96	98	92
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP27_0.0-0.2	TP27_0.2-0.4	TP28_0.0-0.2	TP28_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008386	R24-De0008387	R24-De0008388	R24-De0008389
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	77	89	110	102
p-Terphenyl-d14 (surr.)	1	%	73	85	86	83
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	116	108	110	117
Tetrachloro-m-xylene (surr.)	1	%	79	88	91	80
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	116	108	110	117
Tetrachloro-m-xylene (surr.)	1	%	79	88	91	80

Client Sample ID			TP27_0.0-0.2	TP27_0.2-0.4	TP28_0.0-0.2	TP28_0.2-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008386	R24-De0008387	R24-De0008388	R24-De0008389
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Metals M8						
Arsenic	2	mg/kg	9.8	7.4	6.6	8.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.4	< 0.4
Chromium	5	mg/kg	23	51	36	43
Copper	5	mg/kg	22	20	12	15
Lead	5	mg/kg	82	28	49	20
Mercury	0.1	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	8.0	27	7.5	15
Zinc	5	mg/kg	210	50	70	26
Sample Properties						
% Moisture	1	%	24	22	13	19
Acid Herbicides						
2.4-D	0.5	mg/kg	< 0.5	-	-	-
2.4-DB	0.5	mg/kg	< 0.5	-	-	-
2.4.5-T	0.5	mg/kg	< 0.5	-	-	-
2.4.5-TP	0.5	mg/kg	< 0.5	-	-	-
Actril (loxynil)	0.5	mg/kg	< 0.5	-	-	-
Dicamba	0.5	mg/kg	< 0.5	-	-	-
Dichlorprop	0.5	mg/kg	< 0.5	-	-	-
Dinitro-o-cresol	0.5	mg/kg	< 0.5	-	-	-
Dinoseb	0.5	mg/kg	< 0.5	-	-	-
MCPA	0.5	mg/kg	< 0.5	-	-	-
MCPB	0.5	mg/kg	< 0.5	-	-	-
Mecoprop	0.5	mg/kg	< 0.5	-	-	-
Warfarin (surr.)	1	%	78	-	-	-

Client Sample ID			TP29_0.0-0.25	TP30_0.0-0.3	TP30_0.4-0.7	QC100
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008390	R24-De0008392	R24-De0008393	R24-De0008394
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	110
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	57
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	167
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	1.2
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			TP29_0.0-0.25	TP30_0.0-0.3	TP30_0.4-0.7	QC100
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008390	R24-De0008392	R24-De0008393	R24-De0008394
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
BTEX						
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	106	99	88	67
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.0
2-Fluorobiphenyl (surr.)	1	%	104	95	123	79
p-Terphenyl-d14 (surr.)	1	%	124	95	88	74
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			TP29_0.0-0.25	TP30_0.0-0.3	TP30_0.4-0.7	QC100
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0008390	R24-De0008392	R24-De0008393	R24-De0008394
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	109	91	116	94
Tetrachloro-m-xylene (surr.)	1	%	121	98	87	82
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	109	91	116	94
Tetrachloro-m-xylene (surr.)	1	%	121	98	87	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	160
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	160
Metals M8						
Arsenic	2	mg/kg	2.7	12	5.1	28
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	42	19	29
Copper	5	mg/kg	5.6	19	16	30
Lead	5	mg/kg	190	28	14	37
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	8.8	17	7.7	5.2
Zinc	5	mg/kg	130	30	25	180
Sample Properties						
% Moisture	1	%	8.3	14	7.4	21

Client Sample ID			QC101	QC102	QC106
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			R24-De0008395	R24-De0008396	R24-De0008397
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	93	98	112
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	101	59	66
p-Terphenyl-d14 (surr.)	1	%	98	57	68
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05

Client Sample ID			QC101	QC102	QC106
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			R24-De0008395	R24-De0008396	R24-De0008397
Date Sampled			Dec 03, 2024	Dec 03, 2024	Dec 03, 2024
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	77	98	108
Tetrachloro-m-xylene (surr.)	1	%	105	60	69
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	77	98	108
Tetrachloro-m-xylene (surr.)	1	%	105	60	69
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
Metals M8					
Arsenic	2	mg/kg	8.1	5.3	2.9
Cadmium	0.4	mg/kg	< 0.4	1.4	< 0.4
Chromium	5	mg/kg	37	37	16
Copper	5	mg/kg	13	66	5.4
Lead	5	mg/kg	20	100	36
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.8	14	11
Zinc	5	mg/kg	22	390	85
Sample Properties					
% Moisture	1	%	13	27	7.6

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 11, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Dec 11, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 11, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 11, 2024	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Dec 11, 2024	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Dec 11, 2024	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 11, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8	Sydney	Dec 11, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Dec 04, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			
Acid Herbicides	Melbourne	Dec 13, 2024	14 Days
- Method: LTM-ORG-2180 Phenoxy Acid Herbicides			

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Company Name: D & N Geotechnical Pty Ltd
Address: Unit 11/22-38 Thynne St
Bruce
ACT 2617

Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.:
Report #: 1167410
Phone:
Fax:

Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	CANCELLED*	HOLD*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
External Laboratory											
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**						
1	TP01_0.0-0.3	Dec 03, 2024		Soil	R24-De0008358	X				X	X
2	TP01_0.3-0.6	Dec 03, 2024		Soil	R24-De0008359	X				X	X
3	TP03_0.0-0.1	Dec 03, 2024		Soil	R24-De0008360	X				X	X
4	TP03_0.3-0.3	Dec 03, 2024		Soil	R24-De0008361		X				
5	TP04_0.0-0.3	Dec 03, 2024		Soil	R24-De0008362	X				X	X
6	TP04_0.3-0.5	Dec 03, 2024		Soil	R24-De0008363	X				X	X
7	TP06_0.0-0.2	Dec 03, 2024		Soil	R24-De0008364		X				
8	TP06_0.2-0.6	Dec 03, 2024		Soil	R24-De0008365		X				
9	TP07_0.0-0.3	Dec 03, 2024		Soil	R24-De0008366	X				X	X
10	TP07_0.3-1.2	Dec 03, 2024		Soil	R24-De0008367	X				X	X
11	TP09_0.0-0.15	Dec 03, 2024		Soil	R24-De0008368					X	X
12	TP09_0.15-0.45	Dec 03, 2024		Soil	R24-De0008369					X	X

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Project ID: C-2435.01

Order No.:
Report #: 1167410
Phone:
Fax:

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Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	CANCELLED*	HOLD*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
13	TP10_0.0-0.2	Dec 03, 2024		Soil	R24-De0008370					X	X
14	TP13_0.0-0.2	Dec 03, 2024		Soil	R24-De0008371				X	X	X
15	TP15_0.0-0.15	Dec 03, 2024		Soil	R24-De0008372	X					
16	TP15_0.15-0.3	Dec 03, 2024		Soil	R24-De0008373	X			X	X	X
17	TP16_0.0-0.2	Dec 03, 2024		Soil	R24-De0008374				X	X	X
18	TP18_0.0-0.2	Dec 03, 2024		Soil	R24-De0008375				X	X	X
19	TP19_0.0-0.3	Dec 03, 2024		Soil	R24-De0008376	X			X	X	X
20	TP20_0.0-0.2	Dec 03, 2024		Soil	R24-De0008377	X			X	X	X
21	TP21_0.0-0.2	Dec 03, 2024		Soil	R24-De0008378				X	X	X
22	TP23_0.0-0.2	Dec 03, 2024		Soil	R24-De0008379	X			X	X	X
23	TP24_0.0-0.25	Dec 03, 2024		Soil	R24-De0008380				X	X	X
24	TP24_0.25-0.5	Dec 03, 2024		Soil	R24-De0008381				X	X	X
25	TP25_0.0-0.2	Dec 03, 2024		Soil	R24-De0008382				X	X	X
26	TP25_0.2-0.4	Dec 03, 2024		Soil	R24-De0008383					X	X
27	TP26_0.0-0.2	Dec 03, 2024		Soil	R24-De0008384				X	X	
28	TP26_0.2-0.4	Dec 03, 2024		Soil	R24-De0008385				X	X	X

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Project ID: C-2435.01

Order No.:
Report #: 1167410
Phone:
Fax:

Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	CANCELLED*	HOLD*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
29	TP27_0.0-0.2	Dec 03, 2024		Soil	R24-De0008386	X			X	X	X
30	TP27_0.2-0.4	Dec 03, 2024		Soil	R24-De0008387					X	X
31	TP28_0.0-0.2	Dec 03, 2024		Soil	R24-De0008388	X				X	X
32	TP28_0.2-0.4	Dec 03, 2024		Soil	R24-De0008389					X	X
33	TP29_0.0-0.25	Dec 03, 2024		Soil	R24-De0008390	X				X	X
34	TP29_0.25-0.4	Dec 03, 2024		Soil	R24-De0008391		X				
35	TP30_0.0-0.3	Dec 03, 2024		Soil	R24-De0008392	X				X	X
36	TP30_0.4-0.7	Dec 03, 2024		Soil	R24-De0008393					X	X
37	QC100	Dec 03, 2024		Soil	R24-De0008394					X	X
38	QC101	Dec 03, 2024		Soil	R24-De0008395					X	X
39	QC102	Dec 03, 2024		Soil	R24-De0008396					X	X
40	QC106	Dec 03, 2024		Soil	R24-De0008397					X	X
41	TP10_0.2-0.5	Dec 03, 2024		Soil	R24-De0008398			X			
42	TP13_0.2-0.5	Dec 03, 2024		Soil	R24-De0008399			X			
43	TP16_0.2-0.4	Dec 03, 2024		Soil	R24-De0008400			X			
44	TP18_0.2-0.5	Dec 03, 2024		Soil	R24-De0008401			X			

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Project ID: C-2435.01

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Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	CANCELLED*	HOLD*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
45	TP19_0.3-0.6	Dec 03, 2024		Soil	R24-De0008402			X			
46	TP20_0.2-0.4	Dec 03, 2024		Soil	R24-De0008403			X			
47	TP21_0.2-0.4	Dec 03, 2024		Soil	R24-De0008404		X				
48	TP23_0.2-0.4	Dec 03, 2024		Soil	R24-De0008405			X			
49	QC103	Dec 03, 2024		Soil	R24-De0008406			X			
50	QC104	Dec 03, 2024		Soil	R24-De0008407			X			
51	QC105	Dec 03, 2024		Soil	R24-De0008408			X			
52	QC107	Dec 03, 2024		Soil	R24-De0008409			X			
53	QC202	Dec 03, 2024		Soil	R24-De0008410			X			
54	QC203	Dec 03, 2024		Soil	R24-De0008411			X			
55	TP03_0.1-0.3	Dec 03, 2024		Soil	R24-De0008724			X			
56	TP06_0.0-0.3	Dec 03, 2024		Soil	R24-De0008725			X			
57	TP06_0.3-0.6	Dec 03, 2024		Soil	R24-De0008726		X				
58	TP29_0.25-0.5	Dec 03, 2024		Soil	R24-De0008727			X			
59	TP21_0.2-0.5	Dec 03, 2024		Soil	R24-De0008728			X			
Test Counts						16	6	17	14	35	34

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Acid Herbicides							
2.4-D	mg/kg	< 0.5			0.5	Pass	
2.4-DB	mg/kg	< 0.5			0.5	Pass	
2.4.5-T	mg/kg	< 0.5			0.5	Pass	
2.4.5-TP	mg/kg	< 0.5			0.5	Pass	
Actril (loxynil)	mg/kg	< 0.5			0.5	Pass	
Dicamba	mg/kg	< 0.5			0.5	Pass	
Dichlorprop	mg/kg	< 0.5			0.5	Pass	
Dinitro-o-cresol	mg/kg	< 0.5			0.5	Pass	
Dinoseb	mg/kg	< 0.5			0.5	Pass	
MCPA	mg/kg	< 0.5			0.5	Pass	
MCPB	mg/kg	< 0.5			0.5	Pass	
Mecoprop	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acid Herbicides							
2.4-D	mg/kg	< 0.5			0.5	Pass	
2.4-DB	mg/kg	< 0.5			0.5	Pass	
2.4.5-T	mg/kg	< 0.5			0.5	Pass	
2.4.5-TP	mg/kg	< 0.5			0.5	Pass	
Actril (loxynil)	mg/kg	< 0.5			0.5	Pass	
Dicamba	mg/kg	< 0.5			0.5	Pass	
Dichlorprop	mg/kg	< 0.5			0.5	Pass	
Dinitro-o-cresol	mg/kg	< 0.5			0.5	Pass	
Dinoseb	mg/kg	< 0.5			0.5	Pass	
MCPA	mg/kg	< 0.5			0.5	Pass	
MCPB	mg/kg	< 0.5			0.5	Pass	
Mecoprop	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Metals M8							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	%	73			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	101			70-130	Pass	
Anthracene	%	100			70-130	Pass	
Benz(a)anthracene	%	76			70-130	Pass	
Benzo(a)pyrene	%	98			70-130	Pass	
Benzo(b&j)fluoranthene	%	71			70-130	Pass	
Benzo(g.h.i)perylene	%	82			70-130	Pass	
Benzo(k)fluoranthene	%	120			70-130	Pass	
Chrysene	%	116			70-130	Pass	
Dibenz(a.h)anthracene	%	106			70-130	Pass	
Fluoranthene	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	92			70-130	Pass	
Naphthalene	%	100			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	96			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	98			70-130	Pass	
a-HCH	%	90			70-130	Pass	
Aldrin	%	100			70-130	Pass	
d-HCH	%	87			70-130	Pass	
Dieldrin	%	99			70-130	Pass	
Endosulfan II	%	94			70-130	Pass	
Endosulfan sulphate	%	104			70-130	Pass	
Endrin aldehyde	%	108			70-130	Pass	
g-HCH (Lindane)	%	103			70-130	Pass	
Heptachlor epoxide	%	96			70-130	Pass	
Hexachlorobenzene	%	92			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	73			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	105			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	114			70-130	Pass	
o-Xylene	%	112			70-130	Pass	
Xylenes - Total*	%	113			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	121			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthylene	%	73			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	81			70-130	Pass	
4.4'-DDE	%	70			70-130	Pass	
4.4'-DDT	%	76			70-130	Pass	
b-HCH	%	71			70-130	Pass	
Endosulfan I	%	75			70-130	Pass	
Endrin	%	76			70-130	Pass	
Heptachlor	%	72			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Methoxychlor	%	97			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	75			70-130	Pass	
Aroclor-1260	%	76			70-130	Pass	
LCS - % Recovery							
Acid Herbicides							
2.4.5-T	%	128			70-130	Pass	
MCPA	%	79			70-130	Pass	
LCS - % Recovery							
Acid Herbicides							
2.4-D	%	77			70-130	Pass	
2.4.5-TP	%	88			70-130	Pass	
Actril (loxynil)	%	80			70-130	Pass	
Dicamba	%	87			70-130	Pass	
Dichlorprop	%	93			70-130	Pass	
Dinitro-o-cresol	%	89			70-130	Pass	
Dinoseb	%	80			70-130	Pass	
Mecoprop	%	86			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	115			70-130	Pass	
Toluene	%	118			70-130	Pass	
Ethylbenzene	%	121			70-130	Pass	
m&p-Xylenes	%	130			70-130	Pass	
o-Xylene	%	124			70-130	Pass	
Xylenes - Total*	%	128			70-130	Pass	
LCS - % Recovery							
Acid Herbicides							
2.4-DB	%	128			70-130	Pass	
MCPB	%	100			70-130	Pass	
LCS - % Recovery							
Acid Herbicides							
2.4-D	%	77			70-130	Pass	
2.4.5-TP	%	90			70-130	Pass	
Actril (loxynil)	%	80			70-130	Pass	
Dicamba	%	85			70-130	Pass	
Dichlorprop	%	84			70-130	Pass	
Dinitro-o-cresol	%	88			70-130	Pass	
Dinoseb	%	83			70-130	Pass	
Mecoprop	%	83			70-130	Pass	
LCS - % Recovery							
Metals M8							
Arsenic	%	106			80-120	Pass	
Cadmium	%	106			80-120	Pass	
Chromium	%	109			80-120	Pass	
Copper	%	111			80-120	Pass	
Lead	%	107			80-120	Pass	
Mercury	%	110			80-120	Pass	
Nickel	%	105			80-120	Pass	
Zinc	%	103			80-120	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthylene	%	78			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fluorene	%	70			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	81			70-130	Pass	
4.4'-DDT	%	85			70-130	Pass	
Endrin	%	79			70-130	Pass	
Endrin ketone	%	73			70-130	Pass	
Heptachlor	%	75			70-130	Pass	
Methoxychlor	%	107			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	71			70-130	Pass	
Aroclor-1260	%	77			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	85			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	107			70-130	Pass	
Toluene	%	108			70-130	Pass	
Ethylbenzene	%	107			70-130	Pass	
m&p-Xylenes	%	110			70-130	Pass	
o-Xylene	%	108			70-130	Pass	
Xylenes - Total*	%	110			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	104			70-130	Pass	
TRH C6-C10	%	86			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	122			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	100			70-130	Pass	
Toluene	%	106			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	112			70-130	Pass	
o-Xylene	%	108			70-130	Pass	
Xylenes - Total*	%	111			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	119			70-130	Pass	
TRH C6-C10	%	122			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S24-De0020350	NCP	%	87			70-130	Pass	
Toluene	S24-De0020350	NCP	%	87			70-130	Pass	
Ethylbenzene	S24-De0020350	NCP	%	75			70-130	Pass	
m&p-Xylenes	S24-De0020350	NCP	%	73			70-130	Pass	
o-Xylene	S24-De0020350	NCP	%	72			70-130	Pass	
Xylenes - Total*	S24-De0020350	NCP	%	72			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	S24-De0020350	NCP	%	72			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Zinc	S24-De0025613	NCP	%	80			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S24-De0025198	NCP	%	96			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH C6-C10	S24-De0025198	NCP	%	96			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	R24-De0008359	CP	%	109			70-130	Pass	
Acenaphthylene	R24-De0008359	CP	%	97			70-130	Pass	
Anthracene	R24-De0008359	CP	%	118			70-130	Pass	
Benz(a)anthracene	R24-De0008359	CP	%	93			70-130	Pass	
Benzo(a)pyrene	R24-De0008359	CP	%	104			70-130	Pass	
Benzo(g.h.i)perylene	R24-De0008359	CP	%	118			70-130	Pass	
Benzo(k)fluoranthene	R24-De0008359	CP	%	118			70-130	Pass	
Chrysene	R24-De0008359	CP	%	122			70-130	Pass	
Dibenz(a.h)anthracene	R24-De0008359	CP	%	116			70-130	Pass	
Fluoranthene	R24-De0008359	CP	%	106			70-130	Pass	
Fluorene	R24-De0008359	CP	%	111			70-130	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008359	CP	%	102			70-130	Pass	
Naphthalene	R24-De0008359	CP	%	105			70-130	Pass	
Phenanthrene	R24-De0008359	CP	%	89			70-130	Pass	
Pyrene	R24-De0008359	CP	%	106			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	R24-De0008359	CP	%	111			70-130	Pass	
4.4'-DDD	R24-De0008359	CP	%	98			70-130	Pass	
4.4'-DDE	R24-De0008359	CP	%	121			70-130	Pass	
4.4'-DDT	R24-De0008359	CP	%	118			70-130	Pass	
a-HCH	R24-De0008359	CP	%	105			70-130	Pass	
Aldrin	R24-De0008359	CP	%	114			70-130	Pass	
b-HCH	R24-De0008359	CP	%	104			70-130	Pass	
d-HCH	R24-De0008359	CP	%	98			70-130	Pass	
Dieldrin	R24-De0008359	CP	%	116			70-130	Pass	
Endosulfan I	R24-De0008359	CP	%	109			70-130	Pass	
Endosulfan II	R24-De0008359	CP	%	107			70-130	Pass	
Endosulfan sulphate	R24-De0008359	CP	%	123			70-130	Pass	
Endrin aldehyde	R24-De0008359	CP	%	125			70-130	Pass	
g-HCH (Lindane)	R24-De0008359	CP	%	122			70-130	Pass	
Heptachlor	R24-De0008359	CP	%	113			70-130	Pass	
Heptachlor epoxide	R24-De0008359	CP	%	112			70-130	Pass	
Hexachlorobenzene	R24-De0008359	CP	%	103			70-130	Pass	
Methoxychlor	R24-De0008359	CP	%	101			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	R24-De0008359	CP	%	96			70-130	Pass	
Aroclor-1260	R24-De0008359	CP	%	90			70-130	Pass	
Spike - % Recovery									
Acid Herbicides				Result 1					
2.4-D	M24-No0078402	NCP	%	74			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Actril (loxynil)	N24-De0016150	NCP	%	80			70-130	Pass	
Dichlorprop	M24-No0078402	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	R24-De0008373	CP	%	73			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	R24-De0008373	CP	%	71			70-130	Pass	
Spike - % Recovery									
Acid Herbicides				Result 1					
MCPA	M24-Oc0086551	NCP	%	95			70-130	Pass	
MCPB	M24-Oc0086551	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	R24-De0008386	CP	%	92			70-130	Pass	
Acenaphthylene	R24-De0008386	CP	%	100			70-130	Pass	
Anthracene	R24-De0008386	CP	%	92			70-130	Pass	
Benz(a)anthracene	R24-De0008386	CP	%	87			70-130	Pass	
Benzo(a)pyrene	R24-De0008386	CP	%	90			70-130	Pass	
Benzo(b&j)fluoranthene	R24-De0008386	CP	%	84			70-130	Pass	
Benzo(k)fluoranthene	R24-De0008386	CP	%	99			70-130	Pass	
Chrysene	R24-De0008386	CP	%	87			70-130	Pass	
Fluoranthene	R24-De0008386	CP	%	99			70-130	Pass	
Fluorene	R24-De0008386	CP	%	93			70-130	Pass	
Naphthalene	R24-De0008386	CP	%	94			70-130	Pass	
Phenanthrene	R24-De0008386	CP	%	95			70-130	Pass	
Pyrene	R24-De0008386	CP	%	99			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	R24-De0008386	CP	%	95			70-130	Pass	
4.4'-DDD	R24-De0008386	CP	%	92			70-130	Pass	
4.4'-DDE	R24-De0008386	CP	%	89			70-130	Pass	
4.4'-DDT	R24-De0008386	CP	%	79			70-130	Pass	
a-HCH	R24-De0008386	CP	%	88			70-130	Pass	
Aldrin	R24-De0008386	CP	%	86			70-130	Pass	
b-HCH	R24-De0008386	CP	%	88			70-130	Pass	
d-HCH	R24-De0008386	CP	%	83			70-130	Pass	
Dieldrin	R24-De0008386	CP	%	94			70-130	Pass	
Endosulfan I	R24-De0008386	CP	%	87			70-130	Pass	
Endosulfan II	R24-De0008386	CP	%	88			70-130	Pass	
Endosulfan sulphate	R24-De0008386	CP	%	80			70-130	Pass	
Endrin	R24-De0008386	CP	%	79			70-130	Pass	
Endrin ketone	R24-De0008386	CP	%	83			70-130	Pass	
g-HCH (Lindane)	R24-De0008386	CP	%	90			70-130	Pass	
Heptachlor	R24-De0008386	CP	%	98			70-130	Pass	
Heptachlor epoxide	R24-De0008386	CP	%	94			70-130	Pass	
Hexachlorobenzene	R24-De0008386	CP	%	89			70-130	Pass	
Methoxychlor	R24-De0008386	CP	%	94			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	R24-De0008386	CP	%	81			70-130	Pass	
Aroclor-1260	R24-De0008386	CP	%	93			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Arsenic	R24-De0008386	CP	%	97			75-125	Pass	
Cadmium	R24-De0008386	CP	%	98			75-125	Pass	
Chromium	R24-De0008386	CP	%	111			75-125	Pass	
Copper	R24-De0008386	CP	%	99			75-125	Pass	
Lead	R24-De0008386	CP	%	85			75-125	Pass	
Mercury	R24-De0008386	CP	%	99			75-125	Pass	
Nickel	R24-De0008386	CP	%	99			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	R24-De0008397	CP	%	86			70-130	Pass	
Acenaphthylene	R24-De0008397	CP	%	81			70-130	Pass	
Anthracene	R24-De0008397	CP	%	89			70-130	Pass	
Benz(a)anthracene	R24-De0008397	CP	%	74			70-130	Pass	
Benzo(a)pyrene	R24-De0008397	CP	%	82			70-130	Pass	
Benzo(g.h.i)perylene	R24-De0008397	CP	%	81			70-130	Pass	
Benzo(k)fluoranthene	R24-De0008397	CP	%	104			70-130	Pass	
Chrysene	R24-De0008397	CP	%	95			70-130	Pass	
Dibenz(a.h)anthracene	R24-De0008397	CP	%	82			70-130	Pass	
Fluoranthene	R24-De0008397	CP	%	82			70-130	Pass	
Fluorene	R24-De0008397	CP	%	86			70-130	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008397	CP	%	81			70-130	Pass	
Naphthalene	R24-De0008397	CP	%	83			70-130	Pass	
Phenanthrene	R24-De0008397	CP	%	77			70-130	Pass	
Pyrene	R24-De0008397	CP	%	86			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	R24-De0008397	CP	%	76			70-130	Pass	
4.4'-DDD	R24-De0008397	CP	%	77			70-130	Pass	
4.4'-DDE	R24-De0008397	CP	%	85			70-130	Pass	
Aldrin	R24-De0008397	CP	%	79			70-130	Pass	
b-HCH	R24-De0008397	CP	%	80			70-130	Pass	
d-HCH	R24-De0008397	CP	%	73			70-130	Pass	
Dieldrin	R24-De0008397	CP	%	77			70-130	Pass	
Endosulfan I	R24-De0008397	CP	%	77			70-130	Pass	
Endosulfan II	R24-De0008397	CP	%	73			70-130	Pass	
Endosulfan sulphate	R24-De0008397	CP	%	77			70-130	Pass	
Endrin	R24-De0008397	CP	%	83			70-130	Pass	
Endrin ketone	R24-De0008397	CP	%	79			70-130	Pass	
Heptachlor	R24-De0008397	CP	%	77			70-130	Pass	
Heptachlor epoxide	R24-De0008397	CP	%	78			70-130	Pass	
Hexachlorobenzene	R24-De0008397	CP	%	72			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	R24-De0008363	CP	%	17	15	12	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	R24-De0008366	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	R24-De0008366	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	R24-De0008366	CP	mg/kg	75	70	7.0	30%	Pass	
TRH C29-C36	R24-De0008366	CP	mg/kg	54	51	4.0	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	R24-De0008366	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	R24-De0008366	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	R24-De0008366	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	R24-De0008366	CP	mg/kg	< 0.5	0.5	25	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	R24-De0008366	CP	mg/kg	1.8	1.8	3.0	30%	Pass	
Endosulfan I	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	R24-De0008366	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	R24-De0008366	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	R24-De0008366	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	R24-De0008366	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	R24-De0008366	CP	mg/kg	100	< 100	6.0	30%	Pass	
TRH >C34-C40	R24-De0008366	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	R24-De0008370	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	R24-De0008370	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	R24-De0008370	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	R24-De0008370	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	R24-De0008370	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	R24-De0008370	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	R24-De0008370	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	R24-De0008370	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	R24-De0008370	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Acid Herbicides				Result 1	Result 2	RPD			
2.4-D	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-DB	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-T	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-TP	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Actril (loxynil)	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dicamba	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorprop	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dinitro-o-cresol	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dinoseb	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
MCPA	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
MCPB	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mecoprop	M24-De0018561	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	R24-De0008374	CP	mg/kg	5.3	6.3	17	30%	Pass	
Cadmium	R24-De0008374	CP	mg/kg	< 0.4	0.4	7.0	30%	Pass	
Chromium	R24-De0008374	CP	mg/kg	35	31	12	30%	Pass	
Copper	R24-De0008374	CP	mg/kg	11	11	<1	30%	Pass	
Lead	R24-De0008374	CP	mg/kg	30	70	81	30%	Fail	Q15
Mercury	R24-De0008374	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	R24-De0008374	CP	mg/kg	6.0	6.1	2.0	30%	Pass	
Zinc	R24-De0008374	CP	mg/kg	64	73	13	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	R24-De0008376	CP	%	12	9.7	19	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	R24-De0008377	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	R24-De0008377	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	R24-De0008377	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	R24-De0008377	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	R24-De0008377	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	R24-De0008377	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	R24-De0008377	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	R24-De0008377	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	R24-De0008377	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	R24-De0008378	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	R24-De0008378	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	R24-De0008378	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	R24-De0008378	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	R24-De0008378	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1254	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	R24-De0008378	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	R24-De0008378	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	R24-De0008378	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	R24-De0008378	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	R24-De0008383	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	R24-De0008383	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	R24-De0008383	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	R24-De0008383	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	R24-De0008383	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	R24-De0008383	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	R24-De0008383	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	R24-De0008383	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	R24-De0008383	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	R24-De0008385	CP	mg/kg	8.2	5.7	35	30%	Fail	Q15
Cadmium	R24-De0008385	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	R24-De0008385	CP	mg/kg	40	40	<1	30%	Pass	
Copper	R24-De0008385	CP	mg/kg	17	15	11	30%	Pass	
Lead	R24-De0008385	CP	mg/kg	37	17	72	30%	Fail	Q15
Mercury	R24-De0008385	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	R24-De0008385	CP	mg/kg	11	12	10	30%	Pass	
Zinc	R24-De0008385	CP	mg/kg	17	19	15	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	R24-De0008387	CP	%	22	21	4.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	R24-De0008389	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	R24-De0008389	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	R24-De0008389	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	R24-De0008389	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	R24-De0008389	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	R24-De0008389	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	R24-De0008389	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	R24-De0008389	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	R24-De0008389	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	R24-De0008390	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	R24-De0008390	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	R24-De0008390	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(g.h.i)perylene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	R24-De0008390	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	R24-De0008390	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	R24-De0008390	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	R24-De0008390	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	R24-De0008390	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	R24-De0008390	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	R24-De0008393	CP	mg/kg	5.1	4.0	23	30%	Pass	
Cadmium	R24-De0008393	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	R24-De0008393	CP	mg/kg	19	19	2.0	30%	Pass	
Copper	R24-De0008393	CP	mg/kg	16	19	18	30%	Pass	

Duplicate									
Metals M8				Result 1	Result 2	RPD			
Lead	R24-De0008393	CP	mg/kg	14	15	6.0	30%	Pass	
Mercury	R24-De0008393	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	R24-De0008393	CP	mg/kg	7.7	7.0	9.0	30%	Pass	
Zinc	R24-De0008393	CP	mg/kg	25	20	23	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	R24-De0008396	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	R24-De0008396	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	R24-De0008396	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	R24-De0008396	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	R24-De0008396	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1248	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	R24-De0008396	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	R24-De0008396	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	R24-De0008396	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	R24-De0008396	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	R24-De0008397	CP	mg/kg	2.9	3.0	3.0	30%	Pass	
Cadmium	R24-De0008397	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	R24-De0008397	CP	mg/kg	16	17	2.0	30%	Pass	
Copper	R24-De0008397	CP	mg/kg	5.4	< 5	13	30%	Pass	
Mercury	R24-De0008397	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	R24-De0008397	CP	mg/kg	11	10	6.0	30%	Pass	
Zinc	R24-De0008397	CP	mg/kg	85	67	23	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

Ursula Long	Analytical Services Manager
Carroll Lee	Senior Analyst-Organic
Chamath JHM Annakkage	Senior Analyst-Asbestos
Joseph Edouard	Senior Analyst-Organic
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Organic
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Sample Properties

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

Certificate of Analysis

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Accreditation Number 1261
Site Number 18217

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

D & N Geotechnical Pty Ltd
Unit 11/22-38 Thynne St
Bruce
ACT 2617

Attention:	Nick Davison
Report	1167410-AID
Project Name	Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID	C-2435.01
Received Date	Dec 04, 2024
Date Reported	Dec 16, 2024

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Man-made vitreous fibre (MMVF)	Fibres exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and bio-soluble fibres. NOTE: previously known as "synthetic mineral fibre" (SMF). Simple analytical procedures such as polarised light microscopy cannot detect or reliably identify asbestos in some types of commercial products containing asbestos, either because the fibres are below the resolution of optical microscopy or because the matrix material adheres too strongly to the fibres. For these types of products, electron microscopy may be necessary.
Subsampling Soil Samples	The sample submitted is dried and passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater than 10 mm and greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 g to 60 g, then a subsampling routine based on ISO 3082:2017(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be subsampled for trace analysis, in accordance with AS 5370:2024*.*
Bonded asbestos-containing material (ACM)	The material is first examined, and any fibres are isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 5370:2024*. *NOTE: Even after disintegration, it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting (LOR)	The performance limitation of the AS 5370:2024* method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory limit of reporting, per se. Examination of large sample size (e.g., 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 5370:2024*, and hence, NATA Accreditation does not cover the performance of this service (non-NATA results are shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964-2004: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID C-2435.01
Date Sampled Dec 03, 2024
Report 1167410-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP01_0.0-0.3	24-De0008358	Dec 03, 2024	Approximate Sample 286g Sample consisted of: Grey fine-grained clayey sandy soil, cement, organic debris and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP01_0.3-0.6	24-De0008359	Dec 03, 2024	Approximate Sample 521g Sample consisted of: Grey fine-grained clayey sandy soil, and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP03_0.0-0.1	24-De0008360	Dec 03, 2024	Approximate Sample 279g Sample consisted of: Grey fine-grained clayey sandy soil, and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP04_0.0-0.3	24-De0008362	Dec 03, 2024	Approximate Sample 336g Sample consisted of: Grey fine-grained clayey sandy soil, and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP04_0.3-0.5	24-De0008363	Dec 03, 2024	Approximate Sample 303g Sample consisted of: Red brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP07_0.0-0.3	24-De0008366	Dec 03, 2024	Approximate Sample 305g Sample consisted of: Grey fine-grained clayey sandy soil, cement and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP07_0.3-1.2	24-De0008367	Dec 03, 2024	Approximate Sample 370g Sample consisted of: Grey fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP15_0.0-0.15	24-De0008372	Dec 03, 2024	Approximate Sample 246g Sample consisted of: Grey fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP15_0.15-0.3	24-De0008373	Dec 03, 2024	Approximate Sample 247g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP19_0.0-0.3	24-De0008376	Dec 03, 2024	Approximate Sample 203g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP20_0.0-0.2	24-De0008377	Dec 03, 2024	Approximate Sample 267g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP23_0.0-0.2	24-De0008379	Dec 03, 2024	Approximate Sample 324g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP27_0.0-0.2	24-De0008386	Dec 03, 2024	Approximate Sample 269g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP28_0.0-0.2	24-De0008388	Dec 03, 2024	Approximate Sample 198g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP29_0.0-0.25	24-De0008390	Dec 03, 2024	Approximate Sample 310g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP30_0.0-0.3	24-De0008392	Dec 03, 2024	Approximate Sample 267g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Dec 04, 2024	Indefinite

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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
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+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: D & N Geotechnical Pty Ltd
Address: Unit 11/22-38 Thynne St
Bruce
ACT 2617

Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.: C-2435.01
Report #: 1167410
Phone:
Fax:

Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						HOLD*	Asbestos - AS4964	CANCELLED*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
External Laboratory											
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**						
1	TP01_0.0-0.3	Dec 03, 2024		Soil	R24-De0008358		X			X	X
2	TP01_0.3-0.6	Dec 03, 2024		Soil	R24-De0008359		X			X	X
3	TP03_0.0-0.1	Dec 03, 2024		Soil	R24-De0008360		X			X	X
4	TP03_0.3-0.3	Dec 03, 2024		Soil	R24-De0008361			X			
5	TP04_0.0-0.3	Dec 03, 2024		Soil	R24-De0008362		X			X	X
6	TP04_0.3-0.5	Dec 03, 2024		Soil	R24-De0008363		X			X	X
7	TP06_0.0-0.2	Dec 03, 2024		Soil	R24-De0008364			X			
8	TP06_0.2-0.6	Dec 03, 2024		Soil	R24-De0008365			X			
9	TP07_0.0-0.3	Dec 03, 2024		Soil	R24-De0008366		X			X	X
10	TP07_0.3-1.2	Dec 03, 2024		Soil	R24-De0008367		X			X	X
11	TP09_0.0-0.15	Dec 03, 2024		Soil	R24-De0008368					X	X
12	TP09_0.15-0.45	Dec 03, 2024		Soil	R24-De0008369					X	X

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Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: D & N Geotechnical Pty Ltd
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Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						HOLD*	Asbestos - AS4964	CANCELLED*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
13	TP10_0.0-0.2	Dec 03, 2024		Soil	R24-De0008370					X	X
14	TP13_0.0-0.2	Dec 03, 2024		Soil	R24-De0008371				X	X	X
15	TP15_0.0-0.15	Dec 03, 2024		Soil	R24-De0008372		X				
16	TP15_0.15-0.3	Dec 03, 2024		Soil	R24-De0008373		X		X	X	X
17	TP16_0.0-0.2	Dec 03, 2024		Soil	R24-De0008374				X	X	X
18	TP18_0.0-0.2	Dec 03, 2024		Soil	R24-De0008375				X	X	X
19	TP19_0.0-0.3	Dec 03, 2024		Soil	R24-De0008376		X		X	X	X
20	TP20_0.0-0.2	Dec 03, 2024		Soil	R24-De0008377		X		X	X	X
21	TP21_0.0-0.2	Dec 03, 2024		Soil	R24-De0008378				X	X	X
22	TP23_0.0-0.2	Dec 03, 2024		Soil	R24-De0008379		X		X	X	X
23	TP24_0.0-0.25	Dec 03, 2024		Soil	R24-De0008380				X	X	X
24	TP24_0.25-0.5	Dec 03, 2024		Soil	R24-De0008381				X	X	X
25	TP25_0.0-0.2	Dec 03, 2024		Soil	R24-De0008382				X	X	X
26	TP25_0.2-0.4	Dec 03, 2024		Soil	R24-De0008383					X	X
27	TP26_0.0-0.2	Dec 03, 2024		Soil	R24-De0008384				X	X	
28	TP26_0.2-0.4	Dec 03, 2024		Soil	R24-De0008385				X	X	X

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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
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IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: D & N Geotechnical Pty Ltd
Address: Unit 11/22-38 Thynne St
Bruce
ACT 2617

Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.: C-2435.01
Report #: 1167410
Phone:
Fax:

Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						HOLD*	Asbestos - AS4964	CANCELLED*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
29	TP27_0.0-0.2	Dec 03, 2024		Soil	R24-De0008386		X		X	X	X
30	TP27_0.2-0.4	Dec 03, 2024		Soil	R24-De0008387					X	X
31	TP28_0.0-0.2	Dec 03, 2024		Soil	R24-De0008388		X			X	X
32	TP28_0.2-0.4	Dec 03, 2024		Soil	R24-De0008389					X	X
33	TP29_0.0-0.25	Dec 03, 2024		Soil	R24-De0008390		X			X	X
34	TP29_0.25-0.4	Dec 03, 2024		Soil	R24-De0008391			X			
35	TP30_0.0-0.3	Dec 03, 2024		Soil	R24-De0008392		X			X	X
36	TP30_0.4-0.7	Dec 03, 2024		Soil	R24-De0008393					X	X
37	QC100	Dec 03, 2024		Soil	R24-De0008394					X	X
38	QC101	Dec 03, 2024		Soil	R24-De0008395					X	X
39	QC102	Dec 03, 2024		Soil	R24-De0008396					X	X
40	QC106	Dec 03, 2024		Soil	R24-De0008397					X	X
41	TP10_0.2-0.5	Dec 03, 2024		Soil	R24-De0008398	X					
42	TP13_0.2-0.5	Dec 03, 2024		Soil	R24-De0008399	X					
43	TP16_0.2-0.4	Dec 03, 2024		Soil	R24-De0008400	X					
44	TP18_0.2-0.5	Dec 03, 2024		Soil	R24-De0008401	X					

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Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
45	TP19_0.3-0.6	Dec 03, 2024		Soil	R24-De0008402	X					
46	TP20_0.2-0.4	Dec 03, 2024		Soil	R24-De0008403	X					
47	TP21_0.2-0.4	Dec 03, 2024		Soil	R24-De0008404			X			
48	TP23_0.2-0.4	Dec 03, 2024		Soil	R24-De0008405	X					
49	QC103	Dec 03, 2024		Soil	R24-De0008406	X					
50	QC104	Dec 03, 2024		Soil	R24-De0008407	X					
51	QC105	Dec 03, 2024		Soil	R24-De0008408	X					
52	QC107	Dec 03, 2024		Soil	R24-De0008409	X					
53	QC202	Dec 03, 2024		Soil	R24-De0008410	X					
54	QC203	Dec 03, 2024		Soil	R24-De0008411	X					
55	TP03_0.1-0.3	Dec 03, 2024		Soil	R24-De0008724	X					
56	TP06_0.0-0.3	Dec 03, 2024		Soil	R24-De0008725	X					
57	TP06_0.3-0.6	Dec 03, 2024		Soil	R24-De0008726			X			
58	TP29_0.25-0.5	Dec 03, 2024		Soil	R24-De0008727	X					
59	TP21_0.2-0.5	Dec 03, 2024		Soil	R24-De0008728	X					
Test Counts						17	16	6	14	35	34

Internal Quality Control Review and Glossary General

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

Holding Times

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

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**). This estimate is not NATA-accredited.
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to “non-bonded / friable”.
AFM	Airborne Fibre Monitoring, e.g., by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total %w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w)**.
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos-containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to distinguish visibly and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess the degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021), ISBN: 9780616667079.
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012), .ISBN: 9780717665020
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
MMVF	Man-Made Vitreous Fibre - exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and “bio-soluble fibres. NOTE: previously known as “synthetic mineral fibre” (SMF).
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
PCM	Phase Contrast Microscopy. This is used for fibre counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Sampling	Unless otherwise stated, Eurofins are not responsible for sampling equipment or the sampling process.
SRA	Sample Receipt Advice.
Trace Analysis	An analytical procedure is used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. It may include (but is not limited to) actinolite, anthophyllite, or tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average %w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

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

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos

Authorised by:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Sample Receipt Advice

Company name: D & N Geotechnical Pty Ltd
Contact name: Nick Davison
Project name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01
Turnaround time: 5 Day
Date/Time received Dec 4, 2024 2:20 PM
Eurofins reference 1167410

Sample Information

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

Notes

Sample QC200 and QC201 have been forwared to ALS. No received sample TP03_0.3-0.3, TP06_0.0-0.2, TP06_0.2-0.6, TP29_0.25-0.4, TP21_0.2-0.4, analysis cancelled. Received extra samples TP03_0.1-0.3, TP06_0.0-0.3, TP06_0.3-0.6, TP29_0.25-0.5, TP21_0.2-0.5, logged as on hold.

Contact

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

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Nick Davison - nick@dngeotechnical.com.

Note: A copy of these results will also be delivered to the general D & N Geotechnical Pty Ltd email address.

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Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
External Laboratory											
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**						
1	TP01_0.0-0.3	Dec 03, 2024		Soil	R24-De0008358	X				X	X
2	TP01_0.3-0.6	Dec 03, 2024		Soil	R24-De0008359	X				X	X
3	TP03_0.0-0.1	Dec 03, 2024		Soil	R24-De0008360	X				X	X
4	TP03_0.3-0.3	Dec 03, 2024		Soil	R24-De0008361		X				
5	TP04_0.0-0.3	Dec 03, 2024		Soil	R24-De0008362	X				X	X
6	TP04_0.3-0.5	Dec 03, 2024		Soil	R24-De0008363	X				X	X
7	TP06_0.0-0.2	Dec 03, 2024		Soil	R24-De0008364		X				
8	TP06_0.2-0.6	Dec 03, 2024		Soil	R24-De0008365		X				
9	TP07_0.0-0.3	Dec 03, 2024		Soil	R24-De0008366	X				X	X
10	TP07_0.3-1.2	Dec 03, 2024		Soil	R24-De0008367	X				X	X
11	TP09_0.0-0.15	Dec 03, 2024		Soil	R24-De0008368					X	X
12	TP09_0.15-0.45	Dec 03, 2024		Soil	R24-De0008369					X	X

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Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
13	TP10_0.0-0.2	Dec 03, 2024		Soil	R24-De0008370					X	X
14	TP13_0.0-0.2	Dec 03, 2024		Soil	R24-De0008371				X	X	X
15	TP15_0.0-0.15	Dec 03, 2024		Soil	R24-De0008372	X					
16	TP15_0.15-0.3	Dec 03, 2024		Soil	R24-De0008373	X			X	X	X
17	TP16_0.0-0.2	Dec 03, 2024		Soil	R24-De0008374				X	X	X
18	TP18_0.0-0.2	Dec 03, 2024		Soil	R24-De0008375				X	X	X
19	TP19_0.0-0.3	Dec 03, 2024		Soil	R24-De0008376	X			X	X	X
20	TP20_0.0-0.2	Dec 03, 2024		Soil	R24-De0008377	X			X	X	X
21	TP21_0.0-0.2	Dec 03, 2024		Soil	R24-De0008378				X	X	X
22	TP23_0.0-0.2	Dec 03, 2024		Soil	R24-De0008379	X			X	X	X
23	TP24_0.0-0.25	Dec 03, 2024		Soil	R24-De0008380				X	X	X
24	TP24_0.25-0.5	Dec 03, 2024		Soil	R24-De0008381				X	X	X
25	TP25_0.0-0.2	Dec 03, 2024		Soil	R24-De0008382				X	X	X
26	TP25_0.2-0.4	Dec 03, 2024		Soil	R24-De0008383					X	X
27	TP26_0.0-0.2	Dec 03, 2024		Soil	R24-De0008384				X	X	
28	TP26_0.2-0.4	Dec 03, 2024		Soil	R24-De0008385				X	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: D & N Geotechnical Pty Ltd
Address: Unit 11/22-38 Thynne St
Bruce
ACT 2617

Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.:
Report #: 1167410
Phone:
Fax:

Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	CANCELLED*	HOLD*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
29	TP27_0.0-0.2	Dec 03, 2024		Soil	R24-De0008386	X			X	X	X
30	TP27_0.2-0.4	Dec 03, 2024		Soil	R24-De0008387					X	X
31	TP28_0.0-0.2	Dec 03, 2024		Soil	R24-De0008388	X				X	X
32	TP28_0.2-0.4	Dec 03, 2024		Soil	R24-De0008389					X	X
33	TP29_0.0-0.25	Dec 03, 2024		Soil	R24-De0008390	X				X	X
34	TP29_0.25-0.4	Dec 03, 2024		Soil	R24-De0008391		X				
35	TP30_0.0-0.3	Dec 03, 2024		Soil	R24-De0008392	X				X	X
36	TP30_0.4-0.7	Dec 03, 2024		Soil	R24-De0008393					X	X
37	QC100	Dec 03, 2024		Soil	R24-De0008394					X	X
38	QC101	Dec 03, 2024		Soil	R24-De0008395					X	X
39	QC102	Dec 03, 2024		Soil	R24-De0008396					X	X
40	QC106	Dec 03, 2024		Soil	R24-De0008397					X	X
41	TP10_0.2-0.5	Dec 03, 2024		Soil	R24-De0008398			X			
42	TP13_0.2-0.5	Dec 03, 2024		Soil	R24-De0008399			X			
43	TP16_0.2-0.4	Dec 03, 2024		Soil	R24-De0008400			X			
44	TP18_0.2-0.5	Dec 03, 2024		Soil	R24-De0008401			X			

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: D & N Geotechnical Pty Ltd
Address: Unit 11/22-38 Thynne St
Bruce
ACT 2617

Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.:
Report #: 1167410
Phone:
Fax:

Received: Dec 4, 2024 2:20 PM
Due: Dec 11, 2024
Priority: 5 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	CANCELLED*	HOLD*	Acid Herbicides	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Melbourne Laboratory - NATA # 1261 Site # 1254									X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X	X
45	TP19_0.3-0.6	Dec 03, 2024		Soil	R24-De0008402			X			
46	TP20_0.2-0.4	Dec 03, 2024		Soil	R24-De0008403			X			
47	TP21_0.2-0.4	Dec 03, 2024		Soil	R24-De0008404		X				
48	TP23_0.2-0.4	Dec 03, 2024		Soil	R24-De0008405			X			
49	QC103	Dec 03, 2024		Soil	R24-De0008406			X			
50	QC104	Dec 03, 2024		Soil	R24-De0008407			X			
51	QC105	Dec 03, 2024		Soil	R24-De0008408			X			
52	QC107	Dec 03, 2024		Soil	R24-De0008409			X			
53	QC202	Dec 03, 2024		Soil	R24-De0008410			X			
54	QC203	Dec 03, 2024		Soil	R24-De0008411			X			
55	TP03_0.1-0.3	Dec 03, 2024		Soil	R24-De0008724			X			
56	TP06_0.0-0.3	Dec 03, 2024		Soil	R24-De0008725			X			
57	TP06_0.3-0.6	Dec 03, 2024		Soil	R24-De0008726		X				
58	TP29_0.25-0.5	Dec 03, 2024		Soil	R24-De0008727			X			
59	TP21_0.2-0.5	Dec 03, 2024		Soil	R24-De0008728			X			
Test Counts						16	6	17	14	35	34

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ **Sydney Laboratory** 179 Magowar Road, Girraween, NSW 2145 +61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1/21 Smallwood Place, Murarrie, QLD 4172 +61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** 46-48 Banksia Road, Welshpool, WA 6106 +61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

1/6

Company	D&N Geotechnical Pty Lt	Project №	C-2435.01	Project Manager	Nick Davison
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617	Project Name	Proposed Industrial Subdivision - 2 Reddall Street, Yass	EDD Format (ESdat, EQuIS etc)	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Contact Name	Mich Besterwitch				
Phone №	452440293				
Special Directions					
Purchase Order	C-2435.01				
Quote ID №					

Sampler(s)	MB/SC
Handed over by	MB
Email for Invoice	contactus@dngeotechnical.com/nick@dngeotechnical.c
Email for Results	mich@dngeotechnical.com/nick@dngeotechnical.com

Analyses (Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing)

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Asbestos ID in Soil (AS 4964)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	BTEX F1										HOLD	Containers (Change container type & size if necessary): 500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	TP01_0.0-0.3	3/12/24	S	X	X																			1	1	
2	TP01_0.3-0.6	3/12/24	S	X	X																			1	1	
3	TP03_0.0-0.1	3/12/24	S	X	X																			1	1	
4	TP03_0.3-0.3	3/12/24	S	X	X																			1	1	
5	TP04_0.0-0.3	3/12/24	S	X	X																			1	1	
6	TP04_0.3-0.5	3/12/24	S	X	X																			1	1	
7	TP06_0.0-0.2	3/12/24	S	X	X																			1	1	
8	TP06_0.2-0.6	3/12/24	S	X	X																			1	1	
9	TP07_0.0-0.3	3/12/24	S	X	X																			1	1	
10	TP07_0.3-1.2	3/12/24	S	X	X																			1	1	
	Total Counts			10	10																			10	10	

Required Turnaround Time (TAT) Default will be 5 days if not ticked

♦Surcharge will apply

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦ ☐ 1 day♦
- ☐ 2 days♦ ☐ 3 days♦
- ☑ 5 days (Standard)
- ☐ Other( )

Method of Shipment	☐ Courier (#)	☐ Hand Delivered	☐ Postal	Name		Signature		Date		Time	
Laboratory Use Only	Received By	Hannah Xie	SYD / BNE / MEL / PER / ADL / NTL / DRW	Signature		Date	04/12/24	Time	16:30	Temperature	16.2
	Received By		SYD / BNE / MEL / PER / ADL / NTL / DRW	Signature		Date		Time		Report №	116740

ACT

16.6
16.6
16.6
-0.4

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ **Sydney Laboratory** 179 Magowar Road, Girraween, NSW 2145 +61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1/21 Smallwood Place, Murarrie, QLD 4172 +61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** 46-48 Banksia Road, Welshpool, WA 6106 +61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	D&N Geotechnical Pty Lt	Project №	C-2435.01	Project Manager	Nick Davison
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617	Project Name	Proposed Industrial Subdivision - 2 Reddall Street, Yass	EDD Format (ESdat, EQuIS etc)	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Contact Name	Mich Besterwitch				
Phone №	452440293				
Special Directions					
Purchase Order	C-2435.01				
Quote ID №					

Sampler(s)	MB/SC
Handed over by	MB
Email for Invoice	contactus@dngeotechnical.com/nick@dngeotechnical.c
Email for Results	mich@dngeotechnical.com/nick@dngeotechnical.com

Analyses (Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing)

Containers (Change container type & size if necessary.)

Required Turnaround Time (TAT) (Default will be 5 days if not ticked)

♦Surcharge will apply

☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☐ 3 days♦
☑ 5 days (Standard)
☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Asbestos ID in Soil (AS 4964)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	BTEX F1	HOLD	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	TP09_0.0-0.15	3/12/24	S		X										1	1	
2	TP09_0.15-0.45	3/12/24	S		X										1	1	
3	TP10_0.0-0.2	3/12/24	S		X										1	1	
4	TP10_0.2-0.5	3/12/24	S					X							1	1	
5	TP13_0.0-0.2	3/12/24	S		X	X									1	1	
6	TP13_0.2-0.5	3/12/24	S					X							1	1	
7	TP15_0.0-0.15	3/12/24	S	X											1	1	
8	TP15_0.15-0.3	3/12/24	S	X	X	X									1	1	
9	TP16_0.0-0.2	3/12/24	S		X	X									1	1	
10	TP16_0.2-0.4	3/12/24	S					X							1	1	
	Total Counts			2	6	3		3							10	10	

Method of Shipment	☐ Courier (#) ☐ Hand Delivered ☐ Postal	Name		Signature		Date	Time

Laboratory Use Only	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature		
	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №		

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

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☐ **Perth Laboratory** 46-48 Banksia Road, Welshpool, WA 6106 +61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

3/6

Company	D&N Geotechnical Pty Lt	**Project №**	C-2435.01	**Project Manager**	Nick Davison
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617	**Project Name**	Proposed Industrial Subdivision - 2 Reddall Street, Yass	**EDD Format** ESdat, EQuIS etc	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Contact Name	Mich Besterwitch				
Phone №	452440293				
Special Directions					
Purchase Order	C-2435.01				
Quote ID №					

Sampler(s)	MB/SC
Handed over by	MB
Email for Invoice	contactus@dngeotechnical.com/nick@dngeotechnical.c
Email for Results	mich@dngeotechnical.com/nick@dngeotechnical.com

Analyses — Where metals are requested, please specify "Total" or "Filtered"; SUITE code must be used to attract SUITE pricing

Containers — Change container type & size if necessary

Required Turnaround Time (TAT) — Default will be 5 days if not ticked

♦Surcharge will apply

☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☐ 3 days♦
☑ 5 days (Standard)
☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Asbestos ID in Soil (AS 4964)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	BTEX F1	HOLD	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	TP18_0.0-0.2	3/12/24	S		X	X									1	1	
2	TP18_0.2-0.5	3/12/24	S					X							1	1	
3	TP19_0.0-0.3	3/12/24	S	X	X	X									1	1	
4	TP19_0.3-0.6	3/12/24	S					X							1	1	
5	TP20_0.0-0.2	3/12/24	S	X	X	X									1	1	
6	TP20_0.2-0.4	3/12/24	S					X							1	1	
7	TP21_0.0-0.2	3/12/24	S		X	X									1	1	
8	TP21_0.2-0.4	3/12/24	S					X							1	1	
9	TP23_0.0-0.2	3/12/24	S	X	X	X									1	1	
10	TP23_0.2-0.4	3/12/24	S					X							1	1	
	Total Counts			3	5	5		5							10	10	

Method of Shipment	☐ Courier (#) ☐ Hand Delivered ☐ Postal	Name		Signature		Date	Time

Laboratory Use Only	Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	Time	Temperature
	Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	Time	Report №

Eurofins Environment Testing Australia Pty Ltd **EnviroSales@eurofins.com**

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

QS3009_R11 Modified by: Dr. R. Symons Approved by: T. Wong Approved on: 15 March 2022

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

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☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	D&N Geotechnical Pty Lt	**Project №**	C-2435.01	**Project Manager**	Nick Davison
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617	**Project Name**	Proposed Industrial Subdivision - 2 Reddall Street, Yass	**EDD Format** ESdat, EQuIS etc	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Contact Name	Mich Besterwitch				
Phone №	452440293				
Special Directions					
Purchase Order	C-2435.01				
Quote ID №					

Sampler(s)	MB/SC
Handed over by	MB
Email for Invoice	contactus@dngeotechnical.com/nick@dngeotechnical.c
Email for Results	mich@dngeotechnical.com/nick@dngeotechnical.com

Analyses — Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing

Containers — Change container type & size if necessary

Required Turnaround Time (TAT) — Default will be 5 days if not ticked

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☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☐ 3 days♦
☑ 5 days (Standard)
☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Asbestos ID in Soil (AS 4964)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	BTEX F1	HOLD	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	TP24_0.0-0.25	3/12/24	S		X	X									1	1	
2	TP24_0.25-0.5	3/12/24	S		X	X									1	1	
3	TP25_0.0-0.2	3/12/24	S		X	X									1	1	
4	TP25_0.2-0.4	3/12/24	S		X										1	1	
5	TP26_0.0-0.2	3/12/24	S			X									1	1	
6	TP26_0.2-0.4	3/12/24	S		X	X									1	1	
7	TP27_0.0-0.2	3/12/24	S	X	X	X									1	1	
8	TP27_0.2-0.4	3/12/24	S		X										1	1	
9	TP28_0.0-0.2	3/12/24	S	X	X										1	1	
10	TP28_0.2-0.4	3/12/24	S		X										1	1	
	Total Counts			2	9	6									10	10	

Method of Shipment	☐ Courier (#) ☐ Hand Delivered ☐ Postal	Name		Signature		Date		Time	
Laboratory Use Only	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date		Time		Temperature	
	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date		Time		Report №	

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

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☐ **Brisbane Laboratory** Unit 1/21 Smallwood Place, Murarrie, QLD 4172 +61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** 46-48 Banksia Road, Welshpool, WA 6106 +61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	D&N Geotechnical Pty Lt	Project №	C-2435.01	Project Manager	Nick Davison
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617	Project Name	Proposed Industrial Subdivision - 2 Reddall Street, Yass	EDD Format (ESdat, EQuIS etc)	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Contact Name	Mich Besterwitch				
Phone №	0452440293				
Special Directions					
Purchase Order	C-2435.01				
Quote ID №					

Sampler(s)	MB/SC
Handed over by	MB
Email for Invoice	contactus@dngeotechnical.com/nick@dngeotechnical.c
Email for Results	mich@dngeotechnical.com/nick@dngeotechnical.com

Analyses Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

Containers Change container type & size if necessary.

Required Turnaround Time (TAT) Default will be 5 days if not ticked.

♦Surcharge will apply

☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☐ 3 days♦
☑ 5 days (Standard)
☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Asbestos ID in Soil (AS 4964)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	BTEX F1	HOLD	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	TP29_0.0-0.25	3/12/24	S	X	X										1	1	
2	TP29_0.25-0.4	3/12/24	S	X	X										1	1	
3	TP30_0.0-0.3	3/12/24	S	X	X										1	1	
4	TP30_0.4-0.7	3/12/24	S		X										1	1	
5	QC100	3/12/24	S		X										1		
6	QC101	3/12/24	S		X										1		
7	QC102	3/12/24	S		X										1		
8	QC103	3/12/24	S					X							1		
9	QC104	3/12/24	S					X							1		
10	QC105	3/12/24	S					X							1		
	Total Counts			3	7			3							10	4	

Method of Shipment	☐ Courier (#) ☐ Hand Delivered ☐ Postal	Name		Signature		Date	Time
Laboratory Use Only	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature	
	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №	

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ **Sydney Laboratory** 179 Magower Road, Girraween, NSW 2145 +61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1/21 Smallwood Place, Murarrie, QLD 4172 +61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** 46-48 Banksia Road, Welshpool, WA 6106 +61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	D&N Geotechnical Pty Lt	**Project №**	C-2435.01	**Project Manager**	Nick Davison
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617	**Project Name**	Proposed Industrial Subdivision - 2 Reddall Street, Yass	**EDD Format** (ESdat, EQuIS etc)	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Contact Name	Mich Besterwitch				
Phone №	452440293				
Special Directions					
Purchase Order	C-2435.01				
Quote ID №					

Sampler(s)	MB/SC
Handed over by	MB
Email for Invoice	contactus@dngeotechnical.com/nick@dngeotechnical.c
Email for Results	mich@dngeotechnical.com/nick@dngeotechnical.com

Analyses (Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing)

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Asbestos ID in Soil (AS 4964)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	BTEX F1	HOLD	Containers: 500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	QC106	3/12/24	S		X										1		
2	QC107	3/12/24	S					X							1		
3	QC200	3/12/24	S		X										1		Please forward to ALS Syd
4	QC201	3/12/24	S		X										1		Please forward to ALS Syd
5	QC202	3/12/24	S					X							1		
6	QC203	3/12/24	S					X							1		
7	~~QC400~~		S				X										T/S
8	~~QC500~~		S				X										T/B
9																	
10																	
	Total Counts				3		2	3							6		

Containers (Change container type & size if necessary)

Required Turnaround Time (TAT) (Default will be 5 days if not ticked. ♦Surcharge will apply)

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦ ☐ 1 day♦
- ☐ 2 days♦ ☐ 3 days♦
- ☑ 5 days (Standard)
- ☐ Other( )

Method of Shipment	☐ Courier (#) ☐ Hand Delivered ☐ Postal	Name		Signature	Date / Time / Time
Laboratory Use Only	Received By: Hannah ICE	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date: 04/12/24	Time: 14:10 / Temperature
	Received By:	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time / Report №

D & N Geotechnical Pty Ltd
Unit 11/22-38 Thynne St
Bruce
ACT 2617

Attention: **Nick Davison**

Report **1168408-S**
Project name Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID C-2435.01
Received Date Dec 06, 2024

Client Sample ID			**TP11_0.0-0.1**	**TP12_0.0-0.1**	**TP14_0.0-0.1**	[G01]**TP17_0.0-0.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**R24-De0015143**	**R24-De0015144**	**R24-De0015145**	**R24-De0015146**
Date Sampled			**Dec 05, 2024**	**Dec 05, 2024**	**Dec 05, 2024**	**Dec 05, 2024**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	96
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	610
TRH C29-C36	50	mg/kg	< 50	56	< 50	340
TRH C10-C36 (Total)	50	mg/kg	< 50	56	< 50	1046
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	124	102	100
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	170
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	6.1
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	6.1
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	6.1
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.0
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	4.0
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.8
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	4.9
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.2
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.2
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.0
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.1

Client Sample ID			TP11_0.0-0.1	TP12_0.0-0.1	TP14_0.0-0.1	[G01]TP17_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0015143	R24-De0015144	R24-De0015145	R24-De0015146
Date Sampled			Dec 05, 2024	Dec 05, 2024	Dec 05, 2024	Dec 05, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.2
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	26
2-Fluorobiphenyl (surr.)	1	%	94	121	126	106
p-Terphenyl-d14 (surr.)	1	%	127	119	124	142
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	INT	INT	INT	INT
Tetrachloro-m-xylene (surr.)	1	%	129	111	115	114
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	INT	INT	INT	INT
Tetrachloro-m-xylene (surr.)	1	%	129	111	115	114
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	170
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	790
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	180
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	1140

Client Sample ID			TP11_0.0-0.1	TP12_0.0-0.1	TP14_0.0-0.1	[G01]TP17_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			R24-De0015143	R24-De0015144	R24-De0015145	R24-De0015146
Date Sampled			Dec 05, 2024	Dec 05, 2024	Dec 05, 2024	Dec 05, 2024
Test/Reference	LOR	Unit				
Metals M8						
Arsenic	2	mg/kg	3.0	3.9	4.6	7.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	25	22	19	37
Copper	5	mg/kg	7.3	9.1	13	14
Lead	5	mg/kg	12	18	13	92
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	5.3	6.7	11	5.0
Zinc	5	mg/kg	20	29	42	240
Sample Properties						
% Moisture	1	%	15	12	17	16

Client Sample ID			TP22_0.0-0.1	QC108
Sample Matrix			Soil	Soil
Eurofins Sample No.			R24-De0015147	R24-De0015151
Date Sampled			Dec 05, 2024	Dec 05, 2024
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	57
TRH C29-C36	50	mg/kg	< 50	69
TRH C10-C36 (Total)	50	mg/kg	< 50	126
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	88	130
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			TP22_0.0-0.1	QC108
Sample Matrix			Soil	Soil
Eurofins Sample No.			R24-De0015147	R24-De0015151
Date Sampled			Dec 05, 2024	Dec 05, 2024
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	130	125
p-Terphenyl-d14 (surr.)	1	%	121	114
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	INT	INT
Tetrachloro-m-xylene (surr.)	1	%	108	108
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	INT	INT
Tetrachloro-m-xylene (surr.)	1	%	108	108

Client Sample ID			TP22_0.0-0.1	QC108
Sample Matrix			Soil	Soil
Eurofins Sample No.			R24-De0015147	R24-De0015151
Date Sampled			Dec 05, 2024	Dec 05, 2024
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
Metals M8				
Arsenic	2	mg/kg	4.1	4.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	27	17
Copper	5	mg/kg	9.2	12
Lead	5	mg/kg	19	12
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	10
Zinc	5	mg/kg	73	36
Sample Properties				
% Moisture	1	%	16	16

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 10, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Dec 10, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 10, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 10, 2024	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Dec 10, 2024	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Dec 10, 2024	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 10, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8	Sydney	Dec 10, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Dec 06, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			

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Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.: C-2435.01
Report #: 1168408
Phone:
Fax:

Received: Dec 6, 2024 11:00 AM
Due: Dec 17, 2024
Priority: 7 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						HOLD*	Asbestos - AS4964	Asbestos Absence /Presence	CANCELLED*	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X
External Laboratory											
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**						
1	TP11_0.0-0.1	Dec 05, 2024		Soil	R24-De0015143		X			X	X
2	TP12_0.0-0.1	Dec 05, 2024		Soil	R24-De0015144		X			X	X
3	TP14_0.0-0.1	Dec 05, 2024		Soil	R24-De0015145		X			X	X
4	TP17_0.0-0.1	Dec 05, 2024		Soil	R24-De0015146		X			X	X
5	TP22_0.0-0.1	Dec 05, 2024		Soil	R24-De0015147		X			X	X
6	S-01	Dec 05, 2024		Building Materials	R24-De0015148			X			
7	S-02	Dec 05, 2024		Building Materials	R24-De0015149			X			
8	S-03	Dec 05, 2024		Building Materials	R24-De0015150			X			
9	QC108	Dec 05, 2024		Soil	R24-De0015151					X	X
10	QC208	Dec 05, 2024		Soil	R24-De0015152	X					
11	TP14_0.0-0.2	Dec 05, 2024		Soil	R24-De0015266				X		
Test Counts						1	5	3	1	6	6

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Metals M8							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	94			70-130	Pass	
TRH C10-C14	%	74			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	99			70-130	Pass	
Toluene	%	105			70-130	Pass	
Ethylbenzene	%	109			70-130	Pass	
m&p-Xylenes	%	114			70-130	Pass	
o-Xylene	%	110			70-130	Pass	
Xylenes - Total*	%	113			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	108			70-130	Pass	
TRH C6-C10	%	95			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	70			70-130	Pass	
Acenaphthylene	%	87			70-130	Pass	
Anthracene	%	83			70-130	Pass	
Benz(a)anthracene	%	75			70-130	Pass	
Benzo(a)pyrene	%	77			70-130	Pass	
Benzo(b&j)fluoranthene	%	78			70-130	Pass	
Benzo(g.h.i)perylene	%	70			70-130	Pass	
Benzo(k)fluoranthene	%	73			70-130	Pass	
Chrysene	%	76			70-130	Pass	
Dibenz(a.h)anthracene	%	76			70-130	Pass	
Fluoranthene	%	81			70-130	Pass	
Fluorene	%	77			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	74			70-130	Pass	
Naphthalene	%	76			70-130	Pass	
Phenanthrene	%	80			70-130	Pass	
Pyrene	%	82			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	81			70-130	Pass	
4.4'-DDD	%	98			70-130	Pass	
4.4'-DDE	%	83			70-130	Pass	
4.4'-DDT	%	117			70-130	Pass	
a-HCH	%	107			70-130	Pass	
Aldrin	%	77			70-130	Pass	
b-HCH	%	86			70-130	Pass	
d-HCH	%	82			70-130	Pass	
Dieldrin	%	79			70-130	Pass	
Endosulfan I	%	85			70-130	Pass	
Endosulfan II	%	83			70-130	Pass	
Endosulfan sulphate	%	75			70-130	Pass	
Endrin	%	105			70-130	Pass	
Endrin aldehyde	%	75			70-130	Pass	
Endrin ketone	%	97			70-130	Pass	
g-HCH (Lindane)	%	110			70-130	Pass	
Heptachlor	%	96			70-130	Pass	
Heptachlor epoxide	%	77			70-130	Pass	
Hexachlorobenzene	%	75			70-130	Pass	
Methoxychlor	%	129			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	88			70-130	Pass	
Aroclor-1260	%	93			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	79			70-130	Pass	
LCS - % Recovery							
Metals M8							
Arsenic	%	101			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cadmium			%	105			80-120	Pass	
Chromium			%	103			80-120	Pass	
Copper			%	102			80-120	Pass	
Lead			%	102			80-120	Pass	
Mercury			%	107			80-120	Pass	
Nickel			%	102			80-120	Pass	
Zinc			%	102			80-120	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions									
TRH C10-C14			%	94			70-130	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions									
TRH >C10-C16			%	97			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthylene	S24-De0011831	NCP	%	76			70-130	Pass	
Anthracene	S24-De0011831	NCP	%	75			70-130	Pass	
Benz(a)anthracene	S24-No0086080	NCP	%	77			70-130	Pass	
Benzo(a)pyrene	S24-No0086080	NCP	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	S24-No0086080	NCP	%	83			70-130	Pass	
Benzo(g.h.i)perylene	S24-No0086080	NCP	%	72			70-130	Pass	
Benzo(k)fluoranthene	S24-No0086080	NCP	%	77			70-130	Pass	
Chrysene	S24-No0086080	NCP	%	80			70-130	Pass	
Dibenz(a.h)anthracene	S24-De0011831	NCP	%	73			70-130	Pass	
Fluoranthene	S24-De0011831	NCP	%	73			70-130	Pass	
Fluorene	S24-De0011831	NCP	%	73			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S24-De0011831	NCP	%	71			70-130	Pass	
Naphthalene	S24-De0011831	NCP	%	74			70-130	Pass	
Phenanthrene	S24-No0086080	NCP	%	75			70-130	Pass	
Pyrene	S24-De0011831	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
a-HCH	S24-De0011831	NCP	%	87			70-130	Pass	
d-HCH	S24-De0011831	NCP	%	89			70-130	Pass	
Endosulfan I	S24-De0011831	NCP	%	114			70-130	Pass	
Endrin	S24-De0011831	NCP	%	106			70-130	Pass	
g-HCH (Lindane)	S24-De0011831	NCP	%	94			70-130	Pass	
Methoxychlor	S24-No0086080	NCP	%	105			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S24-No0086080	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	S24-De0005874	NCP	%	88			75-125	Pass	
Cadmium	S24-De0005874	NCP	%	91			75-125	Pass	
Chromium	S24-De0005874	NCP	%	84			75-125	Pass	
Copper	S24-De0005874	NCP	%	85			75-125	Pass	
Lead	S24-De0005874	NCP	%	85			75-125	Pass	
Mercury	S24-De0005874	NCP	%	93			75-125	Pass	
Nickel	S24-De0005874	NCP	%	86			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	R24-De0015144	CP	%	78			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	R24-De0015144	CP	%	76			70-130	Pass	
Toluene	R24-De0015144	CP	%	73			70-130	Pass	
Ethylbenzene	R24-De0015144	CP	%	79			70-130	Pass	
m&p-Xylenes	R24-De0015144	CP	%	78			70-130	Pass	
o-Xylene	R24-De0015144	CP	%	79			70-130	Pass	
Xylenes - Total*	R24-De0015144	CP	%	78			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	R24-De0015144	CP	%	80			70-130	Pass	
TRH C6-C10	R24-De0015144	CP	%	78			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	R24-De0015145	CP	%	71			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	R24-De0015145	CP	%	76			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S24-De0027069	NCP	%	108			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	R24-De0015146	CP	%	115			70-130	Pass	
4.4'-DDD	R24-De0015146	CP	%	113			70-130	Pass	
4.4'-DDE	R24-De0015146	CP	%	105			70-130	Pass	
4.4'-DDT	R24-De0015146	CP	%	85			70-130	Pass	
Aldrin	R24-De0015146	CP	%	105			70-130	Pass	
b-HCH	R24-De0015146	CP	%	77			70-130	Pass	
Dieldrin	R24-De0015146	CP	%	86			70-130	Pass	
Endosulfan II	R24-De0015146	CP	%	82			70-130	Pass	
Endosulfan sulphate	R24-De0015146	CP	%	78			70-130	Pass	
Endrin aldehyde	R24-De0015146	CP	%	112			70-130	Pass	
Endrin ketone	R24-De0015146	CP	%	115			70-130	Pass	
Heptachlor	R24-De0015146	CP	%	125			70-130	Pass	
Heptachlor epoxide	R24-De0015146	CP	%	100			70-130	Pass	
Hexachlorobenzene	R24-De0015146	CP	%	104			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	R24-De0015146	CP	%	110			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	R24-De0015143	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	R24-De0015143	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	R24-De0015143	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	R24-De0015143	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	R24-De0015143	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	R24-De0015143	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	R24-De0015143	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S24-De0024493	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S24-De0024493	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
a-HCH	S24-No0074870	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S24-No0074870	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	R24-De0015144	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	R24-De0015144	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	R24-De0015144	CP	mg/kg	56	65	15	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	R24-De0015144	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	R24-De0015144	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	R24-De0015144	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	R24-De0015144	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	R24-De0015144	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	R24-De0015144	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	R24-De0015144	CP	%	12	13	8.0	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	R24-De0015151	CP	mg/kg	4.8	4.7	2.0	30%	Pass	
Cadmium	R24-De0015151	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	R24-De0015151	CP	mg/kg	17	17	4.0	30%	Pass	
Copper	R24-De0015151	CP	mg/kg	12	13	2.0	30%	Pass	
Lead	R24-De0015151	CP	mg/kg	12	14	12	30%	Pass	
Mercury	R24-De0015151	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	R24-De0015151	CP	mg/kg	10	10	2.0	30%	Pass	
Zinc	R24-De0015151	CP	mg/kg	36	39	9.0	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Ursula Long	Analytical Services Manager
Chamath JHM Annakkage	Senior Analyst-Asbestos
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Organic
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Sample Properties

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

Certificate of Analysis

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NATA Accredited
Accreditation Number 1261
Site Number 18217

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

D & N Geotechnical Pty Ltd
Unit 11/22-38 Thynne St
Bruce
ACT 2617

Attention:	Nick Davison
Report	1168408-AID
Project Name	Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID	C-2435.01
Received Date	Dec 06, 2024
Date Reported	Dec 18, 2024

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Man-made vitreous fibre (MMVF)	Fibres exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and bio-soluble fibres. NOTE: previously known as "synthetic mineral fibre" (SMF). Simple analytical procedures such as polarised light microscopy cannot detect or reliably identify asbestos in some types of commercial products containing asbestos, either because the fibres are below the resolution of optical microscopy or because the matrix material adheres too strongly to the fibres. For these types of products, electron microscopy may be necessary.
Subsampling Soil Samples	The sample submitted is dried and passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater than 10 mm and greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 g to 60 g, then a subsampling routine based on ISO 3082:2017(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be subsampled for trace analysis, in accordance with AS 5370:2024*.*
Bonded asbestos-containing material (ACM)	The material is first examined, and any fibres are isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 5370:2024*. *NOTE: Even after disintegration, it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting (LOR)	The performance limitation of the AS 5370:2024* method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory limit of reporting, per se. Examination of large sample size (e.g., 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 5370:2024*, and hence, NATA Accreditation does not cover the performance of this service (non-NATA results are shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964-2004: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID C-2435.01
Date Sampled Dec 05, 2024
Report 1168408-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP11_0.0-0.1	24-De0015143	Dec 05, 2024	Approximate Sample 322g Sample consisted of: Brown fine-grained soil, plant debris, wood, bitumen	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP12_0.0-0.1	24-De0015144	Dec 05, 2024	Approximate Sample 314g Sample consisted of: Brown fine-grained soil, plant debris,wood, charcoal.	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP14_0.0-0.1	24-De0015145	Dec 05, 2024	Approximate Sample 386g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP17_0.0-0.1	24-De0015146	Dec 05, 2024	Approximate Sample 305g Sample consisted of: Brown fine-grained soil, plant debris,wood, charcoal, concret material, organic debris	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
TP22_0.0-0.1	24-De0015147	Dec 05, 2024	Approximate Sample 257g Sample consisted of: Brown fine-grained soil, plant debris, wood, bitumen	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
S-01	24-De0015148	Dec 05, 2024	Approximate Sample 54g / 110x92x5mm Sample consisted of: Grey plaster, cement materials	No asbestos detected. No trace asbestos detected.
S-02	24-De0015149	Dec 05, 2024	Approximate Sample 212g / 130x115x15mm Sample consisted of: varlous fgagments of ceramic tile types	No asbestos detected. No trace asbestos detected.
S-03	24-De0015150	Dec 05, 2024	Approximate Sample 152g / 173x145x8mm Sample consisted of: Grey cement materials	No asbestos detected. No trace asbestos detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Dec 06, 2024	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Dec 06, 2024	Indefinite

eurofins

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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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Site# 2370 & 2554

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Company Name: D & N Geotechnical Pty Ltd
Address: Unit 11/22-38 Thynne St
Bruce
ACT 2617

Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.: C-2435.01
Report #: 1168408
Phone:
Fax:

Received: Dec 6, 2024 11:00 AM
Due: Dec 17, 2024
Priority: 7 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						HOLD*	Asbestos - AS4964	Asbestos Absence /Presence	CANCELLED*	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X
External Laboratory											
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**						
1	TP11_0.0-0.1	Dec 05, 2024		Soil	R24-De0015143		X			X	X
2	TP12_0.0-0.1	Dec 05, 2024		Soil	R24-De0015144		X			X	X
3	TP14_0.0-0.1	Dec 05, 2024		Soil	R24-De0015145		X			X	X
4	TP17_0.0-0.1	Dec 05, 2024		Soil	R24-De0015146		X			X	X
5	TP22_0.0-0.1	Dec 05, 2024		Soil	R24-De0015147		X			X	X
6	S-01	Dec 05, 2024		Building Materials	R24-De0015148			X			
7	S-02	Dec 05, 2024		Building Materials	R24-De0015149			X			
8	S-03	Dec 05, 2024		Building Materials	R24-De0015150			X			
9	QC108	Dec 05, 2024		Soil	R24-De0015151					X	X
10	QC208	Dec 05, 2024		Soil	R24-De0015152	X					
11	TP14_0.0-0.2	Dec 05, 2024		Soil	R24-De0015266				X		
Test Counts						1	5	3	1	6	6

Internal Quality Control Review and Glossary General

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

Holding Times

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

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**). This estimate is not NATA-accredited.
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to “non-bonded / friable”.
AFM	Airborne Fibre Monitoring, e.g., by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total %w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w)**.
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos-containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to distinguish visibly and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess the degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021), ISBN: 9780616667079.
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012), .ISBN: 9780717665020
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
MMVF	Man-Made Vitreous Fibre - exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and “bio-soluble fibres. NOTE: previously known as “synthetic mineral fibre” (SMF).
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
PCM	Phase Contrast Microscopy. This is used for fibre counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Sampling	Unless otherwise stated, Eurofins are not responsible for sampling equipment or the sampling process.
SRA	Sample Receipt Advice.
Trace Analysis	An analytical procedure is used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. It may include (but is not limited to) actinolite, anthophyllite, or tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average %w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

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

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos

Authorised by:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins ARL Pty Ltd

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WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name: D & N Geotechnical Pty Ltd
Contact name: Nick Davison
Project name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01
Turnaround time: 7 Day
Date/Time received Dec 6, 2024 11:00 AM
Eurofins reference 1168408

Sample Information

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

Notes

Contact

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

Ursula Long on phone : or by email: Ursula.Long@eurofinsanz.com

Results will be delivered electronically via email to Nick Davison - nick@dngeotechnical.com.

Note: A copy of these results will also be delivered to the general D & N Geotechnical Pty Ltd email address.

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: D & N Geotechnical Pty Ltd
Address: Unit 11/22-38 Thynne St
Bruce
ACT 2617

Project Name: Proposed Industrial Subdivision - 2 Reddall Street Yass
Project ID: C-2435.01

Order No.: C-2435.01
Report #: 1168408
Phone:
Fax:

Received: Dec 6, 2024 11:00 AM
Due: Dec 17, 2024
Priority: 7 Day
Contact Name: Nick Davison

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						HOLD*	Asbestos - AS4964	Asbestos Absence /Presence	CANCELLED*	Moisture Set	Suite B10A:TRH/BTEXN/PAH/OCP/PCB/Metals8
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X
External Laboratory											
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**						
1	TP11_0.0-0.1	Dec 05, 2024		Soil	R24-De0015143		X			X	X
2	TP12_0.0-0.1	Dec 05, 2024		Soil	R24-De0015144		X			X	X
3	TP14_0.0-0.1	Dec 05, 2024		Soil	R24-De0015145		X			X	X
4	TP17_0.0-0.1	Dec 05, 2024		Soil	R24-De0015146		X			X	X
5	TP22_0.0-0.1	Dec 05, 2024		Soil	R24-De0015147		X			X	X
6	S-01	Dec 05, 2024		Building Materials	R24-De0015148			X			
7	S-02	Dec 05, 2024		Building Materials	R24-De0015149			X			
8	S-03	Dec 05, 2024		Building Materials	R24-De0015150			X			
9	QC108	Dec 05, 2024		Soil	R24-De0015151					X	X
10	QC208	Dec 05, 2024		Soil	R24-De0015152	X					
11	TP14_0.0-0.2	Dec 05, 2024		Soil	R24-De0015266				X		
Test Counts						1	5	3	1	6	6

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ **Sydney Laboratory** 179 Magowar Road, Girraween, NSW 2145 +61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1/21 Smallwood Place, Murarrie, QLD 4172 +61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** 46-48 Banksia Road, Welshpool, WA 6106 +61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	D&N Geotechnical Pty Lt	Project №	C-2435.01
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617	Project Name	Proposed Industrial Subdivision - 2 Reddall Street, Yass
Contact Name	Nick Davison	Project Manager	Nick Davison
Phone №	0428347992	EDD Format (ESdat, EQuIS etc)	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Special Directions		Sampler(s)	EP
Purchase Order	C-2435.01	Handed over by	SG
Quote ID №		Email for Invoice	contactus@dngeotechnical.com/nick@dngeotechnical.c
		Email for Results	mich@dngeotechnical.com/nick@dngeotechnical.com

Analyses — Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

Containers — Change container type & size if necessary.

Required Turnaround Time (TAT) — Default will be 5 days if not ticked.

♦Surcharge will apply

☐ Overnight (reporting by 9am)♦ ☐ Same day ♦ ☐ 1 day ♦ ☐ 2 days ♦ ☐ 3 ☑ 5 days (Standard) ☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Asbestos ID in Soil (AS 4964)	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	Asbestos ID in Building Material	HOLD	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	TP11_0.0-0.1	5/12/24	S	X	X										1	1	
2	TP12_0.0-0.1	5/12/24	S	X	X										1	1	
3	TP14_0.0-0.1	5/12/24	S	X	X										1	1	ASB incorrectly labelled as TP14_0.0-0.2
4	TP17_0.0-0.1	5/12/24	S	X	X										1	1	
5	TP22_0.0-0.1	5/12/24	S	X	X										1	1	
6	S-01	5/12/24	S				X								1	1	
7	S-02	5/12/24	S				X									1	
8	S-03	5/12/24	S				X									1	
9	QC108	5/12/24	S		X											1	
10	QC208	5/12/24	S					X							1		
	Total Counts			5	6		3	1							7	8	

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal

Laboratory Use Only						
Received By	Hannah Xie	SYD | BNE | MEL | PER | ADL | NTL | DRW	Name		Signature	
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	06/12/24
					Time	11:20
					Temperature	5.9 °C
					Report №	116408

CERTIFICATE OF ANALYSIS

Work Order	: **ES2440268**	Page	: 1 of 7
Client	: **D&N GEOTECHNICAL PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: NICK DAVISON	Contact	: Customer Services ES
Address	: unit 11 Trevor Pearcey House Block C Traeger Court 28/34 Thynne St BRUCE 2617	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: C-2435.01 Proposed Industrial Subdivision-2 Reddall Street Yass	Date Samples Received	: 09-Dec-2024 16:50
Order number	: ----	Date Analysis Commenced	: 11-Dec-2024
C-O-C number	: ----	Issue Date	: 16-Dec-2024 16:16
Sampler	: MB/SC		
Site	: ----		
Quote number	: EN/333		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

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.

When sampling 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 purposes.

Where a result 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 = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QC200	QC201	----	----	----
			Sampling date / time	03-Dec-2024 00:00	03-Dec-2024 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2440268-001	ES2440268-002	--------	--------	--------
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**19.1**	**10.8**	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**33**	**8**	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Chromium	7440-47-3	2	mg/kg	**32**	**27**	----	----	----
Copper	7440-50-8	5	mg/kg	**35**	**12**	----	----	----
Lead	7439-92-1	5	mg/kg	**44**	**14**	----	----	----
Nickel	7440-02-0	2	mg/kg	**11**	**5**	----	----	----
Zinc	7440-66-6	5	mg/kg	**192**	**38**	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	<0.05	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QC200	QC201	----	----	----
				Sampling date / time	03-Dec-2024 00:00	03-Dec-2024 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2440268-001	ES2440268-002	--------	--------	--------
					Result	Result	----	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
	4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	----	----	----
	Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	----	----	----
	beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	----	----	----
^	**Endosulfan (sum)**	115-29-7	0.05	mg/kg	<0.05	<0.05	----	----	----
	4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	----	----	----
	Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	----	----	----
	Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	----	----	----
	4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	----	----	----
	Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	----	----	----
	Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	----	----	----
^	**Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----
^	**Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	<0.05	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
	Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	----	----	----
	Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	----	----	----
	Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	----	----	----
	Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	----	----	----
	Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	----	----	----
	Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	----	----	----
	Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	----	----	----
	Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	----	----	----
	Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	----	----	----
	Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	----	----	----
	Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	----	----	----
	Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	----	----	----
	Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QC200	QC201	----	----	----
				Sampling date / time	03-Dec-2024 00:00	03-Dec-2024 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2440268-001	ES2440268-002	--------	--------	--------
					Result	Result	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**0.6**	----	----	----
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**1.2**	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg		**280**	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		**280**	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	<10	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		**310**	**130**	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		**310**	**130**	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		<50	<50	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QC200	QC201	----	----	----
			Sampling date / time	03-Dec-2024 00:00	03-Dec-2024 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2440268-001	ES2440268-002	--------	--------	--------
				Result	Result	----	----	----
EP080: BTEXN - Continued								
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg	<0.2	<0.2	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg	<0.5	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	----	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**72.7**	**82.7**	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**72.3**	**95.1**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**87.2**	**96.9**	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**104**	**99.5**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**105**	**98.5**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**85.0**	**75.9**	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**106**	**92.6**	----	----	----
Anthracene-d10	1719-06-8	0.5	%	**104**	**107**	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	**102**	**96.9**	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**83.6**	**87.1**	----	----	----
Toluene-D8	2037-26-5	0.2	%	**80.0**	**83.2**	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	**112**	**118**	----	----	----

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2440268**	Page	: 1 of 4
Client	: **D&N GEOTECHNICAL PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: NICK DAVISON	Telephone	: +61-2-8784 8555
Project	: C-2435.01 Proposed Industrial Subdivision-2 Reddall Street Yass	Date Samples Received	: 09-Dec-2024
Site	: ----	Issue Date	: 16-Dec-2024
Sampler	: MB/SC	No. of samples received	: 2
Order number	: ----	No. of samples analysed	: 2

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 Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or 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 extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) 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 ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene 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 false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
QC200, QC201	**03-Dec-2024**	**----**	----	----	**11-Dec-2024**	17-Dec-2024	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
QC200, QC201	**03-Dec-2024**	**11-Dec-2024**	01-Jun-2025	✓	**12-Dec-2024**	01-Jun-2025	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
QC200, QC201	**03-Dec-2024**	**11-Dec-2024**	31-Dec-2024	✓	**13-Dec-2024**	31-Dec-2024	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
QC200, QC201	**03-Dec-2024**	**13-Dec-2024**	17-Dec-2024	✓	**15-Dec-2024**	22-Jan-2025	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
QC200, QC201	**03-Dec-2024**	**13-Dec-2024**	17-Dec-2024	✓	**15-Dec-2024**	22-Jan-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
QC200, QC201	**03-Dec-2024**	**13-Dec-2024**	17-Dec-2024	✓	**14-Dec-2024**	22-Jan-2025	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080)							
QC200, QC201	**03-Dec-2024**	**11-Dec-2024**	17-Dec-2024	✓	**13-Dec-2024**	17-Dec-2024	✓
Soil Glass Jar - Unpreserved (EP071)							
QC200, QC201	**03-Dec-2024**	**13-Dec-2024**	17-Dec-2024	✓	**14-Dec-2024**	22-Jan-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080)							
QC200, QC201	**03-Dec-2024**	**11-Dec-2024**	17-Dec-2024	✓	**13-Dec-2024**	17-Dec-2024	✓
Soil Glass Jar - Unpreserved (EP071)							
QC200, QC201	**03-Dec-2024**	**13-Dec-2024**	17-Dec-2024	✓	**14-Dec-2024**	22-Jan-2025	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
QC200, QC201	**03-Dec-2024**	**11-Dec-2024**	17-Dec-2024	✓	**13-Dec-2024**	17-Dec-2024	✓

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 expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	7	**14.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	3	**33.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	3	**33.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	8	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	8	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	**33.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence 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 Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
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 B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. 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 (SnCl2) (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 SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	SOIL	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	EP080	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 B(3) amended.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric 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 soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	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 Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

6/6

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

- ☐ Sydney Laboratory — 179 Magowar Road, Girraween, NSW 2145 — +61 2 9900 8400 — EnviroSampleNSW@eurofins.com
- ☐ Brisbane Laboratory — Unit 1/21 Smallwood Place, Murarrie, QLD 4172 — +61 7 3902 4600 — EnviroSampleQLD@eurofins.com
- ☐ Perth Laboratory — 46-48 Banksia Road, Welshpool, WA 6105 — +61 8 6253 4444 — EnviroSampleWA@eurofins.com
- ☐ Melbourne Laboratory — 6 Monterey Road Dandenong South VIC 3175 — +61 3 8564 5000 — EnviroSampleVic@eurofins.com

Company	D&N Geotechnical Pty Lt
Address	Unit 11, Block C Trevor Pearcey House, 28-34 Thynne Street, Bruce ACT 2617
Contact Name	Mich Besterwitch
Phone No	452440293
Special Directions	
Purchase Order	C-2435.01
Quote ID No	
Project No	C-2435.01
Project Name	Proposed Industrial Subdivision - 2 Reddall Street, Yass
Project Manager	Nick Davison
EDD Format	Esdat (esdat_au+dngeotechnical@esdatlabsync.net)
Sampler(s)	MB/SC
	MB
	contactus@dngeotechnical.com/nick@dngeotechnical.c
Email for invoice	mich@dngeotechnical.com/nick@dngeotechnical.com

Environmental Division
Sydney
Work Order Reference
ES2440268

Telephone: + 61-2-8784 8555

COPY

Required Turnaround Time (TAT)

*Surcharge will apply

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦ ☐ 1 day♦
- ☐ 2 days♦ ☐ 3 days♦
- ☒ 5 days (Standard)
- ☐ Other( )

No	Client Sample ID	Sampled Date/Time	Matrix	B10A TRH, BTEXN, PAH, OCP, PCB, Metals 8 (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	Acid Herbicides (Phenoxy Acetic Acid) (AH)	BTEX F1	(obscured)	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Sample Comments / Dangerous Goods Hazard Warning
1	QC106	3/12/24												1	
2	QC107	3/12/24	S				X							1	
3	QC200	3/12/24													Please forward to ALS Syd
4	QC201	3/12/24	S	X										1	Please forward to ALS Syd
5							X							1	
6	QC203	3/12/24	S				X							1	
7						X									T/S
8	[illegible]		S			X									T/B
9															
10															
			Total Counts	3		2	3							6	

Method of Shipment	☐ Courier (#)	☐ Hand Delivered	☐ Postal	Name		Signature		Date		Time	

Eurofins Environment Testing Australia Pty Ltd EnviroSales@eurofins.com

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

Rec: [signature] 9/12/24 1650

QUALITY CONTROL REPORT

Work Order	: **ES2440268**	Page	: 1 of 8
Client	: **D&N GEOTECHNICAL PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: NICK DAVISON	Contact	: Customer Services ES
Address	: unit 11 Trevor Pearcey House Block C Traeger Court 28/34 Thynne St BRUCE 2617	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: C-2435.01 Proposed Industrial Subdivision-2 Reddall Street Yass	Date Samples Received	: 09-Dec-2024
Order number	: ----	Date Analysis Commenced	: 11-Dec-2024
C-O-C number	: ----	Issue Date	: 16-Dec-2024
Sampler	: MB/SC		
Site	: ----		
Quote number	: EN/333		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

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*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

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

Laboratory Duplicate (DUP) Report

The quality control term 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%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6252142)									
EB2442094-027	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	6	4	30.5	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	7	20.4	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6252148)									
EB2442905-002	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	33.8	36.1	6.5	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6252141)									
EB2442094-027	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 6248805)									
ES2440268-001	QC200	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 6248804)									
ES2440268-001	QC200	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 6248804) - continued									
ES2440268-001	QC200	EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6248803)									
ES2440268-001	QC200	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): 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): 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	<0.5	0.0	No Limit
		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
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6248802)									
ES2440268-001	QC200	EP071: C15 - C28 Fraction	----	100	mg/kg	280	250	11.1	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6248802) - continued									
ES2440268-001	QC200	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 Petroleum Hydrocarbons (QC Lot: 6250543)									
ES2439132-044	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2440260-006	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6248802)									
ES2440268-001	QC200	EP071: >C16 - C34 Fraction	----	100	mg/kg	310	310	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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6250543)									
ES2439132-044	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2440260-006	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 6250543)									
ES2439132-044	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	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	108-38-3 106-42-3	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
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2440260-006	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	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	108-38-3 106-42-3	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
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit

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 certified 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.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6252142)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	107	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	119	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	118	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	108	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	106	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	104	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	99.6	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6252141)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	116	70.0	125
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6248805)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	93.0	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 6248804)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	99.6	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	107	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	100	67.0	119
EP068: gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	107	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	108	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.7	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	103	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	108	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	101	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	105	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	99.4	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	107	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	81.1	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.4	62.0	124

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP068A: Organochlorine Pesticides (OC) (QCLot: 6248804) - continued								
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	81.7	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	84.0	54.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6248803)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	97.0	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	98.8	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	99.6	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	100	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	97.0	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	93.2	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	102	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	99.0	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	101	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	101	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	97.5	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	100	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	105	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	96.7	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	93.0	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	93.4	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6248802)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	104	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	111	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	114	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6250543)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	83.3	72.2	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6248802)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	107	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	112	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	115	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6250543)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	85.7	72.4	133
EP080: BTEXN (QCLot: 6250543)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080: BTEXN (QCLot: 6250543) - continued								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	91.3	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	96.5	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	97.0	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	108	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	110	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	94.0	78.8	122

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6252142)							
EB2442094-027	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	98.4	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	125	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	100	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	100	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	100	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	99.0	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	103	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6252141)							
EB2442094-027	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	101	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6248805)							
ES2440268-001	QC200	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	106	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 6248804)							
ES2440268-001	QC200	EP068: gamma-BHC - (Lindane)	58-89-9	0.5 mg/kg	85.2	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	88.8	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	102	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	88.0	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	105	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	74.6	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6248803)							
ES2440268-001	QC200	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	98.6	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	97.2	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6248802)							
ES2440268-001	QC200	EP071: C10 - C14 Fraction	----	480 mg/kg	77.8	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	74.4	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	95.1	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6250543)							
ES2439132-044	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	81.6	60.4	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6248802)							
ES2440268-001	QC200	EP071: >C10 - C16 Fraction	----	860 mg/kg	81.5	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	83.2	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	109	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6250543)							
ES2439132-044	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	85.9	61.1	142
EP080: BTEXN (QCLot: 6250543)							
ES2439132-044	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	76.7	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	74.8	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	79.5	67.4	123
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	88.0	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	91.0	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	86.3	61.1	115

Appendix F Site Photographs

Photograph 1 – Footprint of demolished Shed 3 looking east with remnant slab in foreground.

Date: 02/12/2024

Photograph 2 – Footprint of demolished Shed 3 looking south with C&D waste (concrete) and former UST in centre picture.

Date: 02/12/2024

Photograph 3 – Footprint of demolished house (looking west) with slab centre picture and piles of C&D waste remaining on-site (bricks and steel in background and corrugated metal sheeting in foreground left.

Date: 02/12/2024

Photograph 4 – Footprint of demolished Shed 1 looking north with C&D waste (steel and wood) in centre picture.

Date: 02/12/2024

Photograph 5 – Mix waste pile on eastern verge of demolition area looking east.

Date: 02/12/2024

Photograph 6 – C&D waste (brick) extending to approximately 1.0 m BGL in TP07.

Date: 03/12/2024

Photograph 7 – C&D waste (brick and concrete) at surface immediately adjacent TP07.

Date: 03/12/2024

Photograph 8 – C&D waste (tile and brick fragments, electrical insulators) at surface immediately adjacent TP07. Note burn pile and charcoal in background

Date: 03/12/2024

Photograph 9 – Burn pile, mixed with soils (left) and various metal waste (right) with various wastes across visible surface.

Date: 03/12/2024

Photograph 10 – C&D waste (tile, fibre cement and brick fragments, wood/charcoal) at surface immediately adjacent TP07.

Date: 03/12/2024

Photograph 11 – Potential asbestos containing fibre cement fragments at surface immediately adjacent TP07.

Date: 03/12/2024

Photograph 12 – TP02 ground conditions, noting natural ground encountered approximately 0.2 m BGL.
.

Date: 03/12/2024

Photograph 13 – TP06 ground conditions, with natural soils encountered approximately 0.3 m BGL with waste piles in background.

Date: 03/12/2024

Photograph 14 – View east across site of former UST (water storage) prior to excavation of TP10.

Date: 03/12/2024

Photograph 15 – Ground conditions around TP13, noting C&D waste (wood and steel) pile to the east

Date: 03/12/2024

Photograph 16 – Ground conditions at TP17 with natural soils encountered at surface, noting remnant demolition waste at surface.

Date: 03/12/2024

Appendix G Asbestos Clearance Certificate

L&D Consulting
LANCASTER & DICKENSON

ASBESTOS CLEARANCE CERTIFICATE

L&D JOB REFERENCE:	LDJ03639
ASBESTOS REMOVALIST:	Byrne Demolition & Asbestos Removal
SITE LOCATION:	2 Reddall St, Yass
SCOPE OF INSPECTION:	Removal of the following materials: • Front entry ceiling sheet • "Front room right" ceiling sheet • Lounge room ceiling sheet • Kitchen cupboard lining • Ground floor bathroom wall sheet • First floor bathroom wall sheet • Infill panels to first floor sliding floors • Facia sheeting • Veranda floor sheet • Infill panels to attic windows
INSPECTED BY:	Zachary Calder (NSW Licensed Asbestos Assessor - LAA002013)
INSPECTION DATE:	3 October 2024
INSPECTION TIME:	9:30 AM

Lancaster & Dickenson Consulting Pty Ltd was engaged as independent asbestos assessor to undertake a visual clearance inspection following the removal of the above-mentioned materials at 2 Reddall St, Yass.

The visual inspection completed on Thursday, 3 October 2024, found no visible asbestos residue associated with the asbestos removal works within the inspected area and the assessor is satisfied that the removal works have been satisfactorily completed. Restrictions associated with the asbestos removal work can now be lifted and the area safely reoccupied.

Photographs showing the removal area at the time of the inspection are presented in Appendix A of the report.

Notes: *This clearance certificate is specific to the scope of removal works detailed above.* ***ACM formwork remains in situ to the ground floor bathroom slab, this material has been sealed with black paint will be removed during the demolition process.***

Authorized by:

Zachary Calder - Licensed Asbestos Assessor

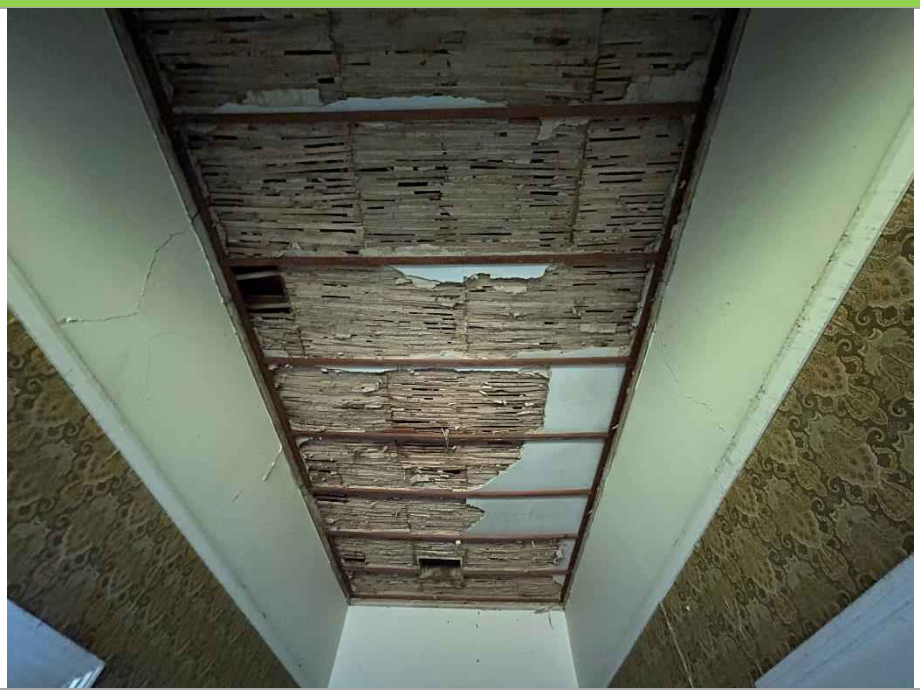
Asbestos Assessor Licence No: LAA002013

Lancaster & Dickenson Consulting Pty Ltd

Appendix A: Photographs

Lancaster & Dickenson Consulting Pty Ltd
4/6 Dacre St
Mitchell ACT 2911
W: www.landd.com.au

APPENDIX A: PHOTOGRAPHS

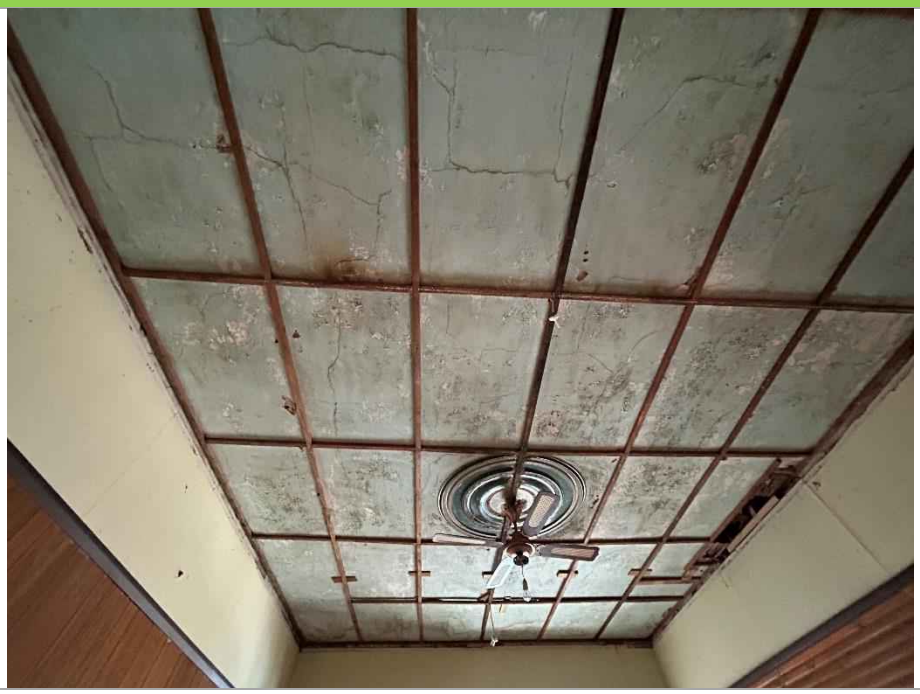


Photograph 1: Photograph following removal of ceiling sheet to front entry

Photograph 2: Photograph following removal of ceiling sheet to "front room right"

Lancaster & Dickenson Consulting Pty Ltd
4/6 Dacre St
Mitchell ACT 2911
W: www.landd.com.au

APPENDIX A: PHOTOGRAPHS



Photograph 3: Photograph following ceiling sheet to lounge room

Photograph 4: Photograph following removal of kitchen cupboard lining

Lancaster & Dickenson Consulting Pty Ltd
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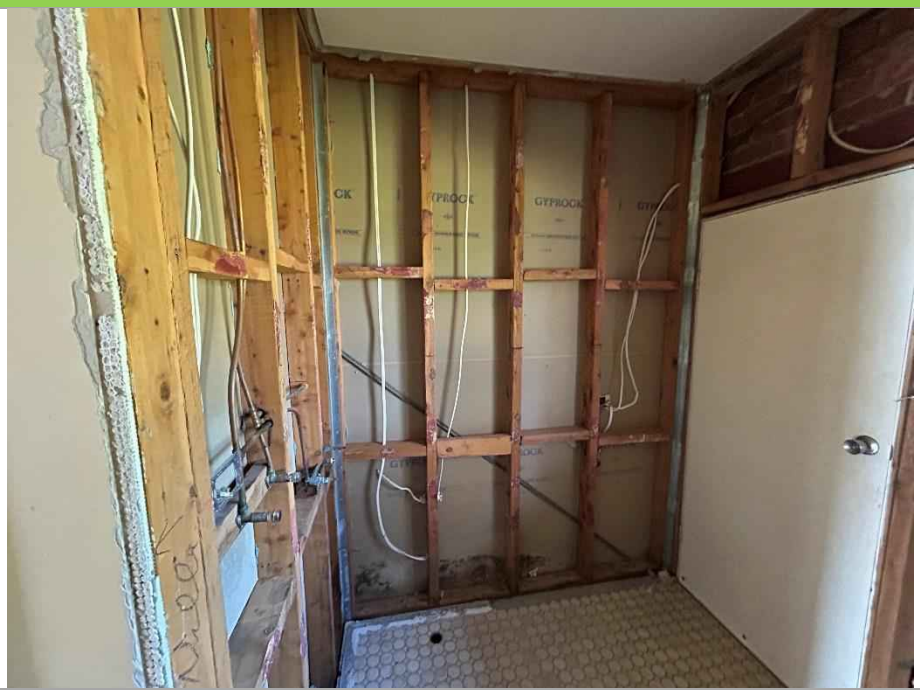
Mitchell ACT 2911
W: www.landd.com.au

APPENDIX A: PHOTOGRAPHS



Photograph 5: Photograph following removal of ground floor bathroom wall sheet

Photograph 6: Photograph following removal of first floor bathroom wall sheet

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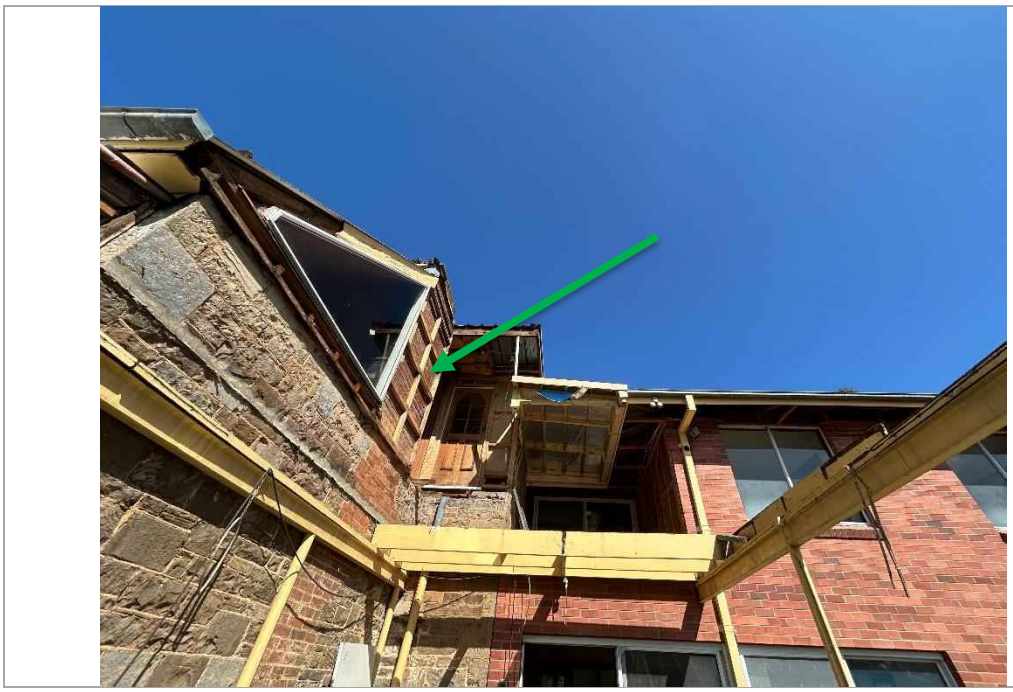
Mitchell ACT 2911
W: www.landd.com.au

APPENDIX A: PHOTOGRAPHS

Photograph 7: Photograph following removal of external eave lining



Photograph 8: Photograph following removal of fascia sheeting

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Mitchell ACT 2911
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APPENDIX A: PHOTOGRAPHS

Photograph 9: Photograph following removal of veranda floor sheet

Photograph 10: Photograph following removal of Infill panels to attic windows

Appendix H Data Validation

Field or Interlab Duplicates

				BTEX								TRH							Halogenated Benzenes	Metals							
				Naphthalene (VOC)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	C6-C10 Fraction (F1)	C6-C10 (F1 minus BTEX)	>C10-C16 Fraction (F2)	>C10-C16 Fraction (F2 minus Naphthalene)	>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	>C10-C40 Fraction (Sum)	Hexachlorobenzene	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.1	0.1	0.1	0.2	0.1	0.3	0.2	10	10	50	50	100	100	50	0.05	2	0.4	2	5	5	0.1	2	5
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																								
1167410	**TP01_0.0-0.3**	**Soil**	**03 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	180	<100	180	<0.05	23	<0.4	40	30	29	<0.1	5.5	140
1167410	**QC100**	**Soil**	**03 Dec 2024**	<0.5	1.2	0.2	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	160	<100	160	<0.05	28	<0.4	29	30	37	<0.1	5.2	180
RPD				0	169	67	0	0	0	0	-	0	0	0	0	12	0	12	0	20	0	32	0	24	0	6	25
1167410	**TP01_0.0-0.3**	**Soil**	**03 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	180	<100	180	<0.05	23	<0.4	40	30	29	<0.1	5.5	140
ES2440268	**QC200**	**Soil**	**03 Dec 2024**	<1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<10	<50	<50	310	<100	310	<0.05	33	<1	32	35	44	<0.1	11	192
RPD				0	0	0	0	0	0	0	-	0	0	0	0	53	0	53	0	36	0	22	15	41	0	67	31
1167410	**TP01_0.3-0.6**	**Soil**	**03 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<0.05	9.1	<0.4	32	13	15	<0.1	5.5	26
1167410	**QC101**	**Soil**	**03 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<0.05	8.1	<0.4	37	13	20	<0.1	6.8	22
RPD				0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	12	0	14	0	29	0	21	17
1167410	**TP01_0.3-0.6**	**Soil**	**03 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<0.05	9.1	<0.4	32	13	15	<0.1	5.5	26
ES2440268	**QC201**	**Soil**	**03 Dec 2024**	<1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<10	<10	<50	<50	130	<100	130	<0.05	8	<1	27	12	14	<0.1	5	38
RPD				0	0	0	0	0	0	0	-	0	0	0	0	26	0	26	0	13	0	17	8	7	0	10	38
1167410	**TP29_0.0-0.25**	**Soil**	**03 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<0.05	2.7	<0.4	15	5.6	190	<0.1	8.8	130
1167410	**QC106**	**Soil**	**03 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<0.05	2.9	<0.4	16	5.4	36	<0.1	11	85
RPD				0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	7	0	6	4	136	0	22	42
1168408	**TP14_0.0-0.1**	**Soil**	**05 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<0.05	4.6	<0.4	19	13	13	<0.1	11	42
1168408	**QC108**	**Soil**	**05 Dec 2024**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100	<0.05	4.8	<0.4	17	12	12	<0.1	10	36
RPD				0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	4	0	11	8	8	0	10	15

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Field or Interlab Duplicates

				Organochlorine Pesticides																									
				Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																												
1167410	**TP01_0.0-0.3**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
1167410	**QC100**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0
1167410	**TP01_0.0-0.3**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
ES2440268	**QC200**	**Soil**	**03 Dec 2024**	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
RPD				-	-	0	0	0	0	0	0	-	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-
1167410	**TP01_0.3-0.6**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
1167410	**QC101**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0
1167410	**TP01_0.3-0.6**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
ES2440268	**QC201**	**Soil**	**03 Dec 2024**	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-
RPD				-	-	0	0	0	0	0	0	-	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-
1167410	**TP29_0.0-0.25**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
1167410	**QC106**	**Soil**	**03 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0
1168408	**TP14_0.0-0.1**	**Soil**	**05 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
1168408	**QC108**	**Soil**	**05 Dec 2024**	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Field or Interlab Duplicates

				PAH																			PCBs							
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																												
1167410	**TP01_0.0-0.3**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1167410	**QC100**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	0.5	0.6	1.2	<0.5	2.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0
1167410	**TP01_0.0-0.3**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
ES2440268	**QC200**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	0
1167410	**TP01_0.3-0.6**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	0.7	0.7	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	1.5	0.8	2.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1167410	**QC101**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	33	33	0	33	0	0	0	0	0	0	0	0	59	22	46	123	0	0	0	0	0	0	0	0
1167410	**TP01_0.3-0.6**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	0.7	0.7	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	1.5	0.8	2.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
ES2440268	**QC201**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	<0.1
RPD				0	0	0	0	33	33	0	33	0	0	0	0	0	0	0	0	59	22	46	123	-	-	-	-	-	-	-	0
1167410	**TP29_0.0-0.25**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1167410	**QC106**	**Soil**	**03 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1168408	**TP14_0.0-0.1**	**Soil**	**05 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1168408	**QC108**	**Soil**	**05 Dec 2024**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**