Detailed Site Investigation

Proposed Subdivision Development

3 Memory Avenue, Crookwell, NSW 2583

Final Report

P2410601JR06V01

June 2025

Prepared for BlueSox Pty Ltd

environmental science & engineering

Project Details

Report Title	Detailed Site Investigation: 3 Memory Avenue, Crookwell, NSW 2583
Client	BlueSox Pty Ltd
Document	P2410601JR06V01
Director	Andrew Norris
Manager	Gray Taylor
Principal Author	Bryson Monaghan

Document History

Issue	Issue Date	Status	Description / Comment	Author	Reviewer	Approved
1	17/06/2025	Draft	Draft report for review	BTM	BM	GT
2	17/06/2025	Final	Final release	BTM	BM	GT

© Copyright Martens & Associates Pty Ltd
Suite 201, 20 George St, Hornsby, NSW 2077, Australia
ACN 070 240 890 ABN 85 070 240 890
P +61-2-9476-9999 | mail@martens.com.au | www.martens.com.au

Copyright Statement

Martens & Associates Pty Ltd (Publisher) is the owner of the copyright subsisting in this publication. Other than as permitted by the Copyright Act and as outlined in the Terms of Engagement, no part of this report may be reprinted or reproduced or used in any form, copied or transmitted, by any electronic, mechanical, or by other means, now known or hereafter invented (including microcopying, photocopying, recording, recording tape or through electronic information storage and retrieval systems or otherwise), without the prior written permission of Martens & Associates Pty Ltd. Legal action will be taken against any breach of its copyright. This report is available only as book form unless specifically distributed by Martens & Associates in electronic form. No part of it is authorised to be copied, sold, distributed or offered in any other form.

Contents

Tables

Glossary of Terms

α	Alpha
ABC	Ambient background concentrations
ACL	Added contaminant level
ACM	Asbestos containing material
AEC	Areas of environmental concern
APHA	American Public Health Association
AS	Australian Standard
ASS	Acid sulfate soil
AST	Above ground storage tank
β	Beta
BGL	Below ground level
BoM	Bureau of Meteorology
BTEXN	Benzene, toluene, ethylbenzene, xylene, naphthalene
CEC	Cation exchange capacity
CLM	Contaminated land management
$cmol_c/kg$	Centimoles of charge per kilogram
COC	Chain of custody
COPC	Contaminants of potential concern
CSM	Conceptual site model
DA	Development application
DCP	Development control plan
DEC	Department of Environment and Conservation (NSW)
DECC	Department of Environment and Climate Change (NSW)
DECCW	Department of Environment, Climate Change and Water (NSW)
DP	Deposited plan
DPE	Department of Planning and Environment (NSW)
DPI	Department of Primary Industry (NSW)
DPIE	Department of Planning, Industry and Environment (NSW)
DQI	Data quality indicator
DQO	Data quality objective
DSI	Detailed Site Investigation
DUAP	Department Urban Affairs and Planning (NSW)
EC	Electrical conductivity
EIL	Ecological investigation level
EPA	Environmental Protection Authority (NSW)
EQL	Estimated quantitation limit (interchangeable with PQL and LOR)
ESL	Ecological screening level
eSPADE	Environmental spatial planning and data explorer
g/kg	Grams per kilograms
GDA	Geocentric Datum of Australia
GDE	Groundwater dependent ecosystem
GSNSW	Geological Survey of New South Wales
GW	Groundwater
HA	Hectares
Ha	Hectares
HAP	Historical aerial photography
HAPE	Historical Air Photo Enhancement program
HEPA	Heads of EPAs Australia and New Zealand
HIL	Health investigation level
HM	Heavy metals
HSL	Health screening level
IA	Investigation area
IDE	Inflow-dependent ecosystems
L/s	Liters per second
LEP	Local environmental plan
LGA	Local government area

LOR	Limit of reporting
m	Meters
MA	Martens & Associates Pty Ltd
mAHD	Metres Australian Height Datum
mBGL	Metres below ground level
µS/cm	Microsiemens per centimetre
mg/kg	Milligrams per kilograms
MGA	Map Grid of Australia
MQO	Measurement quality objectives
NATA	National Association of Testing Authorities
NEMP	National Environmental Management Plan
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NSW	New South Wales
OCP	Organochlorine pesticides
OPP	Organophosphorus pesticides
PACM	Potential asbestos containing material
PAH	Polycyclic aromatic hydrocarbons
PCB	Polychlorinated biphenyl
pH	potential of hydrogen
POEO	Protection of the Environment Operations
PQL	Practical quantitative limit (interchangeable with EQL and LOR)
PSI	Preliminary Site Investigation
QA	Quality assurance
QC	Quality control
RAP	Remedial action plan
RL	Reduced level
RPD	Relative percentage difference
SAC	Site acceptance criteria
SAQP	Sampling, analysis, and quality plan
SCA	Site contamination assessment
SD	Standard deviation
SDG	Sustainable Development Group Pty Ltd
SDT	Spatial digital twin
SEED	Search engine for environmental data
SEPP	State Environmental Planning Policy
SOP	Standard operating procedure
SRA	Sample receipt advice
SS	Surface sample
SSDCS	Spatial Service - Department of Customer Service (NSW)
SWL	Standing water level
TB	Trip blank
TP	Test pit
TPH	Total petroleum hydrocarbons
TRH	Total recoverable hydrocarbons
TS	Trip spike
UCL	Upper confidence limit
UPSS	Underground petroleum storage system
USCS	Unified Soil Classification System
UST	Underground storage tank

1 Introduction

1.1 Overview

Martens and Associates (MA) were engaged by BlueSox Pty Ltd (the Client) to undertake a Detailed Site Investigation (DSI) for land located at 3 Memory Avenue, Crookwell, NSW (the Site).

This DSI has been prepared to support a development application (DA) to Upper Lachlan Shire Council (the Council) for a proposed 20-lot residential subdivision. It is understood that future land use within the subdivision will include the construction of residential dwellings and a childcare facility within a designated lot.

This DSI builds upon a Preliminary Site Investigation (PSI) previously completed for the entire Site, and a DSI for the proposed childcare facility lot previously completed by MA. The Site boundary, shown in Appendix A (Map 01), defines the Investigation Area (IA) for this assessment.

1.2 Proposed Development

It is understood that the site will be subdivided into 20 lots across two stages:

- Stage 1 – Establishment of four lots, including the proposed childcare centre (designated as proposed lot 4).
- Stage 2 – Establishment of the remaining 16 lots.

Based on the preliminary design plan, the proposed childcare development will comprise a single-level, at-grade structure, car park with 18 spaces and formal outdoor play area.

A subdivision layout plan (MA, 2025a), childcare development plan (Faubourg, 2025) and survey plan (SDG, 2024) are provided in Appendix B.

1.3 Objectives

Investigation objectives include:

- Review the findings of the previous PSI (MA, 2025b) and DSI (MA, 2025c) in relation to the broader Site.
- Identify historical and current activities on the Site and adjacent land which could potentially result in land contamination.
- Establish areas of environmental concern (AEC) and associated contaminants of potential concern (COPC) to assist with the development of a conceptual site model (CSM) for the Site.
- Quantify potential risks associated with land contamination through a targeted soil sampling and laboratory analysis program.

- Assess the suitability of the Site for the proposed residential subdivision and future land uses, including residential dwellings and a childcare facility. Where necessary, provide recommendations for further investigation, remediation, or management.

1.4 Scope of Works

The scope of works adopted for the investigation included:

- Completion of an intrusive soil investigation, including targeted soil sampling within the Site.
- Laboratory analysis of soil samples for COPC, as identified in the CSM.
- Preparation of a report in accordance with the relevant guidelines.

1.5 Regulatory Guidelines

The following regulatory guidelines have been considered for the preparation of this report:

- NSW DUAP (1998) Managing Land Contamination: Planning Guidelines.
- NEPC (2013a) Schedule B1: Guideline on Investigation Levels for Soil and Groundwater.
- NEPC (2013b) Schedule B2: Guideline on Site Characterisation.
- NSW EPA (2017) Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme.
- NSW EPA (2020) Contaminated Land Guidelines: Consultants Reporting on Contaminated Land.
- NSW EPA (2022) Contaminated Land Guidelines: Sampling design part 1 – application
- State Environmental Planning Policy (Resilience and Hazards) 2021.
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017.
- Upper Lachlan Development Control Plan 2010.
- Upper Lachlan Local Environmental Plan 2010.

2 Site Setting

2.1 Site Identification

Site identification details are provided in Table 1. The location of the Site and surrounding land is shown in Appendix A (Map 01).

Table 1: Site identification information.

Item	Detail
Site address	3 Memory Avenue, Crookwell NSW 2583
Legal identification	Lot 2 DP 702788
Investigation area (IA)	Approximately 2.1 ha (Source: NSW SDT Explorer 2025)
Geographic coordinates	Northeast corner of the Site (datum GDA2020 – MGA55): • Easting: 727785.5 • Northing: 6185379.5 (Source: NSW SDT Explorer 2025)
Local government area	Upper Lachlan Shire Council
Zoning	R2 – Low Density Residential (Upper Lachlan Local Environmental Plan 2010)
Current land use(s)	Residential and rural land use.
Proposed land use(s)	Residential (19 lots) with a childcare facility (single lot, designated as proposed lot 4) land use.
Surrounding land use	• North – Low density residential and rural residential land use. • East – Crookwell Cemetery followed by rural residential and agricultural land use. • South – Low density residential rural land use. • West – Low density residential, general industrial and public recreational land use.

2.2 Environmental Setting

Information relating to the environmental setting of the site is presented in Table 2.

Table 2: Environmental setting information.

Item	Detail
Topography	The topography of the surrounding landscape is characterised by plateaux or valleys of gently undulating to undulating rises. Slope gradients are usually between 2 to 15% and local relief ranges between 5 to 40 m. Elevation of the Site ranges from approximately 911 mAHD in the southwest and 922 mAHD in the eastern portion. A topographic map of the Site is provided in Appendix A (Map 02).

Item	Detail
Geology	The eSPADE (NSW DPE, 2025) platform indicates the following geology is mapped within the Site: • Crookwell Basalt of Tertiary lava flows with irregular basalt surface indicative of valley fills. Soils have formed in situ and from alluvial-colluvial material derived from the parent rock. Geological mapping produced by the NSW Geological Survey (A.J. Johnston, et al., 2013) as provided on the web platform MinView (GSNSW, 2025), indicates geology at the Site consists of: • Crookwell Basalt - unconsolidated to semi-lithified, poorly sorted, fine to medium grained, quartzose sane to pebble to boulder sized, polymictic gravels, silica, iron and sandstone and conglomerate, minor clay horizons. Mapping for NSW relating to areas where naturally occurring asbestos is known to occur, or has the potential to occur, in geological units was reviewed on the NSW SEED spatial viewer (NSW DPIE, 2025). Mapping did not identify geological units with known or potential naturally occurring asbestos within (or adjacent to) the Site.
Soil landscapes	The eSPADE (NSW DPE, 2025) platform indicates the following soil landscape is mapped within the Site: • Taralga Soil Landscape – Krasnozems and Xanthozem are found on crests. On side slopes, friable to slightly hardsetting, acid, texture-contrast soils similar to Chocolate Soils predominate. Prairie Soils are common on foot slopes, with alluvial soils and grassland soils in drainage lines. eSPADE soil modelling covering the Site indicate soil cation exchange capacity (CEC) of the upper 2.0 m of soil ranges between ≤5 and 20 $cmol_c/kg$, while pH values range between pH 4 and pH 6.
Acid sulfate soils	Acid sulfate soils (ASS) risk mapping associated with the Upper Lachlan Local Environmental Plan 2010 indicates the Site is mapped beyond Class 5 area indicating no ASS risk associated with the Site.
Surface hydrology	Drainage is likely to occur predominately via direct soil infiltration and overland flow.
Nearest surface waterbody	Tributary located 480 m southeast of the Site leads to Kiamma Creek followed by Crookwell River.
Heritage	Crookwell Cemetery located directly to the east of the Site is mapped as a heritage item. (Upper Lachlan Local Environmental Plan 2010)

2.3 Hydrogeology and Groundwater Use

In accordance with NSW DEC (2007) *Guidelines for the Assessment and Management of Groundwater Contamination,* preliminary assessment to identify hydrogeological conditions and groundwater receptors has been completed to assist with CSM development. Finding of this preliminary assessment is provided in the following subsections.

2.3.1 Hydrogeological Setting

The Bureau of Meteorology Australian Groundwater Insight database (BoM, 2025) indicates the principal hydrogeology of the Crookwell area consists of fractured or fissured, extensive aquifers of low to moderate productivity. Aquifers comprise an upper aquifer in basalt.

2.3.2 Groundwater Uses

The WaterNSW Real-time Water Database was reviewed to identify local groundwater uses ≤500 m of the Site. A summary of available bore records is provided in Table 3. Available bore records are provided in Appendix C.

Table 3: Groundwater bore records summary.

Bore Identification	Registered Use	Direction (and Distance)	Groundwater Depth (mBGL)	Water bearing Zone Information
GW702814	Domestic	17 m, northwest	9.00	Shale – 7.0 to 20.0 mBGL, yield 3.791 L/s.
GW703243	Domestic	270 m, northwest	12.00	Shale – 8.0 to 24.0 mBGL.
GW058774	Domestic	430 m, south	Unknown	Unknown
GW053590	Irrigation	430 m, northwest	21.30	Basalt decomposed - fractured – 15.2 to 22.3 mBGL, yield 2.53 L/s.
GW702705	Domestic	450 m, northwest	3.00	Basalt – 1.5 to 6.0 mBGL, yield 3.375 L/s.

Groundwater is primarily used for domestic and irrigation purposes in surrounding properties, with the closest registered bore located approximately 17 m northwest of the Site. Groundwater depths range from approximately 3.0 meters below ground level (mBGL) to over 21 mBGL, with yields generally between 2.5 to 3.8 L/s.

No registered groundwater extraction occurs within the Site itself. Groundwater extraction is not anticipated as part of the proposed development, and beneficial reuse is not expected.

A review of the Bureau of Meteorology Groundwater Dependent Ecosystems (GDE) Atlas (BoM, 2025) identified no aquatic GDEs within 500 m of the Site. Terrestrial and subterranean GDEs have not been assessed in the area; however, inflow-dependent ecosystems (IDE) may be present. Based on available information, the presence of sensitive environmental receptors associated with groundwater is considered unlikely.

3 Previous MA Site Investigations

3.1 Site Inspections

As part of the PSI (MA, 2025b), an initial site inspection was carried out on 6 December 2024, followed by a supplementary inspection on 27 February 2025. Both inspections were conducted by an experienced MA Environmental Consultant. Key observations made during the inspections are provided below in Table 4.

Table 4: Site Inspection observations

Item	Observation
Buildings and structures	• A single storey residential dwelling, 3 door garage and shed structure in the northeast portion of the Site. • Several trailers to the north and east of the dwelling. • Several fence structure adjacent to Site boundaries and intersecting the Site. A small structure, possible animal pen, was present during the initial site inspection in December 2024, however, was not present during the supplementary site inspection in February 2025.
Ground surfaces and pavements	• Predominantly covered by rural vegetation. • Land surrounding the dwelling consisted of maintained grass with a gravel driveway in the northeast portion and separated from the remainder of the Site by a wire fence. • Land outside of the fenced area considered of dense grass with some mature vegetation.
Fill material and stockpiles	• No evidence of widespread fill material or stockpiles of concern. • Two small stockpiles rock boulders and one stockpile of wood in the east portion of the Site. Several small stockpiles of building debris were observed during the initial site inspection in December 2024. However, were no longer observed during the supplementary site inspection in February 2025.
Historic structures	Evidence of possible former structures was observed due to observations of bare soil in the eastern portion of the Site during the supplementary site inspection. A small structure, possible animal pen, observed during the initial site inspections in December 2024 was no longer present during the supplementary site inspection in February 2025.
Chemical storage	No evidence of chemical storage was observed during the site inspections.
UPSS, USTs and ASTs[1]	No evidence of UPSS, USTs, and ASTs was observed during the site inspections.
Waste materials and storage	No waste materials or storage areas were observed during the supplementary inspection in February 2025. However, several small stockpiles areas of building debris were observed during the initial site inspection in December 2024.
Odours and staining	No significant odours or staining were observed during the site inspections.

Item	Observation
Hazardous building materials	No hazardous building materials were observed during the site inspections.
Electrical substation kiosks	No electrical substations or kiosk infrastructure was observed on or adjacent to the Site during the site inspections.
Vegetation and phytotoxicity	The Site was observed to be covered with rural grasses, with sparse shrubs and trees during the site inspections. Vegetation appeared healthy, with no visible signs of phytotoxicity.

Notes:

1. Underground petroleum storage systems (UPSS), underground storage tanks (USTs), and aboveground storage tanks (ASTs).

A selection of photographic images obtained during the inspections of the Site are provided in Appendix I.

3.2 Summary of Previous Investigations

The following environmental investigation reports have been prepared by MA at the Site:

- Martens and Associates Pty Ltd (2025) *Preliminary Site Investigation, Proposed Residential Subdivision: 3 Memory Avenue, Crookwell NSW*, document reference P2410601JR02V01, dated 28 April 2025 (MA, 2025b).
- Martens and Associates Pty Ltd (2025) *Detailed Site Investigation, Proposed Childcare Centre Development: 3 Memory Avenue, Crookwell NSW*, document reference P2410601JR05V01, dated 27 May 2025 (MA, 2025c).

A summary of the key findings from these investigations is provided in Table 5.

Table 5: Summary of the MA (2025b, 2025c) investigations.

Item	Detail
MA (2025b) Preliminary Site Investigation	
Legal identification	Lot 2 DP 702788
Scope of works	• Review of available online mapping resources. • Review of available online hydrogeological and groundwater information. • A desktop study, including review of historical aerial photography, historical Council records, information available on relevant regulatory and government databases for the Site. • Inspection of the Site to confirm desktop study findings and make observations of land use and activities on the Site and surrounding land.
Desktop study finding	• Historical aerial imagery suggests that some amount of cropping is likely to have occurred within the Site between at least 1963 to 1994. However, poor image quality makes it difficult to confirm definitively. • The Site is not listed on any government register of contaminated land or hazardous industries. • No surrounding land use presents a contamination risk to the Site.
Areas of environmental concern (AEC)	• Former agriculture land use and possible cropping. • Existing and former structures.

Item	Detail
Conceptual site model (CSM)	• The CSM identified soil as a potentially affected media due to historical agriculture land use, former structures and existing structures present on Site. • Potential exposure pathways and receptors (human health and ecological) were identified, suggesting a possible risk under the proposed development scenario.
Conclusions and recommendations	The PSI concluded that potential contamination risks affecting receptors at the Site is generally considered low. However, as a conservative measure, further characterisation was warranted. A DSI was recommended to assess COPC in soil through targeted sampling and laboratory analysis.
MA (2025c) Detailed Site Investigation	
Investigation area (IA)	The IA was limited to the portion of the Site designated for the proposed childcare centre (designated as proposed Lot 4).
Scope of works	• Completion of an intrusive soil investigation (works completed 1 May 2025) which included the excavation of eight shallow test pits (TP101 – TP108) using hand tools. • The evaluation of soils for odour, visual evidence of contamination, and anthropogenic inclusions. • The collection of representative soil samples within the IA. • Laboratory analysis of soil samples for COPC, as identified in the CSM.
Areas of environmental concern (AEC)	• Former agriculture land use and possible cropping.
Subsurface Conditions and Field Observations	• No fill material was observed at any test pit location within the IA. Natural soils were encountered to a maximum investigation depth of 0.3 mBGL and generally comprised brown to light brown clayey silt. • All test pits were terminated upon refusal on shallow bedrock, which limited investigation depth. • Groundwater seepage was not encountered at any location. • No visual or olfactory evidence of contamination (e.g., staining or odours) was noted in soils during excavation. Anthropogenic materials, including demolition debris or potential asbestos-containing material (PACM), were not observed during test pitting or sample collection.

Item	Detail
Soil analytical results summary	The analytical results from soil sampling were assessed against the adopted site assessment criteria (SAC) for residential land use (HIL-A), consistent with the proposed childcare development. Soil analytical results: • Concentrations of COPCs (OCP/OPP and most heavy metals) were reported in eight (8) soil samples by the laboratory at levels below the limit of reporting (LOR) and below adopted SAC. • However, total chromium was reported in all samples at concentrations between 160 and 240 mg/kg, exceeding the NEPM (2013) HIL for Chromium (VI) of 100 mg/kg. As such, chromium speciation analysis was undertaken. The speciation results indicated that both Chromium (VI) and Chromium (III) were below the LOR in all samples. These findings suggest that the elevated total chromium concentrations are likely attributable to environmentally stable, non-bioavailable forms of chromium that do not pose a risk under the proposed land use. • Analysis of one (1) soil sample for waste classification purposes reported concentrations of COPCs (BTEXN, TRH, PAH, PCB and Asbestos in soil) by the laboratory at levels below LOR and below adopted SAC. No asbestos detected in soil at the reporting limit of 0.1 g/kg and trace analysis did not detect asbestos in soil samples.
Conclusions and recommendations	MA consider that the IA is suitable for the proposed childcare development with no further investigation, remediation or management required. Recommendations include: • Preparation and implementation of a Construction Environmental Management Plan (CEMP) for the construction phase of the project. The CEMP is to include protocols to address any unexpected finds which may be encountered during targeted investigation works for footings and other potential targeted minor excavation as part of the proposed development. • If required, undertake a formal waste classification assessment to ensure that any spoil generated during development work is classified and disposed of in accordance with NSW EPA (2014) Waste Classification Guidelines.
Appendix items	Test pit locations are shown on the sampling plan in Appendix A (Map 03). Detailed tabulation of soil analytical results showing individual samples compared to adopted SAC is provided in Appendix E. Laboratory analytical documentation is provided in Appendix F. COC certificates and SRA documentation is provided in Appendix G.

4 Conceptual Site Model

4.1 Areas of Environmental Concern

An assessment of potential AEC and COPC has been made for the Site on the basis of previous investigation findings and is provided in Table 6.

Table 6: Potential contamination sources and contaminants of potential concern.

AEC	Potential for Contamination	COPC
AEC A Former agriculture land use / Possible cropping	Due to the Site's historical agricultural land use between at least 1963 to 1994, including possible cropping, the application of horticultural/agricultural chemicals and pesticides for pest control may have occurred. As such, potential chemical residues may have occurred and be present in soils.	Heavy metals (HM), organochlorine pesticides (OCP), organophosphorus pesticides (OPP).
AEC B Existing buildings and structures (including curtilage areas)	Pesticides may have been applied to surface soils beneath existing structures for pest control. Building construction materials associated with existing structures may include PACM, zinc treated (galvanised) metals and lead based paints, which upon weathering, could result in contamination of surface or near surface, building curtilage soils. Structures may store, or have stored, low quantities of fuels, oils, and chemicals.	HM, OCP, OPP, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes, and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAH) and asbestos.
AEC C Former structures	Pesticides may have been applied to surface soils beneath former structures for pest control. Potential contamination may occur in areas of uncontrolled demolition of historic structures, whereby hazardous building materials (ACM, lead-based paint) associated with demolition debris may have been deposited in surface or near surface soils. Structures unlikely to have stored fuels, oils, and chemicals due to initial inspection identifying structures as potential animal pen and trailers.	HM, OCP, OPP and asbestos.

4.2 Source – Exposure Pathway – Receptor Linkages

A conceptual site model (CSM) outlining *source – exposure pathway – receptor* linkages has been developed from information available reporting and is presented in Table 7.

Table 7: Conceptual site model *source – exposure pathway – receptor* linkages.

Item	Description
Potential media affected by AEC and mechanism of contamination	**Soil** is considered the primary affected media due to identification of several potential sources of contamination at the Site. The mechanisms of contamination may involve: • Application of agricultural chemicals and pesticides to surface soils. • Leaching and mobility of contaminants in subsurface soils. • Deposition of contaminants due to existing structures weathering and former structural materials. Potentially impacted soils include surface, near surface, and deeper soils (including natural soils), depending on the volume of contamination release and contaminant mobility. **Groundwater** is not considered to be a media of interest as no extensive excavations are proposed and thus interception with groundwater is unlikely to occur.
Potential exposure pathways	Potential anthropogenic exposure pathways include ingestion, dermal absorption, inhalation (of dust and / or vapours). Potential ecological exposure pathways include biota uptake and intake.
Potential receptors	Potential human receptors include future Site users and visitors (adults and children) as well as construction and maintenance work during proposed development works and ongoing maintenance. Potential ecological receptors include flora and fauna within the Site and surrounding environment.

4.3 Review of Information Data Gaps

A summary of information or data which has not been obtained or considered for inclusion in the DSI is discussed in Table 8. This summary also discusses possible constraints and uncertainty relating to the development of the investigation CSM.

Table 8: Information data gap summary.

Data Gap	Commentary
Land title records	Land title records were not reviewed as part of this DSI. This is unlikely to affect the findings of the investigation as sufficient historical information relating to former activities within the Site was obtained from historical aerial photography interpretation and inspection of the Site (MA, 2025b).
Safework NSW dangerous goods records	There is no historical evidence of large volume storage of petroleum hydrocarbons in the Site, nor of past site uses likely to have required such storage. As such, a search of SafeWork NSW dangerous goods records was not obtained for the investigation.

Data Gap	Commentary
Section 10.7 planning certificate	Section 10.7 planning certificates were not obtained for review as part of the DSI. It is considered information provided in the planning certificate is unlikely to change the conclusions or recommendations of this report as sufficient historical information relating to former activities within the Site was obtained from historical aerial photography interpretation and inspection of the Site (MA, 2025b).

5 Sampling, Analysis and Quality Plan

A sampling, analysis and quality plan (SAQP) was developed to ensure sampling data collected for this DSI is representative and provides a robust basis for site assessment decisions. The SAQP has been prepared in general accordance with NEPC (2013b) methodology, and includes:

- Data quality objectives (DQO).
- Data quality indicators (DQI).
- Sampling methodologies and procedures.
- Field screening methods.
- Sample handling, preservation, and storage procedures.
- Field and laboratory quality assurance (QA) / quality control (QC).

The SAQP is summarised in the following subsections.

5.1 Data Quality Objectives

DQOs for the investigation are prepared as statements specifying the qualitative and quantitative data required to support project decisions. DQOs have been prepared in general accordance with NEPC (2013b) and NSW EPA (2020) and are presented below in Table 9.

Table 9: Data quality objectives.

DQO Process Step		DQO Output
1	***State the problem***	
	Summary of contamination problem	Media associated with AECs requires characterisation to determine land use suitability.
	CSM summary	• Contaminants – potentially metals (HM), pesticides (OCP/OPP), hydrocarbons (TRH, BTEXN, PAH), PCB and asbestos. • Sources – former agriculture land use and possible cropping, existing buildings and structures (including curtilage areas) and former structures. • Pathways – dermal absorption, inhalation of dust and/or vapour, ingestion and biota uptake / intake have been identified as the pathways of concern. • Receptors – future users and visitors (adults and children), construction and maintenance work as well as flora and fauna within the Site and surrounding environment.
	Investigation constraints	No practical constraints have been identified.
2	***Identify goals of the study***	
	Principal study question(s)	• Is soil suitable for a residential land use based on contaminant levels? • If not, is further investigation, remediation, or management required before media can be considered suitable for proposed development land use?
	Alternative outcomes or actions that could result from resolution of the principal study question(s)	The alternative outcomes will be: • Soil is suitable for residential land use (HIL-A). Or • Soil is not suitable for the proposed land use and remediation is needed to allow development.
	For decision problems, combine the principal study questions and the alternative actions into decision statements	• If the contamination status of soil is acceptable, *the land is suitable for residential land use*. • If the contamination status of soil is unacceptable, *prepare a remedial action plan (RAP)*.
3	***Identify information inputs***	
	Information required to resolve the decision statements/estimation	• Development plans. • Information from previous investigation. • Soil data collected by investigation, including field samples and analytical samples. • Observations during data collection.

	DQO Process Step	DQO Output
	Information needed to establish action level(s)	Investigation criteria will be sourced from: • NEPC (2013) Schedule B1 HILs and HSLs for residential with accessible soil, EILs and ESLs, and Management Limits.
	Sampling and analytical methods to provide necessary data	• Sampling and analytical methods will be consistent with existing guidance, including the NEPC (2013) Schedule B2 and B3. • Analytical laboratories will be NATA-accredited and use analytical methods based on NEPM, USEPA and APHA methods.
4	***Define the study boundaries***	
	Target population of interest and relevant spatial boundaries	• The decision area is approximately 2.1 ha. • Fill is not expected across the Site. • Areas of potential asbestos impacts may be present within the eastern portion of the Site. • Targeted populations include agriculture land, existing building and structures and former structures areas. • The population data obtained will relate to the date of sampling.
	Definition of sampling unit(s)	Sampling units will consist of: • Field samples of appropriately described and logged samples. • Analytical samples of the laboratory-specified sample jar quantity.
	The smallest unit on which decisions or estimates will be made	The decision is to be based on the complete decision area. However, following data analysis, some segregation may be considered (i.e., some of the decision area may be suitable for HIL-A and some may require remediation).
5	***Develop the analytic (statistical) approach***	
	The statistical parameter that characterises the population of interest	The 95% UCL of the arithmetic mean ($\bar{x}$) will be the key statistical parameter. Evaluation of data will include: • The 95% UCL $\bar{x}$ to be ≤ criterion. • No individual sample >250% of criterion. • The sample standard deviation (SD) to be <50% criterion. • No asbestos containing material (ACM) observed on the ground surface or detected in soil. • No laboratory detection of asbestos fibres in soil.
	The action level for decision	• To determine if the material is suitable for HIL-A land use, analytical action levels are to be based on the NEPM HILs and HSLs (NEPC, 2013; Schedule B1). • If the material is not suitable for the HIL-A land use, then a RAP is to be prepared. • Samples will be held at the laboratory for additional analyses (if required).

DQO Process Step		DQO Output
	Confirmation that measurement detection will allow reliable comparisons with the action level	• Samples will be submitted to NATA-accredited laboratories. • LOR adopted by analytical laboratories will be below the adopted criteria. • To achieve an acceptable LOR for asbestos fines and fibrous asbestos, the method may not be NATA-accredited, undertaken using in-house laboratory methods for quantification.
	Combined outputs from previous DQOs steps, developed as an *'if ..., then ..., else ...'* theoretical decision rule based on chosen action levels.	• If the statistical parameters of the sampling data exceed applicable action levels, then preparation of a RAP will be required. *Otherwise* • If the statistical parameters are below applicable action levels, then land will be determined to be suitable for HIL-A land use.
6	***Specify performance or acceptance criteria***	
	The decision rule as a statistical hypothesis test.	• The null hypothesis is that soil is contaminated and exceeds adopted criteria. • The alternative hypothesis is that soil is not contaminated above the adopted criteria.
	Consequences of making incorrect decisions from the test.	Possible decision errors include: • Soil material being accepted as suitable for HIL-A land use when it is not, thereby potentially risking human health or environmental impacts. • Unnecessary remediation of soil material offsite, imposing needless financial and resource burdens on the development project.
	Acceptable limits on the likelihood of making decision errors, including acceptable alpha (α) and beta (β) risk levels	Stated hypotheses: • *Null hypothesis* (H0): the 95% UCL, and other requirements, are > the action level; and • *Alternate hypothesis* (HA): the 95% UCL, and other requirements, are ≤ the action level. Potential outcomes include Type I and Type II errors: • Type I error of determining the soil material is acceptable for the proposed HIL-A land use when it is not (wrongly rejects true H0). • Type II error of determining the soil material is unacceptable for the proposed HIL-A land use when it is (wrongly accepts false H0). For performance criteria, the acceptable limits on the likelihood of making decision errors to be applied are: • Alpha risk (Type I error) of $\alpha = 0.05$ • Beta risk (Type II error) of $\beta = 0.2$.
7	***Optimised design for obtaining data***	

DQO Process Step		DQO Output
	Sampling and analysis design	To allow statistical inference, a probabilistic systematic sampling strategy is to be adopted to screen soils for diffuse contamination. NSW EPA (2022) minimum grid-based sampling requirements will be adopted for the investigation based on a decision area of 2.1 ha. Twenty-two (22) test pit locations will be set out on an approximate 29.5 m square grid designed to detect a 35 m diameter hotspot with 95% confidence. Additionally, eight (8) targeted surface sample locations within existing structures curtilage and several targeted surface samples within possible former structure areas will be undertaken. Test pits will be excavated at each sampling location into underlying natural material. Field samples will be collected at the ground surface (<0.2 m) at each sampling location targeting former agriculture land AEC. Surface samples will be collected at each location at the ground surface (<0.1 m) targeting the remaining aforementioned AECs. Samples will be selected for analytical testing based on the soil units encountered at sampling locations and field observations made (including visual and olfactory evidence).
	Implementation of the design and contingency plans	The field methods for sample collection, handling, and analysis (at analytical laboratories) are described in Section 5.4 and 5.5. Contingencies include, collecting additional samples from material that is significantly different from the reworked natural, and conducting additional analysis where field indicators (staining, odours, field screening results) suggest other contaminants.
	QA/QC procedures	Required field QA and field and laboratory QC are described in Section 5.2 and include data quality indicators (DQIs) and associated measurement quality objectives (MQOs).
	Operational details and theoretical assumptions of the selected design in the SAQP.	Theoretical assumptions include: • Soil material is relatively homogenous, consists of natural material, and only minor wastes exist (if any).

5.2 Data Quality Indicators

In accordance with NSW EPA (2017, 2020), the field and laboratory data set obtained for the investigation will be compared with DQIs outlined in Table 10 to ensure acquired data meets the needs of the project and DQOs have been met.

Table 10: Data quality indicators.

Assessment Measure (DQI)	Comment
Precision – a measure of the variability (or reproducibility) of data.	Precision will be assessed by collection of a minimum 5% field duplicates and calculation of the relative percent difference (RPD) with parent samples. Data precision will be deemed acceptable where results are: • Any RPD (for 0 - 10 x EQL), or • RPD <50% (for 10 - 30 x EQL) or • RPD <30% (for >30 x EQL) Exceedance of this range may still be considered acceptable where heterogeneous materials are sampled.
Accuracy – a measure of the closeness of reported data to the true value.	Data accuracy will be assessed by: • Field spikes and blanks. • Laboratory duplicates, spikes, surrogates, and blanks.
Representativeness – confidence that data is representative of each media present on site.	To ensure data representativeness, the following field and laboratory procedures will be followed: • Design and implementation of the sampling program completed in accordance with the SAQP. • Use of a trip spike for assessing volatile losses during field sampling and a trip blank to ensure no cross contamination or laboratory artefacts. • Laboratory hold times are met, and sample handling and transportation is completed in accordance with the SAQP.
Completeness – a measure of the amount of usable data from a data collection activity.	To ensure data set completeness, the following is required: • Confirmation sampling was completed in general accordance with SAQP. • Provision of COC and sample receipt forms. • Provision of results from all laboratory QA / QC samples (lab blanks, trip blank and trip spike, lab duplicates). • Use of appropriate sampling and analytical methods. • NATA accreditation stamp on all laboratory reports.
Comparability – confidence that data may be considered equivalent for each sampling and analytical event.	Data comparability will be maintained by ensuring: • All sampling events undertaken follow methodologies outlined in the SAQP and published guidelines. • NATA accredited laboratory methodologies are followed for all laboratory analysis.

5.3 Site Assessment Criteria

Site assessment criteria (SAC) adopted for the characterisation of soil for the DSI are summarised in Table 11.

Table 11: Site assessment criteria.

Adopted Guidelines	Rationale
Soils	
NEPC (2013a)	Health investigation levels (HIL) Samples are assessed against: • NEPC (2013a) HIL-A investigation levels for residential (with soil access) land use. Health screening levels (HSL) *Petroleum hydrocarbons* Samples are assessed against: • NEPC (2013a) soil HSL-A&B – low to high density residential land use (silt dominant soils) have been considered for soil vapour intrusion. *Asbestos* Asbestos HSLs outlined in NEPC (2013a) have not been adopted for this investigation. Alternatively, presence of asbestos in soils or in material samples is assessed on a detect / non detect basis. Should asbestos be detected in samples, or evidence of demolition debris be present in soil, further asbestos investigation and quantification may be required. Management Limits NEPC (2013a) management limits have been adopted for the petroleum hydrocarbons for residential / parkland – fine textured soils.
NEPC (2013a)	Ecological Investigation Levels (EIL) EILs for select metals, DDT, and naphthalene are derived from NEPC (2013a) for protection of terrestrial ecosystems in residential & public open space. EILs are calculated using Added Contaminant Levels (ACL) for respective contaminants in NEPC (2013a) using the most conservative pH, CEC, clay content values, and Ambient Background Concentrations (ABC) are derived from NSW - old suburb / low traffic ABCs, tabulated in NEPC (2013d). Contamination is also considered aged (>2 years). Soil parameters adopted for EIL calculations are based on compiled site-specific analytical data, where noted: • CEC – 7.9 $cmol_c/kg$ (based on laboratory analysis, see Appendix F) • pH – pH 5.8 (based on laboratory analysis, see Appendix F) • Clay content - 30% • Organic carbon content – 10% EIL calculation sheets are provided in Appendix H. Ecological Screening Levels (ESL) TRH and BTEX are assessed against ESLs for urban residential & public open space – fine textured soils presented in NEPC (2013a).

5.4 Field Investigation Methodology

5.4.1 Soil Investigation

The methodology adopted for field investigation and sampling of soils to meet established project DQOs is provided in Table 12.

Table 12: Soil investigation and sampling methodology.

Item	Description
Date of fieldworks	Soil investigation and sampling was completed on 29 May 2025.
Investigation method(s)	Soil investigation was conducted by the following methods: • Excavation of twenty-two (22) test pits (TP201 – TP222) using hand tools. • Collection of seventeen (17) surface samples (SS01 – SS17) using hand tools. Sampling locations are shown in Appendix A (Map 03).
Soil logging	Soils were classified in the field with respect to lithological characteristics and texture. Soil classifications and descriptions were based on the Unified Soil Classification System (USCS) and Australian Standard (AS) AS1726:2017 - *Geotechnical Site Investigations*. Soils were also evaluated qualitatively for odour, visual evidence of contamination, and anthropogenic inclusions. A summary of soil descriptions and field observations is provided in Section 6.3.
Soil sampling	Soil samples were obtained from by an experienced MA environmental consultant using a dedicated, clean pair of nitrile gloves for collection of each sample. Each sample obtained from test pit excavations was collected directly from soils within the test pit. Each surface sample obtained was collected directly from soils at the surface. Each sample was placed into a laboratory supplied, 250 mL glass jar, with no headspace (to limit volatile loss) and labelled with a unique sample identifier.
Sample preservation	Soil samples were stored in a refrigerated (ice filled) chest, whilst onsite and in transit to the laboratory. All samples were submitted and analysed within the required holding period, as documented in laboratory sample receipt advice (SRA) presented in Appendix G.
QC sampling	The following quality control (QC) sampling rates were proposed for soil investigation: • Field duplicate samples were collected and analysed at a rate >5%. • A laboratory prepared trip blank and trip spike were stored with collected soil samples in the field and during transportation to the analytical laboratory for each analytical sample batch.
Sample handling and transport	Sample storage and transport was conducted according with industry guidance and standards. Samples were placed immediately into an ice chilled cooler box following collection. Primary samples were dispatched to Envirolab Services Pty Ltd (Envirolab), a NATA accredited analytical laboratory, under chain of custody (COC) conditions for analysis. COC certificates and SRA documentation was provided to MA for confirmation purposes and is attached in Appendix G.

5.5 Sampling and Analysis Rationale

Sample analysis was completed in accordance with NEPC (2013c) Schedule B3: *Guideline on Laboratory Analysis of Potentially Contaminated Soils*. The sampling and analytical rationale adopted for the investigation to screen for COPCs at testing locations, within recognised AECs, is provided in Table 13.

Table 13: Sampling and analysis rationale.

AEC	No. of samples	Sampling Locations	Laboratory Analysis	Rationale
AEC A Former agriculture land use	22	TP201 – TP222.	HM, OCP/OPP.	Historical agricultural activity (1963–1994) may have involved pesticide/herbicide application. Analysis targets potential pesticide residues and metals. Subset analysed for broader COPCs to support waste classification and screen for unexpected contamination.
		TP205, TP216, TP2018, TP219.	TRH, BTEX, PAH, PCB, asbestos.	
AEC B Existing structures	8	SS01, SS02, SS07, SS17.	TRH, BTEX, PAH, OCP/OPP, HM, asbestos.	Targeted due to potential contamination from pest control, weathering of building materials (e.g. PACM, lead-based paint), and small-scale chemical or fuel storage. Lower risk areas—analysed for key COPCs related to structural materials and pest control.
		SS03 – SS06.	HM, OCP/OPP, asbestos.	
AEC C Former structures	4	SS08 – SS11.	HM, OCP/OPP, asbestos.	Demolished structures may have involved pest control or uncontrolled disposal of asbestos-containing or lead-based materials.

A summary of the laboratory analytical suite used for the investigation is provided in Table 14.

Table 14: Summary of COPC laboratory analysis of media.

COPC	Soil Samples	QC Samples	QC Purpose
HM	34	3	Duplicates
OCP/OPP	34		
BTEXN	8	1	Trip spike
TRH	8	1	Trip blank
PAH	8		
PCB	4		
Asbestos (in soil)	16		
CEC	2		
pH	2		

Based on the CSM several COPC were identified such as metals (HM) and pesticides (OCP/OPP) for all AECs, primarily due to historical agricultural use, as well as asbestos due to former structures and hydrocarbons (TRH, BTEXN, PAH) and asbestos due to existing buildings and structures. Accordingly, the analytical program primarily targeted these COPC.

For completeness, four soil samples was submitted for a broader suite of analytes including HM, OCP, OCP, BTEXN, TRH, PAHs, PCBs, and asbestos to screen for any unexpected contamination and ensure a comprehensive assessment of site conditions.

6 Field and Analytical Results

6.1 Investigation Constraints

The proposed scope of works (Section 1.4) for the investigation was completed. No practical constraints were encountered during the investigation.

6.2 Data Quality Assessment

Field and laboratory QA/QC has been reviewed for the investigation and is presented in the Data Quality Assessment provided in Appendix D.

Assessment of the field and analytical data produced by the investigation indicated that data adequately satisfies the DQIs that were developed for the investigation. It is therefore concluded that the overall data quality is of an acceptable standard to be used for interpretation.

6.3 Subsurface Conditions and Field Observations

No fill material was observed at any test pit locations, with the exception of TP217 which encountered a layer of mulch material overlying natural soils to a maximum depth of 0.05 mBGL.

At surface sample locations, no fill was observed except at SS01 and SS02, where yellow to pale-brown gravelly sand was encountered to a depth of 0.1 mBGL. Natural soils were not reached at these locations due to target depth constraints.

Natural soils were encountered to a maximum investigation depth of 0.2 mBGL and generally comprised orange to brown silty clay.

All test pits were terminated upon refusal on shallow bedrock, which limited investigation depth.

Groundwater seepage was not encountered at any location.

No visual or olfactory evidence of contamination (e.g., staining or odours) was noted in soils during excavation. Anthropogenic materials, including demolition debris or potential asbestos-containing material (PACM), were not observed during test pit or sample collection, with the exception of minor plastics encountered within SS03 at 0.05 mBGL.

Test pit and surface sample locations are shown on the sampling plan in Appendix A (Map 03). Selected photographs from the field investigation are included in Appendix I.

6.4 Soil Results

6.4.1 Soil Analytical Result Summary – Proposed Childcare Lot (MA, 2025c)

The analytical results from soil sampling were assessed against the adopted SAC for residential land use (HIL-A), consistent with the proposed childcare development. All

reported concentrations of COPC were below laboratory LOR or relevant SAC with the exception of total chromium which exceeded the HIL for Chromium (VI) in all soil samples. However, chromium speciation testing confirmed that:

- Chromium (VI) concentration were below the LOR for all samples.
- Chromium (III) concentration were below the LOR for all samples.

These findings suggest that the elevated total chromium concentrations are likely attributable to environmentally stable, non-bioavailable forms of chromium that do not pose a risk under the proposed land use. As such, no further assessment or management of chromium is considered necessary.

6.4.2 Soil Analytical Results – Proposed Residential Lots

A summary of laboratory analytical results for analysed soil samples, compared to adopted SAC, is provided in Table 15. A detailed tabulation of soil analytical results showing individual samples compared to adopted SAC is provided in Appendix E. Laboratory analytical documentation is available in Appendix F.

Table 15: Summary of soil analytical results compared to assessment criteria.

Analyte	Results Compared to SAC
Heavy metals	Most heavy metals were reported at concentrations below the laboratory LOR or below the adopted SAC. Total chromium was reported in all samples, except for SS01 and SS02 (fill material), at concentrations between 150 and 310 mg/kg, exceeding the NEPM (2013) HIL for Chromium (VI) of 100 mg/kg. Chromium speciation analysis was undertaken for four (4) samples that reported the greatest concentrations of total chromium. The speciation results confirmed that Chromium (VI) concentrations were below the LOR and Chromium (III) concentration were below the adopted SAC in the samples. Zinc was reported in two samples, SS07 and SS17, at concentrations of 410 mg/kg and 910 mg/kg, respectively, exceeding the Site soil-specific EIL for Zinc of 380 mg/kg.
BTEXN	BTEXN in analysed soil samples were reported by the laboratory at concentrations below the laboratory LOR and below adopted SAC.
TRH	TRHs in analysed soil samples were reported by the laboratory at concentrations either below the laboratory LOR or below the respective adopted SAC.
PAH	Relevant PAHs in analysed soil samples were reported by the laboratory at concentrations below the laboratory LOR and below adopted SAC.
OCP/OPP	OCP and OPP in analysed soil samples were reported by the laboratory at concentrations either below the laboratory LOR or below the respective adopted SAC.
PCB	PCB (total) in analysed soil samples were reported by the laboratory at concentrations below the laboratory LOR and below the respective SAC.
Asbestos (identification in soil)	The analytical laboratory reported that no asbestos was detected at the reporting limit of 0.1 g/kg in analysed soils samples. Trace analysis by the laboratory did not detect asbestos in soil samples.

6.5 Discussion

The analytical results from soil sampling were assessed against the adopted site assessment criteria (SAC) for residential land use (HIL-A), consistent with the proposed residential dwelling and childcare facility land use scenario.

With the exception of total chromium and zinc, all reported concentrations of COPCs, including heavy metals (HM), pesticides (OCP/OPP), hydrocarbons (BTEXN, TRH and PAHs), PCBs, and asbestos, were below LOR or relevant SAC.

6.5.1 Chromium

Total chromium concentrations (150 to 310 mg/kg) reported exceed the HIL for Chromium (VI) in all soil samples, except for SS01 and SS02 (fill material). However, the concentrations are generally consistent with average chromium concentrations in mafic (igneous) rock types (e.g. basalt) which typically average around 200 mg/kg, as documented by Gray and Murphy (1999). The underlying basaltic geology is therefore considered the likely source of the chromium concentrations across the Site.

Chromium speciation was undertaken to assess the potential risk:

- Within the proposed childcare lot (MA, 2025c), speciation was completed for all eight soil samples, and both Chromium (VI) and Chromium (III) were reported below LOR.
- For the current investigation, four samples with the highest total chromium concentrations were analysed. Chromium (VI) was reported below LOR, and Chromium (III) was reported below the adopted SAC.

These consistent findings indicate that the elevated total chromium is likely attributable to environmentally stable, non-bioavailable forms of chromium that do not pose a risk under the proposed land use. No further investigation or management of chromium is considered necessary.

6.5.2 Zinc

Zinc concentrations in SS07 of 410 mg/kg and SS17 of 910 mg/kg exceed the Site soil-specific EIL for Zinc of 380 mg/kg. Both samples were collected from shallow soils (<0.1 mBGL) adjacent to the existing shed structure in the eastern portion of the Site. The shed is considered the likely source of the elevated zinc. Given the ecological (not human health) nature of the exceedance, and the likelihood that surface soils will be replaced with suitable material during development, these results are not considered to represent a long-term risk.

6.5.3 Fill Material and Observations

Fill material was encountered within SS01 and SS02 consisting yellow to pale brown gravelly sand to a maximum investigation depth of 0.1 mBGL, with target depth reached prior to natural soils being encountered. Mulch material was also encountered within

TP217 overlain natural soils to a maximum depth of 0.05 mBGL. All contaminants within fill material were reported at concentrations below LOR and below adopted SAC.

No asbestos, odours, staining, or other field indicators of contamination were observed during intrusive works.

6.5.4 Updated CSM

The results are consistent with the CSM, which identified only a low potential for contamination associated with historical agricultural activities, existing and former structures, and related AECs. Analytical and field evidence confirms that the Site is generally free of significant contamination, with only minor and localised ecological exceedances that are not expected to impact the suitability of the Site for the proposed residential and childcare land use.

7 Conclusions and Recommendations

MA has completed a DSI for land located at 3 Memory Avenue, Crookwell, NSW (the Site) to assess potential land contamination risks in support of a proposed 20-lot residential subdivision.

This DSI has been prepared to accompany a Development Application (DA) to Upper Lachlan Shire Council for the proposed subdivision. The intended future use of the subdivided lots includes residential dwellings and a childcare facility. This investigation builds upon the findings of a Preliminary Site Investigation (MA, 2025b) for the entire Site and a Detailed Site Investigation (MA, 2025c) for the proposed childcare lot.

Based on the results of this assessment, MA consider that the Site is suitable for the proposed subdivision and future residential and childcare land use with no further investigation, remediation or management required. This report provides the consent authority with data and analysis sufficient to consider whether the land is contaminated [s 4.6 (1) (a)] and to conclude that the land is suitable for the intended use without the need for remediation or ongoing management considerations with regards to contaminated land.

We recommend that the following works are completed so that contamination risks remain low and acceptable during, and post construction works:

- Preparation and implementation of a Construction Environmental Management Plan (CEMP) for the construction phase of the project. The CEMP is to include protocols to address any unexpected finds which may be encountered during targeted investigation works for footings and other potential targeted minor excavation as part of the proposed development.
- If required, undertake a formal waste classification assessment to ensure that any spoil generated during development work is classified and disposed of in accordance with NSW EPA (2014) Waste Classification Guidelines.

8 Limitations Statement

This DSI was undertaken in line with current industry standards.

It is important, however, to note that no land contamination study can be a complete and exhaustive characterisation of a site, nor can it be guaranteed that any assessment shall identify and characterise all areas of potential contamination or all past potentially contaminating land uses. Therefore, this report should not be read as a guarantee that no contamination shall be found on the Site. Should material be exposed in future which appears to be contaminated or inconsistent with natural site soils, additional testing may be required to determine the implications for the site.

Martens & Associates Pty Ltd has undertaken this assessment for the purposes of the current development proposal. No reliance on this report should be made for any other investigation or proposal. Martens & Associates Pty Ltd accepts no responsibility and provides no guarantee regarding the characteristics of areas of the site not specifically studied in this investigation.

9 References

A.J. Johnston, M.M. Scott, J.J. Watkins, L. Sherwin, A.Y.E. Warren, D.J. Pogson, R.A. Glen & J.J. Vassallo (2013). Crookwell 1:100 000 Geological Sheet 8729. Geological Survey of New South Wales, Maitland.

Australian Standard (2017) AS1726:2017, Geotechnical Site Investigations. SAI Global Limited, Sydney.

BoM (2025) Australian Groundwater Insight Portal and Australian Groundwater Dependent Ecosystems Atlas. Bureau of Meteorology, Canberra. Available at http://www.bom.gov.au/water/groundwater/index.shtml, accessed 11 June 2025.

Faubourg (2025) Proposed Childcare Development at 3 Memory Ave, Crookwell, Drawing No. SK00-SK02 and SK10, Document Number 100330, received 14 April 2025.

Gray, J.M. and Murphy, B. W. (1999) Parent Material and Soils - a Guide to the Influence of Parent Material on Soil Distribution in Eastern Australia, Technical Report No. 45 (Reprinted 2002), NSW Department of Land and Water Conservation, Sydney.

GSNSW (2025) MinView. Geological Survey of New South Wales, Department of Regional NSW, Maitland. Available at: https://minview.geoscience.nsw.gov.au/, accessed 11 June 2025.

Martens and Associates Pty Ltd (2025), *Proposed 20 Lot Subdivision, Concept civil engineering plans, 3 Memory Ave Crookwell NSW 2583, Staging Plan,* Drawing No. PS01-B100, Revision C, Project Number P24510601, dated 20 March 2025 (MA, 2025a).

Martens and Associates Pty Ltd (2025) *Preliminary Site Investigation, Proposed Residential Subdivision: 3 Memory Avenue, Crookwell NSW*, document reference P2410601JR02V01, dated 28 April 2025 (MA, 2025b).

Martens and Associates Pty Ltd (2025) *Detailed Site Investigation, Proposed Childcare Centre Development: 3 Memory Avenue, Crookwell NSW*, document reference P2410601JR05V01, dated 27 May 2025 (MA, 2025c).

NEPC (2013) Schedule B2: Guideline on Site Characterisation. National Environment Protection (Assessment of Site Contamination) Measure (NEPM), as amended in May 2013.

NSW DEC (2007) Guidelines for the Assessment and Management of Groundwater Contamination. DEC2007/144, March 2007.

NSW DPE (2025) eSPADE 2.2 Spatial Viewer System. NSW Department of Planning and Environment. Available at: https://www.environment.nsw.gov.au/eSpade2Webapp/, accessed 11 June 2025.

NSW DPIE (2025) Search Engine for Environmental Data (SEED) website. NSW Department of Planning, Industry and Environment, Sydney. Available at https://geo.seed.nsw.gov.au/Public_Viewer/index.html?viewer=Public_Viewer&locale=en-AU, accessed 11 June 2025.

NSW DUAP (1998) Managing Land Contamination Planning Guidelines: SEPP 55 – Remediation of Land. Department of Urban Affairs and Planning / EPA, 1998.

NSW EPA (2015) Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997. EPA 2015/0164, September 2015.

NSW EPA (2017) Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme. EPA 2017P0269, October 2017.

NSW EPA (2020) Contaminated Land Guidelines: Consultants Reporting on Contaminated Land. EPA 2020P2233, April 2020.

NSW EPA (2022) Contaminated Land Guidelines: Sampling design part 1 – application. EPA 2022P3915, NSW Environmental Protection Authority, Parramatta.

SDG (2024), Detail and Level Survey of Lot 2 in DP702788, 3 Memory Ave Crookwell, SDG Pty Ltd, Reference 9293, Issue C, Survey date 17 December 2024.

SSDCS (2025) Historical Imagery Viewer. Spatial Service - NSW Department of Customer Service. Available at: https://portal.spatial.nsw.gov.au/portal/apps/webappviewer/, accessed 11 June 2025.

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017.

State Environmental Planning Policy (Resilience and Hazards) 2021.

Upper Lachlan Development Control Plan 2010.

Upper Lachlan Local Environmental Plan 2010.

WaterNSW (2025) Real-Time Water Database. Department of Planning and Environment. Available at: https://realtimedata.waternsw.com.au/water.stm, accessed 11 June 2025.

Appendix A – Maps

Map	Title
Map 01	Overview
Map 02	Topography
Map 03	Testing Plan Map

0 20 40 60 80 100 m

1:2500 @ A3

Viewport A

Notes:
- Aerial from Nearmap (2025).
- Cadastre and site boundary from NSW Spatial Services Clip and Ship (2025).

martens
Environment | Water | Geotechnics | Civil | Projects

Map Title / Figure:
Overview

Map 01	Map
3 Memory Avenue, Crookwell, NSW 2583	Site
Lot Subdivision: Residential and Childcare	Project
Detailed Site Investigation	Sub-Project
BlueSox Pty Ltd	Client
05/06/2025	Date

© Martens & Associates Pty Ltd | E mail@martens.com.au | WEB www.martens.com.au

Project No: P2410601 Map Set: MS04-R01 EPSG: 28356

Legend

- Site Boundary
- Proposed Lot 4 Boundary
- 1m Contours

905 mAHD
910 mAHD
915 mAHD
920 mAHD
905 mAHD

N

0 20 40 60 80 100 m

1:2500 @ A3

Viewport B

Notes:
- Aerial from Nearmap (2025).
- Site boundary from NSW Spatial Services Clip and Ship (2025).
- Contours from ELVIS Lidar (2009).

martens
Environment | Water | Geotechnics | Civil | Projects

© Martens & Associates Pty Ltd | E mail@martens.com.au | WEB www.martens.com.au

Project No: P2410601 Map Set: MS04-R01 EPSG: 28356

Map Title / Figure:

Topography

Map 02	Map
3 Memory Avenue, Crookwell, NSW 2583	Site
Lot Subdivision: Residential and Childcare	Project
Detailed Site Investigation	Sub-Project
BlueSox Pty Ltd	Client
05/06/2025	Date

Legend

- Site Boundary
- Proposed Lot 4 Boundary

Testing Locations

- Surface Sample Location
- Testpit Locations
- Former Testing Location (MA, 2025c)

TP213 TP216 TP217 TP219 TP211 SS01 SS02 SS14 TP212 SS03 SS10 TP220 TP215 SS06 SS11 TP208 SS12 TP210 SS04 SS13 SS07 SS05 SS17 TP206 SS15 SS08 TP214 SS16 TP221 TP207 TP218 SS09 TP209 TP222 TP204 TP205 TP103 TP108 TP203 TP107 TP105 TP104 TP106 TP201 TP202 TP102 TP101

N

0 8 16 24 32 40 m

1:750 @ A3

Viewport B

Notes:
- Aerial from Nearmap (2025).
- Site Boundary from NSW Spatial Services Clip and Ship (2025).

martens
Environment | Water | Geotechnics | Civil | Projects

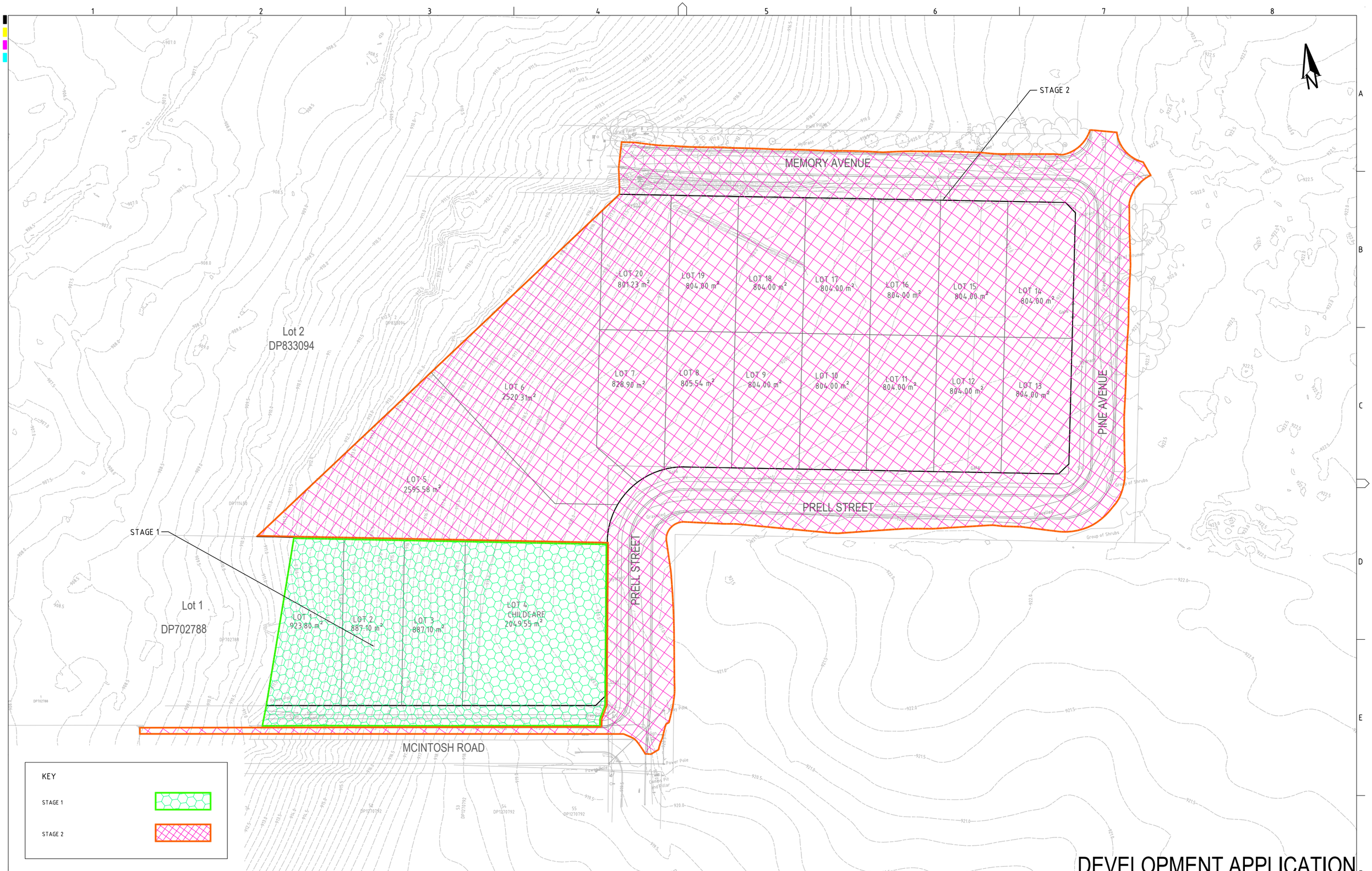
Map Title / Figure:
Testing Plan Map

Map 03	Map
3 Memory Avenue, Crookwell, NSW 2583	Site
Lot Subdivision: Residential and Childcare	Project
Detailed Site Investigation	Sub-Project
BlueSox Pty Ltd	Client
05/06/2025	Date

© Martens & Associates Pty Ltd | E mail@martens.com.au | WEB www.martens.com.au

Project No: P2410601 Map Set: MS04-R01 EPSG: 28356

Appendix B – Subdivision and Survey Plans



DEVELOPMENT APPLICATION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	**MINOR AMENDMENTS**	**20/03/2025**	**SSH**	**RL**	**AVG**	**GT**
B	MINOR AMENDMENTS	11/03/2025	SSH	RL/PC	AVG	GT
A	INITIAL RELEASE	25/02/2025	SSH	RL	AVG	GT

PRINTED ---- - USER: SSHWAKOTI

A1 / A3 LANDSCAPE (ATLC_v02.0.01)

SCALE
0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:500 (1:1,000)

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	GT

DISCLAIMER & COPYRIGHT

This plan must not be used for construction unless signed as approved by principal certifying authority.

All measurements in millimetres unless otherwise specified.

This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd.

(C) Copyright Martens & Associates Pty Ltd

CLIENT
BLUE SOX DEVELOPMENTS

PROJECT NAME/PLANSET TITLE
PROPOSED 20 LOT SUBDIVISION
CONCEPT CIVIL ENGINEERING PLANS
3 MEMORY AVE CROOKWELL NSW 2583

martens & Associates Pty Ltd
Consulting Engineers
Environment
Water
Geotechnical
Civil
Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE
STAGING PLAN

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P2410601	PS01	R03	PS01-B100	C

DRAWING ID: P2410601-PS01-R03-B100

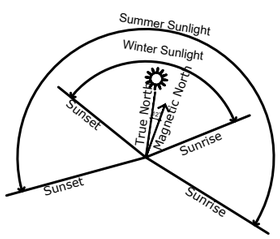
Proposed Childcare Development at
3 Memory Ave, Crookwell

Design Facts:

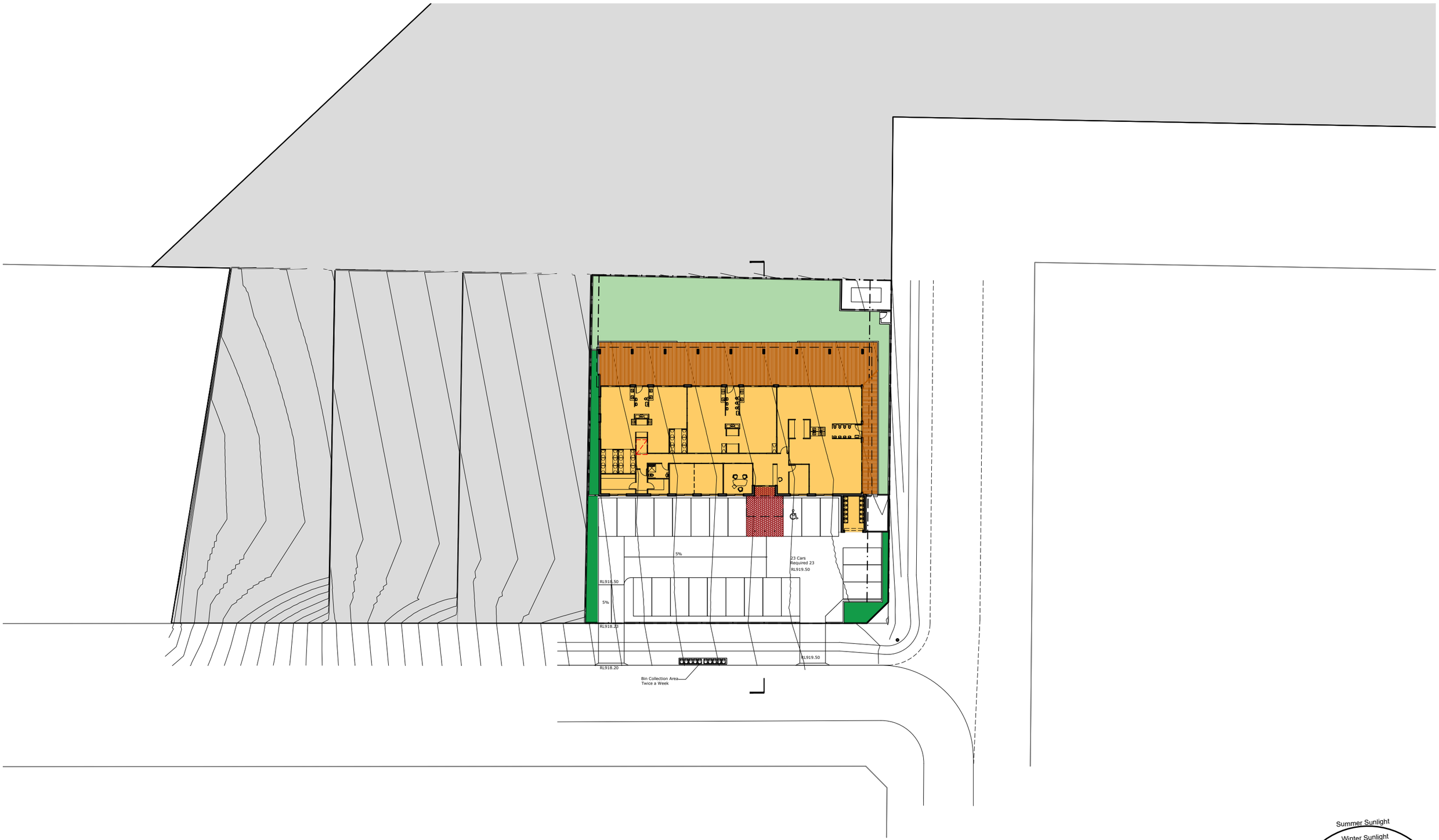
Site Area:	2050m²
GFA:	592m²
FSR:	28.9%
Height:	5.1m
Landscape Area:	605m² (29%)
Parking:	
- Employees	11
- Drop Off Spots	7
Setbacks:	
- Front:	13.4~18.5m
- Secondary:	3~3.2m
- Side:	1.5~1.75m
- Rear:	15.2~16m

Faubourg 24 Pty Ltd
38 Bellevue Ave, Denistone - T 0403664825 E admin@faubourg24.com www.faubourg24.com
ABN 47 012 991 610- Nominated Architect: Dany Romanos Khoury NSW Reg# 7753

Cover Page
100330 SK00
Issue A

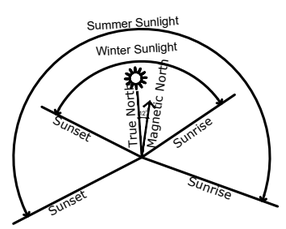


Proposed Childcare Development at
3 Memory Ave, Crookwell

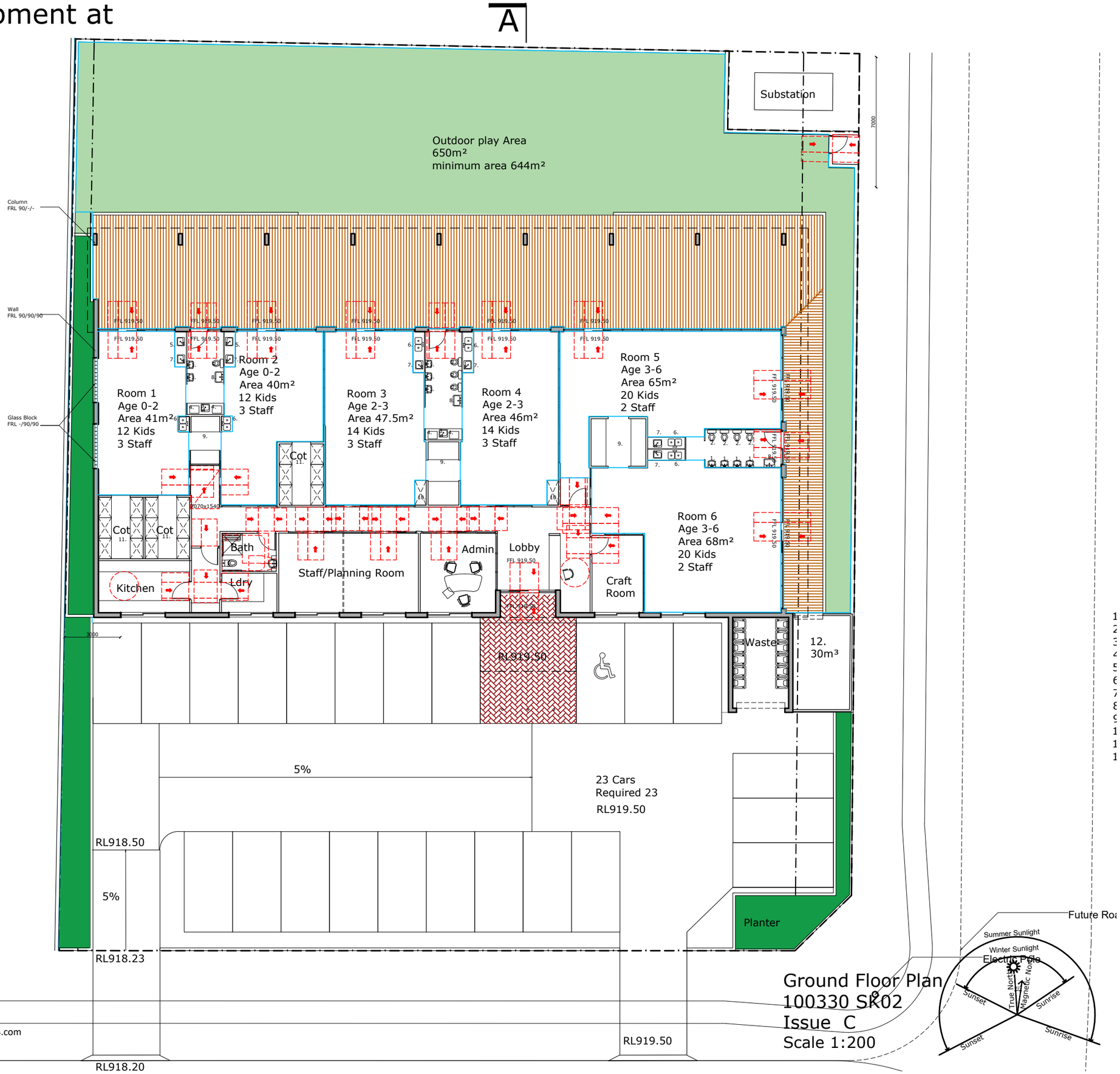


Faubourg 24 Pty Ltd
38 Bellevue Ave, Denistone - T 0403664825 E admin@faubourg24.com www.faubourg24.com
ABN 47 012 991 610- Nominated Architect: Dany Romanos Khoury NSW Reg# 7753

Site Plan
100330 SK01
Issue C
Scale 1:500



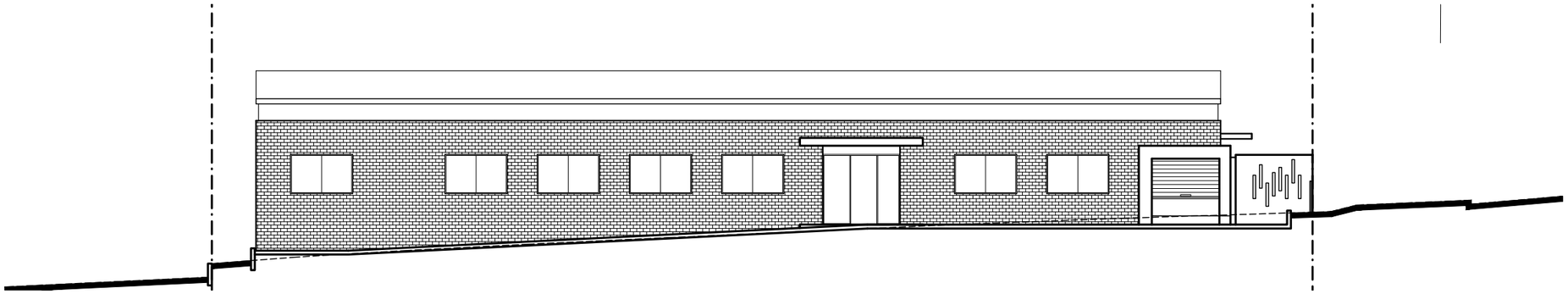
Proposed Childcare Development at 3 Memory Ave, Crookwell



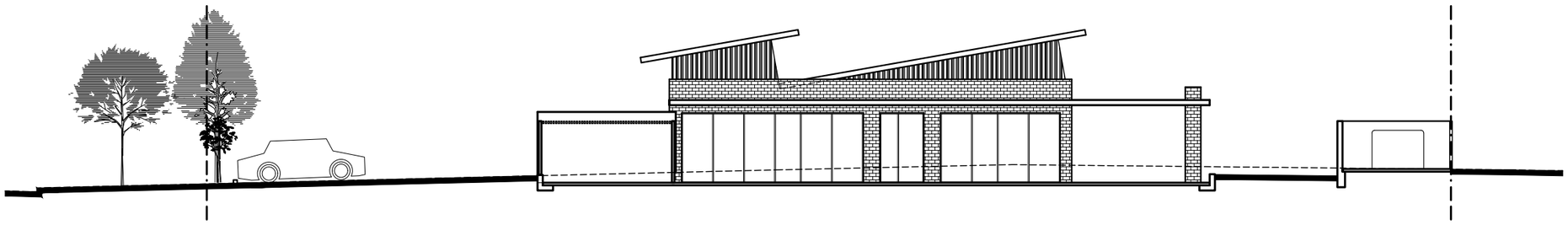
Ground Floor Plan
100330 SK02
Issue C
Scale 1:200

Faubourg 24 Pty Ltd
38 Bellevue Ave, Denistone - T 0403664825 E admin@faubourg24.com www.faubourg24.com
ABN 47 012 991 610- Nominated Architect: Dany Romanos Khoury NSW Reg# 7753

Proposed Childcare Development at
3 Memory Ave, Crookwell



East Elevation
Streetscape



East Elevation
Building Line

Northcote Childcare- Law Architects

St Lucia Campus- DWP

Section AA

Faubourg 24 Pty Ltd
38 Bellevue Ave, Denistone - T 0403664825 E admin@faubourg24.com www.faubourg24.com
ABN 47 012 991 610- Nominated Architect: Dany Romanos Khoury NSW Reg# 7753

Elevations & Section AA
100330 SK10
Issue A
Scale 1:200

A1

MGA

TN

BEARINGS SHOWN ARE ON MGA ORIENTATION

1°23' PARROT

SEE SHEET 2

MEMORY

MEMORY AVENUE

PWR Pillar

Edge of Bitumen

Centreline

Edge of Bitumen

SMH

Comms Pillar

Power Pole

Hydrant

AVENUE

SVlv2

PINE AVENUE

100°31'45"
135.34

Gate

921

End of Bitumen

Gravelled

Iron Garage

Awning

Clad Dwelling

Verandah

Verandah

Gravelled

Gate

80.47
190°57'25"

Hydrant

SV

PINE

Group of Shrubs

2
DP833094

Lot 2
DP833094

Kennel

56°09'45"
147.94

2
DP702788

920.5

921

921.5

136.72
280°31'45"

Gate

SV

Hydrant

Hydrant

922

STREET

PRELL

STREET

Gravelled

Gravelled

Group of Shrubs

1
DP711450

Gate

11.03
280°31'45"

71.15
190°00'35"

Hydrant

STREET

PRELL

18°52'15"
50.565

Lot 1
DP702788

1
DP702788

SEE SHEET 3 ADJOINS

CONC DRIVEWAY

GRASS

PP

Power Pole

STAY WIRE

Comms Pit

Kerb and Gutter

CONCRETE

KERB & GUTTER

Centreline

CONCRETE

KERB & GUTTER

MCINTOSH ROAD

Power Lines

GRASS

HYD SV

COM

COM

CONC DRIVEWAY

100.75
279°28'15"

SEE SHEET 2

Stay

Stay Pole

SV

Stay Pole

Sign

Stay

End of Kerb

Power Pole

Power Pole

Comms Pit and Pillar

BENCHMARK
SSM204040
RL 919.70 A.H.D.

PRELL

9
DP1217974

52
DP1270792

52
DP1270792

54
DP1270792

55
DP1270792

2 4 6 8 10 20 30 40
1:400

GENERAL NOTES

THE OVERALL SURVEY OF LOT 2 DP702788 SHOWN IS FROM A SURVEY BY SOUTHERN CROSS CONSULTING SURVEYORS DATED 25/11/2022 REF 24884C.

SDG HAS SURVEYED THE AREAS WITHIN DIAGRAMS A AND B AND THE DRAINAGE INFORMATION SHOWN ALONG McINTOSH ROAD ONLY.

THE ORIGINAL 3D DTM MESH BY SOUTHERN CROSS CONSULTING SURVEYORS WITHIN THE AREAS OF DIAGRAMS A AND B HAS BEEN DELETED AND THE SDG 3D MESH HAS BEEN SPLICED IN.

SDG HAS NOT CHECKED THE OVERALL SURVEY BY SOUTHERN CROSS CONSULTING SURVEYORS.

ONLY TREES GREATER THAN 3.5 METRES IN HEIGHT ARE SHOWN ON THIS PLAN AND THEIR POSITIONS ARE DIAGRAMMATIC ONLY AND MAY REQUIRE ADDITIONAL SURVEY WHERE CRITICAL TO DESIGN.

CONTOURS ARE INDICATIVE AT GROUND FORM ONLY. SPOT LEVELS ONLY SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.

LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD).

ALL SETOUT LEVELS MUST BE REFERRED TO THE BENCH MARK SHOWN ON THIS PLAN.

BOUNDARY NOTES

A BASIC BOUNDARY SURVEY HAS BEEN DONE SUITABLE FOR DA LODGEMENT PURPOSES.

BOUNDARIES HAVE NOT BEEN MARKED.

SURVEY INFORMATION NOTES

THE ORIGIN OF COORDINATES COMES FROM PM35953 E727183.306 N6185234.235 CLASS B POSITIONAL UNCERTAINTY (PU) 0.02 (MGA2020) ADOPTED FROM SCIMS DATED 19/12/2024.

THE ORIGIN OF LEVELS COMES FROM PM35953 RL904.891 CLASS LB POSITIONAL UNCERTAINTY (PU) 0.41 ADOPTED FROM SCIMS DATED 19/12/2024.

THE ORIENTATION OF THIS PLAN IS MGA NORTH WHICH HAS BEEN DETERMINED BY A COORDINATE JOIN BETWEEN PM35953 AND PM61189.

CERTIFICATE OF TITLE NOTES

THE FOLLOWING INFORMATION RELATES TO THE RESPECTIVE CERTIFICATE OF TITLE OF EACH LOTS:

- LOT 2 IN DP702788
  (CT EDITION 14 DATED 17/04/2024 SEARCH DATE 06/01/2025)
  - AFFECTED BY:
    - EASEMENT FOR WATER SUPPLY APPURTANANT TO THE LAND DESCRIBED (DP614271)
    - COVENANT (V236534)

COVENANTS AND RESTRICTIONS NOTED ON THE TITLE HAVE NOT BEEN INVESTIGATED. THESE SHOULD BE INVESTIGATED PRIOR TO DESIGN TO ENSURE ANY FUTURE DEVELOPMENT COMPLIES.

SERVICES NOTES

ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND ARE QUALITY LEVEL A AS DEFINED BY AS 5488.1:2022.

UNDERGROUND SERVICES HAVE BEEN PLOTTED WITHIN THE AREAS OF DIAGRAMS A AND B ONLY FROM 'DIAL-BEFORE'YOU-DIG' PLANS, ARE QUALITY LEVEL D AS DEFINED BY AS 5488.1:2022 AND ARE ONLY CURRENT AT THE DATE OF SEARCH.

ALL RELEVANT AUTHORITIES MUST BE CONTACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.

WATER AND SEWER UNDERGROUND SERVICES FOR THIS AREA ARE NOT AVAILABLE ON DBYD AND HAVE NOT BEEN SHOWN ON THE PLAN.

ENQUIRIES TO THE LOCAL COUNCIL AUTHORITY WOULD NEED TO BE UNDERTAKEN TO OBTAIN UNDERGROUND SERVICE DIAGRAMS FOR WATER AND SEWER SERVICES.

LEGEND

TAG	DESCRIPTION
BB	BOTTOM OF BANK
BK	BACK OF KERB
CL	CENTERLINE OF ROAD
COM	COMMUNICATIONS PIT
CPIL	COMMUNICATIONS PILLAR
D,S,H	DIAMETER, SPREAD, HEIGHT
EB	EDGE OF BITUMENT
ELP	ELECTRICITY PILLAR
EOG	EDGE OF GRAVEL
GUT	GUTTER OF KERB
HYD	HYDRANT
LIP	LIP OF KERB
PP	POWER POLE
SMH	SEWER MANHOLE
SS	STREET SIGN
SV	STOP VALVE
TB	TOP OF BANK

TPZ (FILE PROVIDED BY ABEL ECOLOGY)

© COPYRIGHT
THIS PLAN IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN ITS ORIGINAL INTENTION AND REMAINS THE PROPERTY OF SDG. THIS PLAN CANNOT BE REPRODUCED, COPIED OR DIGITALLY TRANSFERRED (IN WHOLE OR PART) WITHOUT PRIOR WRITTEN PERMISSION OF SDG.

PROJECT:

DETAIL AND LEVEL SURVEY OF
LOT 2 IN DP702788

3 MEMORY AVENUE
CROOKWELL

CLIENT: OLIVER WEHBE

FILE: 9293-Detail-Issue C-3 Memory Avenue Crookwell.dwg

LGA: UPPER LACHLAN SHIRE

REF: 9293	CONTOURS: 0.5m
ISSUE: C	DATUM: AHD
SURVEY DATE: 17/12/2024	AZIMUTH: MGA2020
SCALE: 1:400	SHEET 1 OF 3 SHEETS

UNDERGROUND SERVICES LEGEND
QUALITY LEVEL D (AS 5488.1:2022)

W	POTABLE WATER MAIN
D	STORMWATER PIPE
S	SEWER MAIN
C	COMMUNICATIONS CABLES
E	ELECTRICITY CABLES

CAUTION: FIBRE OPTIC CABLES ARE PRESENT IN THIS AREA

APPROXIMATE POSITION ONLY VIDE 'DIAL-BEFORE-YOU-DIG' PLANS JOB No. 38283272 SEARCH DATE16/12/2024. WHERE CRITICAL TO DESIGN, UNDERGROUND SERVICES SHOULD BE LOCATED BY MORE ACCURATE METHODS.

SERVICES NOTES:-

1. ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND IF SHOWN AS '*.89.67*' ARE QUALITY LEVEL A AS DEFINED BY AS 5488.1:2022. LEVELS SHOWN ARE SURFACE LEVELS UNLESS NOTED OTHERWISE.
2. UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFOREYOU-DIG' PLANS, ARE QUALITY LEVEL D AS DEFINED BY AS 5488.1:2022 AND ARE ONLY CURRENT FOR 3 MONTHS FROM THE SEARCH DATE NOTED ABOVE. ALL RELEVANT AUTHORITIES MUST BE CONTRACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.

ISSUE	DATE	AMENDMENT	SURV	CHK
A	17/12/24	ORIGINAL ISSUE	JM	MP
B	13/01/25	ADDED TREE PROTECTION ZONES	JM	MP
C	03/03/25	EXTRA DETAIL AND SEWER INFORMATION	JM	MP

BEFORE YOU DIG www.byda.com.au

GDA2020

Global-Mark.com.au® Global-Mark.com.au® Global-Mark.com.au®

MATTHEW PLOWMAN ID: SU005915
REGISTERED LAND SURVEYOR

SDG Pty Ltd
abn 85 213 523 621
Suite 1, 3 Railway Street, Baulkham Hills NSW 2153
t: (02) 9630 7955 w: sdg.net.au
Liability limited by a scheme approved
under Professional Standards Legislation

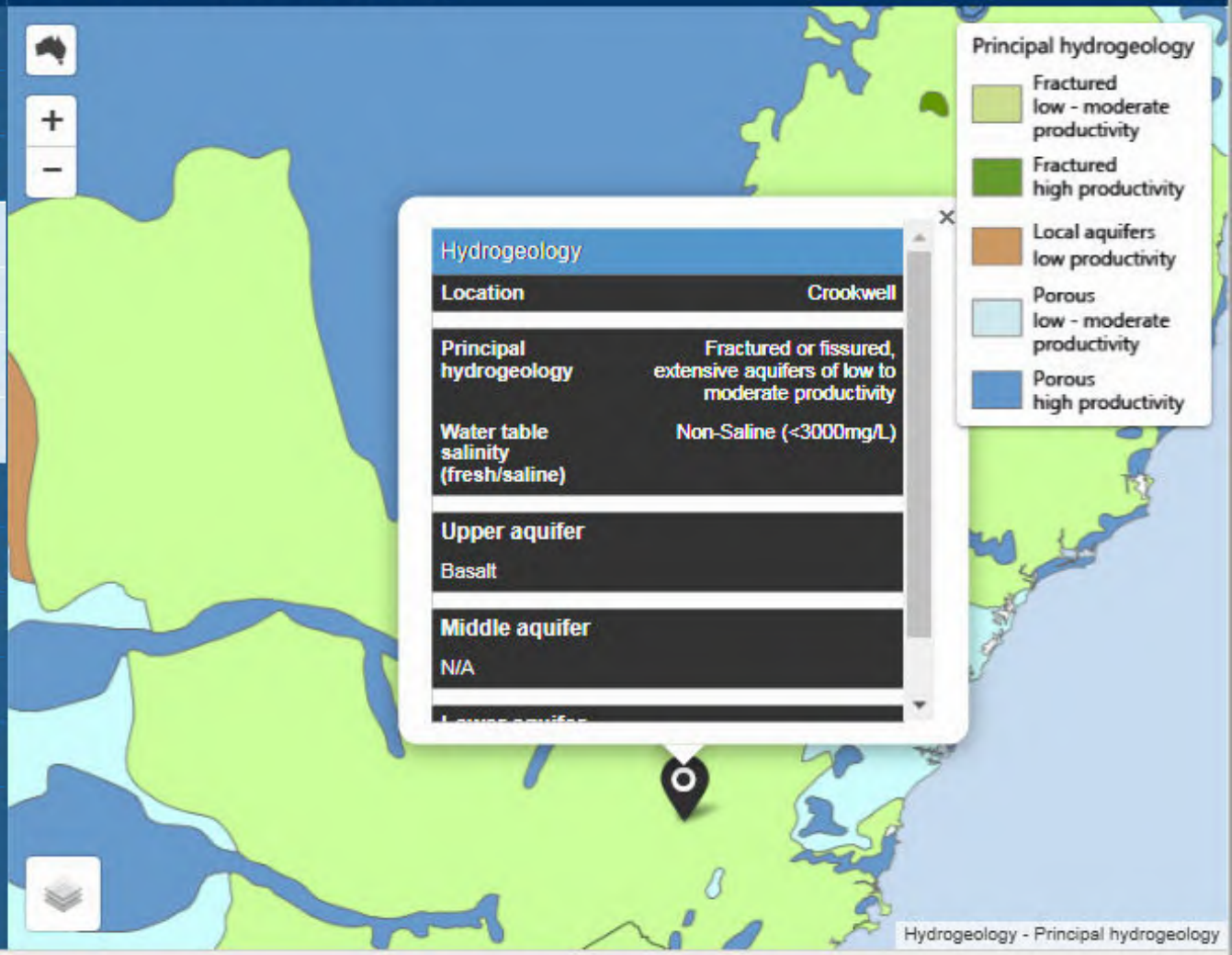
Appendix C – Groundwater Bore Information

Australian Groundwater Insight

About | FAQ | Feedback

Hydrogeology - Principal hydrogeology

- Overview
- Bore information
- Hydrogeology
  - Summary
  - Principal hydrogeology
  - Aquifer boundaries
  - Water table salinity
- Groundwater entitlement
- Groundwater management
- Groundwater level status
- Groundwater level trend
- Groundwater salinity



State Overview
State Overview

Rivers and Streams
favourites search download sites find a site
⊞ Real Time Data - Rivers And Streams

Daily River Reports
⊞ Daily River Reports

Dams
favourites search download sites find a site
⊞ Real Time Data - Major Dams

Groundwater (Telemetered data)
favourites search download sites find a site
⊞ Real Time Data - Bores

All Groundwater Site details
search download sites find a site
search by licence
⊞ All Groundwater Map

Meteorology
favourites search download sites find a site
⊞ Real Time Data - Weather Stations

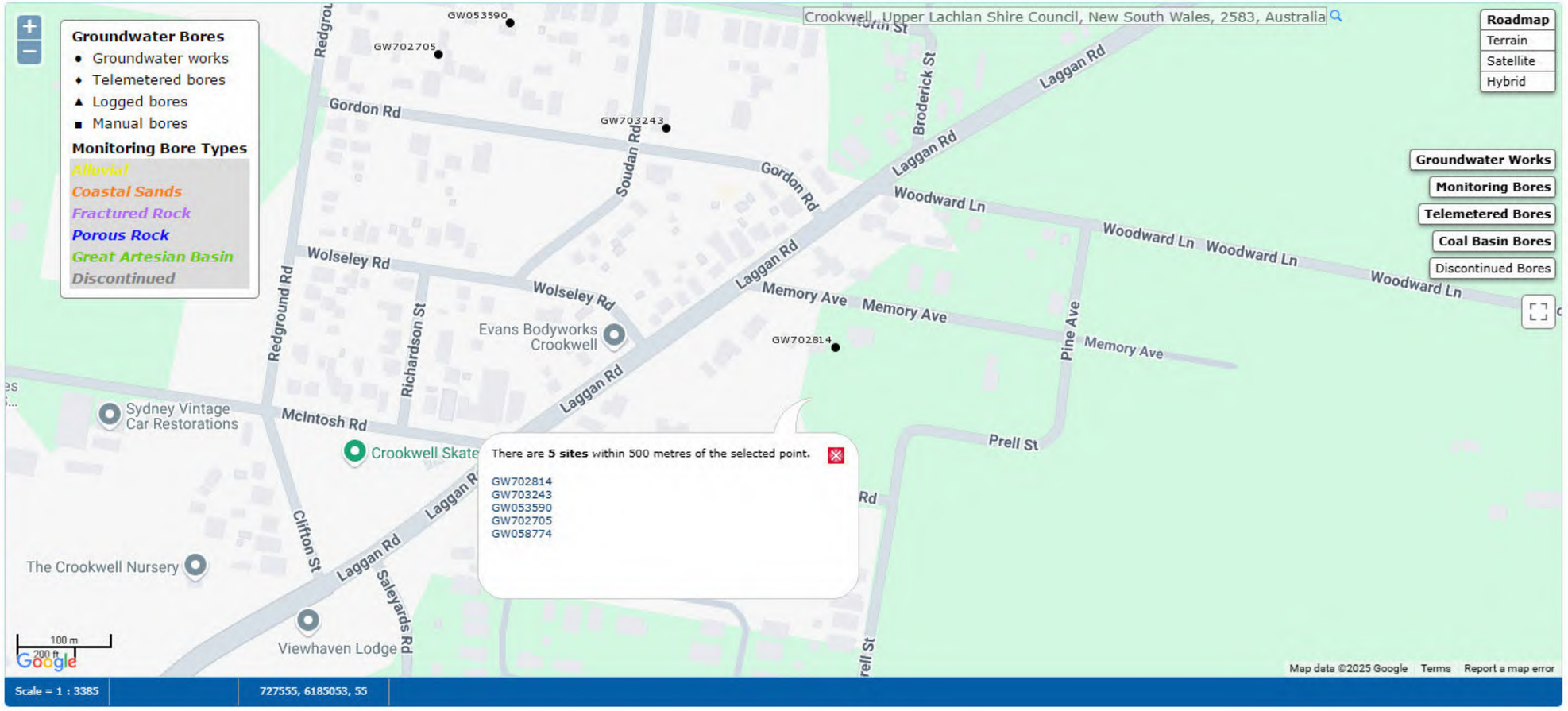
Hunter River Salinity Trading Scheme
Hunter River Salinity Trading Scheme

ALL GROUNDWATER MAP

bookmark this page

All data times are Eastern Standard Time

Map Info



WaterNSW
Work Summary

GW702705

Licence: 70BL231195
Licence Status: CONVERTED

Authorised Purpose(s): DOMESTIC
Intended Purpose(s): DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date:
Completion Date: 04/07/2006
Final Depth: 30.00 m
Drilled Depth: 30.00 m

Contractor Name: Bungendore Water Bores
Driller: Daniel Robert Hill
Assistant Driller: Gerrard Hill

Property: LOT 9 Gordon St CROOKWELL 2583 NSW
GWMA:
GW Zone:
Standing Water Level (m): 3.000
Salinity Description:
Yield (L/s): 3.375

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	GEORGIANA	KIAMMA	9/4/1809
Licensed:	GEORGIAN	KIAMMA	Whole Lot 9/4/1809

Region: 70 - Lachlan
River Basin: 412 - LACHLAN RIVER
Area/District:
CMA Map: 8729-S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6185655.000
Easting: 727226.000
Latitude: 34°26'44.3"S
Longitude: 149°28'23.7"E

GS Map: -
MGA Zone: 55
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	30.00	200			Rotary Air
1		Annulus	Waterworn/Rounded	0.00	30.00	200	160		Graded, Q:1.000m3, PL:Poured/Shovelled
1	1	Casing	Pvc Class 9	-0.40	30.00	160	152		Driven into Hole, Screwed and Glued, S: 24.00-30.00m
1	1	Opening	Slots - Vertical	12.00	30.00	160		0	Sawn, PVC Class 9, Screwed and Glued, SL: 120.0mm, A: 2.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
12.00	14.00	2.00	Unknown	3.00		0.12		00:15:00	
16.00	18.00	2.00	Unknown	3.00		0.50		00:15:00	
22.00	24.00	2.00	Unknown	3.00		2.75		01:30:00	

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	1.50	1.50	Soil & Clay, light brown	Soil	
1.50	6.00	4.50	Basalt, hard, black	Basalt	
6.00	12.00	6.00	Basalt, light brown, soft	Basalt	
12.00	30.00	18.00	Volcanic, blue, ironstone bands, brown	Volcanic	

Remarks

04/07/2006: Form A Remarks:
Nat Carling, 18-Aug-2006.

***** End of GW702705 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW702814

Licence: 70WA609251 **Licence Status:** CURRENT

Authorised Purpose(s): DOMESTIC,STOCK
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: New Bore
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date:
Completion Date: 02/12/2006
Final Depth: 49.00 m
Drilled Depth: 49.00 m

Contractor Name: Watermin Drillers Pty Ltd
Driller: Allan Ross Jones
Assistant Driller:

Property: N/A 2 Memory Ave CROOKWELL 2583 NSW
GWMA:
GW Zone:
Standing Water Level (m): 9.000
Salinity Description:
Yield (L/s): 3.791

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	GEORGIANA	KIAMMA	2/833094
Licensed:	GEORGIAN	KIAMMA	Whole Lot 2//833094

Region: 70 - Lachlan
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6185382.000
Easting: 727581.000
Latitude: 34°26'52.9"S
Longitude: 149°28'37.9"E

GS Map: -
MGA Zone: 55
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	49.00	150			Rotary Air
1		Annulus	Waterworn/Rounded	0.00	49.00				Graded
1	1	Casing	Pvc Class 9	-0.30	49.00	140	131		Seated on Bottom, Glued
1	1	Opening	Slots - Horizontal	21.00	22.00	140		0	Casing - Machine Slotted, Aluminium, Glued, SL: 60.0mm, A: 2.00mm
1	1	Opening	Slots - Horizontal	30.00	31.00	140		0	Casing - Machine Slotted, Aluminium, Glued, SL: 60.0mm, A: 2.00mm
1	1	Opening	Slots - Horizontal	40.00	42.00	140		0	Casing - Machine Slotted, Aluminium, Glued, SL: 60.0mm, A: 2.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
21.00	21.50	0.50	Unknown	9.00		0.19			
30.00	31.50	1.50	Unknown			0.44			
41.00	42.00	1.00	Unknown			3.16			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.00	1.00	topsoil	Topsoil	
1.00	7.00	6.00	clay	Clay	
7.00	20.00	13.00	soft shale	Invalid Code	
20.00	25.00	5.00	basalt	Basalt	
25.00	32.00	7.00	clay	Clay	
32.00	49.00	17.00	basalt	Basalt	

***** End of GW702814 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW703243

Licence: 70BL231550
Licence Status: CONVERTED

Authorised Purpose(s): DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date:
Completion Date: 18/02/2007
Final Depth: 65.00 m
Drilled Depth: 65.00 m

Contractor Name: Watermin Drillers Pty Ltd
Driller: Allan Ross Jones
Assistant Driller: E. Dixon

Property: LOT 20 Gordon Rd CROOKWELL 2583 NSW
GWMA:
GW Zone:
Standing Water Level (m): 12.000
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	GEORGIANA	KIAMMA	20/3/1809
Licensed:	GEORGIAN	KIAMMA	Whole Lot 20/3/1809

Region: 70 - Lachlan
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6185584.000
Easting: 727432.000
Latitude: 34°26'46.5"S
Longitude: 149°28'31.9"E

GS Map: -
MGA Zone: 55
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	65.00	160			Rotary Air
1		Annulus	Waterworn/Rounded	0.00	65.00	160	140		Graded
1	1	Casing	Pvc Class 9	-0.30	65.00	140	129		Seated on Bottom, Glued
1	1	Opening	Slots - Horizontal	25.00	51.00	140		0	Casing - Machine Slotted, PVC Class 9, Glued, SL: 60.0mm, A: 2.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
25.00	25.10	0.10	Unknown	12.00					
48.00	48.10	0.10	Unknown						
50.00	51.00	1.00	Unknown			2.27			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.00	1.00	topsoil	Topsoil	

1.00	8.00	7.00	clay	Clay	
8.00	24.00	16.00	soft shale	Shale	
24.00	65.00	41.00	basalt	Basalt	

Remarks

18/02/2007: Form A Remarks:
Entered by H. Lester

***** End of GW703243 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW053590

Licence: 70WA608043 **Licence Status:** CURRENT

Authorised Purpose(s): DOMESTIC,STOCK
Intended Purpose(s): IRRIGATION

Work Type: Bore
Work Status:
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date: **Final Depth:** 22.30 m
Completion Date: 01/06/1981 **Drilled Depth:** 22.30 m

Contractor Name: (None)
Driller:
Assistant Driller:

Property: N/A NSW **Standing Water Level (m):**
GWMA: **Salinity Description:** Good
GW Zone: **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	GEORGIANA	KIAMMA	L12 (SEC 4)
Licensed:	GEORGIAN	KIAMMA	Whole Lot 23/4/1809

Region: 70 - Lachlan **CMA Map:** 8729-S
River Basin: 412 - LACHLAN RIVER **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6185683.000 **Latitude:** 34°26'43.4"S
Elevation Source: (Unknown) **Easting:** 727292.000 **Longitude:** 149°28'26.3"E

GS Map: - **MGA Zone:** 55 **Coordinate Source:** GD.,ACC.MAP

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	Welded Steel	-0.30	22.30	165			Seated on Bottom
1	1	Opening	Slots - Vertical	16.20	22.30	165		1	Oxy-Acetylene Slotted, A: 2.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
21.30	21.60	0.30	Fractured			2.53			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.30	0.30	Topsoil	Topsoil	
0.30	3.00	2.70	Clay	Clay	
3.00	15.20	12.20	Basalt	Basalt	
15.20	22.30	7.10	Basalt Decomposed	Basalt	

Remarks

01/11/1983: LOT 12 SECTION 4 CROOKWELL

***** End of GW053590 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW058774

Licence: 70BL123928
Licence Status: CONVERTED

Authorised Purpose(s): DOMESTIC,STOCK
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Rotary
Owner Type: Private

Commenced Date:
Completion Date: 01/02/1983
Final Depth: 30.50 m
Drilled Depth:

Contractor Name: (None)
Driller:
Assistant Driller:

Property: KILOREN NSW
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description: Domestic
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	GEORGIANA	KIAMMA	173
Licensed:	GEORGIAN	KIAMMA	Whole Lot

Region: 70 - Lachlan
River Basin: 412 - LACHLAN RIVER
Area/District:
CMA Map: 8729-S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: (Unknown)
Northing: 6184845.000
Easting: 727501.000
Latitude: 34°27'10.4"S
Longitude: 149°28'35.3"E

GS Map: -
MGA Zone: 55
Coordinate Source: GD.,ACC.MAP

***** End of GW058774 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Appendix D – Data Quality Assessment

Data Quality Assessment

An assessment of the quality of data acquired by the investigation, compared to designated investigation data quality indicators (DQI) defined in Section 5.2, is provided in the table below.

Completeness			
Field Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Critical locations in sampling, analysis, and quality plan (SAQP) sampled?	Yes	Yes	Pass
Critical samples in SAQP collected?	Yes	Yes	Pass
Sampling methods and equipment in SAQP used and complied with?	Yes	Yes	Pass
Sampling by experienced environmental consultant(s)?	Yes	Yes	Pass
Field documentation complete?	Yes	Yes	Pass
Chain of Custody (COC) complete?	Yes	Yes	Pass
Laboratory Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Critical samples analysed according to SAQP?	Yes	Yes	Pass
Analysis of samples for COPC according to SAQP?	Yes	Yes	Pass
Appropriate laboratory analytical methods and LOR used by laboratory?	Yes	Yes	Pass
COC and Sample Receipt Advice (SRA) complete?	Yes	Yes	Pass COC and SRA are provided in Appendix G.
Sample extraction and holding times complied with?	Yes	Yes	Pass
Comparability			
Field Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Same SAQP used on each occasion?	Yes	Yes	Pass
Sampling by same environmental consultant(s)?	Yes	Yes	Pass
Climatic conditions conducive for sampling?	Yes	Yes	Pass
Same types of samples collected, handled, and preserved in same manner?	Yes	Yes	Pass
Laboratory Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Same laboratory used for primary sample analysis?	Yes	Yes	Pass
Same analytical methods used by primary laboratory?	Yes	Yes	Pass

Same LOR adopted by primary laboratory?	Yes	Yes	Pass
Same analytical measurement units adopted?	Yes	Yes	Pass
Representativeness			
Field Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Media sampled according to SAQP?	Yes	Yes	Pass
All identified media in SAQP sampled?	Yes	Yes	Pass
Min. 10 % field duplicates collected and analysed?	Yes	Yes	Pass >5% field duplicates collected.
Records for each sample collected?	Yes	Yes	Pass Recorded within COC and SRA provided in Appendix G.
Laboratory Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Samples analysed according to SAQP?	Yes	Yes	Pass
Precision			
Field Considerations	**Target**	**Result**	**Pass | Fail | Comment**
SAQP used and complied with?	Yes	Yes	Pass
Field duplicate relative percentage difference (RPD) (%) values within acceptance limits? • No limit for analytical results <10 x LOR • 50% for analytical results 10-30 x LOR • 30% for analytical results >30 x LOR	Yes	Yes	Pass One field duplicate (DUP04) reported a RPD of 45% for total chromium. Due to naturally elevated chromium, all natural soil samples across the Site reported results were >30 x LOR. Thus, the exceeded RPD is deemed acceptable to site specific conditions.
Laboratory Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Laboratory duplicate RPD values within acceptance limits?	Yes	Yes	Pass
Accuracy			
Field Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Laboratory prepared trip spike(s) used and analysed? (Recoveries between 60% and 140%)	Yes	Yes	Pass
Trip blank(s) used and analysed? (Analyte concentration below LOR)	Yes	Yes	Pass
Laboratory Considerations	**Target**	**Result**	**Pass | Fail | Comment**
Laboratory method blank(s) within acceptable limits?	Yes	Yes	Pass

Matrix spike recovery within acceptable limits?	Yes	Yes	Pass
Surrogate spike recovery within acceptable limits?	Yes	Yes	Pass
Laboratory control sample recovery within acceptable limits?	Yes	Yes	Pass

Appendix E – Summary Laboratory Results Tables

	Metals								Halogenated Benzenes	Other	Pesticides		
	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Mercury	Nickel	Zinc	Hexachlorobenzene	Phosalone	Fenamiphos	Mirex	Parathion
	mg/kg	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	4	0.4	1	1	1	0.1	1	1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt													
NEPM 2013 Table 1B(5) Generic EIL Urban Res & Public Open Space	100												
NEPM 2013 Table 1B(5) Site-Specific EIL Urban Res & Public Open Space			580 *(III)	220			220	590					
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil													
NEPM 2013 Table 1A(1) HILs Res A Soil	100	20	100 *(VI)	6,000	300	40	400	7,400	10			10	
Field ID	**Date**	**Lab Report Number**											
10601/TP101/0.00.1	**01 May 2025**	**379564**	<4	<0.4	**180**	**24**	**15**	<0.1	**44**	**44**	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP102/0.00.1	**01 May 2025**	**379564**	<4	<0.4	**170**	**26**	**15**	<0.1	**64**	**45**	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP103/0.10.2	**01 May 2025**	**379564**	<4	<0.4	**210**	**28**	**15**	<0.1	**66**	**47**	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP104/0.00.1	**01 May 2025**	**379564**	<4	<0.4	**190**	**27**	**14**	<0.1	**58**	**51**	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP105/0.10.2	**01 May 2025**	**379564**	<4	<0.4	**240**	**28**	**14**	<0.1	**51**	**42**	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP106/0.00.1	**01 May 2025**	**379564**	<4	<0.4	**160**	**23**	**13**	<0.1	**47**	**43**	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP107/0.00.1	**01 May 2025**	**379564**	<4	<0.4	**220**	**27**	**15**	<0.1	**61**	**53**	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP108/0.10.2	**01 May 2025**	**379564**	<4	<0.4	**180**	**27**	**14**	<0.1	**53**	**42**	<0.1	<0.1	<0.1	<0.1	<0.1
Statistics													
Number of Results			**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Number of Detects			**0**	**0**	**8**	**8**	**8**	**0**	**8**	**8**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration			**<4**	**<0.4**	**160**	**23**	**13**	**<0.1**	**44**	**42**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Concentration			**<4**	**<0.4**	**240**	**28**	**15**	**<0.1**	**66**	**53**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% of Detects			**0**	**0**	**100**	**100**	**100**	**0**	**100**	**100**	**0**	**0**	**0**	**0**	**0**

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	Organophosphorous Pesticides																	
	Azinophos methyl	Bromophosethyl	Chlorpyrifos	Chlorpyrifosmethyl	Coumaphos	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Fenitrothion	Fenthion	Malathion	Methidathion	Methyl parathion	Mevinphos (Phosdrin)	Phorate	Ronnel
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																		
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt																		
NEPM 2013 Table 1B(5) Generic EIL Urban Res & Public Open Space																		
NEPM 2013 Table 1B(5) Site-Specific EIL Urban Res & Public Open Space																		
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																		
NEPM 2013 Table 1A(1) HILs Res A Soil			160															
Field ID	**Date**	**Lab Report Number**																
10601/TP101/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP102/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP103/0.10.2	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP104/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP105/0.10.2	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP106/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP107/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP108/0.10.2	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Statistics																			
Number of Results			**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Number of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration			**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Concentration			**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	Organochlorine Pesticides																			
	4,4DDE	aBHC	Aldrin	Aldrin + Dieldrin	bBHC	Chlordane (cis)	Chlordane (trans)	dBHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan (total)	Endosulfan sulphate	Endrin	Endrin aldehyde	gBHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt																				
NEPM 2013 Table 1B(5) Generic EIL Urban Res & Public Open Space										180										
NEPM 2013 Table 1B(5) Site-Specific EIL Urban Res & Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																				
NEPM 2013 Table 1A(1) HILs Res A Soil				6							240		270		10			6		300
Field ID	**Date**	**Lab Report Number**																			
10601/TP101/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP102/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP103/0.10.2	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP104/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP105/0.10.2	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP106/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP107/0.00.1	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP108/0.10.2	**01 May 2025**	**379564**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Statistics																					
Number of Results			**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Number of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration			**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Concentration			**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	Asbestos	BTEX							TRH							TPH					
	Asbestos fibres	Naphthalene (VOC)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	C6C10 Fraction (F1)	C6C10	>C10C16 Fraction (F2)	>C10C16 Fraction (F2 minus Naphthalene)	>C16C34 Fraction (F3)	>C34C40 Fraction (F4)	>C10C40 Fraction (Sum)	C6C9 Fraction	C10C14 Fraction	C15C28 Fraction	C29C36 Fraction	C10C36 Fraction (Sum)
	Detect	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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		1	0.2	0.5	1	2	1	1	25	25	50	50	100	100	50	25	50	100	100	50
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil									700		1,000		2,500	10,000						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt		4	0.6	390				95		40		230								
NEPM 2013 Table 1B(5) Generic EIL Urban Res & Public Open Space		170																		
NEPM 2013 Table 1B(5) Site-Specific EIL Urban Res & Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil			50	85	70			105		180	120	120	300	2,800						
NEPM 2013 Table 1A(1) HILs Res A Soil																				
Field ID	**Date**	**Lab Report Number**																				
10601/TP101/0.00.1	**01 May 2025**	**379564**																				
10601/TP102/0.00.1	**01 May 2025**	**379564**																				
10601/TP103/0.10.2	**01 May 2025**	**379564**																				
10601/TP104/0.00.1	**01 May 2025**	**379564**	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	**100**	<100	**100**	<25	<50	<100	**100**	**100**
10601/TP105/0.10.2	**01 May 2025**	**379564**																				
10601/TP106/0.00.1	**01 May 2025**	**379564**																				
10601/TP107/0.00.1	**01 May 2025**	**379564**																				
10601/TP108/0.10.2	**01 May 2025**	**379564**																				
Statistics																						
Number of Results			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Number of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
Minimum Concentration			**0**	**<1**	**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<1**	**<25**	**<25**	**<50**	**<50**	**100**	**<100**	**100**	**<25**	**<50**	**<100**	**100**	**100**
Maximum Concentration			**0**	**<1**	**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<1**	**<25**	**<25**	**<50**	**<50**	**100**	**<100**	**100**	**<25**	**<50**	**<100**	**100**	**100**
% of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**0**	**100**	**0**	**0**	**0**	**100**	**100**

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	PAH																		
	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3c,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 positives)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.2	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.05
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt													4						
NEPM 2013 Table 1B(5) Generic EIL Urban Res & Public Open Space													170						
NEPM 2013 Table 1B(5) Site-Specific EIL Urban Res & Public Open Space																			
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil						0.7													
NEPM 2013 Table 1A(1) HILs Res A Soil																3	3	3	300
Field ID	**Date**	**Lab Report Number**																	
10601/TP101/0.00.1	**01 May 2025**	**379564**																	
10601/TP102/0.00.1	**01 May 2025**	**379564**																	
10601/TP103/0.10.2	**01 May 2025**	**379564**																	
10601/TP104/0.00.1	**01 May 2025**	**379564**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/TP105/0.10.2	**01 May 2025**	**379564**																	
10601/TP106/0.00.1	**01 May 2025**	**379564**																	
10601/TP107/0.00.1	**01 May 2025**	**379564**																	
10601/TP108/0.10.2	**01 May 2025**	**379564**																	
Statistics																			
Number of Results			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Number of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration			**<0.2**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.05**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.5**	**<0.5**	**<0.5**	**<0.05**
Maximum Concentration			**<0.2**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.05**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.5**	**<0.5**	**<0.5**	**<0.05**
% of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	PCBs								Inorganics						
	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	Moisture Content	Exchangeable Calcium	pH 1:5 soil:water	Exchangeable Magnesium	Exchangeable Potassium	Exchangeable Sodium	Cation Exchange Capacity
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	meq/100g		meq/100g	meq/100g	meq/100g	meq/100g
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	1
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil															
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt															
NEPM 2013 Table 1B(5) Generic EIL Urban Res & Public Open Space															
NEPM 2013 Table 1B(5) Site-Specific EIL Urban Res & Public Open Space															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil															
NEPM 2013 Table 1A(1) HILs Res A Soil								1							
Field ID	**Date**	**Lab Report Number**													
10601/TP101/0.00.1	01 May 2025	379564							17						
10601/TP102/0.00.1	01 May 2025	379564							18						
10601/TP103/0.10.2	01 May 2025	379564							15						
10601/TP104/0.00.1	01 May 2025	379564	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	12						
10601/TP105/0.10.2	01 May 2025	379564							20	13	6.2	4.8	2.1	<0.1	20
10601/TP106/0.00.1	01 May 2025	379564							22						
10601/TP107/0.00.1	01 May 2025	379564							21						
10601/TP108/0.10.2	01 May 2025	379564							18	9.8	6.3	3.0	2.0	<0.1	15
Statistics															
Number of Results			1	1	1	1	1	1	1	1	8	2	2	2	2	2	2
Number of Detects			0	0	0	0	0	0	0	0	8	2	2	2	2	0	2
Minimum Concentration			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	12	9.8	6.2	3	2	<0.1	15
Maximum Concentration			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	22	13	6.3	4.8	2.1	<0.1	20
% of Detects			0	0	0	0	0	0	0	0	100	100	100	100	100	0	100

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	Metals								Halogenated Benzenes	Other	Pesticides		
	Arsenic	Cadmium	Chromium (total)	Copper	Lead	Mercury	Nickel	Zinc	Hexachlorobenzene	Phosalone	Fenamiphos	Mirex	Parathion
	mg/kg	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	4	0.4	1	1	1	0.1	1	1	0.1	0.1	0.1	0.1	0.1
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, Silt (>=0m, <1m)													
NEPM 2013 Table 1B(5) Site-Specific EIL - Urban Res & Public Open Space			580 * (III)	170			100	380					
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space	100				1100								
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil (>=0m, <2m)													
NEPM 2013 Table 1A(1) HILs Res A Soil	100	20	100 * (VI)	6,000	300	40	400	7,400	10			10	

Field ID	Date	Lab Report Number												
10601/SS01/0.05-0.1	29 May 2025	382214	<4	<0.4	16	19	10	<0.1	14	22	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS02/0.0-0.1	29 May 2025	382214	15	<0.4	10	26	15	<0.1	7	75	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS03/0.0-0.1	29 May 2025	382214	<4	<0.4	150	32	22	<0.1	52	60	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS04/0.0-0.1	29 May 2025	382214	<4	<0.4	180	33	17	<0.1	55	48	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS05/0.0-0.1	29 May 2025	382214	<4	<0.4	200	34	18	<0.1	63	49	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS06/0.0-0.1	29 May 2025	382214	<4	<0.4	180	31	18	<0.1	55	57	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS07/0.0-0.1	29 May 2025	382214	<4	0.5	220	36	25	<0.1	64	410	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS08/0.0-0.1	29 May 2025	382214	<4	<0.4	210	35	16	<0.1	66	60	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS09/0.0-0.1	29 May 2025	382214	<4	<0.4	170	32	15	<0.1	63	54	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS10/0.0-0.1	29 May 2025	382214	<4	<0.4	160	28	15	<0.1	51	57	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS11/0.0-0.1	29 May 2025	382214	<4	<0.4	180	29	16	<0.1	53	64	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS17/0.0-0.1	29 May 2025	382214	<4	<0.4	190	32	17	<0.1	54	910	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP201/0.0-0.1	29 May 2025	382214	<4	<0.4	200	26	16	<0.1	62	45	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP202/0.1-0.2	29 May 2025	382214	<4	<0.4	190	26	14	<0.1	59	37	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP203/0.0-0.1	29 May 2025	382214	<4	<0.4	190	31	14	<0.1	74	44	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP204/0.1-0.2	29 May 2025	382214	<4	<0.4	220	25	19	1.1	64	43	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP205/0.1-0.2	29 May 2025	382214	<4	<0.4	310	30	17	<0.1	89	40	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP206/0.0-0.1	29 May 2025	382214	<4	<0.4	220	27	14	<0.1	68	54	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP207/0.0-0.1	29 May 2025	382214	<4	<0.4	220	29	15	<0.1	62	48	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP208/0.0-0.1	29 May 2025	382214	<4	<0.4	240	29	16	<0.1	82	51	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP209/0.0-0.1	29 May 2025	382214	<4	<0.4	230	28	17	<0.1	59	49	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP210/0.0-0.1	29 May 2025	382214	<4	<0.4	250	30	16	0.1	63	49	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP211/0.0-0.1	29 May 2025	382214	<4	<0.4	250	31	18	<0.1	73	130	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP212/0.0-0.1	29 May 2025	382214	<4	<0.4	280	37	18	<0.1	79	57	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP213/0.0-0.1	29 May 2025	382214	<4	<0.4	300	37	13	<0.1	82	57	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP214/0.0-0.1	29 May 2025	382214	<4	<0.4	220	28	16	<0.1	52	38	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP215/0.1-0.2	29 May 2025	382214	<4	<0.4	180	34	17	<0.1	63	45	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP216/0.1-0.2	29 May 2025	382214	<8	<0.4	230	33	17	<0.1	70	51	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP217/0.1-0.2	29 May 2025	382214	<4	<0.4	200	30	16	<0.1	59	54	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP218/0.1-0.2	29 May 2025	382214	<4	<0.4	230	32	18	<0.1	59	42	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP219/0.1-0.2	29 May 2025	382214	<4	<0.4	210	32	17	<0.1	68	45	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP220/0.1-0.2	29 May 2025	382214	<4	<0.4	260	32	19	<0.1	71	45	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP221/0.0-0.1	29 May 2025	382214	<4	<0.4	200	31	16	<0.1	64	54	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP222/0.0-0.1	29 May 2025	382214	<4	<0.4	210	33	17	<0.1	65	50	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Number of Detects	1	1	34	34	34	2	34	34	0	0	0	0	0	0
Minimum Concentration	<4	<0.4	10	19	10	0.1	7	22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Concentration	15	0.5	310	37	25	1.1	89	910	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% of Detects	3	3	100	100	100	6	100	100	0	0	0	0	0	0

Environmental Standards

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, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	Organophosphorous Pesticides																	
	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Fenitrothion	Fenthion	Malathion	Methidathion	Methyl parathion	Mevinphos (Phosdrin)	Phorate	Ronnel
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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, Silt (>=0m, <1m)																		
NEPM 2013 Table 1B(5) Site-Specific EIL - Urban Res & Public Open Space																		
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																		
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil (>=0m, <2m)																		
NEPM 2013 Table 1A(1) HILs Res A Soil			160															

Field ID	Date	Lab Report Number																	
10601/SS01/0.05-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS02/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS03/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS04/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS05/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS06/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS07/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS08/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS09/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS10/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS11/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS17/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP201/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP202/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP203/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP204/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP205/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP206/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP207/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP208/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP209/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP210/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP211/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP212/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP213/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP214/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP215/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP216/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP217/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP218/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP219/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP220/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP221/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP222/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Environmental Standards

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, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	Organochlorine Pesticides																			
	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan (total)	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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, Silt (>=0m, <1m)																				
NEPM 2013 Table 1B(5) Site-Specific EIL - Urban Res & Public Open Space																				
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space										180										
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil (>=0m, <2m)																				
NEPM 2013 Table 1A(1) HILs Res A Soil				6							240		270		10			6		300

Field ID	Date	Lab Report Number																			
10601/SS01/0.05-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS02/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS03/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS04/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS05/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS06/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS07/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS08/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS09/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS10/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS11/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/SS17/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP201/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP202/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP203/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP204/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP205/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP206/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP207/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP208/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP209/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP210/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP211/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP212/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP213/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP214/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP215/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP216/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP217/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP218/0.1-0.2	29 May 2025	382214	**0.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP219/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP220/0.1-0.2	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP221/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
10601/TP222/0.0-0.1	29 May 2025	382214	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**	**34**
Number of Detects	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Concentration	**0.6**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**0.6**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% of Detects	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Environmental Standards

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, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

	Asbestos	BTEX							TRH							TPH				
	Asbestos fibres	Naphthalene (VOC)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	C6-C10 Fraction (F1)	C6-C10	>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)
	Detect	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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		1	0.2	0.5	1	2	1	1	25	25	50	50	100	100	50	25	50	100	100	50
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil									800		1,000		3,500	10,000						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Silt (>=0m, <1m)		4	0.6	390				95		40		230								
NEPM 2013 Table 1B(5) Site-Specific EIL - Urban Res & Public Open Space																				
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space		170																		
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil (>=0m, <2m)			65	105	125			45		180	120	120	1,300	5,600						
NEPM 2013 Table 1A(1) HILs Res A Soil																				

Field ID	Date	Lab Report Number																			
10601/SS01/0.05-0.1	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	**120**	**160**	**280**	<25	<50	<100	**140**	**140**
10601/SS02/0.0-0.1	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	**130**	**200**	**330**	<25	<50	<100	**150**	**150**
10601/SS03/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS04/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS05/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS06/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS07/0.0-0.1	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
10601/SS08/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS09/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS10/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS11/0.0-0.1	29 May 2025	382214	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS17/0.0-0.1	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	<100	**100**	**100**	<25	<50	<100	<100	<50
10601/TP201/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP202/0.1-0.2	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP203/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP204/0.1-0.2	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP205/0.1-0.2	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
10601/TP206/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP207/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP208/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP209/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP210/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP211/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP212/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP213/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP214/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP215/0.1-0.2	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP216/0.1-0.2	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
10601/TP217/0.1-0.2	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP218/0.1-0.2	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
10601/TP219/0.1-0.2	29 May 2025	382214	0	<1	<0.2	<0.5	<1	<2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
10601/TP220/0.1-0.2	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP221/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP222/0.0-0.1	29 May 2025	382214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**16**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**3**	**0**	**0**	**0**	**2**	**2**
Minimum Concentration	**0**	**<1**	**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<1**	**<25**	**<25**	**<50**	**<50**	**<100**	**100**	**<50**	**<25**	**<50**	**<100**	**<100**	**<50**
Maximum Concentration	**0**	**<1**	**<0.2**	**<0.5**	**<1**	**<2**	**<1**	**<1**	**<25**	**<25**	**<50**	**<50**	**130**	**200**	**330**	**<25**	**<50**	**<100**	**150**	**150**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**38**	**38**	**0**	**0**	**0**	**25**	**25**

Environmental Standards

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, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

				PAH																
				Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	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 positives)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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				0.2	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.05
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, Silt (>=0m, <1m)																4						
NEPM 2013 Table 1B(5) Site-Specific EIL - Urban Res & Public Open Space																						
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																170						
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil (>=0m, <2m)									0.7													
NEPM 2013 Table 1A(1) HILs Res A Soil																			3	3	3	300
Field ID	**Date**	**Lab Report Number**																				
10601/SS01/0.05-0.1	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/SS02/0.0-0.1	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/SS03/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS04/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS05/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS06/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS07/0.0-0.1	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/SS08/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS09/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS10/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS11/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/SS17/0.0-0.1	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/TP201/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP202/0.1-0.2	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP203/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP204/0.1-0.2	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP205/0.1-0.2	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/TP206/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP207/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP208/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP209/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP210/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP211/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP212/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP213/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP214/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP215/0.1-0.2	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP216/0.1-0.2	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/TP217/0.1-0.2	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP218/0.1-0.2	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/TP219/0.1-0.2	**29 May 2025**	**382214**		<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
10601/TP220/0.1-0.2	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP221/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10601/TP222/0.0-0.1	**29 May 2025**	**382214**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistics																						
Number of Results				**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Number of Detects				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.2**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.05**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.5**	**<0.5**	**<0.5**	**<0.05**
Maximum Concentration				**<0.2**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.05**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.5**	**<0.5**	**<0.5**	**<0.05**
% of Detects				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Environmental Standards

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, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

			PCBs							Inorganics							
			Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	Moisture Content	Exchangeable Calcium	pH 1:5 soil:water	Exchangeable Magnesium	Exchangeable Potassium	Exchangeable Sodium	Cation Exchange Capacity
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	meq/100g	-	meq/100g	meq/100g	meq/100g	meq/100g
EQL			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	1
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, Silt (>=0m, <1m)																	
NEPM 2013 Table 1B(5) Site-Specific EIL - Urban Res & Public Open Space																	
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																	
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil (>=0m, <2m)																	
NEPM 2013 Table 1A(1) HILs Res A Soil										1							
Field ID	**Date**	**Lab Report Number**															
10601/SS01/0.05-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**5.9**	-	-	-	-	-	-
10601/SS02/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**12**	-	-	-	-	-	-
10601/SS03/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**20**	-	-	-	-	-	-
10601/SS04/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**16**	-	-	-	-	-	-
10601/SS05/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**18**	-	-	-	-	-	-
10601/SS06/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**20**	-	-	-	-	-	-
10601/SS07/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**21**	-	-	-	-	-	-
10601/SS08/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**23**	-	-	-	-	-	-
10601/SS09/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**23**	-	-	-	-	-	-
10601/SS10/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**20**	-	-	-	-	-	-
10601/SS11/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**19**	-	-	-	-	-	-
10601/SS17/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**24**	-	-	-	-	-	-
10601/TP201/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**27**	-	-	-	-	-	-
10601/TP202/0.1-0.2	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**22**	-	-	-	-	-	-
10601/TP203/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**25**	-	-	-	-	-	-
10601/TP204/0.1-0.2	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**27**	-	-	-	-	-	-
10601/TP205/0.1-0.2	**29 May 2025**	**382214**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**17**	**9.2**	**5.8**	**3.3**	**1.6**	<0.1	**14**
10601/TP206/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**31**	-	-	-	-	-	-
10601/TP207/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**24**	-	-	-	-	-	-
10601/TP208/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**47**	-	-	-	-	-	-
10601/TP209/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**27**	-	-	-	-	-	-
10601/TP210/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**28**	-	-	-	-	-	-
10601/TP211/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**34**	-	-	-	-	-	-
10601/TP212/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**27**	-	-	-	-	-	-
10601/TP213/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**29**	-	-	-	-	-	-
10601/TP214/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**22**	-	-	-	-	-	-
10601/TP215/0.1-0.2	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**30**	-	-	-	-	-	-
10601/TP216/0.1-0.2	**29 May 2025**	**382214**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**26**	**7.9**	**6.0**	**2.1**	**1.3**	<0.1	**11**
10601/TP217/0.1-0.2	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**19**	-	-	-	-	-	-
10601/TP218/0.1-0.2	**29 May 2025**	**382214**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**21**	-	-	-	-	-	-
10601/TP219/0.1-0.2	**29 May 2025**	**382214**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**21**	-	-	-	-	-	-
10601/TP220/0.1-0.2	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**21**	-	-	-	-	-	-
10601/TP221/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**22**	-	-	-	-	-	-
10601/TP222/0.0-0.1	**29 May 2025**	**382214**	-	-	-	-	-	-	-	-	**21**	-	-	-	-	-	-
Statistics																	
Number of Results			**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**34**	**2**	**2**	**2**	**2**	**2**	**2**
Number of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34**	**2**	**2**	**2**	**2**	**0**	**2**
Minimum Concentration			**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**5.9**	**7.9**	**5.8**	**2.1**	**1.3**	**<0.1**	**11**
Maximum Concentration			**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**47**	**9.2**	**6**	**3.3**	**1.6**	**<0.1**	**14**
% of Detects			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**100**	**100**	**100**	**100**	**0**	**100**

Environmental Standards

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, Silt
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Res A Soil

Appendix F – Laboratory Analytical Documentation

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 379564

Client Details

Client	Martens & Associates Pty Ltd
Attention	Gray Taylor
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P2410601 Detailed Site Investigation: 3 Memory Ave**
Number of Samples	11 Soil
Date samples received	02/05/2025
Date completed instructions received	02/05/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	09/05/2025
Date of Issue	09/05/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Analyst: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Jack Wallis, Senior Chemist
Loren Bardwell, Development Chemist
Lucy Zhu, Asbestos Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		379564-4	379564-10	379564-11
Your Reference	UNITS	10601/TP104/0.0 -0.1	Trip Spike	Trip Blank
Date Sampled		01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	06/05/2025	06/05/2025	06/05/2025
TRH C_6 - C_9	mg/kg	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	[NA]	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	[NA]	<25
Benzene	mg/kg	<0.2	111%	[NA]
Toluene	mg/kg	<0.5	110%	[NA]
Ethylbenzene	mg/kg	<1	111%	[NA]
m+p-xylene	mg/kg	<2	111%	[NA]
o-Xylene	mg/kg	<1	111%	[NA]
Naphthalene	mg/kg	<1	[NA]	[NA]
Total +ve Xylenes	mg/kg	<1	[NA]	[NA]
Surrogate aaa-Trifluorotoluene	%	123	111	103

svTRH (C10-C40) in Soil		
Our Reference		379564-4
Your Reference	UNITS	10601/TP104/0.0 -0.1
Date Sampled		01/05/2025
Type of sample		Soil
Date extracted	-	05/05/2025
Date analysed	-	06/05/2025
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	100
Total +ve TRH (C10-C36)	mg/kg	100
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	100
Surrogate o-Terphenyl	%	101

PAHs in Soil		
Our Reference		379564-4
Your Reference	UNITS	10601/TP104/0.0 -0.1
Date Sampled		01/05/2025
Type of sample		Soil
Date extracted	-	05/05/2025
Date analysed	-	07/05/2025
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	93

Organochlorine Pesticides in soil						
Our Reference		379564-1	379564-2	379564-3	379564-4	379564-5
Your Reference	UNITS	10601/TP101/0.0-0.1	10601/TP102/0.0-0.1	10601/TP103/0.1-0.2	10601/TP104/0.0-0.1	10601/TP105/0.1-0.2
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	07/05/2025	07/05/2025	07/05/2025	07/05/2025	07/05/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	88	89	95	88	91

Organochlorine Pesticides in soil				
Our Reference		379564-6	379564-7	379564-8
Your Reference	UNITS	10601/TP106/0.0-0.1	10601/TP107/0.0-0.1	10601/TP108/0.1-0.2
Date Sampled		01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	07/05/2025	07/05/2025	07/05/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	91	90	94

Organophosphorus Pesticides in Soil						
Our Reference		379564-1	379564-2	379564-3	379564-4	379564-5
Your Reference	UNITS	10601/TP101/0.0-0.1	10601/TP102/0.0-0.1	10601/TP103/0.1-0.2	10601/TP104/0.0-0.1	10601/TP105/0.1-0.2
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	07/05/2025	07/05/2025	07/05/2025	07/05/2025	07/05/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	88	89	95	88	91

Organophosphorus Pesticides in Soil				
Our Reference		379564-6	379564-7	379564-8
Your Reference	UNITS	10601/TP106/0.0-0.1	10601/TP107/0.0-0.1	10601/TP108/0.1-0.2
Date Sampled		01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	07/05/2025	07/05/2025	07/05/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	91	90	94

PCBs in Soil		
Our Reference		379564-4
Your Reference	UNITS	10601/TP104/0.0 -0.1
Date Sampled		01/05/2025
Type of sample		Soil
Date extracted	-	05/05/2025
Date analysed	-	07/05/2025
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate 2-Fluorobiphenyl	%	95

Acid Extractable metals in soil						
Our Reference		379564-1	379564-2	379564-3	379564-4	379564-5
Your Reference	UNITS	10601/TP101/0.0-0.1	10601/TP102/0.0-0.1	10601/TP103/0.1-0.2	10601/TP104/0.0-0.1	10601/TP105/0.1-0.2
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	180	170	210	190	240
Copper	mg/kg	24	26	28	27	28
Lead	mg/kg	15	15	15	14	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	44	64	66	58	51
Zinc	mg/kg	44	45	47	51	42

Acid Extractable metals in soil					
Our Reference		379564-6	379564-7	379564-8	379564-9
Your Reference	UNITS	10601/TP106/0.0-0.1	10601/TP107/0.0-0.1	10601/TP108/0.1-0.2	10601/DUP01
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Arsenic	mg/kg	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	160	220	180	180
Copper	mg/kg	23	27	27	26
Lead	mg/kg	13	15	14	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	47	61	53	45
Zinc	mg/kg	43	53	42	45

Moisture						
Our Reference		379564-1	379564-2	379564-3	379564-4	379564-5
Your Reference	UNITS	10601/TP101/0.0-0.1	10601/TP102/0.0-0.1	10601/TP103/0.1-0.2	10601/TP104/0.0-0.1	10601/TP105/0.1-0.2
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Moisture	%	17	18	15	12	20

Moisture					
Our Reference		379564-6	379564-7	379564-8	379564-9
Your Reference	UNITS	10601/TP106/0.0-0.1	10601/TP107/0.0-0.1	10601/TP108/0.1-0.2	10601/DUP01
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	05/05/2025	05/05/2025	05/05/2025	05/05/2025
Date analysed	-	06/05/2025	06/05/2025	06/05/2025	06/05/2025
Moisture	%	22	21	18	17

Asbestos ID - soils		
Our Reference		379564-4
Your Reference	UNITS	10601/TP104/0.0 -0.1
Date Sampled		01/05/2025
Type of sample		Soil
Date analysed	-	09/05/2025
Sample mass tested	g	Approx. 35g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	Nil
Trace Analysis	-	No asbestos detected

CEC			
Our Reference		379564-5	379564-8
Your Reference	UNITS	10601/TP105/0.1-0.2	10601/TP108/0.1-0.2
Date Sampled		01/05/2025	01/05/2025
Type of sample		Soil	Soil
Date prepared	-	09/05/2025	09/05/2025
Date analysed	-	09/05/2025	09/05/2025
Exchangeable Ca	meq/100g	13	9.8
Exchangeable K	meq/100g	2.1	2.0
Exchangeable Mg	meq/100g	4.8	3.0
Exchangeable Na	meq/100g	<0.1	<0.1
Cation Exchange Capacity	meq/100g	20	15

Misc Inorg - Soil			
Our Reference		379564-5	379564-8
Your Reference	UNITS	10601/TP105/0.1-0.2	10601/TP108/0.1-0.2
Date Sampled		01/05/2025	01/05/2025
Type of sample		Soil	Soil
Date prepared	-	07/05/2025	07/05/2025
Date analysed	-	07/05/2025	07/05/2025
pH 1:5 soil:water	pH Units	6.2	6.3

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			5/05/2025	4	05/05/2025	05/05/2025		5/05/2025	[NT]
Date analysed	-			06/05/2025	4	06/05/2025	06/05/2025		06/05/2025	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	4	<25	<25	0	97	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	4	<25	<25	0	97	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	4	<0.2	<0.2	0	101	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	4	<0.5	<0.5	0	99	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	4	<1	<1	0	98	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	4	<2	<2	0	94	[NT]
o-Xylene	mg/kg	1	Org-023	<1	4	<1	<1	0	97	[NT]
Naphthalene	mg/kg	1	Org-023	<1	4	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	85	4	123	112	9	100	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			05/05/2025	4	05/05/2025	05/05/2025		05/05/2025	[NT]
Date analysed	-			06/05/2025	4	06/05/2025	06/05/2025		06/05/2025	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	4	<50	<50	0	129	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	4	<100	<100	0	106	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	4	100	140	33	100	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	4	<50	<50	0	129	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	4	100	140	33	106	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	4	<100	<100	0	100	[NT]
Surrogate o-Terphenyl	%		Org-020	117	4	101	99	2	121	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			05/05/2025	4	05/05/2025	05/05/2025		05/05/2025	[NT]
Date analysed	-			07/05/2025	4	07/05/2025	07/05/2025		07/05/2025	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	84	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	74	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	82	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	84	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	90	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	92	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	106	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	4	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	4	<0.05	<0.05	0	80	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	102	4	93	99	6	94	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			05/05/2025	4	05/05/2025	05/05/2025		05/05/2025	[NT]
Date analysed	-			07/05/2025	4	07/05/2025	07/05/2025		07/05/2025	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	82	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	80	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	76	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	96	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	102	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	86	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	104	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	82	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	96	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	74	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	97	4	88	90	2	92	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			05/05/2025	4	05/05/2025	05/05/2025		05/05/2025	[NT]
Date analysed	-			07/05/2025	4	07/05/2025	07/05/2025		07/05/2025	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	102	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	100	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	102	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	114	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	104	[NT]
Fenthion	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	80	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	100	[NT]
Phosalone	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	97	4	88	90	2	92	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			05/05/2025	4	05/05/2025	05/05/2025		05/05/2025	[NT]
Date analysed	-			07/05/2025	4	07/05/2025	07/05/2025		07/05/2025	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	4	<0.1	<0.1	0	101	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	4	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	96	4	95	92	3	97	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	379564-5
Date prepared	-			05/05/2025	4	05/05/2025	05/05/2025		05/05/2025	05/05/2025
Date analysed	-			06/05/2025	4	06/05/2025	06/05/2025		06/05/2025	06/05/2025
Arsenic	mg/kg	4	Metals-020	<4	4	<4	<4	0	115	73
Cadmium	mg/kg	0.4	Metals-020	<0.4	4	<0.4	<0.4	0	103	80
Chromium	mg/kg	1	Metals-020	<1	4	190	180	5	107	#
Copper	mg/kg	1	Metals-020	<1	4	27	26	4	111	106
Lead	mg/kg	1	Metals-020	<1	4	14	14	0	106	87
Mercury	mg/kg	0.1	Metals-021	<0.1	4	<0.1	<0.1	0	110	126
Nickel	mg/kg	1	Metals-020	<1	4	58	57	2	105	86
Zinc	mg/kg	1	Metals-020	<1	4	51	53	4	107	81

QUALITY CONTROL: CEC					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			09/05/2025	[NT]	[NT]	[NT]	[NT]	09/05/2025	[NT]
Date analysed	-			09/05/2025	[NT]	[NT]	[NT]	[NT]	09/05/2025	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			07/05/2025	[NT]	[NT]	[NT]	[NT]	07/05/2025	[NT]
Date analysed	-			07/05/2025	[NT]	[NT]	[NT]	[NT]	07/05/2025	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	99	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

8 metals in soil - # Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to ASB-001 asbestos subsampling procedure. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab/MPL recommends supplying 40-60g or 500ml of sample in its own container.
Note: Sample 379564-4 was sub-sampled from jar provided by the client.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 379564-A

Client Details

Client	Martens & Associates Pty Ltd
Attention	Ben McGiffin
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P2410601 Detailed Site Investigation: 3 Memory Ave**
Number of Samples	Additional analysis
Date samples received	02/05/2025
Date completed instructions received	12/05/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	14/05/2025
Date of Issue	14/05/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Inorganics Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

Misc Soil - Inorg						
Our Reference		379564-A-1	379564-A-2	379564-A-3	379564-A-4	379564-A-5
Your Reference	UNITS	10601/TP101/0.0 -0.1	10601/TP102/0.0 -0.1	10601/TP103/0.1 -0.2	10601/TP104/0.0 -0.1	10601/TP105/0.1 -0.2
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/04/2025	13/04/2025	13/04/2025	13/04/2025	13/04/2025
Date analysed	-	13/04/2025	13/04/2025	13/04/2025	13/04/2025	13/04/2025
Hexavalent Chromium, Cr^{6+}	mg/kg	<1	<1	<1	<1	<1
Trivalent Cr	mg/kg	<1	<1	<1	<1	<1

Misc Soil - Inorg					
Our Reference		379564-A-6	379564-A-7	379564-A-8	379564-A-9
Your Reference	UNITS	10601/TP106/0.0 -0.1	10601/TP107/0.0 -0.1	10601/TP108/0.1 -0.2	10601/DUP01
Date Sampled		01/05/2025	01/05/2025	01/05/2025	01/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	13/04/2025	13/04/2025	13/04/2025	13/04/2025
Date analysed	-	13/04/2025	13/04/2025	13/04/2025	13/04/2025
Hexavalent Chromium, Cr^{6+}	mg/kg	<1	<1	<1	<1
Trivalent Cr	mg/kg	<1	<1	<1	<1

Method ID	Methodology Summary
Inorg-118	Hexavalent Chromium (Cr6+) - determined firstly by separation using ion chromatography followed by the colourimetric analytical finish. Water samples are ideally field filtered into alkali preserved containers prior to receipt for dissolved Cr6+ analysis. Unfiltered water samples into alkali preserved containers (or pH adjusted to pH 8-9 on receipt) can be classified as Total (unfiltered) Cr6+. Please note, for 'Total/Unfiltered' Trivalent Chromium in waters [calculated], these results may be exaggerated due to the digestive limitation of 'Total/Unfiltered' Hexavalent Chromium in NaOH at pH 8-9 compared to more comprehensive digestion for Total Chromium using the mineral acids HNO3 and HCl. Solid (includes soils, filters, paints, swabs for example) samples are extracted in a buffered catalysed solution prior to the analytical finish above. Water extractable options are available (e.g. as an option for filters) on request. Impingers may need pH adjusting to pH 8-9 prior to IC-colourimetric analytical finish.

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			13/04/2025	1	13/04/2025	13/04/2025		13/04/2025	[NT]
Date analysed	-			13/04/2025	1	13/04/2025	13/04/2025		13/04/2025	[NT]
Hexavalent Chromium, Cr^{6+}	mg/kg	1	Inorg-118	<1	1	<1	<1	0	101	[NT]
Trivalent Cr	mg/kg	1	Inorg-118	<1	1	<1	<1	0	[NT]	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 382214

Client Details

Client	Martens & Associates Pty Ltd
Attention	Bryson Monaghan
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P2410601, 3 Memory Ave, Crookwell NSW 2583**
Number of Samples	45 Soil
Date samples received	30/05/2025
Date completed instructions received	02/06/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	10/06/2025
Date of Issue	10/06/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Analyst: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Lucy Zhu, Asbestos Supervisor
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		382214-5	382214-16	382214-18	382214-19	382214-23
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP216/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/SS01/0.05-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	105	90	93	98	105

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		382214-24	382214-29	382214-39	382214-44	382214-45
Your Reference	UNITS	10601/SS02/0.0-0.1	10601/SS07/0.0-0.1	10601/SS17/0.0-0.1	Trip Spike	Trip Blank
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	06/06/2025
TRH C_6 - C_9	mg/kg	<25	<25	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	[NA]	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	[NA]	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	94%	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	94%	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	98%	<1
m+p-xylene	mg/kg	<2	<2	<2	97%	<2
o-Xylene	mg/kg	<1	<1	<1	98%	<1
Naphthalene	mg/kg	<1	<1	<1	[NA]	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	[NA]	<1
Surrogate aaa-Trifluorotoluene	%	109	98	102	109	97

svTRH (C10-C40) in Soil						
Our Reference		382214-5	382214-16	382214-18	382214-19	382214-23
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP216/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/SS01/0.05-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	140
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	140
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	120
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	160
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	280
Surrogate o-Terphenyl	%	93	94	95	97	88

svTRH (C10-C40) in Soil				
Our Reference		382214-24	382214-29	382214-39
Your Reference	UNITS	10601/SS02/0.0-0.1	10601/SS07/0.0-0.1	10601/SS17/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	03/06/2025	03/06/2025	03/06/2025
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	150	<100	<100
Total +ve TRH (C10-C36)	mg/kg	150	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	130	<100	<100
TRH >C_{34} -C_{40}	mg/kg	200	<100	100
Total +ve TRH (>C10-C40)	mg/kg	330	<50	100
Surrogate o-Terphenyl	%	88	89	92

PAHs in Soil						
Our Reference		382214-5	382214-16	382214-18	382214-19	382214-23
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP216/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/SS01/0.05-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	129	129	126	128	125

PAHs in Soil				
Our Reference		382214-24	382214-29	382214-39
Your Reference	UNITS	10601/SS02/0.0-0.1	10601/SS07/0.0-0.1	10601/SS17/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	05/06/2025	05/06/2025
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	122	100	101

Organochlorine Pesticides in soil						
Our Reference		382214-1	382214-2	382214-3	382214-4	382214-5
Your Reference	UNITS	10601/TP201/0.0-0.1	10601/TP202/0.1-0.2	10601/TP203/0.0-0.1	10601/TP204/0.1-0.2	10601/TP205/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	127	124	120	134	133

Organochlorine Pesticides in soil						
Our Reference		382214-6	382214-7	382214-8	382214-9	382214-10
Your Reference	UNITS	10601/TP206/0.0-0.1	10601/TP207/0.0-0.1	10601/TP208/0.0-0.1	10601/TP209/0.0-0.1	10601/TP210/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	128	124	132	130	123

Organochlorine Pesticides in soil						
Our Reference		382214-11	382214-12	382214-13	382214-14	382214-15
Your Reference	UNITS	10601/TP211/0.0-0.1	10601/TP212/0.0-0.1	10601/TP213/0.0-0.1	10601/TP214/0.0-0.1	10601/TP215/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	129	121	132	136	123

Organochlorine Pesticides in soil						
Our Reference		382214-16	382214-17	382214-18	382214-19	382214-20
Your Reference	UNITS	10601/TP216/0.1-0.2	10601/TP217/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/TP220/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	126	125	132	128	122

Organochlorine Pesticides in soil						
Our Reference		382214-21	382214-22	382214-23	382214-24	382214-25
Your Reference	UNITS	10601/TP221/0.0-0.1	10601/TP222/0.0-0.1	10601/SS01/0.05-0.1	10601/SS02/0.0-0.1	10601/SS03/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	133	124	123	130	129

Organochlorine Pesticides in soil						
Our Reference		382214-26	382214-27	382214-28	382214-29	382214-30
Your Reference	UNITS	10601/SS04/0.0-0.1	10601/SS05/0.0-0.1	10601/SS06/0.0-0.1	10601/SS07/0.0-0.1	10601/SS08/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	05/06/2025	05/06/2025	05/06/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	124	120	106	103	101

Organochlorine Pesticides in soil					
Our Reference		382214-31	382214-32	382214-33	382214-39
Your Reference	UNITS	10601/SS09/0.0-0.1	10601/SS10/0.0-0.1	10601/SS11/0.0-0.1	10601/SS17/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	05/06/2025	05/06/2025	05/06/2025	05/06/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	102	102	100	104

Organophosphorus Pesticides in Soil						
Our Reference		382214-1	382214-2	382214-3	382214-4	382214-5
Your Reference	UNITS	10601/TP201/0.0-0.1	10601/TP202/0.1-0.2	10601/TP203/0.0-0.1	10601/TP204/0.1-0.2	10601/TP205/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	127	124	120	134	133

Organophosphorus Pesticides in Soil						
Our Reference		382214-6	382214-7	382214-8	382214-9	382214-10
Your Reference	UNITS	10601/TP206/0.0-0.1	10601/TP207/0.0-0.1	10601/TP208/0.0-0.1	10601/TP209/0.0-0.1	10601/TP210/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	128	124	132	130	123

Organophosphorus Pesticides in Soil						
Our Reference		382214-11	382214-12	382214-13	382214-14	382214-15
Your Reference	UNITS	10601/TP211/0.0-0.1	10601/TP212/0.0-0.1	10601/TP213/0.0-0.1	10601/TP214/0.0-0.1	10601/TP215/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	129	121	132	136	123

Organophosphorus Pesticides in Soil						
Our Reference		382214-16	382214-17	382214-18	382214-19	382214-20
Your Reference	UNITS	10601/TP216/0.1-0.2	10601/TP217/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/TP220/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	126	125	132	128	122

Organophosphorus Pesticides in Soil						
Our Reference		382214-21	382214-22	382214-23	382214-24	382214-25
Your Reference	UNITS	10601/TP221/0.0-0.1	10601/TP222/0.0-0.1	10601/SS01/0.05-0.1	10601/SS02/0.0-0.1	10601/SS03/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	133	124	123	130	129

Organophosphorus Pesticides in Soil						
Our Reference		382214-26	382214-27	382214-28	382214-29	382214-30
Your Reference	UNITS	10601/SS04/0.0-0.1	10601/SS05/0.0-0.1	10601/SS06/0.0-0.1	10601/SS07/0.0-0.1	10601/SS08/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	05/06/2025	05/06/2025	05/06/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	124	120	106	103	101

Organophosphorus Pesticides in Soil					
Our Reference		382214-31	382214-32	382214-33	382214-39
Your Reference	UNITS	10601/SS09/0.0-0.1	10601/SS10/0.0-0.1	10601/SS11/0.0-0.1	10601/SS17/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	05/06/2025	05/06/2025	05/06/2025	05/06/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	102	102	100	104

PCBs in Soil					
Our Reference		382214-5	382214-16	382214-18	382214-19
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP216/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	120	123	117	119

Acid Extractable metals in soil						
Our Reference		382214-1	382214-2	382214-3	382214-4	382214-5
Your Reference	UNITS	10601/TP201/0.0-0.1	10601/TP202/0.1-0.2	10601/TP203/0.0-0.1	10601/TP204/0.1-0.2	10601/TP205/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	200	190	190	220	310
Copper	mg/kg	26	26	31	25	30
Lead	mg/kg	16	14	14	19	17
Mercury	mg/kg	<0.1	<0.1	<0.1	1.1	<0.1
Nickel	mg/kg	62	59	74	64	89
Zinc	mg/kg	45	37	44	43	40

Acid Extractable metals in soil						
Our Reference		382214-6	382214-7	382214-8	382214-9	382214-10
Your Reference	UNITS	10601/TP206/0.0-0.1	10601/TP207/0.0-0.1	10601/TP208/0.0-0.1	10601/TP209/0.0-0.1	10601/TP210/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	220	220	240	230	250
Copper	mg/kg	27	29	29	28	30
Lead	mg/kg	14	15	16	17	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	68	62	82	59	63
Zinc	mg/kg	54	48	51	49	49

Acid Extractable metals in soil						
Our Reference		382214-11	382214-12	382214-13	382214-14	382214-15
Your Reference	UNITS	10601/TP211/0.0-0.1	10601/TP212/0.0-0.1	10601/TP213/0.0-0.1	10601/TP214/0.0-0.1	10601/TP215/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	250	280	300	220	180
Copper	mg/kg	31	37	37	28	34
Lead	mg/kg	18	18	13	16	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	73	79	82	52	63
Zinc	mg/kg	130	57	57	38	45

Acid Extractable metals in soil						
Our Reference		382214-16	382214-17	382214-18	382214-19	382214-20
Your Reference	UNITS	10601/TP216/0.1-0.2	10601/TP217/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/TP220/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Arsenic	mg/kg	<8	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	230	200	230	210	260
Copper	mg/kg	33	30	32	32	32
Lead	mg/kg	17	16	18	17	19
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	70	59	59	68	71
Zinc	mg/kg	51	54	42	45	45

Acid Extractable metals in soil						
Our Reference		382214-21	382214-22	382214-23	382214-24	382214-25
Your Reference	UNITS	10601/TP221/0.0-0.1	10601/TP222/0.0-0.1	10601/SS01/0.05-0.1	10601/SS02/0.0-0.1	10601/SS03/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Arsenic	mg/kg	<4	<4	<4	15	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	200	210	16	10	150
Copper	mg/kg	31	33	19	26	32
Lead	mg/kg	16	17	10	15	22
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	64	65	14	7	52
Zinc	mg/kg	54	50	22	75	60

Acid Extractable metals in soil						
Our Reference		382214-26	382214-27	382214-28	382214-29	382214-30
Your Reference	UNITS	10601/SS04/0.0-0.1	10601/SS05/0.0-0.1	10601/SS06/0.0-0.1	10601/SS07/0.0-0.1	10601/SS08/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	0.5	<0.4
Chromium	mg/kg	180	200	180	220	210
Copper	mg/kg	33	34	31	36	35
Lead	mg/kg	17	18	18	25	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	55	63	55	64	66
Zinc	mg/kg	48	49	57	410	60

Acid Extractable metals in soil						
Our Reference		382214-31	382214-32	382214-33	382214-39	382214-41
Your Reference	UNITS	10601/SS09/0.0-0.1	10601/SS10/0.0-0.1	10601/SS11/0.0-0.1	10601/SS17/0.0-0.1	10601/DUP02
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	170	160	180	190	180
Copper	mg/kg	32	28	29	32	30
Lead	mg/kg	15	15	16	17	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	63	51	53	54	53
Zinc	mg/kg	54	57	64	910	53

Acid Extractable metals in soil			
Our Reference		382214-42	382214-43
Your Reference	UNITS	10601/DUP03	10601/DUP04
Date Sampled		29/05/2025	29/05/2025
Type of sample		Soil	Soil
Date prepared	-	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025
Arsenic	mg/kg	<4	<4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	220	120
Copper	mg/kg	31	26
Lead	mg/kg	18	9
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	68	79
Zinc	mg/kg	44	37

Moisture						
Our Reference		382214-1	382214-2	382214-3	382214-4	382214-5
Your Reference	UNITS	10601/TP201/0.0-0.1	10601/TP202/0.1-0.2	10601/TP203/0.0-0.1	10601/TP204/0.1-0.2	10601/TP205/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Moisture	%	27	22	25	27	17

Moisture						
Our Reference		382214-6	382214-7	382214-8	382214-9	382214-10
Your Reference	UNITS	10601/TP206/0.0-0.1	10601/TP207/0.0-0.1	10601/TP208/0.0-0.1	10601/TP209/0.0-0.1	10601/TP210/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Moisture	%	31	24	47	27	28

Moisture						
Our Reference		382214-11	382214-12	382214-13	382214-14	382214-15
Your Reference	UNITS	10601/TP211/0.0-0.1	10601/TP212/0.0-0.1	10601/TP213/0.0-0.1	10601/TP214/0.0-0.1	10601/TP215/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Moisture	%	34	27	29	22	30

Moisture						
Our Reference		382214-16	382214-17	382214-18	382214-19	382214-20
Your Reference	UNITS	10601/TP216/0.1-0.2	10601/TP217/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/TP220/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Moisture	%	26	19	21	21	21

Moisture						
Our Reference		382214-21	382214-22	382214-23	382214-24	382214-25
Your Reference	UNITS	10601/TP221/0.0-0.1	10601/TP222/0.0-0.1	10601/SS01/0.05-0.1	10601/SS02/0.0-0.1	10601/SS03/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Moisture	%	22	21	5.9	12	20

Moisture						
Our Reference		382214-26	382214-27	382214-28	382214-29	382214-30
Your Reference	UNITS	10601/SS04/0.0-0.1	10601/SS05/0.0-0.1	10601/SS06/0.0-0.1	10601/SS07/0.0-0.1	10601/SS08/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Moisture	%	16	18	20	21	23

Moisture						
Our Reference		382214-31	382214-32	382214-33	382214-39	382214-41
Your Reference	UNITS	10601/SS09/0.0-0.1	10601/SS10/0.0-0.1	10601/SS11/0.0-0.1	10601/SS17/0.0-0.1	10601/DUP02
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/06/2025	03/06/2025	03/06/2025	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Moisture	%	23	20	19	24	19

Moisture			
Our Reference		382214-42	382214-43
Your Reference	UNITS	10601/DUP03	10601/DUP04
Date Sampled		29/05/2025	29/05/2025
Type of sample		Soil	Soil
Date prepared	-	03/06/2025	03/06/2025
Date analysed	-	04/06/2025	04/06/2025
Moisture	%	21	23

Misc Inorg - Soil			
Our Reference		382214-5	382214-16
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP216/0.1-0.2
Date Sampled		29/05/2025	29/05/2025
Type of sample		Soil	Soil
Date prepared	-	5/06/2025	5/06/2025
Date analysed	-	5/06/2025	5/06/2025
pH 1:5 soil:water	pH Units	5.8	6.0

CEC			
Our Reference		382214-5	382214-16
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP216/0.1-0.2
Date Sampled		29/05/2025	29/05/2025
Type of sample		Soil	Soil
Date prepared	-	06/06/2025	06/06/2025
Date analysed	-	10/06/2025	10/06/2025
Exchangeable Ca	meq/100g	9.2	7.9
Exchangeable K	meq/100g	1.6	1.3
Exchangeable Mg	meq/100g	3.3	2.1
Exchangeable Na	meq/100g	<0.1	<0.1
Cation Exchange Capacity	meq/100g	14	11

Asbestos ID - soils						
Our Reference		382214-5	382214-16	382214-18	382214-19	382214-23
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP216/0.1-0.2	10601/TP218/0.1-0.2	10601/TP219/0.1-0.2	10601/SS01/0.05-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Sample mass tested	g	Approx. 35g	Approx. 30g	Approx. 30g	Approx. 30g	Approx. 35g
Sample Description	-	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Tan coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		382214-24	382214-25	382214-26	382214-27	382214-28
Your Reference	UNITS	10601/SS02/0.0-0.1	10601/SS03/0.0-0.1	10601/SS04/0.0-0.1	10601/SS05/0.0-0.1	10601/SS06/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Sample mass tested	g	Approx. 30g	Approx. 30g	Approx. 35g	Approx. 30g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		382214-29	382214-30	382214-31	382214-32	382214-33
Your Reference	UNITS	10601/SS07/0.0-0.1	10601/SS08/0.0-0.1	10601/SS09/0.0-0.1	10601/SS10/0.0-0.1	10601/SS11/0.0-0.1
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	04/06/2025	04/06/2025	04/06/2025	04/06/2025	04/06/2025
Sample mass tested	g	Approx. 35g	Approx. 30g	Approx. 25g	Approx. 30g	Approx. 30g
Sample Description	-	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks	Red coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils		
Our Reference		382214-39
Your Reference	UNITS	10601/SS17/0.0-0.1
Date Sampled		29/05/2025
Type of sample		Soil
Date analysed	-	04/06/2025
Sample mass tested	g	Approx. 30g
Sample Description	-	Red coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	Nil
Trace Analysis	-	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	382214-16
Date extracted	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			04/06/2025	5	04/06/2025	04/06/2025		04/06/2025	04/06/2025
TRH C_6 - C_9	mg/kg	25	Org-023	<25	5	<25	<25	0	95	98
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	5	<25	<25	0	95	98
Benzene	mg/kg	0.2	Org-023	<0.2	5	<0.2	<0.2	0	94	99
Toluene	mg/kg	0.5	Org-023	<0.5	5	<0.5	<0.5	0	89	94
Ethylbenzene	mg/kg	1	Org-023	<1	5	<1	<1	0	97	99
m+p-xylene	mg/kg	2	Org-023	<2	5	<2	<2	0	98	99
o-Xylene	mg/kg	1	Org-023	<1	5	<1	<1	0	82	83
Naphthalene	mg/kg	1	Org-023	<1	5	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	111	5	105	98	7	103	109

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	19	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	19	04/06/2025	04/06/2025		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	19	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	19	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	19	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	19	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	19	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	19	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	19	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	19	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	19	98	100	2	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	382214-16
Date extracted	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	5	<50	<50	0	85	97
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	5	<100	<100	0	76	80
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	5	<100	<100	0	129	82
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	5	<50	<50	0	85	97
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	5	<100	<100	0	76	80
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	5	<100	<100	0	129	82
Surrogate o-Terphenyl	%		Org-020	93	5	93	94	1	80	80

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	19	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	19	03/06/2025	03/06/2025		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	19	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	19	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	19	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	19	97	91	6	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	382214-16
Date extracted	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			04/06/2025	5	04/06/2025	04/06/2025		04/06/2025	04/06/2025
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	94	94
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	68	66
Fluorene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	92	90
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	100	98
Anthracene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	92	94
Pyrene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	100	98
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	84	86
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	5	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	5	<0.05	<0.05	0	88	88
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	127	5	129	127	2	98	103

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			[NT]	19	03/06/2025	03/06/2025		03/06/2025	[NT]
Date analysed	-			[NT]	19	04/06/2025	04/06/2025		04/06/2025	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	94	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	68	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	92	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	100	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	96	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	102	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	86	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	19	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	19	<0.05	<0.05	0	92	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	19	128	124	3	100	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	382214-16
Date extracted	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			04/06/2025	5	04/06/2025	04/06/2025		04/06/2025	04/06/2025
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	100	96
HCB	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	92	96
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	98	86
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	100	102
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	100	104
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	92	94
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	104	102
Endrin	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	96	98
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	90	100
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	90	84
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	128	5	133	124	7	108	114

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	382214-25
Date extracted	-			[NT]	19	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			[NT]	19	04/06/2025	04/06/2025		04/06/2025	04/06/2025
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	98	92
HCB	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	98	90
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	90	80
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	102	98
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	108	98
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	94	92
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	112	102
Endrin	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	104	98
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	102	100
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	90	76
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	19	128	129	1	111	108

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	22	04/06/2025	04/06/2025		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	22	124	125	1	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	31	05/06/2025	05/06/2025		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	31	102	104	2	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	382214-16
Date extracted	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			04/06/2025	5	04/06/2025	04/06/2025		04/06/2025	04/06/2025
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	100	104
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	96	98
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	102	104
Malathion	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	104	108
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	98	98
Fenthion	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	94	100
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	90	102
Phosalone	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	128	5	133	124	7	108	114

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	382214-25
Date extracted	-			[NT]	19	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			[NT]	19	04/06/2025	04/06/2025		04/06/2025	04/06/2025
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	110	102
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	100	94
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	110	102
Malathion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	112	104
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	102	98
Fenthion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	106	102
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	106	102
Phosalone	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	19	128	129	1	111	108

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	22	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	22	04/06/2025	04/06/2025		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	22	124	125	1	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	31	05/06/2025	05/06/2025		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	31	102	104	2	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	382214-16
Date extracted	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			04/06/2025	5	04/06/2025	04/06/2025		04/06/2025	04/06/2025
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	5	<0.1	<0.1	0	107	80
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	5	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	118	5	120	121	1	103	104

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			[NT]	19	03/06/2025	03/06/2025		03/06/2025	[NT]
Date analysed	-			[NT]	19	04/06/2025	04/06/2025		04/06/2025	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	[NT]	19	<0.1	<0.1	0	116	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	[NT]	19	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	[NT]	19	119	117	2	103	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	382214-16
Date prepared	-			03/06/2025	5	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			04/06/2025	5	04/06/2025	04/06/2025		04/06/2025	04/06/2025
Arsenic	mg/kg	4	Metals-020	<4	5	<4	<4	0	112	##
Cadmium	mg/kg	0.4	Metals-020	<0.4	5	<0.4	<0.4	0	103	80
Chromium	mg/kg	1	Metals-020	<1	5	310	290	7	105	93
Copper	mg/kg	1	Metals-020	<1	5	30	29	3	108	104
Lead	mg/kg	1	Metals-020	<1	5	17	15	12	107	87
Mercury	mg/kg	0.1	Metals-021	<0.1	5	<0.1	<0.1	0	113	104
Nickel	mg/kg	1	Metals-020	<1	5	89	85	5	106	89
Zinc	mg/kg	1	Metals-020	<1	5	40	40	0	104	79

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	382214-25
Date prepared	-			[NT]	19	03/06/2025	03/06/2025		03/06/2025	03/06/2025
Date analysed	-			[NT]	19	04/06/2025	04/06/2025		04/06/2025	04/06/2025
Arsenic	mg/kg	4	Metals-020	[NT]	19	<4	<4	0	110	72
Cadmium	mg/kg	0.4	Metals-020	[NT]	19	<0.4	<0.4	0	102	85
Chromium	mg/kg	1	Metals-020	[NT]	19	210	260	21	103	#
Copper	mg/kg	1	Metals-020	[NT]	19	32	34	6	107	106
Lead	mg/kg	1	Metals-020	[NT]	19	17	17	0	106	#
Mercury	mg/kg	0.1	Metals-021	[NT]	19	<0.1	<0.1	0	120	115
Nickel	mg/kg	1	Metals-020	[NT]	19	68	67	1	104	92
Zinc	mg/kg	1	Metals-020	[NT]	19	45	43	5	103	83

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	22	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	22	04/06/2025	04/06/2025		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	22	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	22	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	22	210	240	13	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	22	33	35	6	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	22	17	17	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	22	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	22	65	67	3	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	22	50	51	2	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	03/06/2025	03/06/2025		[NT]	[NT]
Date analysed	-			[NT]	31	04/06/2025	04/06/2025		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	31	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	31	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	31	170	190	11	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	31	32	33	3	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	31	15	16	6	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	31	63	66	5	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	31	54	54	0	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			05/06/2025	[NT]	[NT]	[NT]	[NT]	05/06/2025	[NT]
Date analysed	-			05/06/2025	[NT]	[NT]	[NT]	[NT]	05/06/2025	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			06/06/2025	[NT]	[NT]	[NT]	[NT]	06/06/2025	[NT]
Date analysed	-			10/06/2025	[NT]	[NT]	[NT]	[NT]	10/06/2025	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to ASB-001 asbestos subsampling procedure. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab/MPL recommends supplying 40-60g or 500ml of sample in its own container.
Note: Samples requested for asbestos testing were sub-sampled from jars provided by the client.

8 metals in soil:
- # Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.
- ## Low spike recovery was obtained for this sample. Sample matrix interference is suspected. However, an acceptable recovery was obtained for the LCS.
- The PQL for 382214-16 has been raised for As due to the low spike recovery/recoveries. This may reflect other samples where similar in matrix and similar analytical interferences occur.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 382214-A

Client Details

Client	Martens & Associates Pty Ltd
Attention	Bryson Monaghan
Address	Suite 201, 20 George St, Hornsby, NSW, 2077

Sample Details

Your Reference	**P2410601, 3 Memory Ave, Crookwell NSW 2583**
Number of Samples	Additional analysis
Date samples received	30/05/2025
Date completed instructions received	11/06/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	13/06/2025
Date of Issue	13/06/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Nick Sarlamis, Assistant Operation Manager

Authorised By
Nancy Zhang, Laboratory Manager

Misc Soil - Inorg					
Our Reference		382214-A-5	382214-A-12	382214-A-13	382214-A-20
Your Reference	UNITS	10601/TP205/0.1-0.2	10601/TP212/0.0-0.1	10601/TP213/0.0-0.1	10601/TP220/0.1-0.2
Date Sampled		29/05/2025	29/05/2025	29/05/2025	29/05/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	13/06/2025	13/06/2025	13/06/2025	13/06/2025
Date analysed	-	13/06/2025	13/06/2025	13/06/2025	13/06/2025
Hexavalent Chromium, Cr^{6+}	mg/kg	<1	<1	<1	<1
Trivalent Cr	mg/kg	310	280	300	260

Method ID	Methodology Summary
Inorg-118	Hexavalent Chromium (Cr6+) - determined firstly by separation using ion chromatography followed by the colourimetric analytical finish. Water samples are ideally field filtered into alkali preserved containers prior to receipt for dissolved Cr6+ analysis. Unfiltered water samples into alkali preserved containers (or pH adjusted to pH 8-9 on receipt) can be classified as Total (unfiltered) Cr6+. Please note, for 'Total/Unfiltered' Trivalent Chromium in waters [calculated], these results may be exaggerated due to the digestive limitation of 'Total/Unfiltered' Hexavalent Chromium in NaOH at pH 8-9 compared to more comprehensive digestion for Total Chromium using the mineral acids HNO3 and HCl. Solid (includes soils, filters, paints, swabs for example) samples are extracted in a buffered catalysed solution prior to the analytical finish above. Water extractable options are available (e.g. as an option for filters) on request. Impingers may need pH adjusting to pH 8-9 prior to IC-colourimetric analytical finish.

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			13/06/2025	[NT]	[NT]	[NT]	[NT]	13/06/2025	[NT]
Date analysed	-			13/06/2025	[NT]	[NT]	[NT]	[NT]	13/06/2025	[NT]
Hexavalent Chromium, Cr^{6+}	mg/kg	1	Inorg-118	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Trivalent Cr	mg/kg	1	Inorg-118	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Appendix G – COC Certificates and SRA Documentation

martens
consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Project											
Name	P2410601 Detailed Site Investigation: 3 Memory Ave, Crookwell NSW 2583										
Martens Contact Officer	Bryson Monaghan				**Contact Email**	bmonaghan@martens.com.au					
Sampling and Shipping	**Sample Date**	01/05/2025	**Dispatch Date**		02/05/2025	**Turnaround Time**		Standard			
	Our Reference	P2410601COC01V01			**Shipping Method (X)**	**Hand**		**Post**		**Courier**	X
	On Ice (X)	X	**No Ice (X)**		**Other (X)**						

Laboratory											
Name	Envirolab Services Pty Ltd										
Sample Delivery Address	12 Ashley St, Chatswood NSW 2067										
Instructions											
Delivery Contact	**Name**	Sample Receipt	**Phone**	02 99106200	**Fax**		**Email**	Samplereceipt@envirolabservices.com.au			
Please Send Report By (X)	**Post**		**Fax**		**Email**	X	**Reporting Email Address**	bmonaghan@martens.com.au gtaylor@martens.com.au bmcgiffin@martens.com.au martens@esdat.com.au			

	Sample ID	8 HM	OCP/OPP	Combo 6a	CEC	pH	TRH	BTEX
1	10601/TP101/0.0-0.1	X	X					
2	10601/TP102/0.0-0.1	X	X					
3	10601/TP103/0.1-0.2	X	X					
4	10601/TP104/0.0-0.1			X				
5	10601/TP105/0.1-0.2	X	X		X	X		
6	10601/TP106/0.0-0.1	X	X					
7	10601/TP107/0.0-0.1	X	X					
8	10601/TP108/0.1-0.2	X	X		X	X		
9	10601/DUP01	X						

ENVIROLAB GROUP

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 379564

Date Received: 2/5/25
Time Received: 1530
Received By: LC
Temp: Cool/Ambient 5°C
Cooling: Ice/Icepack
Security: Intact/Broken/None

Head Office
Suite 201, 20 George St
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L

SOIL ANALYSIS CHAIN OF CUSTODY

	Sample ID	8 HM	OCP/OPP	Combo 6a	CEC	pH	TRH	BTEX
10	Trip Spike							X
11	Trip Blank						X	

Notes	

#379564
2/3/25
ve

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	Gray Taylor

Sample Login Details

Your reference	P2410601 Detailed Site Investigation: 3 Memory Ave
Envirolab Reference	379564
Date Sample Received	02/05/2025
Date Instructions Received	02/05/2025
Date Results Expected to be Reported	09/05/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	11 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	5
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils	CEC	Misc Inorg - Soil
10601/TP101/0.0-0.1				✓	✓		✓			
10601/TP102/0.0-0.1				✓	✓		✓			
10601/TP103/0.1-0.2				✓	✓		✓			
10601/TP104/0.0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		
10601/TP105/0.1-0.2				✓	✓		✓		✓	✓
10601/TP106/0.0-0.1				✓	✓		✓			
10601/TP107/0.0-0.1				✓	✓		✓			
10601/TP108/0.1-0.2				✓	✓		✓		✓	✓
10601/DUP01							✓			
Trip Spike	✓									
Trip Blank	✓									

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

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Anna Bui

From: Ben McGiffin <bmcgiffin@martens.com.au>
Sent: Monday, 12 May 2025 1:55 PM
To: Stuart Chen; Envirolab Sydney Sample Receipt
Cc: Gray Taylor; Bryson Monaghan
Subject: RE: Results for Registration 379564 P2410601 Detailed Site Investigation: 3 Memory Ave

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Thanks Stuart
Please proceed with a 2day TAT
Thank you

ENS REF: 379564-A
TAT: 2 DAY
DUE: 14/5/25
AB

Ben McGiffin
Environmental Manager, Principal Engineer

T + 61-2-9476-9999
E bmcgiffin@martens.com.au
Suite 201, 20 George Street, Hornsby, NSW 2077

www.martens.com.au

This message is intended for the addressee named and may contain confidential / privileged information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of Martens & Associates Pty Ltd. You should scan any attached files for viruses.

From: Stuart Chen <SChen2@envirolab.com.au>
Sent: Monday, 12 May 2025 1:54 PM
To: Ben McGiffin <bmcgiffin@martens.com.au>; Envirolab Sydney Sample Receipt <Samplereceipt@envirolab.com.au>
Cc: Gray Taylor <gtaylor@martens.com.au>; Bryson Monaghan <bmonaghan@martens.com.au>
Subject: RE: Results for Registration 379564 P2410601 Detailed Site Investigation: 3 Memory Ave

Hey Ben,

Each sample is $18 exc gst. Adding 25% surcharge for 2day tat would be $22.50.

@Envirolab Sydney Sample Receipt Please note A-job.

Kind Regards,

Stuart Chen | Report Coordinator | Envirolab Services

Great Science. Great Service.

12 Ashley Street Chatswood NSW 2067
T 612 9910 6200
E SChen2@envirolab.com.au | **W** www.envirolab.com.au

Follow us on: LinkedIn | Facebook | Twitter

Samples will be analysed per our T&C's.

From: Ben McGiffin <bmcgiffin@martens.com.au>
Sent: Monday, 12 May 2025 12:44 PM
To: Stuart Chen <SChen2@envirolab.com.au>
Cc: Envirolab Sydney Sample Receipt <Samplereceipt@envirolab.com.au>; Gray Taylor <gtaylor@martens.com.au>; Bryson Monaghan <bmonaghan@martens.com.au>
Subject: RE: Results for Registration 379564 P2410601 Detailed Site Investigation: 3 Memory Ave

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Stuart
Can we please book Chromium speciation for all the samples in this job please.
Can you please confirm what the price for this would be for two day turn around vs standard reporting time?
Thanks

Ben McGiffin
Environmental Manager, Principal Engineer

T + 61-2-9476-9999
E bmcgiffin@martens.com.au
Suite 201, 20 George Street, Hornsby, NSW 2077

www.martens.com.au

This message is intended for the addressee named and may contain confidential / privileged information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of Martens & Associates Pty Ltd. You should scan any attached files for viruses.

From: Stuart Chen <SChen2@envirolab.com.au>
Sent: Friday, 9 May 2025 5:36 PM
To: martens@esdat.com.au; Accounts <accounts@martens.com.au>; Ben McGiffin <bmcgiffin@martens.com.au>; Bryson Monaghan <bmonaghan@martens.com.au>; Gray Taylor <gtaylor@martens.com.au>
Subject: Results for Registration 379564 P2410601 Detailed Site Investigation: 3 Memory Ave

Please refer to attached for:
a copy of the Certificate of Analysis
a copy of the COC/paperwork received from you
ESDAT Extracts
an Excel or .csv file containing the results
a copy of the Invoice

Please note that a hard copy will not be posted.

Enquiries should be made directly to:
customerservice@envirolab.com.au

To view information on uncertainty guidelines click here

How did we do? Send Feedback

Kind Regards,

Stuart Chen | Report Coordinator | Envirolab Services

Great Science. Great Service.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	Ben McGiffin

Sample Login Details

Your reference	P2410601 Detailed Site Investigation: 3 Memory Ave
Envirolab Reference	379564-A
Date Sample Received	02/05/2025
Date Instructions Received	12/05/2025
Date Results Expected to be Reported	14/05/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	Additional analysis
Turnaround Time Requested	2 days
Temperature on Receipt (°C)	5
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Misc Soil - Inorg	On Hold
10601/TP101/0.0-0.1	✓	
10601/TP102/0.0-0.1	✓	
10601/TP103/0.1-0.2	✓	
10601/TP104/0.0-0.1	✓	
10601/TP105/0.1-0.2	✓	
10601/TP106/0.0-0.1	✓	
10601/TP107/0.0-0.1	✓	
10601/TP108/0.1-0.2	✓	
10601/DUP01	✓	
Trip Spike		✓
Trip Blank		✓

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

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

COC: 02/06/2025 1244

martens
consulting engineers since 1989

SOIL ANALYSIS CHAIN OF CUSTODY FORM

Project											
Name	P2410601 Detailed Site Investigation: 3 Memory Ave, Crookwell NSW 2583										
Martens Contact Officer	Bryson Monaghan				**Contact Email**	bmonaghan@martens.com.au					
Sampling and Shipping	**Sample Date**	29/05/2025	**Dispatch Date**	30/05/2025	**Turnaround Time**	Standard					
	Our Reference	P2410601COC02V01			**Shipping Method (X)**	**Hand**		**Post**		**Courier**	X
	On Ice (X)	X	**No Ice (X)**		**Other (X)**						

Laboratory									
Name	Envirolab Services Pty Ltd								
Sample Delivery Address	12 Ashley St, Chatswood NSW 2067								
Instructions									
Delivery Contact	**Name**	Sample Receipt	**Phone**	02 99106200	**Fax**		**Email**	Samplereceipt@envirolabservices.com.au	
Please Send Report By (X)	**Post**		**Fax**		**Email**	X	**Reporting Email Address**	bmonaghan@martens.com.au gtaylor@martens.com.au bmcgiffin@martens.com.au martens@esdat.com.au	

	Sample ID	8 HM	OCP/OPP	Combo 6a	Combo 3a	Asbestos ID	CEC	pH	TRH	BTEX	Hold
1	10601/TP201/0.0-0.1	X	X								
2	10601/TP202/0.1-0.2	X	X								
3	10601/TP203/0.0-0.1	X	X								
4	10601/TP204/0.1-0.2	X	X								
5	10601/TP205/0.1-0.2			X			X	X			
6	10601/TP206/0.0-0.1	X	X								
7	10601/TP207/0.0-0.1	X	X								
8	10601/TP208/0.0-0.1	X	X								
9	10601/TP209/0.0-0.1	X	X								

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 382214
Date Received: 30/5/25
Time Received: 1330
Received By: DH
Temp: Cool/Ambient
Cooling: Icepack 4°C
Security: Intact / None

Head Office
Suite 201, 20 George St
Hornsby NSW 2077, Australia
Ph 02 9476 9999 **Fax** 02 9476

> mail@martens.com.au
> www.martens.com.au
MARTENS & ASSOCIATES P/L

SOIL ANALYSIS CHAIN OF CUSTODY

	Sample ID	8 HM	OCP/OPP	Combo 6a	Combo 3a	Asbestos ID	CEC	pH	TRH	BTEX	Hold
10	10601/TP210/0.0-0.1	X	X								
11	10601/TP211/0.0-0.1	X	X								
12	10601/TP212/0.0-0.1	X	X								
13	10601/TP213/0.0-0.1	X	X								
14	10601/TP214/0.0-0.1	X	X								
15	10601/TP215/0.1-0.2	X	X								
16	10601/TP216/0.1-0.2			X			X	X			
17	10601/TP217/0.1-0.2	X	X								
18	10601/TP218/0.1-0.2			X							
19	10601/TP219/0.1-0.2			X							
20	10601/TP220/0.1-0.2	X	X								
21	10601/TP221/0.0-0.1	X	X								
22	10601/TP222/0.0-0.1	X	X								
23	10601/SS01/0.05-0.1		X		X						
24	10601/SS02/0.0-0.1		X		X						
25	10601/SS03/0.0-0.1	X	X			X					
26	10601/SS04/0.0-0.1	X	X			X					
27	10601/SS05/0.0-0.1	X	X			X					
28	10601/SS06/0.0-0.1	X	X			X					
29	10601/SS07/0.0-0.1		X		X						
30	10601/SS08/0.0-0.1	X	X			X					
31	10601/SS09/0.0-0.1	X	X			X					
32	10601/SS10/0.0-0.1	X	X			X					
33	10601/SS11/0.0-0.1	X	X			X					
34	10601/SS12/0.0-0.1										X
35	10601/SS13/0.0-0.1										X
36	10601/SS14/0.0-0.1										X
37	10601/SS15/0.0-0.1										X
38	10601/SS16/0.0-0.1										X
39	10601/SS17/0.0-0.1		X		X						
40	10601/DUP01										X

#382214
30/10/25
DM

SOIL ANALYSIS CHAIN OF CUSTODY

	Sample ID	8 HM	OCP/OPP	Combo 6a	Combo 3a	Asbestos ID	CEC	pH	TRH	BTEX	Hold
41	10601/DUP02	X									
42	10601/DUP03	X									
43	10601/DUP04	X									
44	Trip Spike									X	
45	Trip Blank								X		

Notes	

#382214
30/05/25
DW

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	Bryson Monaghan

Sample Login Details

Your reference	P2410601, 3 Memory Ave, Crookwell NSW 2583
Envirolab Reference	382214
Date Sample Received	30/05/2025
Date Instructions Received	02/06/2025
Date Results Expected to be Reported	10/06/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	45 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice surrounding samples (potential contamination)
Sampling Date Provided	YES

Comments

Sample #8 - 10601/TP208/0.0-0.1: Sample jar received waterlogged.

Please contact the laboratory within 24 hours if you wish to cancel the aformentioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

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

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Misc Inorg - Soil	CEC	Asbestos ID - soils	On Hold
10601/TP201/0.0-0.1				✓	✓		✓				
10601/TP202/0.1-0.2				✓	✓		✓				
10601/TP203/0.0-0.1				✓	✓		✓				
10601/TP204/0.1-0.2				✓	✓		✓				
10601/TP205/0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
10601/TP206/0.0-0.1				✓	✓		✓				
10601/TP207/0.0-0.1				✓	✓		✓				
10601/TP208/0.0-0.1				✓	✓		✓				
10601/TP209/0.0-0.1				✓	✓		✓				
10601/TP210/0.0-0.1				✓	✓		✓				
10601/TP211/0.0-0.1				✓	✓		✓				
10601/TP212/0.0-0.1				✓	✓		✓				
10601/TP213/0.0-0.1				✓	✓		✓				
10601/TP214/0.0-0.1				✓	✓		✓				
10601/TP215/0.1-0.2				✓	✓		✓				
10601/TP216/0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
10601/TP217/0.1-0.2				✓	✓		✓				
10601/TP218/0.1-0.2	✓	✓	✓	✓	✓	✓	✓			✓	
10601/TP219/0.1-0.2	✓	✓	✓	✓	✓	✓	✓			✓	
10601/TP220/0.1-0.2				✓	✓		✓				
10601/TP221/0.0-0.1				✓	✓		✓				
10601/TP222/0.0-0.1				✓	✓		✓				
10601/SS01/0.05-0.1	✓	✓	✓	✓	✓		✓			✓	
10601/SS02/0.0-0.1	✓	✓	✓	✓	✓		✓			✓	
10601/SS03/0.0-0.1				✓	✓		✓			✓	
10601/SS04/0.0-0.1				✓	✓		✓			✓	
10601/SS05/0.0-0.1				✓	✓		✓			✓	
10601/SS06/0.0-0.1				✓	✓		✓			✓	
10601/SS07/0.0-0.1	✓	✓	✓	✓	✓		✓			✓	
10601/SS08/0.0-0.1				✓	✓		✓			✓	
10601/SS09/0.0-0.1				✓	✓		✓			✓	
10601/SS10/0.0-0.1				✓	✓		✓			✓	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Misc Inorg - Soil	CEC	Asbestos ID - soils	On Hold
10601/SS11/0.0-0.1				✓	✓		✓			✓	
10601/SS12/0.0-0.1											✓
10601/SS13/0.0-0.1											✓
10601/SS14/0.0-0.1											✓
10601/SS15/0.0-0.1											✓
10601/SS16/0.0-0.1											✓
10601/SS17/0.0-0.1	✓	✓	✓	✓	✓		✓			✓	
10601/DUP01											✓
10601/DUP02							✓				
10601/DUP03							✓				
10601/DUP04							✓				
Trip Spike	✓										
Trip Blank	✓										

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

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Anna Bui

From: Bryson Monaghan <bmonaghan@martens.com.au>
Sent: Wednesday, 11 June 2025 11:27 AM
To: Envirolab Sydney Sample Receipt
Cc: Stuart Chen
Subject: FW: Results for Registration 382214 P2410601, 3 Memory Ave, Crookwell NSW 2583

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Envirolab,

Please refer to additional requested sampling below.

Thank you,

ELS REF: 382214-A
TAT: 2 DAY
DUE: 13/6/25
AB.

From: Bryson Monaghan
Sent: Wednesday, 11 June 2025 11:22 AM
To: 'Stuart Chen' <SChen2@envirolab.com.au>
Cc: Gray Taylor <gtaylor@martens.com.au>; Ben McGiffin <bmcgiffin@martens.com.au>
Subject: RE: Results for Registration 382214 P2410601, 3 Memory Ave, Crookwell NSW 2583

Hi Stuart,

Can we please book Chromium speciation for the following samples in this job please.

20 - 10601/TP220/0.0-0.1 0.1-0.2
12 - 10601/TP212/0.0-0.1
13 - 10601/TP213/0.0-0.1
5 - 10601/TP205/0.1-0.2

For 2-day turnaround.

Thank you,

From: Stuart Chen <SChen2@envirolab.com.au>
Sent: Tuesday, 10 June 2025 4:39 PM
To: martens@esdat.com.au; Ben McGiffin <bmcgiffin@martens.com.au>; Bryson Monaghan <bmonaghan@martens.com.au>; Gray Taylor <gtaylor@martens.com.au>; Accounts <accounts@martens.com.au>
Subject: Results for Registration 382214 P2410601, 3 Memory Ave, Crookwell NSW 2583

Please refer to attached for:
a copy of the Certificate of Analysis
a copy of the COC/paperwork received from you
ESDAT Extracts
an Excel or .csv file containing the results
a copy of the Invoice

Please note that a hard copy will not be posted.

Enquiries should be made directly to:
customerservice@envirolab.com.au

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Martens & Associates Pty Ltd
Attention	Bryson Monaghan

Sample Login Details

Your reference	P2410601, 3 Memory Ave, Crookwell NSW 2583
Envirolab Reference	382214-A
Date Sample Received	30/05/2025
Date Instructions Received	11/06/2025
Date Results Expected to be Reported	13/06/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	Additional analysis
Turnaround Time Requested	2 days
Temperature on Receipt (°C)	4
Cooling Method	Ice surrounding samples (potential contamination)
Sampling Date Provided	YES

Comments

Please contact the laboratory within 24 hours if you wish to cancel the aformentioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

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

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Misc Soil - Inorg	On Hold
10601/TP201/0.0-0.1		✓
10601/TP202/0.1-0.2		✓
10601/TP203/0.0-0.1		✓
10601/TP204/0.1-0.2		✓
10601/TP205/0.1-0.2	✓	
10601/TP206/0.0-0.1		✓
10601/TP207/0.0-0.1		✓
10601/TP208/0.0-0.1		✓
10601/TP209/0.0-0.1		✓
10601/TP210/0.0-0.1		✓
10601/TP211/0.0-0.1		✓
10601/TP212/0.0-0.1	✓	
10601/TP213/0.0-0.1	✓	
10601/TP214/0.0-0.1		✓
10601/TP215/0.1-0.2		✓
10601/TP216/0.1-0.2		✓
10601/TP217/0.1-0.2		✓
10601/TP218/0.1-0.2		✓
10601/TP219/0.1-0.2		✓
10601/TP220/0.1-0.2	✓	
10601/TP221/0.0-0.1		✓
10601/TP222/0.0-0.1		✓
10601/SS01/0.05-0.1		✓
10601/SS02/0.0-0.1		✓
10601/SS03/0.0-0.1		✓
10601/SS04/0.0-0.1		✓
10601/SS05/0.0-0.1		✓
10601/SS06/0.0-0.1		✓
10601/SS07/0.0-0.1		✓
10601/SS08/0.0-0.1		✓
10601/SS09/0.0-0.1		✓
10601/SS10/0.0-0.1		✓

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Misc Soil - Inorg	On Hold
10601/SS11/0.0-0.1		✓
10601/SS12/0.0-0.1		✓
10601/SS13/0.0-0.1		✓
10601/SS14/0.0-0.1		✓
10601/SS15/0.0-0.1		✓
10601/SS16/0.0-0.1		✓
10601/SS17/0.0-0.1		✓
10601/DUP01		✓
10601/DUP02		✓
10601/DUP03		✓
10601/DUP04		✓
Trip Spike		✓
Trip Blank		✓

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

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Appendix H – EIL Calculation Sheets

Inputs
Select contaminant from list below
Cr_III
Below needed to calculate fresh and aged ACLs
Enter % clay (values from 0 to 100%)
30
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
7
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	150	190
Urban residential and open public spaces	300	580
Commercial and industrial	460	960

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)
7.9
Enter soil pH (calcium chloride method) (values from 1 to 14)
5.8
Enter organic carbon content (%OC) (values from 0 to 50%)
10
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
7
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	60	70
Urban residential and open public spaces	100	170
Commercial and industrial	140	240

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)
7.9
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
7
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	30	20
Urban residential and open public spaces	55	100
Commercial and industrial	85	170

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)
7.9
Enter soil pH (calcium chloride method) (values from 1 to 14)
5.8
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
7
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	65	140
Urban residential and open public spaces	150	380
Commercial and industrial	220	540

Appendix I – Photograph of the Site

Plate 1: View adjacent eastern side of gravel driveway in the northeast portion of the Site, facing south. Maintained grass, wire fence, storage tank, wood pile, trailers, animal pen, shed and residential dwelling present. Dated 6 December 2024.

Plate 2: View in the centre of the eastern portion of the Site, facing northwest. Maintained grass, gravel driveway, residential dwelling, 3 door garage and awning. Dated 6 December 2024.

Plate 3: View adjacent to the northwest corner of the garage in the northeast portion of the Site, facing south. Maintained grass, residential dwelling, wire fence. Dated 6 December 2024.

Plate 4: View adjacent to the southwest corner of the Site, facing northeast. Wire fence along southern boundary. Grass, shrubs and trees indicative of majority of the Site. Dated 6 December 2024.

Plate 5: View adjacent to southern side of residential building, facing north. Residential dwelling, shed and trailer. Dated 27 February 2025.

Plate 6: View adjacent to the southeast corner of the gravel driveway in the northeast of the Site. Wood pile and expose soil (formerly debris pile). Dated 27 February 2025.

Plate 7: View within shed east of the southeast corner of the residential building on the Site. Dated 27 February 2025.

Plate 8: View within shed east of the southeast corner of the residential building on the Site. Dated 27 February 2025.

Plate 9: View adjacent to the southeast corner of the Site, facing north. Wire fence along southern and eastern boundaries. Grass, shrubs and trees indicative of majority of the Site. Dated 27 February 2025.

Plate 10: View adjacent to the southwest corner of the Site, facing north. Wire fence along southern boundary. Grass, shrubs and trees indicative of majority of the Site. Dated 27 February 2025.

Plate 11: View of TP102. Soil is generally indicative of all locations across the Site. Dated 1 May 2025.

Plate 12: View from the eastern portion of the Site, facing northwest. Maintained grass, shed, gravel driveway, residential dwelling and 3 door garge. Dated 29 May 2025.

Plate 13: View from the northeast portion of the Site, facing south. Maintained grass, wire fence, shed, rock stockpile. Dated 29 May 2025.

Plate 14: View adjacent to the centre of the northwest boundary of the Site, facing north. Wire pen structure. Dated 29 May 2025.

Plate 15: View of SS01 gravelly sand fill material located adjacent to the centre of the northern side of garage in the northeast portion of the Site. Dated 29 May 2025.

Plate 16: View of TP213 located adjacent to the western edge of the northern most boundary of the Site. Soil is generally indicative of all locations across the Site. Dated 29 May 2025.