Detailed Site Investigation – Melrose Park Public School

110 Wharf Rd, Melrose Park NSW

Prepared for: School Infrastructure NSW

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ADE CONSULTING GROUP

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Executive Summary

ADE was engaged by NSW Department of Education (DoE), to undertake a Detailed Site Investigation (DSI) to investigate the nature and extent of potential contamination (if any) of the proposed development footprint within the Melrose Park Public School, located at 110 Wharf Road, Melrose Park, New South Wales (NSW) hereafter referred to as 'the site'. The subject area comprises the footprint of a proposed new development. The new development comprises replacement and addition of school infrastructure on site to moder. The site is legally defined as Lot 3, DP 535298 and comprises a combined area of approximately 1.5 hectares (Ha).

The investigation seeks to assess soil conditions in the proposed development area for potential contamination exceeding site assessment criteria, updating the conceptual site model for due diligence. Historical data reveals the site has been used as a school since 1942, with major construction in the 1940s-1960s, minimal changes since the 1960s, and continuous ownership by the Department of Education. Surrounding areas underwent industrial development, and nearby contaminated sites, like a former gasworks and landfill, were identified within a 1 km radius, including the former Reckitt Benckiser site 50m north of the investigated area.

As part of the Detailed Site Investigation (DSI), the assessment encompassed a site walkover, an intrusive investigation with soil sampling. The intrusive investigation involved:

- The excavation of:
    - seventeen (17) test pits across the footprint of the proposed development (ID: TP1 to TP17).
    - ten (10) boreholes were advanced through a drill rig (solid flight augers) as part of a parallel geotechnical investigation across the footprint of the proposed development (ID BH01 to BH10).
    - environmental samples were collected from the test pits and boreholes and were also collected from geotechnical boreholes at 0.5m below ground level (BGL)
- The installation and sampling of 2 soil vapour probes in boreholes BH05 and BH07 for screening of volatile organic compounds (VOCs).
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All soil samples collected during the DSI were subsequently submitted for laboratory analysis. No exceedances to the adopted site assessment criteria (SAC) were reported in the soil samples collected during this investigation. Following the desktop study and the intrusive assessment, ADE considers that there is a low risk of contamination in soil that has occurred due to past and current activities undertaken at the site. ADE considers that further environmental assessment at the site is not warranted due to the following:

- The soil sampling undertaken during this investigation reported concentrations of contaminants of potential concern (CoPCs) below the adopted site acceptance criteria for the proposed land use;
- The majority of the site surface was free from any visual signs of contamination (staining, olfactory). Similarly, no staining or odours were detected in the test pits excavated.
- No evidence of infrastructure associated contaminating activities such as underground petroleum infrastructure, was identified at the site;

- Screening for VOCs indicated absence of VOCs warranting further consideration within on-site soils, including VOCs from the soil vapour wells installed.
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It is considered that the site can be made suitable for the proposed development to the following recommendation:

- Should asbestos or other environmental contamination (e.g. staining, odours, sheens) be identified during future excavation at the site, an Unexpected Finds protocol and the proper safety procedures should be implemented.
- Should future excavations/construction activities interact with the soil and/or groundwater at a deeper level than currently proposed, further assessment may be required for deeper lithologies and groundwater. This DSI was undertaken in conjunction with a geotechnical investigation with results reported in the following report:

  ADE (2023a) Geotechnical Investigation Report, Proposed Infrastructure Development – Melrose Park Public School, 110 Wharf Road, Ermington, NSW 2114. Date 17 November 2023

Based on the available information and assessment, ADE considers the site is suitable for the continued use as a primary school and for the proposed development of a multi- storey amenities and classroom building.

Abbreviations

Table 1 Abbreviations

Abbreviation	Definition
ACM	Asbestos Containing Material
ADE	ADE Consulting Group Pty Ltd
AHD	Australian Height Datum
AS	Australian Standard
BGL	Below Ground Level
BR	Blind Replicate
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
COC	Chain of Custody
CoPCs	Contaminants of Potential Concern
CSM	Conceptual Site Model
DEC	Department of Environment and Conservation
DP	Deposited Plan
BYDA	Before You Dig Australia
DQO	Data Quality Objectives
DSI	Detailed Site Investigation
EILs	Ecological Investigation Levels
EPA	Environment Protection Authority
ESLs	Ecological Screening Levels
HILs	Health Investigation Levels
HSLs	Health Screening Levels
LEP	Local Environmental Plan
LGA	Local Government Area
m BGL	meters Below Ground Level
m BTOC	meters Below Top Casing
NATA	National Association of Testing Authorities
NEPC	National Environmental Protection Council
NEPM	National Environmental Protection Measure
NSW	New South Wales
NSW EPA	New South Wales Environment Protection Authority
OPPs	Organophosphorus Pesticides
OCPs	Organochlorine Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
PFAS	Per-fluoroalkyl substances
PQL	Practical Quantification Limit
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RL	Relative Level
RPD	Relative Percent Difference
SAC	Site Assessment Criteria

1 Introduction

1.1 Background

ADE was engaged by the NSW Department of Education (DoE) to undertake a Detailed Site Investigation (DSI) to investigate the nature and extent of potential contamination (if any) within a portion subject to proposed redevelopment (the activity) within Melrose Park Public School, located at 110 Wharf Road, Melrose Park, New South Wales (NSW) (the "site").

ADE understands that Melrose Park Public School will be redeveloped to provide new classrooms and core facilities to meet anticipated enrolment growth in the area.

The area that pertains to this DSI (the site) is approximately 1.5 hectares (ha), is rectangular in shape and encompasses the central and eastern portion of Melrose Park Public school. The site extends approximately 117 metres (m) to the west from the eastern school boundary and approximately 130 m from the northern to the southern school boundary. The site is situated within the Local Government Area (LGA) of the Parramatta City Council, zoned as SP2 Educational Establishment and forms part of the legally defined Lot 3 in Deposited Plan (DP) 535298. Please refer to Figure 1 in ***Appendix A - Figures*** for site locality and site boundary.

This DSI was undertaken in conjunction with an intrusive geotechnical investigation with results reported in the following report:

ADE (2023a) *Geotechnical Investigation Report,– Melrose Park Public School, 110 Wharf Road, Ermington*, ref: A201023.0436.00_B_vd, dated: 17 November 2023

ADE understands that the DSI will serve to assess the suitability of the proposed development by evaluating its environmental condition, specifically in terms of contamination. This assessment will aim to determine whether contamination is present or absent, thereby demonstrating due diligence as to whether the land is suitable. This investigation included the following components:

- Review of the site's history, including a review of previous environmental investigations (ADE, 2023)
- Desktop study of the site's condition and its surrounding environment
- Site walkover and visual inspection
- Limited soil sampling on-site; and
- Preparation of this DSI report outlining the findings of the investigation.

An intrusive investigation was undertaken by experienced ADE environmental consultants on 10 August 2023. This report summarises the findings of the site walkover, analytical results of soil sampling and discusses the outcomes of the overall investigation.

1.2 Objectives

The objectives of the investigation were to:

- Assess the site suitability for proposed development and comment whether any further investigations are required.

1.3 Scope of Work

The scope of work included the following:

- A review and summary of results from the previous preliminary site investigation undertaken (ADE, 2023b).
- An intrusive investigation primarily undertaken using a combination of mechanical excavation to advance test pits and a track mounted Geoprobe drilling rig to advance boreholes. Manual drilling using a hand

auger was used in one location due to inaccessibility of mechanical plants. The soil investigation program including the collection and analysis of samples from a total of twenty-eight (27) locations:

- Sixteen (16) test pits were advanced to depths ranging from 0.45 to 0 .95 meters below ground level (m BGL) via excavator (ID: TP1 – TP7, TP9-TP17).
- One (1) borehole was manually advanced to 0.25 mBGL using a hand auger (ID: TP8).
- Nine (9) boreholes were advanced to depths ranging from 1.3 to 4.42 mBGL for a combination of soil contamination assessment and geotechnical purposes.
- One (1) borehole advanced to 12.33 mBGL for a combination of soil contamination assessment and geotechnical purposes.

- Semi-quantitative field screening for volatile organic compounds (VOCs) in soil, undertaken at each sampling location using a calibrated photo-ionisation detector (PID).
- Laboratory analysis of selected soil samples for identified contaminants of potential concern (CoPCs) by laboratories accredited by the National Association of Testing Authorities (NATA) for the analytical methods used.
- A soil vapour screening program involving the installation of two (2) soil vapour wells and the field measurement from those wells at BH05 and BH07.
- Collation and interpretation of data, including a quality assurance / quality control (QA/QC) data validation process.
- Preparation of this report detailing the combined findings of the DSI works.

1.4 Activity Description

The activity is for upgrades to Melrose Park Public School within a one to three-storey built form, including

- Demolition of existing school buildings;
- Site preparation works including tree removal;
- Construction of the following buildings:
    - **Block A**: One (1) storey building comprising;
        - universal pre-school (UPS)
        - outdoor play area for the UPS; and
        - detached storeroom;
    - **Block B1**: Two (2) storey building comprising:
        - staff and administration areas;
        - library;
        - 4 special programs rooms;
        - Pedestrian bridge to Block B2;
    - **Block B2:** Three (3) storey building comprising:
        - 23 classrooms;
        - amenities/services cores; and
        - pedestrian bridge to Block B3;
    - **Block B3:** Three (3) storey building comprising:
        - 12 classrooms; and
        - amenities/services cores;

- **Block C**: One (1) storey building comprising:
  - hall;
  - amenities;
  - canteen;
  - OSHC; and
  - COLA;

- Construction of two (2) car parking areas; and
- Landscaping works.

1.5 Legislative Requirements

The legislative framework for the report is based on guidelines that have been approved by the NSW EPA under the following Acts and Regulations:

- *State Environmental Planning Policy (Planning Systems Resilience 2021)*
- *Contaminated Land Management Act 1997 (NSW) (CLM Act)*
- *Protection of the Environment Operations Act 1997 (NSW) (POEO Act)*
- *Environmentally Hazardous Chemicals Act 1985 (NSW), and National Environment Protection Council Act 1995*

The relevant guidelines issued under the provisions of the aforementioned Acts / Regulations include:

- *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme, 3rd edition* (NSW EPA, 2017);
- *Sampling Design guidelines for contaminated land (NSW EPA 2022)*
- *Guidelines for Consultants Reporting on Contaminated Land, NSW EPA 2020*
- *National Environmental Protection Measure (Assessment of Site Contamination) 1999, and 2013 Amendment* (NEPM, 2013) and
- *Environmental Planning and Assessment Act 1979* (EP&A Act 1979).

The following local government plan have also been taken into consideration for preparation of this DSI:

- *The Parramatta City Council Local Environmental Plan (2023)* (NSW).

1.6 Limitations Specific to this Assessment:

The assessment included limited sampling and had no coverage of groundwater. The number of samples collected from the site is meant for screening purposes only and may not represent the whole site's conditions.

2 Site Identification

2.1 Site Location and Description

Melrose Park Public School is located at 100 Wharf Road, Melrose Park and covers an approximate area of 25,558m^2 or 2.5 ha). For the purposes of this report the site refers to an area that covers the footprint of the proposed development area for the construction of a new multistorey classroom and amenities building (~1500 m^2) (Refer to Figure 1***, Appendix A - Figures***).

This area (hereafter known as 'the site') is currently occupied by classrooms and an afterschool care of OSHC building in the southern side, the central portion is occupied by an asphalt play court with shade cloth coverings and the northern portion of the side is occupied by an administrative building, hall, and library in the northeast corner. Finally, the northwest portion of the site is currently occupied by a student amenities block, vegetable garden and vegetation. (Refer to Figure 1***, Appendix A - Figures***).

2.1.1 Summary of Site Details

Table 2 Details and Information

Site Details	
Site address:	110 Wharf Road, Melrose Park 2114, NSW.
Title identification:	Lot 3 DP535298
Site area:	Approximately 15,000 m^2 or 1.5 ha.
Council Area:	City of Parramatta
Land Use Zoning:	SP2 Educational Establishment
Current Site Owner:	Department of Education, NSW
Current Land Use:	Educational purposes/ school
Future Uses:	Educational purposes/ school
Local Environmental Plan	Parramatta Local Environmental Plan 2023

2.2 Site Observations

Melrose Park Public School encompasses a 2.5-hectare rectangular lot, featuring administrative buildings, a hall, library, and classrooms in the northeast and southeast sections. The vast majority of the grounds are covered in grass (90%), with the remaining 10% allocated to asphalt play areas and concrete building bases. At the time of inspection, the site area presented the same condition as observed in the PSI (ADE, 2023), revealing no signs of asbestos or building rubble beneath the structures, or any visual or olfactory indicators of contamination.

Table 3. Surrounding Land Uses

Orientation with Site	Description of Use	Sensitive Receptors
North	• Industrial estates, workshops, and small-scale manufacturing • Hope Street immediately to the north. • An industrial area Formerly occupied by Reckitt Benckiser (RB) for chemical manufacturing and storage. • A former Pfizer Industrial facility further north	• Fauna, flora • Off-site ecological receptors • Residents/workers • Students and teaching staff
East	Low density residential buildings lie along wharf road, public recreation areas are also to the east including Jennifer Park Playground, Sindel Reserve and the commercial Rudge Parramatta golf rang which includes Archers Creek.	
South	Immediately south of the site lies a timber supplies store and a pharmaceutical company, further south lies public recreation areas on either side including Archer Park and Ermington Bay nature trail. Further south of this, lies the Parramatta River.	
West	• General industrial properties • Includes warehouses, McNeall plastics manufacturing, Ryde City Ford service centre, and a Hyundai service centre	

3 Physical Setting

A desktop study was conducted by ADE as part of the PSI (ADE, 2023b) to review site topography, geology, hydrogeology, and other relevant information. The information obtained is provided in the PSI and applies to the whole of Melrose Public School more broadly. At the time of sampling the site presented the same condition as the PSI. A summary specific to the site is produced here, for a more detailed description of Melrose Public School please refer to the PSI.

Table 4 Physical Setting

Attribute	Description
Topography	The site is located on the western side of Wharf Road. The site surface was generally flat with a slight dip in elevation occurring towards the west side of the site. Relative levels (RL) of the site were 14 meters Australian Height Datum (AHD) in the north of the site and 10m AHD on the western border.
Site Drainage	The site surface was mostly covered in grass with many buildings having open or raised undersides. Stormwater drains were observed from buildings flowing directly into the soil. Rainwater is likely to collect in gutters and downpipes, followed by pooling on the ground surface, then vertical percolation through the topsoil and underlying residual soil materials. Rainwater transported through overland flow is likely to be transported along local roads and stormwater pipes towards the southwest part of the site, ultimately discharging into Paramatta River.
Nearest Surface Water Features	Parramatta River flows in an easterly direction approximately. Archer creek also lies 400m to the west which discharges into the Parramatta River.
Hydrogeology & Groundwater	The underlying soil in the area generally consists of porous, extensive aquifers of low to moderate productivity. A search for registered Groundwater wells within 2km revealed a total of 32 Groundwater Bores, with 5 of those occurring within 5km of the site. None were identified on site. Groundwater is generally anticipated to flow in a south to south-westerly direction, towards Parramatta River, consistent with local topography.
Local Geology & Soil	The Sydney 1:100,000 Soil Landscape Map indicates that the site overlies soil of the Residual Lucas Heights (RElh) landscape comprising of gently undulating crests and ridges on plateau surfaces of the Mittagong Formation. Local relief 30m, slopes <10%. The Mittagong formation comprises of interbedded shale, laminate and fine to medium grained quartz sandstone. Soils typically consist of hard setting yellow podzolic soils and yellow sloths at moderately deep depths (50-150cm). (Chapman and Murphy, 2002). The Sydney 1:100,000 Geological Series Map indicates the site is underlain by the Wianamatta group (Rh) which consists of Medium to coarse-grained quartz sandstone, very minor shale and laminate lenses.
Acid Sulfate Soil Risk	ADE undertook a review of the department of Planning, Industry and Environment's *Environmental Planning Instrument – Acid Sulfate Soils* to establish the potential for Acid Sulfate Soil (ASS) at the Site. The site was not identified as an area in risk of ASS. The ASRIS Atlas of Australian Acid sulphate soils indicates that the site lies within a Class 5 ASS Risk area. Class 5 areas are located within 500m of adjacent Class 1,2,3 or 4 land that is below 5 m AHD and by which the water table is likely to be lowered below 1m AHD on adjacent Class 1,2,3,4 land. Based on the above review analysis for acid sulfate soils is not considered necessary.

4 Summary of Previous Report

Based on a Preliminary Site Investigation (PSI), the site showed low contamination risk. Shallow soil and soil vapor investigations were advised due to nearby industrial complexes north and west of the site, which have been present since the 1960s. The school site itself has no historical contamination sources, and potential risks identified mainly stem from offsite factors.

4.1 Site History

The historical context of the site has been assembled from a variety of sources, including authorized information providers such as the Land and Property Information (LPI), NSW Government, and Parramatta City Council. Melrose Public School, originally known as Walumetta, founded in 1945, initially, featured a small timber building with two classrooms, amidst orchards and gardens. By the 1950s, it was renamed Melrose Park Public School. In 1954, tree planting and a sports ground were introduced, and the school's library opened in 1960. Industrial expansion in neighbouring properties, including notable companies like Pfizer, occurred from the 1960s onwards.

Over the years, the school underwent further changes, such as the addition of demountable classrooms in 2010 and an information and communication technology (ICT) centre in 2008. Further developments between 2010 and 2013 included a school hall, bathroom block, kitchen garden, and additional demountable buildings. Subsequent years brought minor additions like metal shade structures and storage containers. In 2020, the most recent development introduced a new Out-of-School Hours Care (OSHC) building along the south boundary.

4.2 Assessment of on-site contamination

Based on the results of the desktop study and site walkover, the report indicated that the likelihood of contamination on-site is low-moderate. As part of the desktop study no historically contaminating activities were identified as occurring on site, nor were any signs of contamination identified during the site walkover.

Some select areas to the north of the site have appeared on the EPA list of contaminated sites. These sites included the Reckitt Benckiser site 50m north above hope street and Pfizer Australia, located 380m north of the site. Both sites have management classifications listed as “regulation under CLM not required”. During the site walkover and desktop study some potential contamination migration pathways were identified these included the migration of asbestos from nearby asbestos roofing along the northern boundary, the potential of impacted groundwater to generate vapours due to nearby industrial activities. Overall, the site presented in good condition with no visual or olfactory indicators of contamination identified.

5 Preliminary Conceptual Site Model

Conceptual site models (CSMs) are discussed in NEPM Schedule B2, section 4 and are constructed to identify potential contamination concerns and inform evaluate any risk of proceeding with the proposed development. CSMs are made up of known and potential sources of contamination, potentially affected media, human and ecological receptors, and potential and complete exposure pathways. Connecting sources, media, receptors, and pathways assists in developing a risk assessment for site contamination investigations.

5.1 Potential Contamination Sources

No direct contamination sources were identified on site, however, following potential offsite contamination sources were identified during the desktop study review of the site and observations made during the site walkover:

- Due to the nature of residential construction from the 1960s to 2000s and the prevalent use of asbestos and lead materials during this time period, potential ACM and or lead containing products may have or can impact the surficial and / or upper soil profile.
- Potential for heavy metals and ACM contamination through underground services and conduits,
- Potential Heavy Metals, OCPs and OPPs contamination of the surficial and / or upper soil profile as a result of small-scale residential use of pesticides and herbicides.
- Potential for contamination via imported fill materials used in the construction of the classrooms in the past. Due to the uncontrolled nature of this material, there is the potential for a range of contaminants being present including, but not limited to Heavy Metals, PAHs, TRH, BTEX, PCBs, OCPs and OPPs; and
- Potential oil and grease contamination due to significant run-off or flooding from adjacent roads.
- Storage vehicles on as well as agricultural machinery including grass mowers used on the site could cause contamination of heavy metals, OCPs, OPPs, PCBs, PAHs, TRHs and BTEX.
- Use of machinery/ refuelling on site, workshop welding, potentially resulting in the presence of petroleum hydrocarbons and heavy metals in the form of varnish, paint, thinners, and adhesives.
- Potential asbestos containing cement roof of warehouse immediately to the north of the site. Over time, asbestos roofs can deteriorate and release small amounts of asbestos fibres.
- Potential fuel or lube oil spillage from used car dealership immediately north of the site.
- Historical chemical, pharmaceutical and veterinary production and waste generation at the former Reckitt Benckiser and Pfizer facilities to the north and upgradient of the site.

5.2 Contaminants of Potential Concern (CoPCs)

- Heavy metals;
- Total recoverable hydrocarbons (TRHs);
- Benzene, toluene, ethylbenzene and xylenes (BTEX);
- Polycyclic aromatic hydrocarbons (PAHs);
- Polychlorinated biphenyls (PCBs);
- Organochlorine and organophosphorus pesticides (OCPs/OPPs);
- Volatile Organic Compounds (VOCs), including chlorinated hydrocarbons;
- Inorganics including ammonia, nitrates, sulphates, sulfides.
- Phenols; and
- Asbestos

5.3 Potential Contaminant Pathways

The CoPCs were primarily selected for due diligence and the number of sensitive receptors on and off site. The CoPCs chosen to represent a wide range of potential environmental contamination and, ensuring the most

vulnerable individuals are adequately protected from potential health risks. Possible transport mechanics within the Site may include:

- Atmospheric dispersion of contaminated material including dispersion and runoff
- Volatilisation of contamination from ground surface;
- Transport of contaminants by human and/or mechanical disturbance (e.g., earthworks); and
- Leached contaminants being transported from offsite sources through groundwater.

Possible exposure routes within the site may include:

- Potential dermal, inhalation and oral exposure to impacted soils present at shallow depths and/or accessible by future excavations within the site;
- Inhalation of airborne contamination media (e.g., vapour, dust)

5.4 Sensitive Receptors

Potential human receptors at the Site include:

- Residents of neighbouring properties and surrounding site users;
- Construction / landscaping workers involved with any future works onsite;
- Current and future users of the site including students and staff; and
- Current and future maintenance workers undertaking subsurface maintenance works.

Potential ecological receptors at the site include:

- Flora and fauna that inhabit or travel through the site;
- Groundwater environment beneath the site is potentially being impacted as a result of the vertical migration of contaminants;
- Conservation areas adjacent to the site.

5.5 Qualitative Risk Assessment:

For the purposes of this DSI, assessed through the PSI (ADE, 2023), the following qualitative risk assessment has been applied:

- **Low Risk – the activities and related Contaminants of Potential Concern (CoPC) are likely to pose no or a low potential human health/environmental impact. Any impact is likely localised to a specific area of the Site;**
- Moderate Risk – the activities and related CoPC are likely to pose potential for moderate human health/environmental impact. Any impact is likely localised to a specific area of the Site; and
- High Risk – the activities and related CoPC could pose a significant environmental impact. There is potential for impacts of the immediate local area of the Site or off-Site migration impacting surrounding human and/or environmental receptors.

Based on the above potential contamination information, the current risk assessment of the site is considered to be low to moderate risk for the above-mentioned CoPC's if they are present on site.

6 Site Investigation Criteria

Given the on-going use of the site as a primary school, soil analytical results were tabulated and compared to the most conservative investigation and screening level for the residential land use scenario with garden accessible soil (HIL A) of Schedule B(1) Guideline on the investigation levels for soil and groundwater from the ASC NEPM (2013).

Typically for contaminant concentration to be considered acceptable for the respective land use criteria, the data set must conform to the following requirements:

- The 95% upper confidence limit (UCL) of the arithmetic mean of analytical results is below the site criteria.
- The arithmetic (or geometric in cases where the data is log-normally distributed) mean is below the site criteria.
- The standard deviation is less than 50% of the site criteria.
- No single sample analytical result is greater than 250% of the site criteria.

6.1 Health Investigation Levels (HILs)

The health investigation levels (HILs) are applicable for assessing human-health risk via all relevant pathways of exposure. Health-based investigation levels (HILs) will be applied to the site for ongoing primary school land use, with applicable criteria outlined in **Table 5.**

The setting is based on the protection of human receptors in residential land use scenarios with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), which also includes childcare centres, preschools and primary schools (HIL A).

Table 5 Health investigations levels for soil contaminants

Analyte	HIL A (mg/kg)
Arsenic (total)	100
Cadmium	20
Chromium (VI)	100
Copper	6,000
Lead	300
Mercury (inorganic)	40
Nickel	400
Zinc	7,400
Carcinogenic PAHs (as BaP TEQ[1])	3
Total PAHs	300
Total PCBs	1
DDT+DDE+DDD	240
Aldrin and Dieldrin	6
Chlordane	50

Analyte	HIL A (mg/kg)
Endosulfan	270
Endrin	10
Heptachlor	6
Hexachlorobenzene	10
Methoxychlor	300
Chlorpyrifos	160
Cyanide (free)	250
Phenols	3,000

1. Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)P) adopted by CCME 2008 (refer Schedule B7). The B(a)P TEQ is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF, given below, and summing these products.

Table 6 PAH TEQ Calculation Basis

PAH species	TEF	PAH species	TEF
Benzo(a)anthracene	0.1	Benzo(g,h,i)perylene	0.01
Benzo(a)pyrene	1	Chrysene	0.01
Benzo(b+j)fluoranthene	0.1	Dibenz(a,h)anthracene	1
Benzo(k)fluoranthene	0.1	Indeno(1,2,3-c,d)pyrene	0.1

6.2 Health Screening Levels (HSLs)

HSLs have been developed for selected petroleum compounds and fractions and are applicable to assessing human health risk via inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. The soil texture for applications of HSLs at the site is "clay". ASC NEPM (2013) presents HSL A & HSL B (Low – high density residential) Tier 1 screening criteria for BTEX, naphthalene, TRH fractions C6-C10 and C10-C16 for vapour intrusion. Values for clay with depth criterion to < 1 metres was used. The HSL A & HSL B criteria are summarised in **Table 7**.

Table 7. Health screening levels for soil contaminants

Analyte	HSL A & B (mg/kg) Low – high density residential (Clay)
Benzene	0.7
Toluene	480
Ethylbenzene	NL
Xylene	110
Naphthalene	5
TRH: C6 – C10(F1)3	50
TRH: C10 – C16 (F2)	280

6.3 Health-based screening levels - asbestos

Health screening levels for asbestos in soil are adopted form WA DoH guidelines as listed in **Table 8**.

Table 8. Health screening levels for asbestos contamination in soil

Analyte	HIL A (mg/kg)
Bonded ACM[1]	0.01% w/w
FA and AF (friable asbestos)[2]	0.001% w/w
All forms of asbestos	No visible asbestos for surface soil

Notes to Health screening levels for asbestos in soil are adopted form WA DoH guidelines as listed in Table 8.

Table 8

1. ACM – Bonded asbestos containing material
2. FA – Fibrous asbestos; AF – Asbestos fines

6.4 Management Limits

In accordance with section 2.9 of schedule B1 of the ASC NEPM, consideration of Management Limits for petroleum hydrocarbons will be undertaken to assess whether the reported soil conditions have the potential to pose a risk to buried infrastructure, or the formation of non-aqueous phase liquid (NAPL). Values for coarse grained soils from Table 1 B (7) of Schedule B1 will be adopted as a conservative approach.

A summary of the adopted TRH management limits for this site is provided in **Table 9.**

Table 9. Management limits for TRH fraction in soil

Chemical	Management Limits for TRH (mg/kg dry soil) Residential, parklands and public open space (fine texture)
F1 C6-C10	800
F2 C10-C16	1,000
F3 >C16-C34	3,500
F4 >C34-C40	10,000

6.5 Ecological Investigation Levels (EILs)

The ASC NEPM (2013) presents the methodology for deriving terrestrial EILs using both fresh and aged (i.e. >2 years old) contamination for soil with “urban residential/ public open space” land use scenario.

The methodology has been developed to protect soil processes, soil biota (flora and fauna) and terrestrial invertebrates and vertebrates and the resultant EILs are applied to the top 2m of the soil profile, where the majority of process occur and organisms reside.

As there is no proposed change in the land-use for the site, the adopted scenario is for Open Space/ Recreation. Site specific EILs have been derived in this DSI and comprise the sum of ambient background concentrations (ABCs) and added contaminant limits (ACLs).

The ACL concentrations ascertained for representative locations are usually based on the site-specific results for either pH alone, or pH and cation exchange capacity (CEC) for metals (Cr, Cu, Ni & Zn). The project-specific soil properties analysed at one sample location (ID: TP11_0.3-0.4_230925), in natural silty clay and used to calculate the EILs are listed below:

- pH: 5.1

- TOC: 0.74%
- CEC: 5.2 meq/100g
- Fe: 6.6%
- Clay: 60%

The EIL criteria presented for arsenic (As), naphthalene and DDT are generic EIL values irrespective of their physiochemical properties sourced from Table 1(B)5 of Schedule B1 of the ASC NEPM (2013). Calculated site-specific EILs are presented in **Table 10** below.

Table 10. Site-specific EIL criteria

Chemical	Site specific EIL (mg/kg)
Cr[2,6]	730
Cu[3,6]	90
Ni [4,6]	40
Zn[5,6]	220
As[1]	100
Pb1[1]	1,100
Naphthalene[1]	170
DDT[1]	180

Notes to Table 10
1- Generic EIL, as per Table 1B (5) of Schedule B1 of ASC NEPM (2013).
2- Cr ACL calculated using % clay, % Fe content and adopted as EIL, as per Table 1B (2) of Schedule B1 of NEPM (2013).
3- Cu ACL calculated using CEC, pH data, % organic carbon content, % Fe and adopted as EIL, as per Table 1B (2) of Schedule B1 of NEPM (2013).
4- Ni ACL calculated using CEC and % Fe data and adopted as EIL, as per Table 1B (3) of Schedule B1 of NEPM (2013).
5- Zn ACL calculated using a conservative modelled pH, % Fe and CEC data and adopted as EIL, as per Table 1B (1) of Schedule B1 of NEPM (2013).
6- Aged ACLs derived assuming a low traffic volume.

6.6 Ecological Screening Levels (ESLs)

For petroleum hydrocarbons, ESLs have been derived in ASC NEPM (2013) based upon fraction ranges of hydrocarbons, BTEXN component and benzo(a)pyrene (BaP) together with soil texture classes. These ESLs are of low reliability except for the volatile and semi-volatile hydrocarbon fractions which are of moderate reliability. The ESLs are applicable for assessing risk to terrestrial ecosystems and will be adopted for the investigation to be protective of soils in an urban residential and public open space land use scenario.

The adopted ESLs are designed to be protective of soil fauna, soil processes plants. The ASC NEPM (2013) states that these factors only apply within the rhizome (i.e. zone in the top two metres of soil) and as such ESL criteria need not be applied to chemical results below this depth. ESL threshold criteria for fine-grained soils are summarised in **Table 11**.

Table 11. Ecological screening levels for soil contaminants

Chemical	ESL – Urban Residential and public open space (for fine grained soils) (mg/kg)
F1 C6-C10	180
F2 C10-C16	120
F3 >C16-C34	1300
F4 >C34-C40	5600
Benzene	65

Chemical	ESL – Urban Residential and public open space (for fine grained soils) (mg/kg)
Toluene	105
Ethylbenzene	125
Xylenes	45
Benzo(a)pyrene	0.7

6.7 PFAS

The HEPA PFAS National Environmental Management Plan 2.0 (2020) provides guidance on the management of PFAS impacted soils. The classes of soil criteria defined in the PFAS NEMP National Environmental Management Plan 2.0 (2020) for human Health Investigation Levels (HIL) and Ecological investigation level are presented in **Table 12** below.

Table 12. Summary of the adopted assessment criteria for PFAS in soil

Soil Criteria (Human Health)	PFOS + PFHxS (mg/kg)	PFOA (mg/kg)
Residential with accessible gardens (HIL-A)	0.01	0.1
Soil Criteria (Ecological)	**PFOS (mg/kg)**	**PFOA (mg/kg)**
Ecological direct exposure	1	10
Ecological indirect exposure	0.01	NA
Ecological indirect exposure in areas of low accessible soil	0.14	NA

6.8 Aesthetics

As outlined in Section 3.6 of NEPM Schedule B1, the aesthetic quality of accessible soils should be considered even if analytical testing demonstrates that concentrations of CoPCs are within the SAC. There are no quantifiable guidelines in determining if soils are appropriately aesthetic; however, the NEPC (2013) does indicate that professional judgement concerning the quantity, type and distribution of foreign materials and / or odours about the specific land use should be employed.

The following scenarios (but not exclusively) would trigger further aesthetic assessment:

- Hydrocarbon sheen on surface water;
- Anthropogenic soil staining; and
- Odorous soils, i.e., petroleum hydrocarbon odours or hydrogen sulfidic odours in soil.

6.9 Vapour Screening Criteria

This assessment was undertaken for screening purpose with the aid of Photoionization Detector (PID). Detections more than 10ppm are to be considered for further analysis.

7 Site Investigation Design and Procedure

7.1 Pre-Work Procedure

Prior to the commencement of the sampling works, a site-specific SWMS was developed, discussed, and signed by ADE staff in a pre-start toolbox talk.

7.2 Sampling Design

The investigation was designed using the data quality objectives (DQO) as defined by the US EPA and the NSW EPA in the "Guidelines for the NSW DEC Site Auditor Scheme" (3rd Edition), (NSW EPA, 2017) and Australian Standard AS 4482.1 2005 (AS, 2005).

Based on area of the site the NSW EPA 2022 sampling design guidelines recommend a sampling density of approximately 25 sampling points. The sample design was for preliminary screening and consisted of the following sample locations, which were collected and analysed to ascertain the level/ extent of contamination (if any):

- 17 test pits for soil were collected in a grid pattern throughout the site and submitted for laboratory analysis. Test-pitting was carried out with an excavator and collection of the top 0.0 -0.1 m and limited samples (4) at 0.3-0.4m depth of the soil profile.
- 10 soil samples were collected from drilled geotechnical boreholes at shallow depths (0.5m) for a total of 27 samples.
- 2 soil vapour samples were collected to screen for vapour intrusion due to the potential for impacted groundwater and that the site is downgradient from industrial sites.

7.3 Intrusive Works (Soil Sampling)

Prior to commencing intrusive works, existing services on site were identified and avoided after reviewing Before You Dig Australia (BYDA) plans for the site followed by underground service clearance by a licensed service locator on 21 September 2023. The intrusive soil investigation was conducted over 2 separate days on the 25th September 2023, the 4th of October and soil vapour installation was completed on the 4th of October 2023 by a qualified environmental consultant from ADE. A total of 17 sampling locations were advanced using an excavator to complete 17 test pits to a maximum depth of 1.0 m BGL (ID: TP1 to TP17) and ten samples were collected from geotechnical boreholes up to a depth of to 0.5 m BGL (ID: BH1—10). Samples were collected using fresh nitrile gloves and placed in clean laboratory provided analyte suitable glass jars with Teflon lined lids and small zip lock bags and PFAS samples in HDPE, Teflon free containers before being placed into a pre-cooled Esky.

Replicate soil samples (blinds and splits) were collected by collecting samples from the middle of the excavator bucket directly into jars. The jars were filled to capacity to ensure minimal headspace was present prior to tightly securing the lid and then placed into a pre-cooled Esky. All soil samples were screened for the presence of VOCs using a PID calibrated with isobutylene gas at 100 ppm. Screening involved placing the soil

sample in a resealable plastic zip lock bag, agitating the sample then inserting the PID tip into the headspace and recording the reading.

Soil samples for asbestos assessment were collected in a 500ml bag and analysed w/w asbestos fines using 10 litre gravimetric methods by separating through 7mm sieve and weighing fragments, fibre bundles and other asbestos debris as per NEPM (2013 B2) and the guidelines for assessment, remediation, and management of asbestos contaminated sites WA 2021.

A total of thirty-five (35) primary soil samples, one intra- and one inter-laboratory sample were submitted for laboratory analysis. **Table 13** below show the sampling and analytical schedule.

Table 13: Sampling and analytical program - soil

Location ID	Sample Depth (mBGL)	Sample Type (Fill /Natural)	PID (ppm)	Analytes											
				TRH	BTEXN	HM	PAH	OCP	OPP	PCBs	VOCs	Cyanide, Phenolics	PFAS	Physical parameters*	ASB (w/w%)
TP1	0.1-0.2	Fill	0.6	X	X	X	X	X	X	X	X	X	X		X
	0.5-0.6	Natural	0.5	X	X	X	X	X	X	X					
TP2	0.1-0.2	Fill	2	X	X	X	X	X	X	X					X
TP3	0.0-0.2	Fill	0.7	X	X	X	X	X	X	X					X
	0.3-0.4	Natural	0.6	X	X	X	X	X	X	X					
TP4	0.0-0.2	Fill	0.7	X	X	X	X	X	X	X					X
	0.5-0.6	Natural	0.5	X	X	X	X	X	X	X					
TP5	0.0-0.2	Fill	0.9	X	X	X	X	X	X	X					X
TP6	0.0-0.2	Fill	0.8	X	X	X	X	X	X	X					X
TP7	0.0-0.2	Fill	0.4	X	X	X	X	X	X	X	X	X	X		X
	0.4-0.6	Natural	0.7	X	X	X	X	X	X	X					
TP8	0.0-0.2	Fill	0.4	X	X	X	X	X	X	X					X
TP9	0.1-0.2	Fill	0.4	X	X	X	X	X	X	X					X
	0.4-0.5	Natural	0.6	X	X	X	X	X	X	X					
TP10	0.0-0.2	Fill	0.3	X	X	X	X	X	X	X					X
TP11	0.0-0.2	Fill	N/A	X	X	X	X	X	X	X	X	X	X		X
	0.3-0.4	Natural	N/A	X	X	X	X	X	X	X				X	
TP12	0.0-0.1	Fill	0.4	X	X	X	X	X	X	X					X
TP13	0.1-0.2	Fill	0.1	X	X	X	X	X	X	X					X
TP14	0.0-0.2	Fill	0.8	X	X	X	X	X	X	X					X
TP15	0.0-0.2	Fill	1.1	X	X	X	X	X	X	X					X
TP16	0.1-0.2	Fill	1.6	X	X	X	X	X	X	X					X
TP17	0.0-0.1	Fill	0.4	X	X	X	X	X	X	X					X
	0.4-0.5	Natural	0.6	X	X	X	X	X	X	X					X
BH02	0.0-0.1	Fill	-	X	X	X	X	X	X	X					
	1.5	Natural	-	X	X	X	X	X	X	X					
BH3	0.0-0.1	Fill	-	X	X	X	X	X	X	X					
BH04	1.0	Natural	-	X	X	X	X	X	X	X					
BH5	0.0-0.1	Fill	-	X	X	X	X	X	X	X					
BH06	1.0	Natural	-	X	X	X	X	X	X	X					
BH7	0.0-0.1	Fill	-	X	X	X	X	X	X	X					
BH8	0.0-0.1	Fill	-	X	X	X	X	X	X	X					
BH9	0.0-0.1	Fill	-	X	X	X	X	X	X	X					
BH09	1.0	Natural	-	X	X	X	X	X	X	X					
SP1**	0.0-0.1	Fill		X	X	X	X	X	X	X					

Notes

TRH	Total Recoverable Hydrocarbons
BTEXN	Benzene, toluene, ethylbenzene, total xylenes and naphthalene
HM	Heavy metals
PAH	Polycyclic Aromatic Hydrocarbons
OCP	Organochlorine pesticides
OPP	Organophosphate pesticides
PCB	Polychlorinated biphenyls
VOC	Volatile organic compounds
PFAS	Per- and Polyfluorinated Substances (PFAS)
*	pH, Electrical conductivity (EC), Cation Exchange Capacity (CEC), Total organic carbon (TOC)
ASB	% Asbestos (weight/weight) in soil
**	SP1 sample location advanced into shallow stockpile present on site

7.3.1 Soil Vapour Probes

Soil vapour probes were installed in two of the boreholes (ID: BH05 and BH07) Construction details are provided in logs in Appendix B – Test pit logs, Borehole logs, SV Installation logs.

7.4 Documentation

A field observation log was kept by sampling personnel during the soil sampling. Details recorded in the log included:

- Soil test pit/ sample IDs;
- Soil profile notes;
- Sampling method;
- Sample identification;
- Sample description; and
- Sample point measurements.

A comprehensive master sample register was maintained. As samples were received, they were given a unique sequential number from the sample register into which details from the labels were entered. Before packing and dispatch of samples for analysis, a CoC form was completed. This form recorded details of the individual samples being dispatched, and the type of analysis required for each sample.

7.5 Laboratory Analysis

All copies of the completed CoC forms were retained on the central filing system and the originals were sent to the analytical laboratories together with the samples. The following outlines the NATA accredited laboratories used for analytical testing:

- Primary soil, samples collected by ADE for the analysis of heavy metals, TRHs, PAHs, BTEX, OCPs, OPPs, PCBs and asbestos were submitted to Envirolab Services Sydney;
- The intra-laboratory soil sample (BR1) collected by ADE for the analysis of heavy metals, TRHs, PAHs, BTEX, OCPs, OPPs and PCBs were submitted to Envirolab Services Sydney and;
- The inter-laboratory soil sample (SR1) collected by ADE for the analysis of heavy metals, TRHs, PAHs, BTEX, OCPs, OPPs and PCBs were submitted to Eurofins Sydney.

7.6 Laboratory Details

Primary soil samples were submitted to Envirolab – Address: 12 Ashley St, Chatswood NSW 2067.
Triplicate samples collected were submitted to Eurofins – Address:17 Magowar Road , Girraween NSW 2145.

Both laboratories are NATA accredited for the requested analysis.

8 Results

8.1 Soil Profile

In-situ shallow soils across the site generally consisted of Silty CLAY topsoil overlaying natural clayey sand / sandy clay with weathered shale bedrock encountered from between 0.35 and 1.15 metres below ground level (mBGL). See 8 for summary of the soil lithology across the site and Appendix B – Test pit logs, Borehole logs, SV Installation logs.

Table 14 Soil Profile

Lithology	Approximate Depth Range (m BGL)	Material Description
Fill/Topsoil	0.0—0.2	Silty CLAY, low to medium plasticity, brown mottled grey, trace of angular gravel and organic root matter, moist, no odour or staining.
Natural Soils	0.2—0.6	Silty Clay low to medium plasticity, grey- brown trace of subangular gravel.
Bedrock	>0.8—1.9	Extremely weathered SHALE: with some clay bands

No foreign materials were identified across the site surface. No asbestos containing materials (ACM) were identified. Refer to logs (Appendix B – Test pit logs, Borehole logs, SV Installation logs).

8.2 Potential Contamination (Visual and Olfactory)

During fieldworks, ADE noted that the site surface and subsurface soil was free from any visual signs of contamination. No discoloration or odours were noted on the site surface or within subsurface soils. Refer to Appendix C – Photographs for photographs taken during the fieldworks.

The highest PID reading was noted to be 2 ppm which is not indicative of hydrocarbon/ volatile impact. PID readings have been provided on detailed test pit logs within Appendix B – Test pit logs, Borehole logs, SV Installation logs and calibration certificate has been provided in Appendix D – Equipment calibration certificate (PID and GFM).

8.3 Analytical results

Tabulated laboratory results compared to the adopted SAC are presented in ***Appendix E –Results & UCL Summary Table*** with laboratory certificates presented in ***Appendix F – Analytical Reports and Chain of Custody***. The reported concentrations of CoPC were either below the practical quantitation limit (PQL) and / or the SAC when considering the suitability of the site for ongoing use as a high school and proposed development.

8.3.1 Organochlorine and organophosphorus pesticides (OCPs/OPPs) and Polychlorinated biphenyls (PCBs)

All soil samples submitted for analysis did not report any concentration above PQL for OCP (0.1mg/kg), OPP (0.1mg/kg) or PCBs (0.5mg/kg).

8.3.2 Petroleum Hydrocarbons

Analytical concentrations for TRH and TPH in all samples were reported below SAC. Eleven (11) samples reported detections of TRH and TPH. A silica gel clean-up was conducted on one sample (ID: BH2_0.0-0.1) for TPH with non-detect results showing that the concentrations were partially attributed to natural organic sources. Additionally, there was no staining or indicators of oil staining.

8.3.3 Heavy Metals

Heavy metals concentrations were detected for most soil samples collected across the site, of these samples there was one sample where an exceedance was observed. TP2_0.1-0.2 which showed an exceedance of Lead over the NEPM HIL-A criteria for residential soil. UCL analysis was conducted on the lead exceedances. The UCL of the mean with 95% confidence for lead was calculated to be 141.3 mg/kg which is below the adopted SAC. The UCL of the mean with 95% confidence for lead was calculated to be 123.6 mg/kg which is below the adopted SAC. The UCL of the mean with 95% confidence for lead was calculated to be 0.392 mg/kg which is below the adopted SAC.

8.3.4 Asbestos

No asbestos was detected as bonded fragments or free fibres within soil material in any of the samples submitted for laboratory analysis.

8.3.5 Polyaromatic hydrocarbons (PAHs)

All soil samples except one (ID: TP2 (0.1-0.2) reported concentrations below the adopted site assessment criteria. One sample (ID:TP1_0.0-0.2) recorded a concentration of 1.4 mg/kg for Benzo(a)pyrene, exceeding the ESL criteria of 1.4 mg/kg. Following this, UCL analysis was conducted on the benzo(a)pyrene exceedances documented in Section 8.4.

8.3.6 Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

All soil samples submitted for analysis did not report any exceedances above the adopted SAC for BTEX.

8.3.7 PFAS

All soil samples submitted for analysis did not report any exceedances above the adopted SAC for PFAS.

8.4 Statistical treatment of results

A comprehensive UCL analysis was performed on instances exceeding specified levels for lead, benzo(a)pyrene, and TRH (C16-C43). In cases where the UCL was employed, all samples showed concentrations below 2.5 times the criteria. Furthermore, for lead, TRH, and benzo(a)pyrene, if results fell

below the Limit of Reporting (LOR), a conservative approach was adopted. The respective LOR values for these analytes were used to establish the dataset required for UCL analysis.

8.5 Soil vapour screening results

Both established soil vapour wells located at BH5 and BH7 were screened using a GFM 436 gas analyser, after 3 minutes all gases screened were less than 10% v/v with gases such as CO, H_2S and hexane exhibiting concentrations less than 1% (refer to ***Appendix B – Test pit logs, Borehole logs, SV Installation logs***). Based on the initial screening results it was concluded full laboratory vapour analysis was not required.

9 Quality assurance and quality control (QAQC)

The comprehensive field and laboratory quality assessments conducted as part of the environmental investigation yielded reassuring results, with no evidence of any data quality issues including field and laboratory data collection. Limited number of sampling was completed for the following analysis with all results below the limit having no impact on overall quality of the findings. These findings provide confidence in the reliability and accuracy of the collected data. Data Quality Objectives are presented in **Appendix G – Data Quality Objectives** with Data Quality Assessment is provided in ***Appendix H - Data Quality Assessment***.

10 Revised Conceptual Site Model

Please note that this CSM is based on the data obtained from the field works and analysis of selected samples. This CSM should be revised and updated in future if further assessment/ development is undertaken.
The revised conceptual model does not identify any indirect sources causing concern in the investigation area.

10.1 Potential Contamination Sources

The potential sources (indirect) have had no influence on site's contamination status after assessment of analytical results.

10.2 Potential Contaminants of Concern

No contaminants of concern were identified during assessment.

10.3 Sensitive Receptors

Potential human receptors at the site include:

- Students and Teachers
- Visitors to the site
- Future maintenance workers undertaking subsurface construction maintenance works
- Construction / demolition / earthmoving workers involved with any future development works;

Potential ecological receptors at the site include:

- Flora and fauna that inhabit or travel through the site.

10.4 Potential Contaminant Pathways

There is no source and contamination of potential concern identified after the detailed site investigation. Hence, pathway is not a concern in this chapter

Table 15 Preliminary Source-Pathway-Receptor Analysis

Potential source	CoPC	Receptor	Pathway	Risk rating	SPR Linkage	Notes
		Onsite				
Hazardous building Materials Asbestos containing material used in current structures and potential use of lead paint	Asbestos, Heavy metals	**Human** – current and future site users, primary school children, teachers, workers neighbours & visitors	**Human** - Dermal contact, ingestion, inhalation	LOW	Complete vs NA	The building onsite were observed to be in good condition with no flaking paint or broken exposed cement sheeting. No fragments of asbestos containing material was observed on the ground during the site inspection. **No exceedances were observed above adopted SAC criteria**
		Ecological - Rhizome soils	**Ecological** – Vertical and lateral migration of potential contaminants through the soil, Leaching and migration via groundwater, Plant uptake		Complete vs NA	
Potential uncontrolled fill material Uncontrolled / uncharacterised imported fill materials - potentially historically used to fill the site during the construction of current structures	Heavy metals, TRH, BTEX, PAH, pesticides, asbestos	**Human** – current and future site users, primary school children, teachers, workers neighbours & visitors	**Human** - Dermal contact, ingestion, inhalation	LOW	Complete vs NA	Site history does not suspect that there were ever any contaminating uses onsite, and there were no visual / olfactory indications of contamination noted during site inspection and intrusive field works. **No exceedances were observed above adopted SAC criteria**
		Ecological – Site fauna, underlying soil processes and soil fauna, groundwater, off site surface water	**Ecological** – Vertical and lateral migration of potential contaminants through the soil, Leaching and migration via groundwater, Plant uptake		Complete vs NA	
General pest control and **pesticides** that could have been sprayed or injected on or underneath concrete slabs.	OCPs / OPPs / Arsenic	**Human** – current and future site users, primary school children, teachers, workers neighbours & visitors	**Human** - Dermal contact, ingestion, inhalation	LOW	Incomplete vs NA	Historical use of site as orchard farms can result in use of pesticides and landscaping for the same resulting in potential importation of fill materials. **No exceedances were observed above adopted SAC criteria.**
		Ecological - – Site fauna, underlying soil processes and soil fauna, groundwater, off site surface water	**Ecological** – Vertical and lateral migration of potential contaminants through the soil, Leaching and migration via groundwater, Plant uptake		Complete vs NA	
		Offsite				
Industrial warehouse Potential asbestos containing cement roof on warehouse immediately north of the site.	Asbestos	**Human** – current and future site users, primary school children, teachers, workers, neighbours & visitors	**Human** - Inhalation	LOW	Incomplete vs NA	Over time, asbestos roofs can deteriorate and disintegrate after years of being exposed to sun and rain small amounts of asbestos fibres can be released and spread to the site as air-borne dust particles. Free asbestos fibres are not visible to the naked eye and laboratory of surface samples, sampling was undertaken as part of this investigation. **No exceedances were observed above adopted SAC criteria**
Used car dealer. Potential petrol or oil spillage from adjacent property to the north	Petroleum hydrocarbons TRH, BTEX, naphthalene and lead.	**Human** – current and future site users, primary school children, teachers, workers & visitors **Ecological –** Onsite flora and fauna, soil microbiota, local groundwater	**Human** - Dermal contact, inhalation	LOW	Complete vs NA	No visual or olfactory indications of petroleum hydrocarbon contamination were noted onsite. **No exceedances were observed above adopted SAC criteria**
Former Reckitt Benckiser and Pfizer facilities Former chemical, pharmaceutical and veterinary production, and waste generation to the north and upgradient of the site	TRH, BTEX, PAHs, Metals, OCPs / OPPs	**Human** – current and future site users, primary school children, teachers, workers, neighbours & visitors **Ecological –** Onsite flora and fauna, soil microbiota, local groundwater	**Human** - Dermal contact, ingestion, inhalation	LOW	Complete vs NA	Intrusive investigation was carried out CoPC in sub-surface soils and to characterise the soil type and the potential for migration of CoPC through soil and/ or shallow groundwater. **No exceedances were observed above adopted SAC criteria**

Notes:

HIGH - – Intrusive soil sampling potentially contaminating site activities warranting need for intrusive works to confirm the presence or absence of contamination..

MODERATE - – Intrusive soil sampling cannot rule out the presence of potentially contaminating site activities without undertaking recommended intrusive works.

LOW – Intrusive soil sampling has not identified any potentially contaminating site activities

11 Conclusions and Recommendations

11.1 Summary of Findings

11.1.1 Summary of Site History

- A review of historical aerial photographs indicates that the site has been used primarily as a school since 1942.
- Most school structures were built between the 1940s and 1960s, the site has remained relatively unchanged since 1990 with minimal changes to vegetation and the landscape during this time.
- The surrounding areas of the site have seen continuous major industrial developments to the north, west and south.

11.1.2 Summary of Site Contamination Investigation

- Exceedances to the adopted SAC were noted, however considered to be insignificant post silica gel cleanup and statistical assessment reported in any of the soil samples collected during this investigation.
- All chemical testing of the soils returned results either below the LOR for and / or the adopted SAC.
- ACM was observed on service pits.

11.2 Conclusion

Following the site walkover, desktop study and intrusive (test pit) investigation, ADE considers that there is a low risk of contamination that has occurred due to past activities undertaken at the site. ADE does not consider further environmental assessment at the site required due to the following:

- The limited soil sampling undertaken during this investigation reported concentrations of CoPC below the SAC for residential use and public open space.
- No underground petroleum infrastructure was identified at the site.
- The site surface was free from any visual signs of contamination (staining, olfactory)
- No sheen or odours were detected in the test pits excavated.
- No evidence of contaminant migration was found during soil sampling or soil vapour screening.

11.3 Recommendations

Should asbestos or other environmental contamination (e.g. Staining, odours, sheens) be identified during any future bulk excavation work at the site an Unexpected Finds protocol and proper safety procedures should be implemented. If groundwater is encountered during future excavation works, a groundwater assessment may be required.

11.4 Site Suitability

Based on the available information and assessment, ADE considers the site is suitable for continued use as a primary school and for the proposed development

11.5 Duty to Report under Section 60 CLM Act 1997

Based on the low risk of offsite migration of contamination and the historical use of the site as a school, as well current test results at the site, ADE considers there is no duty to report contamination to the NSW EPA under Section 60(3)(a) of the CLM Act, as based on information collected for this assessment, the site is not likely to be contaminated.

11.6 Limitations Specific to this Assessment:

The assessment included limited sampling and had no coverage of groundwater. The number of samples collected from the whole site are meant for screening purposes only and may not represent the whole site conditions.

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12 Limitations and Disclaimer

This report has been prepared for the exclusive use of the DoE and is limited to the scope of the work agreed in the terms and conditions of contract (including assumptions, limitations and qualifications, circumstances, and constraints). ADE has relied upon the accuracy of information and data provided to it by the DoE and others.

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The scope of work conducted, and report herein may not meet the specific needs (of which ADE is not aware) of third parties. ADE cannot be held liable for third party reliance on this document. Any third party who relies upon this report does so at its own risk.

The subsurface environment can present substantial uncertainty due to it complex heterogeneity. The conclusions presented in this report are based on limited investigation of conditions at specific sampling locations chosen to be as representative as possible under the given circumstances. However, it is possible that this investigation may not have encountered all areas of contamination at the site due to the limited sampling and testing program undertaken.

The material subject to classification pertains only to the site and subject area outlined within the report and must be consistent with the waste description reported. If there are any unexpected finds that are not consistent with this classification, ADE must be notified immediately.

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This Limitation and Disclaimer must accompany every copy of this report.

13 References

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- Australian Standard AS 4482.2 Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances.
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- National Environment Protection Council (NEPC). (2013). *National Environmental Protection (Assessment of Site Contamination) Measure* 1999, 2013 Amendment
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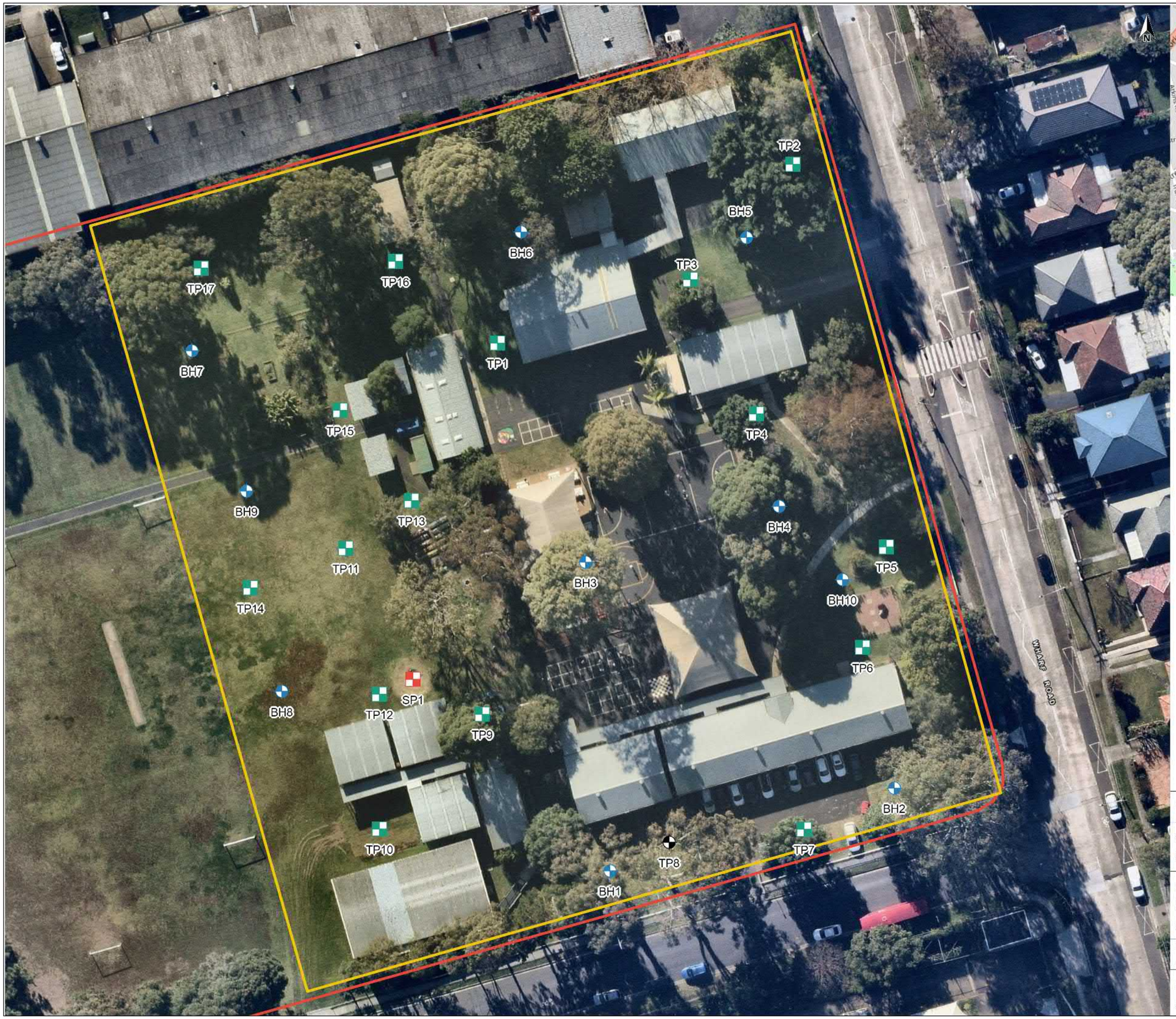
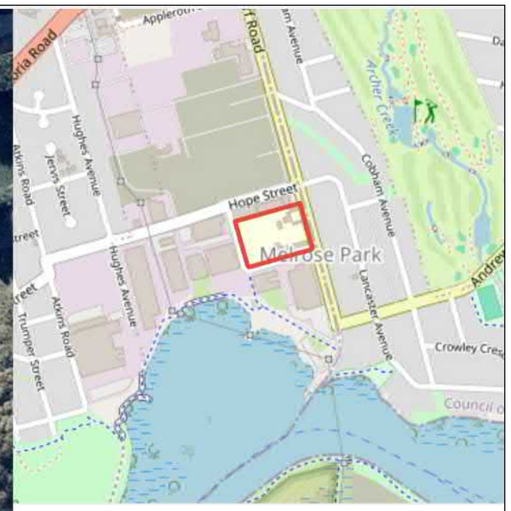
Appendix A - Figures





Legend

- Test pits
- Boreholes
- Borehole (hand auger)
- Overgrown sandpit (SP1)
- DSI Site boundary
- School Boundary

0 10 m 20 m

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Produced by **Datanest.earth**

Title: Site features and sampling locations		
Client: Schools Infrastructure NSW		Size: A3
Project: SINSW Melrose Park	Drawn: AC	Figure No.: 1
Date: 13-09-2023	Checked: SB	
Proj No: A101023.0436	Scale: 1:595	Version: draft

Appendix B – Test pit logs, Borehole logs, SV Installation logs

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TEST PIT NUMBER TP1

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** _____ **DATUM** _____
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321570.74 m N 6256737.43 m
TEST PIT DIAMETER _____ **LOGGED BY** KA **CHECKED BY** SB
NOTES _____

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E						**FILL** Sandy CLAY, low plasticity clay, fine grained sand,dark-brown, with trace of organic matter (grass root fibres).	M	S			
					CL	**FILL** fine sandy CLAY, low plasticity with trace inclusions of terracotta roof tile and ceramic fragments.	M	S		TP1_0.1-0.2 230925	
			0.5		CH	**NATURAL** Silty CLAY, medium to high plasticity, red-brown with light-grey mottles.	M	St		TP1_0.5-0.6 230925	
			1.0			TP1 terminated at 0.95m					
			1.5								

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TEST PIT NUMBER TP2

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321619.02 m N 6256767.74 m
TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres and tree roots).	M	S		TP2_0.1-0.2 230925	
			0.5		CH	**NATURAL** Silty CLAY, medium to high plasticity, red-brown, compacted.	M	F			
						TP2 terminated at 0.55m					
			1.0								
			1.5								

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TEST PIT NUMBER TP3

CLIENT School Infrastructure NSW **PROJECT NAME** Environmental Site Assessment

PROJECT NUMBER A101023.0436 **PROJECT LOCATION** Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**

EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---

EQUIPMENT Excavator **COORDINATES** E 321602.45 m N 6256748.47 m

TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E						**FILL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres) and terracotta tile fragment.	M	St		TP3_0.0-0.2 230925	
					CH	**NATURAL** Silty CLAY, medium to high plasticity, red-brown with light-grey mottles with trace of organic matter (rootlets).	M	F			
			0.5							TP3_0.3-0.4 230925	
						TP3 terminated at 0.6m					
			1.0								
			1.5								

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TEST PIT NUMBER TP4

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** ___ **DATUM** ___
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321613.75 m N 6256726.60 m
TEST PIT DIAMETER ___ **LOGGED BY** KA **CHECKED BY** SB
NOTES ___

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E						**FILL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace inclusion of organic matter (grass root fibres) and ceramic fragments.	M	S		TP4_0.0-0.2 230925	
			0.5		CH	**NATURAL** Silty CLAY, medium to high plasticity, compacted, red-brown with light-grey mottles.	M	St		TP4_0.5-0.6 230925	
			1.0			TP4 terminated at 0.65m					
			1.5								

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TEST PIT NUMBER TP5

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321635.66 m N 6256705.12 m
TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres).	M	S		TP5_0.0-0.2 230925	
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	S			
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-brown mottles.	M	St			
						TP5 terminated at 0.8m					
			1.0								
			1.5								

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TEST PIT NUMBER TP6

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321632.05 m N 6256688.52 m
TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres).	M	S		TP6_0.0-0.2 230925	
					CL	**NATURAL** Sandy CLAY, low to medium plasticity clay, fine grained sand, brown.	M	S			
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-brown mottles.	M	St			
						TP6 terminated at 0.8m					
			1.0								
			1.5								

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TEST PIT NUMBER TP7

CLIENT School Infrastructure NSW **PROJECT NAME** Environmental Site Assessment

PROJECT NUMBER A101023.0436 **PROJECT LOCATION** Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**

EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---

EQUIPMENT Excavator **COORDINATES** E 321622.94 m N 6256658.43 m

TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres).	M	S			
					CL	**NATURAL** Sandy CLAY, low to medium plasticity clay, fine grained sand, brown with minor inclusions of tree rootlets.	M	F		TP7_0.0-0.2 230925	
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-brown mottles with inclusions of tree roots.	M	St		TP7_0.4-0.6 230925	
						TP7 terminated at 0.7m					
			1.0								
			1.5								

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TEST PIT NUMBER TP8

CLIENT School Infrastructure NSW **PROJECT NAME** Environmental Site Assessment

PROJECT NUMBER A101023.0436 **PROJECT LOCATION** Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**

EXCAVATION CONTRACTOR **SLOPE** --- **BEARING** ---

EQUIPMENT Hand auger **COORDINATES** E 321600.70 m N 6256655.59 m

TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
HA					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres).	M	S		TP8_0.0-0.2 230925	
			0.5			TP8 terminated at 0.25m					
			1.0								
			1.5								

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TEST PIT NUMBER TP9

CLIENT School Infrastructure NSW **PROJECT NAME** Environmental Site Assessment

PROJECT NUMBER A101023.0436 **PROJECT LOCATION** Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** --- **DATUM** ---

EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---

EQUIPMENT Excavator **COORDINATES** E 321569.36 m N 6256676.35 m

TEST PIT DIAMETER --- **LOGGED BY** KA **CHECKED BY** SB

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres).	M	S			
					CL	**NATURAL** Sandy CLAY, low to medium plasticity clay, fine grained sand, brown.	M	S		TP9_0.1-0.2 230925	
			0.5		CH	**NATURAL** Silty CLAY, medium to high plasticity, red with light-brown mottles.	M	F		TP9_0.4-0.5 230925	
			1.0			TP9 terminated at 0.65m					
			1.5								

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TEST PIT NUMBER TP10

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321552.73 m N 6256657.17 m
TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, dark-brown, with trace of organic matter (grass root fibres).	M	S		TP10_0.0-0.2 230925	
					CL	**NATURAL** Silty CLAY, medium to high plasticity, red with light-brown mottles.	M	F			
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-brown mottles.	M	St			
						TP10 terminated at 0.8m					
			1.0								
			1.5								

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TEST PIT NUMBER TP11

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321546.27 m N 6256703.21 m
TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, dark-brown, with trace of organic matter (grass root fibres).	M	S		TP11_0.0-0.2 230925	
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	S			
					CH	**NATURAL** Silty CLAY, medium to high plasticity, red-brown with light-brown mottles.	M	F		TP11_0.3-0.4 230925	
			0.5			TP11 terminated at 0.45m					
			1.0								
			1.5								

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TEST PIT NUMBER TP12

CLIENT School Infrastructure NSW **PROJECT NAME** Environmental Site Assessment

PROJECT NUMBER A101023.0436 **PROJECT LOCATION** Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** --- **DATUM** ---

EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---

EQUIPMENT Excavator **COORDINATES** E 321552.28 m N 6256679.33 m

TEST PIT DIAMETER --- **LOGGED BY** KA **CHECKED BY** SB

NOTES ---

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, dark-brown, with trace of organic matter (grass root fibres).	M	S		TP12_0.0-0.1 230925	
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	S			
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-brown mottles.	M	St			
			1.0			TP12 terminated at 0.7m					
			1.5								

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TEST PIT NUMBER TP13

CLIENT School Infrastructure NSW **PROJECT NAME** Environmental Site Assessment

PROJECT NUMBER A101023.0436 **PROJECT LOCATION** Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** --- **DATUM** ---

EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---

EQUIPMENT Excavator **COORDINATES** E 321557.01 m N 6256711.26 m

TEST PIT DIAMETER --- **LOGGED BY** KA **CHECKED BY** SB

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, dark-brown, with trace of organic matter (grass root fibres).	M	S		TP12_0.0-0.1 230925	
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	S			
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-brown mottles (10%).	M	St			
			1.0			TP13 terminated at 0.7m					
			1.5								

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TEST PIT NUMBER TP14

CLIENT School Infrastructure NSW **PROJECT NAME** Environmental Site Assessment

PROJECT NUMBER A101023.0436 **PROJECT LOCATION** Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** --- **DATUM** ---

EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---

EQUIPMENT Excavator **COORDINATES** E 321530.65 m N 6256696.42 m

TEST PIT DIAMETER --- **LOGGED BY** KA **CHECKED BY** SB

NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E						**FILL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres) and trace inclusion of ceramic tile fragment.	M	S			
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	F		TP13_0.1-0.2 230925	
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-brown mottles.	M	Vst			
			1.0			TP14 terminated at 0.7m					
			1.5								

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SILVERWATER NSW 2128
Telephone: 1300976922

TEST PIT NUMBER TP15

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** **DATUM**
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321544.92 m N 6256725.88 m
TEST PIT DIAMETER **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, dark-brown, with trace of organic matter (grass root fibres).	M	S		TP14_0.0-0.2 230925	
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	S			
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-grey mottles.	M	St			
			1.0			TP15 terminated at 0.75m					
			1.5								

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TEST PIT NUMBER TP16

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** --- **DATUM** ---
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321553.63 m N 6256750.55 m
TEST PIT DIAMETER --- **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres).	M	S			
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	F		TP16_0.1-0.2 230925	
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-grey mottles.	M	St			
			1.0			TP16 terminated at 0.75m					
			1.5								

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TEST PIT NUMBER TP17

CLIENT School Infrastructure NSW
PROJECT NAME Environmental Site Assessment
PROJECT NUMBER A101023.0436
PROJECT LOCATION Melrose Park PS, 110 Wharf Rd, Ermington NSW

DATE STARTED 25/9/23 **COMPLETED** 25/9/23 **R.L. SURFACE** --- **DATUM** ---
EXCAVATION CONTRACTOR ANC Foster **SLOPE** --- **BEARING** ---
EQUIPMENT Excavator **COORDINATES** E 321521.49 m N 6256748.82 m
TEST PIT DIAMETER --- **LOGGED BY** KA **CHECKED BY** SB
NOTES

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Moisture Content	Consistency	PID (ppm)	Samples Tests Remarks	Additional Observations
E					CL	**TOPSOIL** Sandy CLAY, low plasticity clay, fine grained sand, brown, with trace of organic matter (grass root fibres).	M	S		TP17_0.0-0.1 230925	
					CL	**NATURAL** Sandy CLAY, low plasticity clay, fine grained sand, brown.	M	F			
			0.5		CH	**NATURAL** Silty CLAY, high plasticity, red-brown with light-grey mottles.	M	Vst		TP17_0.4-0.5 230925	
			1.0			TP17 terminated at 0.9m					
			1.5								

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH01

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m SPT 3,4,10/300mm Refusal 1.30m		0.2		CL	**FILL - Silty CLAY:** low to medium plasticity, dark grey-brown, trace of fine angular gravel and organic root matter (top 200mm)		F to St		FILL
					0.4			0.40m				
					0.6		CI	**Silty CLAY:** low to medium plasticity, grey-brown, trace of trace of sub-angular gravel.	w < PL	St - VSt		RESIDUAL SOIL
					0.8			0.80m				
					1.0			**Extremely weathered SHALE:** with some clay bands		H		BEDROCK
					1.2							
					1.4			Hole Terminated at 1.30 m				
					1.6							
					1.8							
					2.0							
					2.2							
					2.4							
					2.6							
					2.8							

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADE CONSULTING GROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH02
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m U-63		0.2		CL	**FILL - Silty CLAY:** low to medium plasticity, brown mottled grey, trace of angular gravel and organic root matter (top 200mm)		F to St		FILL
			1.50m SPT 4,12,25 N=37		0.4			0.40m **Silty CLAY:** low to medium plasticity, grey-brown, trace of angular gravel and organic root matter				RESIDUAL SOIL
					0.6							
					0.8							
					1.0		CI			VSt - H		
					1.2							
					1.4				w < PL			
					1.6			1.70m				
			1.95m		1.8			**Extremely to highly weathered SHALE:** with some ironstone bands, reddish pale brown-grey				BEDROCK
					2.0							
					2.2					H		
			2.50m SPT 6,27,25/350mm Refusal		2.4							
					2.6							
			2.85m		2.8			Hole Terminated at 2.85 m				

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH03
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 26/09/2023 DATE COMPLETED : 26/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m SPT 2,12,19 N=31 1.45m 3.50m D 4.00m SPT 5,20,40/420mm Refusal 4.42m		0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5		CL 0.50m Cl 1.15m	**FILL - Silty CLAY:** low to medium plasticity, brown-grey, trace of sub-angular ironstone gravel and organic root matter (top 200mm) **Silty CLAY:** low to medium plasticity, brown mottled grey, trace of sub-angular gravel and organic root matter **Extremely to highly weathered SHALE:** with some ironstone bands, reddish pale brown-grey Hole Terminated at 4.42 m	w < PL	F to St VSt - H H		FILL RESIDUAL SOIL BEDROCK

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH04
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m SPT 4,11,19 N=30 1.45m 2.50m SPT 5,25/180mm Refusal 2.68m		0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8		CL	**FILL - Silty CLAY:** low to medium plasticity, brown mottled grey, trace of sub-rounded gravel and organic root matter (top 200mm)		F to St		FILL
								0.50m **Silty CLAY:** low to medium plasticity, reddish brown mottled grey, trace of sub-angular ironstone gravel	w < PL	St - VSt		RESIDUAL SOIL
							CI	1.40m **Extremely to highly weathered SHALE:** with some ironstone bands, reddish brown-grey		H		BEDROCK
								Hole Terminated at 2.68 m				

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH05
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	0.80m D 1.00m SPT 3,4,8 N=12 1.45m 2.50m SPT 5,26,25/330mm Refusal 2.83m		0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8		CL	**FILL - Silty CLAY:** low to medium plasticity, brown-grey, trace of sub-angular gravel and organic root matter (top 200mm)		F to St		FILL
								0.50m **Silty CLAY:** low to medium plasticity, reddish dark brown grey, trace of sub-angular ironstone gravel	w < PL	St		RESIDUAL SOIL
							CI	1.70m **Extremely weathered SHALE:** with some clay bands, grey mottled brown		H		BEDROCK
								Hole Terminated at 2.83 m				

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH06

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m SPT 13,40/300mm Refusal 1.30m		0.2 0.4 0.6 0.8 1.0 1.2		CL	**FILL - Silty CLAY:** low to medium plasticity, brown-grey, trace of angular gravel and organic root matter (top 150mm)		F to St		FILL
								0.40m **Silty CLAY:** low to medium plasticity, reddish brown mottled grey, trace of sub-angular ironstone gravel	w < PL	St - VSt		RESIDUAL SOIL
							CI	1.10m **Extremely weathered SHALE:** with some ironstone bands, reddish brown grey		H		BEDROCK
					1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8			Hole Terminated at 1.30 m				

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH07
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered			0.0		CL	**FILL - Silty CLAY:** low to medium plasticity, brown-grey, trace of angular gravel and organic root matter (top 200mm)		F to St		FILL
					0.5			0.50m				
			0.80m U-63				CI	**Silty CLAY:** low to medium plasticity, rbrown-grey, trace of angular gravel		VSt - H		RESIDUAL SOIL
			1.20m SPT 2,6,15/350mm Refusal		1.0			1.20m				
			1.55m		1.5			**Extremely to Highly weathered SHALE:** with some clay bands, grey mottled brown				BEDROCK
					2.0				w < PL			
			2.50m D		2.5					H		
					3.0							
			3.50m D		3.5							
					4.0			Hole Terminated at 4.00 m				
					4.5							

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADE CONSULTING GROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH08
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m SPT 3,5,6 N=11 1.45m 2.50m SPT 6,12/170mm Refusal 2.67m		0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8		CL	**FILL - Silty CLAY:** low to medium plasticity, reddish brown mottled grey, trace of angular ironstone gravel and organic root matter (top 200mm)		F to St		FILL
								0.50m **Silty CLAY:** low to medium plasticity, pale reddish brown-grey, trace of angular ironstone gravel	w < PL	St - VSt		RESIDUAL SOIL
							CI	1.90m **Extremely weathered SHALE:** with some clay bands, pale brown-grey		H		BEDROCK
								Hole Terminated at 2.67 m				

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADE CONSULTING GROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH09
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 1

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 25/09/2023 DATE COMPLETED : 25/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m SPT 4,9,25 N=34 1.45m 2.50m SPT 6,20,14/330mm Refusal 2.83m		0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8		CL	**FILL - Silty CLAY:** low to medium plasticity, dark brown mottled red, trace of sub-angular ironstone gravel and organic root matter (top 200mm)		F to St		FILL
								0.50m				
								Silty CLAY: low to medium plasticity, reddish brown-grey, trace of angular ironstone gravel				RESIDUAL SOIL
							CI			VSt - H		
								1.15m				
								Extremely weathered SHALE: with some clay bands, pale brown-grey	w < PL	H		BEDROCK
								Hole Terminated at 2.83 m				

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH10
FILE / JOB NO : A201023.0436.00
SHEET : 1 OF 4

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED : 26/09/2023 DATE COMPLETED : 26/09/2023 DATE LOGGED : LOGGED BY : KE CHECKED BY : MM

DRILLING						MATERIAL						
PROGRESS: DRILLING & CASING	PROGRESS: WATER	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	PENETROMETER TEST 5 10 15 20	STRUCTURE & Other Observations
AD/T		Not Encountered	1.00m SPT 3,8,17 N=25 1.45m 2.50m SPT 3,22,45 N=67 2.95m		0.5 1.0 1.5 2.0 2.5 3.0		CL	**FILL - Silty CLAY:** low to medium plasticity, brown mottled gry, trace of sub-angular ironstone gravel and organic root matter (top 150mm)		F to St		FILL
								0.50m				
							CI	**Silty CLAY:** low to medium plasticity, reddish brown-grey, trace of sub-angular ironstone gravel		VSt - H		RESIDUAL SOIL
								1.50m	w < PL			
								Extremely weathered SHALE: with some clay bands, pale brown-grey		H		BEDROCK
								3.00m				
								Continued as Cored Drill Hole				
					3.5 4.0 4.5 5.0 5.5							

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADE CONSULTING GROUP
SOLUTIONS THROUGH INNOVATION

CORED DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH10

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School
FILE / JOB NO : A201023.0436.00
SHEET : 2 OF 4

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED: 26/09/2023 DATE COMPLETED : 26/09/2023 LOGGED BY : KE CHECKED BY : MM

DRILLING					MATERIAL				FRACTURES		
PROGRESS		SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ●- Axial O- Diametral VL -0.1 L -0.3 M -1 H -3 VH -10 EH	NATURAL FRACTURE (mm) 20 40 100 300 1000	RQD (%)	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
DRILLING & CASING	WATER										
				0.5							
				1.0							
				1.5							
				2.0							
				2.5							
				3.0		3.00m START CORING AT 3.00m					
HQ3	Not Encountered	Is(50) a=0.032 MPa		3.5		**SHALE:** with some clay bands, grey mottled brown	XW				3.11-3.16: Ewz, 0°, Pl, Ro, Co 3.23: Be, 0°, Pl, Ro, Ve
		Is(50) a=0.062 MPa		4.0		4.25m **SHALE:** with ironstone layer, reddish brown-grey	MW HW MW			75	3.51: Be, 10°, Pl, Sm, Ve 3.61: Be, 0°, Pl, Ro, Ve 3.70: Be, 0°, Cu, Ro, Ve 3.84: Be, 0°, Cu, Ro, Ve 3.95: Be, 10°, Cu, Ro, Ve 4.10: Be, 0°, Cu, Ro, Ve 4.15: Be, 0°, t=4mm, Cu, Sm, Ve 4.28: Jt, 45°, Pl, Ro, Ve 4.35: Be, 0°, Pl, Ro, Ve 4.38: Be, 0°, Pl, Ro, Ve 4.43: Be, 0°, Pl, Ro, Ve 4.50: Be, 0°, Pl, Ro, Ve 4.60: Be, 0°, Pl, Ro, Ve 4.68: Be, 0°, Pl, Ro, Ve
		Is(50) a=0.169 MPa		4.5							4.79-4.82: Be, 0°, Pl, Sm, Co 4.87: Jt, 0°, Pl, Ro, Ve
				5.0			HW MW				5.09: Be, 0°, Pl, Ro, Ve 5.13: Be, 0°, Pl, Ro, Co 5.22: Be, 0°, Pl, Ro, Ve 5.29-5.34: Jt, 90°, Pl, Ro, Ve 5.38: Be, 0°, Pl, Sm, Ve 5.46: Be, 0°, Pl, Sm, Ve 5.54: Be, 0°, Ir, Ro, Ve 5.58: Be, 0°, Pl, Ro, Ve 5.60: Cs, 0°, Cu, Ro, Co 5.70: Be, 5°, Pl, Ro, Ve
		Is(50) a=0.281 MPa		5.5		5.60m **SANDSTONE:** fine grained sandstone, pale brown-grey				34	5.96: Jt, 45°, Pl, Ro, Ve

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

CORED DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH10
FILE / JOB NO : A201023.0436.00
SHEET : 3 OF 4

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114
PROJECT : Melrose Park Public School

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED: 26/09/2023 DATE COMPLETED : 26/09/2023 LOGGED BY : KE CHECKED BY : MM

DRILLING

PROGRESS: DRILLING & CASING = HQ3; WATER = Not Encountered

SAMPLES & FIELD TESTS

RL (m)

DEPTH (m)

MATERIAL

GRAPHIC LOG

DESCRIPTION
ROCK TYPE : Colour, Grain size, Structure
(texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)

Weathering

ESTIMATED STRENGTH Is(50) ● - Axial ○ - Diametral
VL -0.1 L -0.3 M -1 H -3 VH -10 EH

FRACTURES

NATURAL FRACTURE (mm)
20 40 100 300 1000

RQD (%)

ADDITIONAL DATA
(joints, partings, seams, zones, etc)
Description, orientation, infilling or coating, shape, roughness, thickness, other

Depth (m)	Material	Weathering	Is(50)	RQD (%)	Additional Data
6.5	**SANDSTONE:** fine grained sandstone, pale brown-grey *(continued)*	MW	Is(50) a=0.504 MPa; Is(50) a=1.001 MPa	34	6.14: Be, 0°, Pl, Ro, Ve 6.19: Be, 0°, Pl, Ro, Ve 6.29: Be, 0°, t=5mm, Pl, Ro, Ve 6.38: Be, 10°, Pl, Ro, Ve 6.44: Be, 0°, Pl, Ro, Ve 6.45: Be, 0°, Pl, Ro, Ve 6.48: Be, 0°, Pl, Ro, Ve 6.56: Be, 0°, Pl, Ro, Ve 6.58: Be, 0°, Pl, Ro, Ve 6.67-6.69: Ewz, 0°, Pl, Ro, Ve 6.73: Be, 0°, Cu, Ro, Ve 6.77: Be, 0°, Pl, Ro, Ve 6.88: Jt, 45°, Cu, Ro, Ve
7.0	**@6.95m:** becoming pale grey	XW / MW		55	7.04: Ewz, 0°, t=10mm, Pl, Ro, Co 7.18: Jt, 45°, Pl, Ro, Ve 7.27: Be, 0°, Cu, Sm, Ve
7.40m		SW			7.40: Be, 0°, Pl, Sm, Ve
7.5	**SHALE:** grey-black				7.72: Be, 0°, Pl, Ro, Ve
8.0			Is(50) a=2.227 MPa	95	7.93: Db, 0°, Pl, Ro, Ve 8.34: Be, 0°, Pl, Ro, Ve
8.5			Is(50) a=1.021 MPa		8.56: Be, 0°, Pl, Ro, Ve 8.75: Db, 35°, Pl, Ro, Ve
9.0					9.07: Jt, 40°, Pl, Ro, Ve 9.14: Db, 0°, Cu, Ro, Ve
9.07m	**SANDSTONE:** fine grained sandstone, grey				
9.5				100	9.67: Be, 0°, Pl, Ro, Ve 9.94: Db, 0°, Pl, Ro, Ve 10.06: Db, 0°, Pl, Ro, Ve
9.67m	**SHALE:** dark grey-black				
10.0			Is(50) a=2.429 MPa		10.28: Be, 0°, Pl, Ro, Ve 10.43: Be, 0°, t= 4mm, Pl, Ro, Ve
10.28m	**SANDSTONE:** grey				
10.5					10.64: Be, 0°, Pl, Ro, Ve 10.71: Be, 0°, Pl, Ro, Ve 10.79: Db, 0°, Pl, Ro, Ve 10.85: Be, 0°, Pl, Ro, Ve
10.67m	**SHALE:** dark grey-black		Is(50) a=2.305 MPa		
11.0				81	11.37: Be, 0°, Pl, Ro, Ve
11.10m	**SANDSTONE:** grey mottled brown				
11.5					11.89: Be, 0°, Pl, Ro, Ve 11.96: Be, 0°, Pl, Ro, Ve

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

CORED DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH10

CLIENT : SINSW
LOCATION : 110 Wharf Rd, Ermington NSW 2114

PROJECT : Melrose Park Public School

FILE / JOB NO : A201023.0436.00
SHEET : 4 OF 4

POSITION : SURFACE ELEVATION (RL) : ANGLE FROM HORIZONTAL : 90°

EXCAVATION METHOD : Comaccho Geo 205 MOUNTING : Track Mounted CONTRACTOR : Legion Drilling DRILLER : MY

DATE STARTED: 26/09/2023 DATE COMPLETED : 26/09/2023 LOGGED BY : KE CHECKED BY : MM

DRILLING					MATERIAL			FRACTURES		
PROGRESS: DRILLING & CASING	PROGRESS: WATER	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ●- Axial O- Diametral VL -0.1 L -0.3 M -1 H -3 VH -10 EH	NATURAL FRACTURE (mm) 20 40 100 300 1000	RQD (%)	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
HQ3		Is(50) a=1.556 MPa				**SANDSTONE:** grey mottled brown *(continued)* 12.33m	SW			81	12.03: Be, 0°, Cu, Ro, Ve 12.13: Be, 0°, Pl, Ro, Ve 12.17: Be, 0°, Pl, Ro, Ve 12.30: Db, 0°, Pl, Ro, Ve
						Hole Terminated at 12.33 m					

12.5
13.0
13.5
14.0
14.5
15.0
15.5
16.0
16.5
17.0
17.5

See Explanatory Notes for details of abbreviations & basis of descriptions.

ADE CONSULTING GROUP
SOLUTIONS THROUGH INNOVATION

NON-CORE DRILL HOLE- GEOLOGICAL LOG BH05

Project Number: A101023.0436
Project Name: Melrose Park Public School
Client: SINSW
Location: 110 Wharf Rd, Ermington NSW 2114

Start Date: 26/09/2023
Finish Date: 26/09/2023
Contractor Legion Drilling
Excavtion Method Comaccho Geo 205
Mounting Track Mounted

Comments:

Logged by: KE
Checked by: MM

Drilling and Casing	Ground Water	Depth (m)	Samples and Field Tests	Graphic Log	Group Symbol	Material Description	Moisture Condition	Consistency Relative Density	Well Diagram	Additional Observations
AD/T		0.2			CL	FILL - Silty CLAY: low to medium plasticity, brown-grey, trace of sub-angular gravel and organic root matter (top 200mm)	w<PL	F to St	Backfill	
		0.4							Bentonite	
		0.6			CI	Silty CLAY: low to medium plasticity, reddish dark borwn grey, trace of sub-angular ironstone gravel		St	HDPE tubing	
		0.8	D							
		1	SPT 3,4,8 N=12							
		1.2							Sand	
		1.4								
		1.6								
		1.8				Extremely weathered SHALE: with some clay bands, grey mottled brown		H		Soil Vapour Probe (125 mmø) from depth 1.8 to 2 mbgl
		2								
		2.2								
		2.4	SPT 5,26,25 Refusal							
		2.6								
		2.8								Well collapsed from 2.83mbgl
						Hole Terminated at 2.83 m				

Disclaimer This bore log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 21 Nov 2023

NON-CORE DRILL HOLE- GEOLOGICAL LOG BH07

Project Number: A101023.0436
Project Name: Melrose Park Public School
Client: SINSW
Location: 110 Wharf Rd, Ermington NSW 2114

Start Date: 26/09/2023
Finish Date: 26/09/2023
Contractor Legion Drilling
Excavtion Method Comaccho Geo 205
Mounting Track Mounted

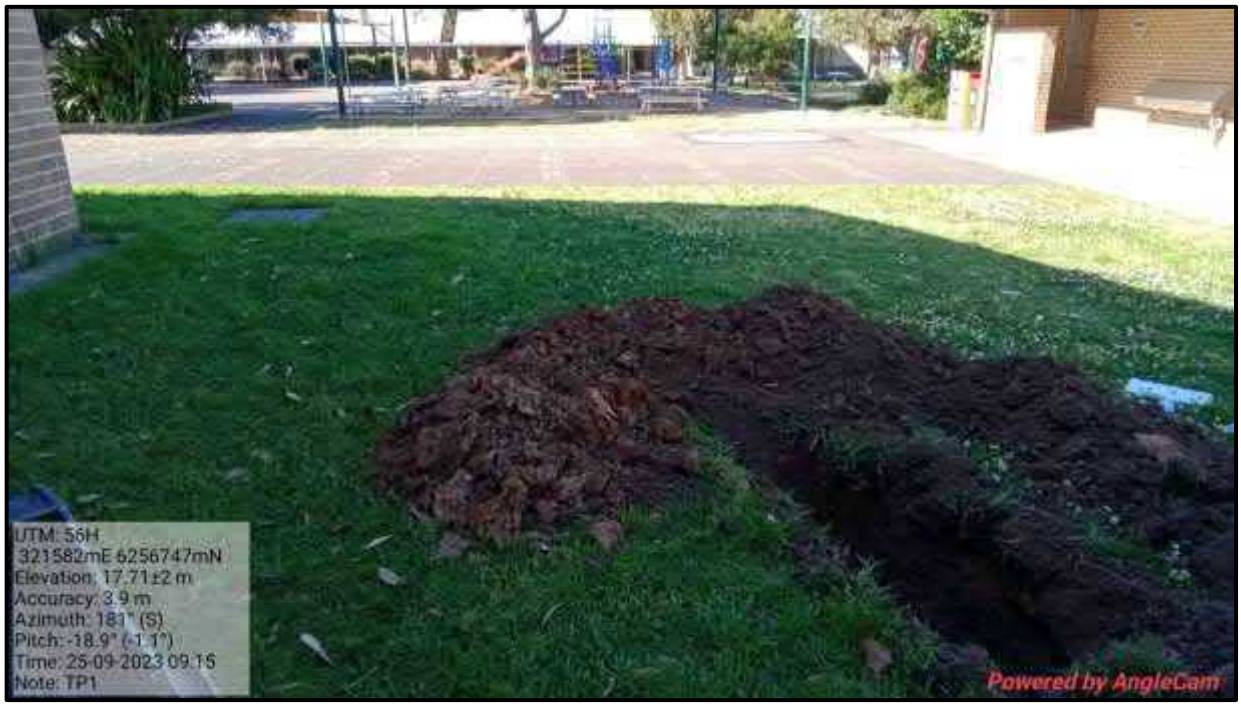
Comments:

Logged by: KE
Checked by: MM

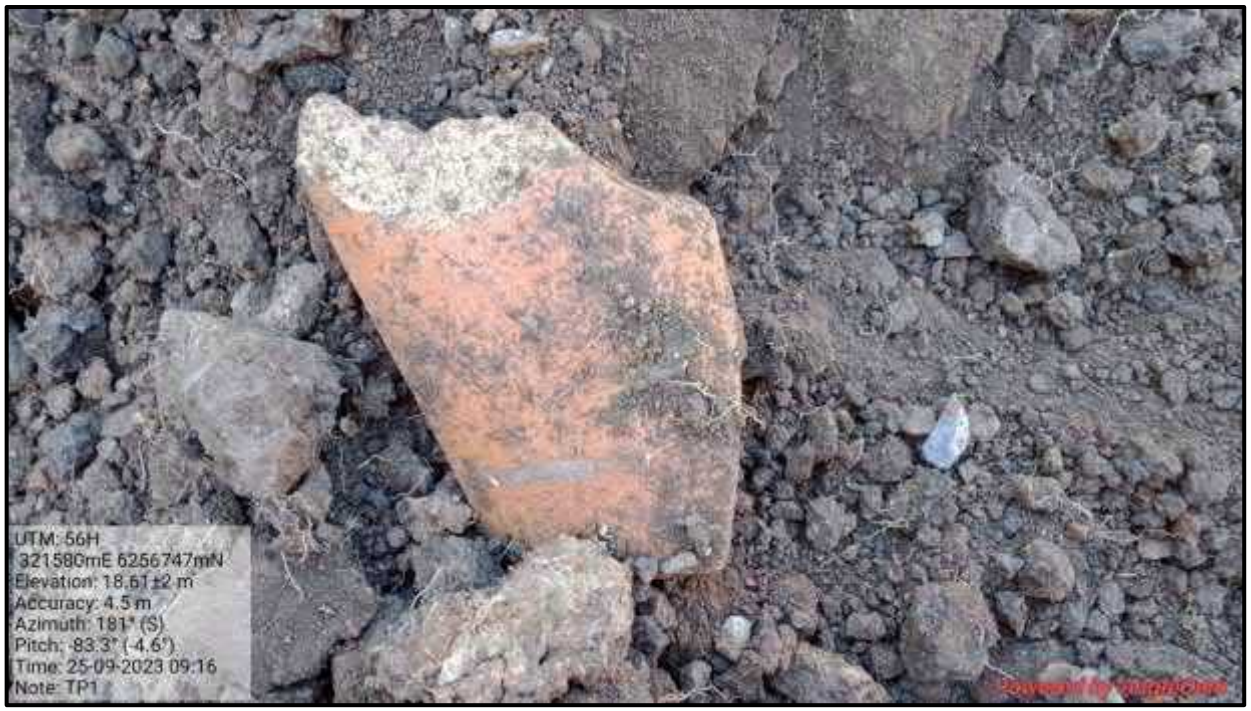
Drilling and Casing	Ground Water	Depth (m)	Samples and Field Tests	Graphic Log	Group Symbol	Material Description	Moisture Condition	Consistency Relative Density	Well Diagram	Additional Observations
AD/T		0.2			CL	FILL - Silty CLAY: low to medium plasticity, brown-grey, trace of angular gravel and organic root matter (top 200mm)	w<PL	F to St	Backfill	
		0.4								
		0.6			CI	Silty CLAY: low to medium plasticity, brown-grey, trace of angular gravel		Vst-H		
		0.8	U-63							
		1	SPT 2,6,15/3 Refusal						Bentonite	
		1.2				Extremely to Highly weathered SHALE: with some clay bands, grey mottled brown		H		
		1.4							HDPE tubing	
		1.6								
		1.8								Soil Vapour Probe (125 mmø) from depth 2.45 to 2.55 mbgl
		2							Sand	
		2.2								
		2.4	D							Well collapsed from 4.0 to 2.55 mgbl
		2.6								
		2.8								
		3								
		3.2								
		3.4	D							
		3.6								
		3.8								
		4				Hole Terminated at 4 m				

Disclaimer This bore log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 21 Nov 2023

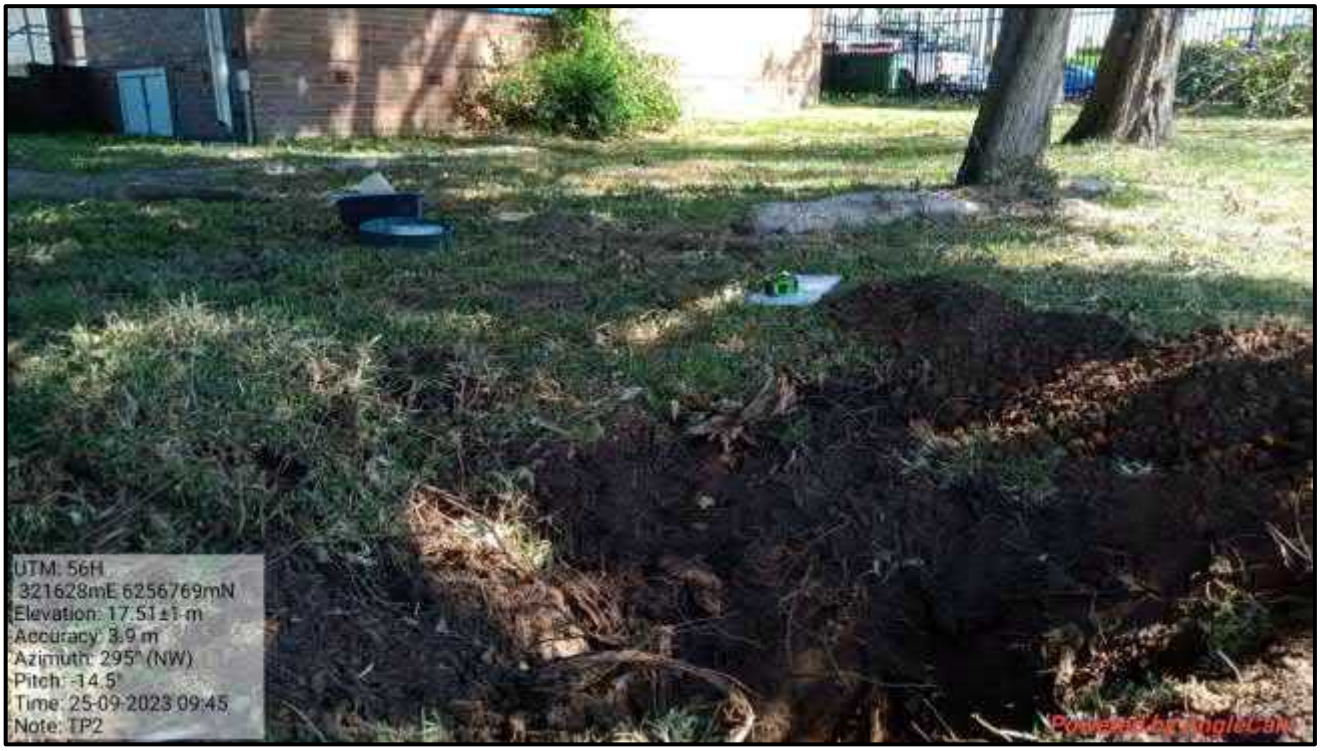
Appendix C – Photographs



Photograph 1 : Test pit TP1, facing south. Date 25/09/2023

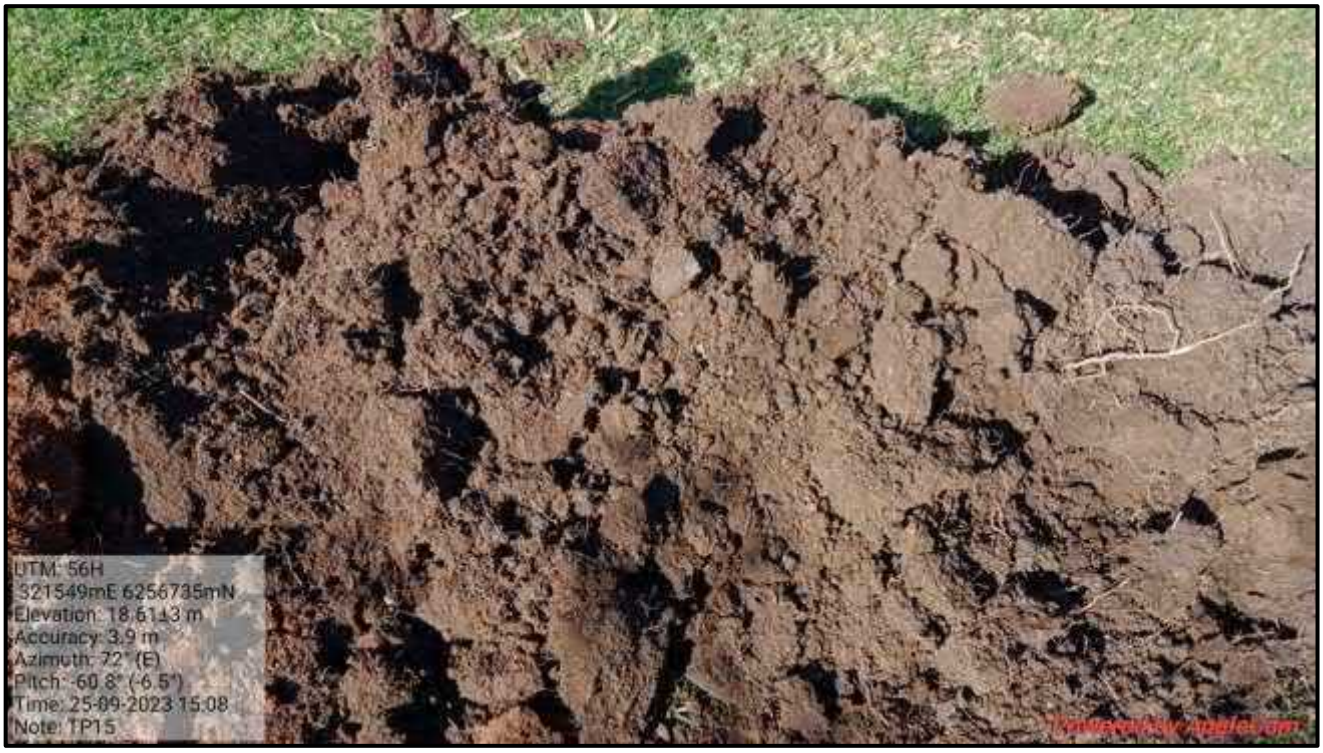


Photograph 2: Test pit 1, observance of minor debris in excavated fill material.

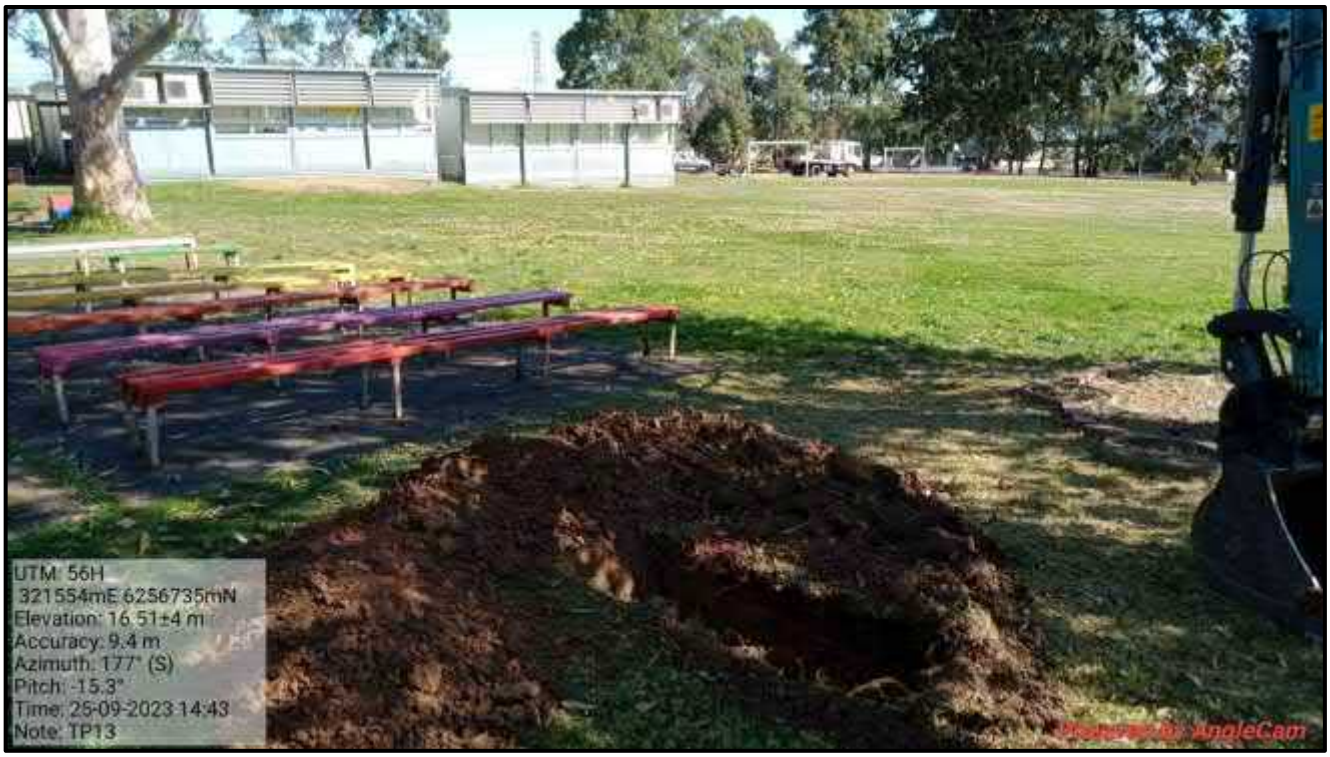


Photograph 3: Test pit TP2, facing Northwest. Date: 25/09./023

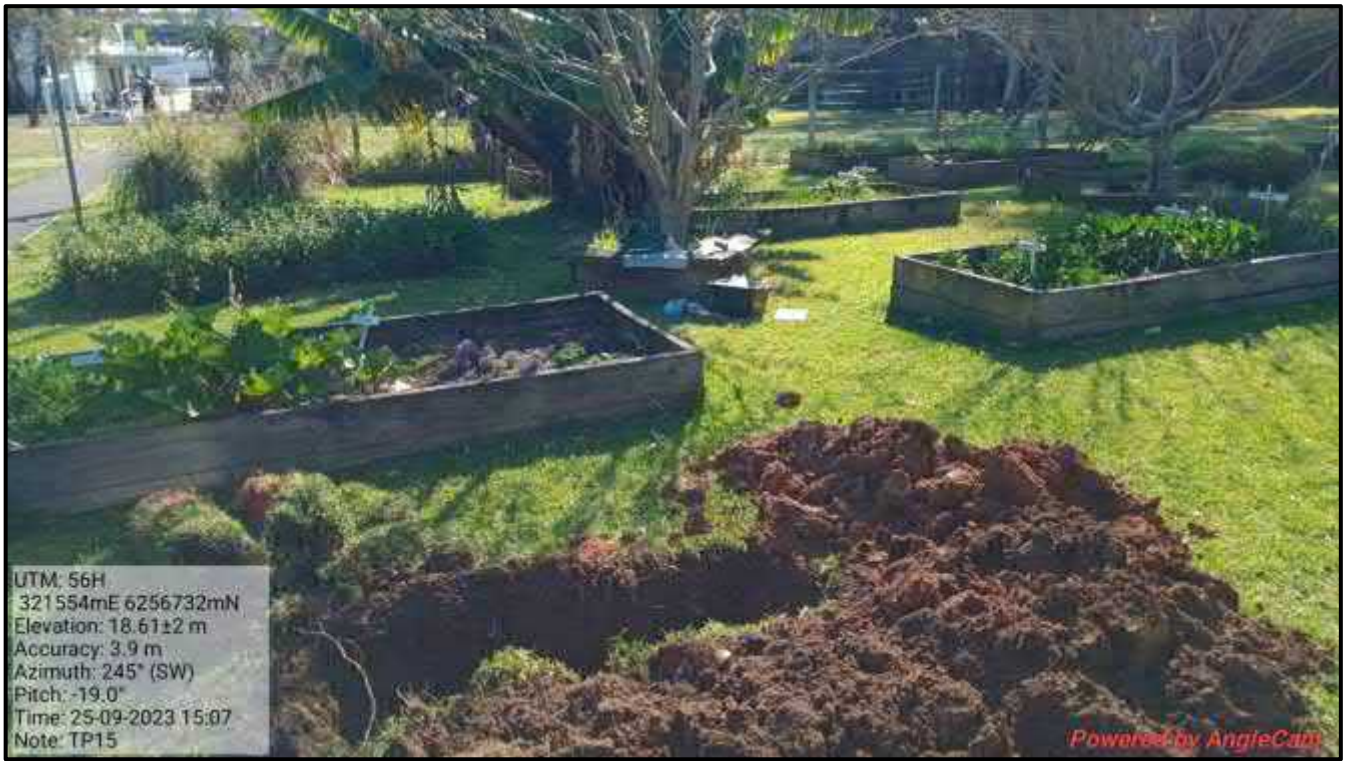
Photograph 4: Test pit 3, representative of general lithology across the site. Soft, fine sandy dark brown silty clay (topsoil) overlaying natural -red/orange clay with red or orange mottles. Date: 25/09/2023



Photograph 5: Test pit 15, representative of topsoil lithology observed across the site. Date: 25/09/2023



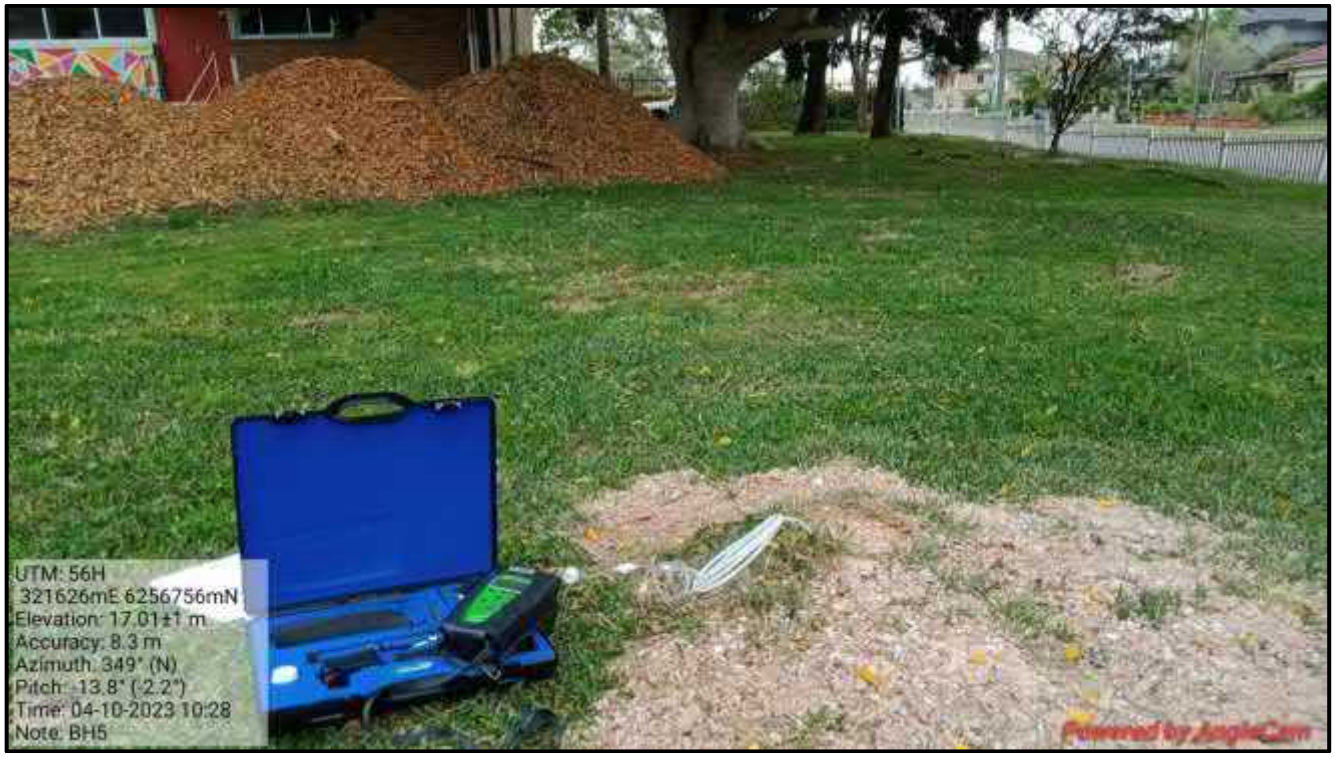
Photograph 6: Test pit 13, facing south. Date: 25/09/2023



Photograph 7: Test pit 15 facing Northwest. Date: 25/09/2023

Photograph 8 : Test pit TP17. Standard gravimetric method used to screen for potential % w/w asbestos in soil and potential asbestos cement material PACM. No PACM encountered in any test pits or boreholes. Date: 25/09/2023.

Photograph 9: Sampling location SP1 showing evidence of overgrown sand pit. Date: 25/09/2023.



Photograph 10: Soil vapor well installed at location BH05. Soil vapour assessment conducted on 04/10/2023.

Appendix D – Equipment calibration certificate (PID and GFM)

ANRI INSTRUMENTS & CONTROLS PTY LTD ABN 21 004 771 564

UNIT 29, 756-758 BURWOOD HWY • FERNTREE GULLY • VIC 3156 • AUSTRALIA • PH: +61 3 9752 3782 • FAX: +61 3 9752 3783
EMAIL: sales@anri.com.au www.anri.com.au

Date: 21.7.23

Attn: Vera Kudin
Active Environmental Solutions
2 Merchant Ave.
Thomastown
Vic. 3074

O/N - 1512

Calibration Certificate # 5375

Manufacture/Model	: Gas Data GFM436
S/N	: 13722
Gases Monitored	: CH4, 0-100%, CO2 0-100%, O2 0-25%, H2S, CO
Zero setting CH4/CO2/O2	: 0.0
Gas used	: N2
Cylinder No.	: BOC High Purity
Span setting CH4	: 60.0%
Gas used	: 60.0% CH4 in CO2
Cylinder No.	: 72927 Air Liquide (NATA)
60.0% CH4 in CO2 reads	: 60.0%
Span setting CO2	: 40.0%
Gas used	: 40.0% CO2 in CH4
Cylinder No.	: 72927 Air Liquide (NATA)
40.0% CO2 in CH4 reads	: 39.9%
Span setting O2	: 20.9% (Air) Reads 20.9%
25ppm H2S reads	: 25ppm
479ppm CO reads	: 482ppm
Cell replaced	: -
Estimated Date of cell replacement	: Oxygen 21.7.24
Comments	: Calibration OK
Flow rate	: 550ml/min. OK
Atm. Pressure 1009mb	: 1010mb
Next Service/calibration Due	: 21.7.24

Stephen Hurst
ANRI Instruments & Controls Pty Ltd

AES
sensing safety

Calibration and Service Report – PID

Company:	ADE Consulting Group (NSW) F	**Manufacturer:**	RAE	**Serial #:**	595-002222
Contact:	Michelle Ridley	**Instrument:**	MINIRAE LITE SN: 595-002222	**Asset #:**	PID 3
Address:	Unit 6 7 Millennium Court Silverwater NSW 2128	**Model:**	MINIRAE LITE	**Part #:**	059-A126-000
		Configuration:	VOC 10.6EV	**Sold:**	20.02.2017
		Wireless:	-	**Last Cal:**	03.03.2023
Phone:	1300796922	**Network ID:**	-	**Job #:**	152491
Fax:		**Unit ID:**	-	**Cal Spec:**	
Email:	michelle.ridley@ade.group	**Details:**		**Order #:**	PID 3

Item	Test	Pass/Fail	Comments	Serial Number
Battery	NiCd, NiMH, Dry cell, LiIon	P		
Charger	Power Supply	P		
	Cradle, Travel Charger	P		
Pump	Flow	P	>450ml/min	
Filter	Filter, fitting, etc	x	Dirty, replaced	
Alarms	Audible, visual, vibration	P		
Display	Operation	P		
Switches	Operation	P		
PCB	Operation	P		
Connectors	Condition	P		
Firmware	Version	P	V2.22A Fumigation	
Datalogger	Operation	P		
Monitor Housing	Condition	P	Cleaned	
Case	Condition / Type	-		
Sensors				
PID	Lamp	P	Cleaned	
PID	Sensor	P	Cleaned	
THP	Sensor	P		

Engineer's Report

Cleaned lamp, lamp housing and sensor electrode
Checked moisture sensitivity
Checked flowrate and stall values
Checked unit settings and PC configuration
Unit serviced and calibrated.

AES sensing safety

Calibration and Service Report – PID

Company:	ADE Consulting Group (NSW) F	**Manufacturer:**	RAE	**Serial #:**	595-002222
Contact:	Michelle Ridley	**Instrument:**	MINIRAE LITE SN: 595-002222	**Asset #:**	PID 3
Address:	Unit 6 7 Millennium Court Silverwater NSW 2128	**Model:**	MINIRAE LITE	**Part #:**	059-A126-000
		Configuration:	VOC 10.6EV	**Sold:**	20.02.2017
		Wireless:	-	**Last Cal:**	03.03.2023
Phone:	1300796922	**Network ID:**	-	**Job #:**	152491
Fax:		**Unit ID:**	-	**Cal Spec:**	
Email:	michelle.ridley@ade.group	**Details:**		**Order #:**	PID 3

Calibration Certificate

Sensor	Type	Serial No.	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
Oxygen								
LEL								
PID	050-0000-004, 10.6EV 1/2 INCH LAMP	S023060055TC/1062R012710	Isobutylene	100ppm	WO371138-58		0	100.0
Battery	059-3051-000, MINIRAE 3000 LI-ION BATTERY	159TCW0532						
Toxic 1								
Toxic 2								
Toxic 3								
Toxic 4								
Toxic 5								
Toxic 6	PGM-7350							

Calibrated/Repaired by: JERRY JI Date: 21.07.2023 Next Due: 21.01.2024

Appendix E –Results & UCL Summary Table

			Inorganics			Organic	Metals													
			Moisture Content	pH 1:5 soil:water	Cation Exchange Capacity	TOC %	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Iron	Naphthalene	Naphthalene (VOC)	Acenaphthylene	Acenaphthene	Fluorene
			%	-	meq/100g	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
NEPM 2013 Table 1A(1) HILs Res A Soil							100	20	100	6,000	300	40	400	7,400						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																3	3			
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																				
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space							100		730	90	1,100		40	220		170	170			
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil																				
Field ID	**Sample Type**	**Date**																		
BH2_0.0-0.1	Soil - primary	04 Oct 2023	15	NT	NT	NT	14	<0.4	18	22	60	<0.1	7	140	NT	<0.1	<1	<0.1	<0.1	<0.1
BH02_1.5	Soil - primary	25 Sep 2023	13	NT	NT	NT	<4	<0.4	7	14	18	<0.1	<1	6	NT	<0.1	<1	<0.1	<0.1	<0.1
BH3_0.0-0.1	Soil - primary	04 Oct 2023	1.5	NT	NT	NT	<4	<0.4	11	4	6	<0.1	6	40	NT	<0.1	<1	<0.1	<0.1	<0.1
BH04_1.0	Soil - primary	25 Sep 2023	17	NT	NT	NT	11	<0.4	26	9	25	<0.1	2	9	NT	<0.1	<1	<0.1	<0.1	<0.1
BH5_0.0-0.1	Soil - primary	04 Oct 2023	26	NT	NT	NT	16	<0.4	21	30	57	<0.1	14	120	NT	<0.1	<1	<0.1	<0.1	<0.1
BH06_1.0	Soil - primary	25 Sep 2023	13	NT	NT	NT	12	<0.4	13	29	21	<0.1	1	11	NT	<0.1	<1	<0.1	<0.1	<0.1
BH7_0.0-0.1	Soil - primary	04 Oct 2023	28	NT	NT	NT	7	<0.4	18	23	46	<0.1	8	58	NT	<0.1	<1	<0.1	<0.1	<0.1
BH8_0.0-0.1	Soil - primary	04 Oct 2023	21	NT	NT	NT	8	<0.4	23	19	53	0.1	6	50	NT	<0.1	<1	<0.1	<0.1	<0.1
BH9_0.0-0.1	Soil - primary	04 Oct 2023	28	NT	NT	NT	7	<0.4	19	21	39	<0.1	6	40	NT	<0.1	<1	<0.1	<0.1	<0.1
BH09_1.0	Soil - primary	25 Sep 2023	16	NT	NT	NT	11	<0.4	15	28	33	<0.1	3	16	NT	<0.1	<1	<0.1	<0.1	<0.1
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	14	NT	NT	NT	6	<0.4	16	35	53	<0.1	9	94	NT	<0.1	<1	<0.1	<0.1	<0.1
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	17	NT	NT	NT	9	<0.4	21	28	440	0.2	10	180	NT	<0.1	<1	0.2	<0.1	<0.1
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	22	NT	NT	NT	6	<0.4	18	17	37	<0.1	11	72	NT	<0.1	<1	0.1	<0.1	<0.1
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	12	NT	NT	NT	11	<0.4	27	19	62	<0.1	5	91	NT	<0.1	<1	<0.1	<0.1	<0.1
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	15	NT	NT	NT	11	<0.4	26	31	150	0.2	5	88	NT	<0.1	<1	<0.1	<0.1	<0.1
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	16	NT	NT	NT	10	<0.4	26	13	46	<0.1	5	41	NT	<0.1	<1	<0.1	<0.1	<0.1
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	14	NT	NT	NT	18	<0.4	30	31	110	<0.1	12	130	NT	<0.1	<1	<0.1	<0.1	<0.1
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	17	NT	NT	NT	12	<0.4	27	32	69	<0.1	12	200	NT	<0.1	<1	<0.1	<0.1	<0.1
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	22	NT	NT	NT	20	<0.4	34	35	46	<0.1	5	87	NT	<0.1	<1	<0.1	<0.1	<0.1
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	22	NT	NT	NT	8	<0.4	22	24	84	0.1	7	36	NT	<0.1	<1	<0.1	<0.1	<0.1
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	19	NT	NT	NT	8	<0.4	21	17	35	<0.1	5	16	NT	<0.1	<1	<0.1	<0.1	<0.1
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	28	5.1	5.2	7,400	9	<0.4	24	33	23	<0.1	3	17	66,000	<0.1	<1	<0.1	<0.1	<0.1
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	19	NT	NT	NT	7	<0.4	19	18	42	<0.1	6	36	NT	<0.1	<1	<0.1	<0.1	<0.1
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	15	NT	NT	NT	8	<0.4	24	20	39	<0.1	5	150	NT	<0.1	<1	<0.1	<0.1	<0.1
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	20	NT	NT	NT	10	<0.4	24	19	35	<0.1	5	20	NT	<0.1	<1	<0.1	<0.1	<0.1
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	23	NT	NT	NT	9	<0.4	20	25	35	<0.1	7	28	NT	<0.1	<1	<0.1	<0.1	<0.1
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	20	NT	NT	NT	11	<0.4	24	41	100	0.2	7	140	NT	<0.1	<1	0.1	<0.1	<0.1
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	15	NT	NT	NT	8	<0.4	20	24	31	<0.1	7	27	NT	<0.1	<1	<0.1	<0.1	<0.1
SP1	Soil - primary	25 Sep 2023	18	NT	NT	NT	4	<0.4	2	<1	2	<0.1	<1	5	NT	<0.1	<1	<0.1	<0.1	<0.1
BR1	duplicate Inter	25 Sep 2023	NT	NT	NT	NT	5.7	<0.4	16	24	48	<0.1	7.3	88	NT	<0.5	<0.5	<0.5	<0.5	<0.5
SR1	duplicate Intra	25 Sep 2023	14	NT	NT	NT	6	<0.4	17	28	55	<0.1	11	75	NT	<0.1	<1	<0.1	<0.1	<0.1
Statistics																				
Number of Results			30	1	1	1	31	31	31	31	31	31	31	31	1	31	31	31	31	31
Number of Detects			30	1	1	1	29	0	31	30	31	5	29	31	1	0	0	3	0	0
Minimum Concentration			1.5	5.1	5.2	7,400	4	<0.4	2	<1	2	0.1	1	5	66,000	<0.1	<0.5	0.1	<0.1	<0.1
Maximum Concentration			28	5.1	5.2	7,400	20	<0.4	34	41	440	0.2	14	200	66,000	<0.5	<1	<0.5	<0.5	<0.5
Average Concentration *			18				9.2	0.2	20	23	61	0.068	6.4	68		0.056	0.49	0.065	0.056	0.056

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

			PAH																	
			Anthracene	Phenanthrene	Pyrene	Fluoranthene	Chrysene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Dibenz(a,h)anthracene	Indeno(1,2,3-c,d)pyrene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	PAHs (Total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene
			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
NEPM 2013 Table 1A(1) HILs Res A Soil										3							300			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																				
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil								0.7												
Field ID	**Sample Type**	**Date**																		
BH2_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	0.1	0.2	<0.1	<0.1	0.06	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	0.4	NT	NT	NT
BH02_1.5	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
BH3_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
BH04_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
BH5_0.0-0.1	Soil - primary	04 Oct 2023	0.1	0.6	1	1.1	0.4	0.4	0.4	0.7	0.7	0.2	<0.1	0.2	NT	NT	5.1	NT	NT	NT
BH06_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
BH7_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	0.1	0.2	<0.1	<0.1	0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	0.3	NT	NT	NT
BH8_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	0.1	NT	NT	NT
BH9_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	0.1	NT	NT	NT
BH09_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	0.3	0.6	0.7	0.3	0.3	0.5	0.7	0.9	0.3	<0.1	0.5	NT	NT	4.3	<1	<1	<1
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	0.2	0.9	1.8	2.0	0.8	1.0	1.4	2.0	2.2	0.6	0.2	1	NT	NT	12	NT	NT	NT
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	0.1	0.6	0.8	1	0.4	0.4	0.5	0.7	0.8	0.2	<0.1	0.3	NT	NT	5.2	NT	NT	NT
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	0.1	0.2	<0.1	<0.1	0.1	<0.5	0.2	<0.1	<0.1	0.1	NT	NT	0.69	NT	NT	NT
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	0.1	0.2	<0.1	<0.1	0.1	<0.5	0.2	<0.1	<0.1	0.1	NT	NT	0.74	NT	NT	NT
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.07	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	0.07	NT	NT	NT
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	0.1	0.2	0.2	0.1	<0.1	0.1	<0.5	0.3	<0.1	<0.1	0.1	NT	NT	1.1	<1	<1	<1
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.1	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	0.4	NT	NT	NT
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	0.05	NT	NT	NT
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	<1	<1	<1
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	0.2	0.2	0.1	<0.1	0.1	<0.5	0.3	<0.1	<0.1	0.1	NT	NT	1.1	NT	NT	NT
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	0.2	0.8	1.1	1.2	0.4	0.5	0.55	0.9	1	0.3	<0.1	0.4	NT	NT	6.8	NT	NT	NT
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
SP1	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.2	<0.1	<0.1	<0.1	NT	NT	<0.05	NT	NT	NT
BR1	duplicate Inter	25 Sep 2023	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	1.2	NT	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	NT	NT	NT
SR1	duplicate Intra	25 Sep 2023	<0.1	0.3	0.6	0.6	0.3	0.3	0.3	0.5	0.5	0.2	<0.1	0.1	NT	NT	3.2	NT	NT	NT
Statistics																				
Number of Results			31	31	31	31	31	31	31	31	30	31	31	31	1	1	30	3	3	3
Number of Detects			4	7	14	15	8	6	15	7	10	6	1	10	0	0	17	0	0	0
Minimum Concentration			0.1	0.1	0.1	0.1	0.1	<0.1	0.05	0.5	0.2	<0.1	<0.1	0.1	<0.5	<0.5	0.05	<1	<1	<1
Maximum Concentration			<0.5	0.9	1.8	2	0.8	1	1.4	2	2.2	0.6	<0.5	1	<0.5	<0.5	12	<1	<1	<1
Average Concentration *			0.069	0.16	0.27	0.29	0.13	0.14	0.16	0.41	0.3	0.1	0.061	0.13			1.4	0.5	0.5	0.5

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

	MAH						BTEX						PCBs				
	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248
	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
NEPM 2013 Table 1A(1) HILs Res A Soil																	
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m							0.7	480	NL			110					
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																	
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																	
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil							65	105	125			45					
Field ID	**Sample Type**	**Date**															
BH2_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH02_1.5	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH3_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH04_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH5_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH06_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH7_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH8_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH9_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BH09_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
SP1	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
BR1	duplicate Inter	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<1	<1	<1	<1	<1
SR1	duplicate Intra	25 Sep 2023	NT	NT	NT	NT	NT	NT	<0.2	<0.5	<1	<2	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	3	3	3	3	3	3	31	31	31	31	31	31	31	31	31	31	31
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Concentration	<1	<1	<1	<1	<1	<1	<0.2	<0.5	<1	<2	<1	<1	<1	<1	<1	<1	<1
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.098	0.24	0.49	0.97	0.49	0.49	0.065	0.065	0.065	0.065	0.065

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

						Halogenated Benzenes										TPH				
			Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	C10-C14 Fraction (SG)	C15-C28 Fraction (SG)	C29-C36 Fraction (SG)	C6-C9 Fraction	C10-C14 Fraction
			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
NEPM 2013 Table 1A(1) HILs Res A Soil					1										10					
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																				
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil																				
Field ID	**Sample Type**	**Date**																		
BH2_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	88
BH02_1.5	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH3_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH04_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH5_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH06_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH7_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH8_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH9_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BH09_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	NT	NT	NT	<25	<50
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	NT	NT	NT	<25	63
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	NT	NT	NT	<25	<50
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
SP1	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
BR1	duplicate Inter	25 Sep 2023	<1	<1	<1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	NT	NT	NT	<20	<20
SR1	duplicate Intra	25 Sep 2023	<0.1	<0.1	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	NT	NT	<25	<50
Statistics																				
Number of Results			31	31	31	3	3	3	3	3	3	3	3	3	31	1	1	1	31	31
Number of Detects			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Minimum Concentration			<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<50	<100	<100	<20	<20
Maximum Concentration			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<50	<100	<100	<25	88
Average Concentration *			0.065	0.065	0.065	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.056				12	28

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

						TRH						TRH - (Silica Gel Cleanup)						
			C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum)	C6-C10 Fraction (F1)	C6-C10 (F1 minus BTEX)	>C10-C16 Fraction (F2)	>C10-C16 Fraction (F2 minus Naphthalene)	>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	>C10-C40 Fraction (Sum)	>C10-C16 Fraction (SG)	>C16-C34 Fraction (SG)	>C34-C40 Fraction (SG)	Vinyl chloride	cis-1,2-dichloroethene	1,1-dichloroethene	trans-1,2-dichloroethene
			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
NEPM 2013 Table 1A(1) HILs Res A Soil																			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m							50		280										
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil						800		1,000		3,500	10,000								
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																			
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil						180		120	120	1,300	5,600								
Field ID	**Sample Type**	**Date**																	
BH2_0.0-0.1	Soil - primary	04 Oct 2023	240	370	690	<25	<25	74	74	420	200	690	NT	NT	NT	NT	NT	NT	NT
BH02_1.5	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
BH3_0.0-0.1	Soil - primary	04 Oct 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
BH04_1.0	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
BH5_0.0-0.1	Soil - primary	04 Oct 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
BH06_1.0	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
BH7_0.0-0.1	Soil - primary	04 Oct 2023	<100	100	100	<25	<25	<50	<50	100	<100	100	NT	NT	NT	NT	NT	NT	NT
BH8_0.0-0.1	Soil - primary	04 Oct 2023	<100	160	160	<25	<25	<50	<50	110	140	260	NT	NT	NT	NT	NT	NT	NT
BH9_0.0-0.1	Soil - primary	04 Oct 2023	<100	<100	<50	<25	<25	<50	<50	110	<100	110	NT	NT	NT	NT	NT	NT	NT
BH09_1.0	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	<1	<1	<1	<1
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	<100	190	190	<25	<25	<50	<50	200	190	380	NT	NT	NT	NT	NT	NT	NT
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	150	150	<25	<25	<50	<50	150	160	320	NT	NT	NT	NT	NT	NT	NT
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	120	140	320	<25	<25	57	57	190	100	350	NT	NT	NT	<1	<1	<1	<1
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	130	130	<25	<25	<50	<50	160	<100	160	NT	NT	NT	NT	NT	NT	NT
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	<100	100	100	<25	<25	<50	<50	120	<100	120	NT	NT	NT	NT	NT	NT	NT
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	<1	<1	<1	<1
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
SP1	Soil - primary	25 Sep 2023	<100	<100	<50	<25	<25	<50	<50	<100	<100	<50	NT	NT	NT	NT	NT	NT	NT
BR1	duplicate Inter	25 Sep 2023	74	210	284	<20	<20	<50	<50	210	270	480	NT	NT	NT	NT	NT	NT	NT
SR1	duplicate Intra	25 Sep 2023	<100	120	120	<25	<25	<50	<50	100	130	230	NT	NT	NT	NT	NT	NT	NT
Statistics																			
Number of Results			31	31	31	31	31	31	31	31	31	31	1	1	1	3	3	3	3
Number of Detects			3	10	10	0	0	2	2	11	7	11	0	0	0	0	0	0	0
Minimum Concentration			74	100	<50	<20	<20	<50	<50	100	100	<50	<50	<100	<100	<1	<1	<1	<1
Maximum Concentration			240	370	690	<25	<25	74	74	420	270	690	<50	<100	<100	<1	<1	<1	<1
Average Concentration *			59	88	89	12	12	28	28	93	77	119				0.5	0.5	0.5	0.5

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

			Chlorinated Hydrocarbons																
			1,2-dichloroethane	Chloroform	Bromochloromethane	Trichloroethene	1,1,1-trichloroethane	1,1,2-trichloroethane	Carbon tetrachloride	Tetrachloroethene	1,1,2,2-tetrachloroethane	Hexachlorobutadiene	1,1,1,2-tetrachloroethane	1,1-dichloroethane	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane
			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
NEPM 2013 Table 1A(1) HILs Res A Soil																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																				
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil																				
Field ID	**Sample Type**	**Date**																		
BH2_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH02_1.5	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH3_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH04_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH5_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH06_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH7_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH8_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH9_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BH09_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SP1	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BR1	duplicate Inter	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SR1	duplicate Intra	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Statistics																				
Number of Results			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Number of Detects			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Concentration			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Average Concentration *			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroethane	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	trans-1,3-dichloropropene	Tokuthion	Azinophos methyl	Bolstar (Sulprofos)	Bromophos-ethyl	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S
	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
NEPM 2013 Table 1A(1) HILs Res A Soil														160				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																		
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																		
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																		
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil																		

Field ID	Sample Type	Date																	
BH2_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH02_1.5	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH3_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH04_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH5_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH06_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH7_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH8_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH9_0.0-0.1	Soil - primary	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH09_1.0	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<1	<1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<1	<1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<1	<1	<1	<1	<1	<1	<1	<1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
SP1	Soil - primary	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BR1	duplicate Inter	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	NT	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5
SR1	duplicate Intra	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT

Statistics

Number of Results	3	3	3	3	3	3	3	3	1	31	1	30	1	31	31	31	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	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.1	<0.1	<0.5	<0.5
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<5	<0.5	<0.5
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.056		0.05		0.056	0.056	0.13		

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

			Organophosphorous Pesticides																	
			Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprop	Fenamiphos	Fenitrothion	Fensulfothion	Fenthion	EPN	Malathion	Merphos	Methidathion	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)
			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
NEPM 2013 Table 1A(1) HILs Res A Soil																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																				
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil																				
Field ID	**Sample Type**	**Date**																		
BH2_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH02_1.5	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH3_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH04_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH5_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH06_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH7_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH8_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH9_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BH09_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
SP1	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT
BR1	duplicate Inter	25 Sep 2023	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	<0.5	<0.5	<5	<0.5
SR1	duplicate Intra	25 Sep 2023	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1	<0.1	NT	NT

Statistics

Number of Results	**31**	**31**	**31**	**31**	**31**	**1**	**30**	**31**	**1**	**31**	**1**	**31**	**1**	**30**	**31**	**31**	**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	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.5**	**<0.1**	**<0.1**	**<0.5**	**<0.1**	**<0.5**	**<0.1**	**<0.5**	**<0.1**	**<0.1**	**<0.1**	**<5**	**<0.5**
Maximum Concentration	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.1**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.1**	**<0.5**	**<0.5**	**<5**	**<0.5**
Average Concentration *	**0.056**	**0.056**	**0.056**	**0.056**	**0.056**		**0.05**	**0.056**		**0.056**		**0.056**		**0.05**	**0.056**	**0.056**		

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

	Omethoate	Parathion	Phorate	Pyrazophos	Ronnel	Terbufos	Phosalone	Trichloronate	Tetrachlorvinphos	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)
	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	ug/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Res A Soil															6		50,000	
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																		
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																		
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space																		
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil																		

Field ID	Sample Type	Date																	
BH2_0.0-0.1	Soil - primary	04 Oct 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH02_1.5	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH3_0.0-0.1	Soil - primary	04 Oct 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH04_1.0	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH5_0.0-0.1	Soil - primary	04 Oct 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH06_1.0	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH7_0.0-0.1	Soil - primary	04 Oct 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH8_0.0-0.1	Soil - primary	04 Oct 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH9_0.0-0.1	Soil - primary	04 Oct 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BH09_1.0	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
SP1	Soil - primary	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1
BR1	duplicate Inter	25 Sep 2023	<5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1,000	NT
SR1	duplicate Intra	25 Sep 2023	NT	<0.1	<0.1	NT	<0.1	NT	<0.1	NT	NT	NT	NT	<0.1	<0.1	<0.1	NT	<0.1	NT	<0.1

Statistics

Number of Results	1	31	31	1	31	1	30	1	1	1	1	31	31	31	1	31	1	30
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<5	<0.1	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.5	<1	<1	<0.1	<0.1	<0.1	<0.5	<0.1	<1,000	<0.1
Maximum Concentration	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<1,000	<0.1
Average Concentration *		0.056	0.056		0.056		0.05					0.056	0.056	0.056		0.056		0.05

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

	Organochlorine Pesticides																	
	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Mirex	Toxaphene
	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	mg/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	ug/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Res A Soil					240,000					10,000				6		300	10	20
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m																		
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																		
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space				180,000														
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil																		
Field ID	**Sample Type**	**Date**																
BH2_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH02_1.5	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH3_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH04_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH5_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH06_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH7_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH8_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH9_0.0-0.1	Soil - primary	04 Oct 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BH09_1.0	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP1_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP2_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP3_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP4_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP5_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP6_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP7_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP8_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP9_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP10_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP11_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP11_0.3-0.4_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP12_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP13_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP14_0.0-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP15_0.0-0.2 _230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP16_0.1-0.2_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
TP17_0.0-0.1_230925	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
SP1	Soil - primary	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT
BR1	duplicate Inter	25 Sep 2023	NT	<0.5	<0.5	<500	<500	<500	<0.5	<0.5	<0.5	<500	<0.5	<0.5	<500	<0.5	<0.5	<0.5	NT	<10
SR1	duplicate Intra	25 Sep 2023	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	NT	<100	<0.1	<0.1	<0.1	<0.1	NT

Statistics

Number of Results	30	31	31	31	31	31	31	31	31	31	31	1	31	31	31	31	30	1
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<100	<100	<100	<0.1	<0.1	<0.1	<100	<0.1	<0.5	<100	<0.1	<0.1	<0.1	<0.1	<10
Maximum Concentration	<0.1	<0.5	<0.5	<500	<500	<500	<0.5	<0.5	<0.5	<500	<0.5	<0.5	<500	<0.5	<0.5	<0.5	<0.1	<10
Average Concentration *	0.05	0.056	0.056	56	56	56	0.056	0.056	0.056	56	0.056		56	0.056	0.056	0.056	0.05	

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

	Phenols	Halogenated Hydrocarbons				Solvents
	Phenolics Total	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	Cyclohexane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Res A Soil						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay >=0m, <1m						
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil						
NEPM 2013 Table 1B(5) Site specific EIL - Urban Res & Public Open Space						
NEPM 2013 Table 1B(6) ESLs for Urban Residential and Public Open Space, Fine Soil						
Field ID / **Sample Type** / **Date**						
BH2_0.0-0.1 / Soil - primary / 04 Oct 2023	NT	NT	NT	NT	NT	NT
BH02_1.5 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
BH3_0.0-0.1 / Soil - primary / 04 Oct 2023	NT	NT	NT	NT	NT	NT
BH04_1.0 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
BH5_0.0-0.1 / Soil - primary / 04 Oct 2023	NT	NT	NT	NT	NT	NT
BH06_1.0 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
BH7_0.0-0.1 / Soil - primary / 04 Oct 2023	NT	NT	NT	NT	NT	NT
BH8_0.0-0.1 / Soil - primary / 04 Oct 2023	NT	NT	NT	NT	NT	NT
BH9_0.0-0.1 / Soil - primary / 04 Oct 2023	NT	NT	NT	NT	NT	NT
BH09_1.0 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP1_0.1-0.2_230925 / Soil - primary / 25 Sep 2023	<5	<1	<1	<1	<1	<1
TP2_0.1-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP3_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP4_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP5_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP6_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP7_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	<5	<1	<1	<1	<1	<1
TP8_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP9_0.1-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP10_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP11_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	<5	<1	<1	<1	<1	<1
TP11_0.3-0.4_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP12_0.0-0.1_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP13_0.1-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP14_0.0-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP15_0.0-0.2 _230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP16_0.1-0.2_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
TP17_0.0-0.1_230925 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
SP1 / Soil - primary / 25 Sep 2023	NT	NT	NT	NT	NT	NT
BR1 / duplicate Inter / 25 Sep 2023	NT	NT	NT	NT	NT	NT
SR1 / duplicate Intra / 25 Sep 2023	NT	NT	NT	NT	NT	NT

Statistics

Number of Results	3	3	3	3	3	3
Number of Detects	0	0	0	0	0	0
Minimum Concentration	<5	<1	<1	<1	<1	<1
Maximum Concentration	<5	<1	<1	<1	<1	<1
Average Concentration *	2.5	0.5	0.5	0.5	0.5	0.5

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

			Perfluoroalkane Sulfonic Acids		(n:2) Fluorotelomer Sulfonic Acids		Perfluoroalkane Carboxylic Acids	PFAS		
			Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	Perfluorooctanoic acid (PFOA)	Sum of PFHxS and PFOS	Sum of PFAS	Sum of PFAS (PFOS + PFOA)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)			0.01	0.01			0.1	0.01		
PFAS NEMP 2020 Ecological indirect exposure				0.01						
PFAS NEMP 2020 Ecological direct exposure				1			10			
Field ID	**Sample Type**	**Date**								
BH2_0.0-0.1	Normal	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH2_0.0-0.1	Normal	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH02_1.5	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH3_0.0-0.1	Normal	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH04_1.0	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH5_0.0-0.1	Normal	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH06_1.0	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH7_0.0-0.1	Normal	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH8_0.0-0.1	Normal	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH9_0.0-0.1	Normal	04 Oct 2023	NT	NT	NT	NT	NT	NT	NT	NT
BH09_1.0	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
BR1	Interlab_D	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
SP1	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
SR1	Field_D	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP1_0.1-0.2_230925	Normal	25 Sep 2023	0.0002	0.0055	<0.0001	<0.0002	0.0003	0.0058	0.0060	0.0058
TP2_0.1-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP3_0.0-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP4_0.0-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP5_0.0-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP6_0.0-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP7_0.0-0.2_230925	Normal	25 Sep 2023	0.0005	0.0075	<0.0001	<0.0002	0.0010	0.0080	0.0091	0.0085
TP8_0.0-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP9_0.1-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP10_0.0-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP11_0.0-0.2_230925	Normal	25 Sep 2023	0.0007	0.0005	<0.0001	<0.0002	0.0002	0.0012	0.0014	0.0007
TP11_0.3-0.4_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP12_0.0-0.1_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP13_0.1-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP14_0.0-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP15_0.0-0.2 _230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP16_0.1-0.2_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT
TP17_0.0-0.1_230925	Normal	25 Sep 2023	NT	NT	NT	NT	NT	NT	NT	NT

Statistics

Number of Results	3	3	3	3	3	3	3	3
Number of Detects	3	3	0	0	3	3	3	3
Minimum Concentration	0.0002	0.0005	<0.0001	<0.0002	0.0002	0.0012	0.0014	0.0007
Maximum Concentration	0.0007	0.0075	<0.0001	<0.0002	0.001	0.008	0.0091	0.0085
Average Concentration *	0.00047	0.0045	0.00005	0.0001	0.0005	0.005	0.0055	0.005

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure

UCL Statistics for Uncensored Full Data Sets		
User Selected Options		
Date/Time of Computation	ProUCL 5.125/10/2023 3:17:56 PM	
From File	WorkSheet.xls	
Full Precision	OFF	
Confidence Coefficient	95%	
Number of Bootstrap Operations	2000	

Lead

General Statistics

Total Number of Observations	30	Number of Distinct Observations	24
		Number of Missing Observations	0
Minimum	2	Mean	61.73
Maximum	440	Median	44
SD	77.73	Std. Error of Mean	14.19
Coefficient of Variation	1.259	Skewness	4.262

Normal GOF Test

Shapiro Wilk Test Statistic	0.518	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.927	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.299	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.159	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	85.85	95% Adjusted-CLT UCL (Chen-1995)	96.88
		95% Modified-t UCL (Johnson-1978)	87.69

Gamma GOF Test

A-D Test Statistic	1.349	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.765	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.186	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.163	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.407	k star (bias corrected MLE)	1.288
Theta hat (MLE)	43.88	Theta star (bias corrected MLE)	47.91
nu hat (MLE)	84.41	nu star (bias corrected)	77.3
MLE Mean (bias corrected)	61.73	MLE Sd (bias corrected)	54.39
		Approximate Chi Square Value (0.05)	58.05
Adjusted Level of Significance	0.041	Adjusted Chi Square Value	57.09

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	82.21	95% Adjusted Gamma UCL (use when n<50)	83.59

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.894	**Shapiro Wilk Lognormal GOF Test**

53				5% Shapiro Wilk Critical Value		0.927	Data Not Lognormal at 5% Significance Level					
54				Lilliefors Test Statistic		0.177	**Lilliefors Lognormal GOF Test**					
55				5% Lilliefors Critical Value		0.159	Data Not Lognormal at 5% Significance Level					
56	**Data Not Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59				Minimum of Logged Data		0.693	Mean of logged Data					3.727
60				Maximum of Logged Data		6.087	SD of logged Data					0.934
61												
62	**Assuming Lognormal Distribution**											
63				95% H-UCL		97.35	90% Chebyshev (MVUE) UCL					99.5
64				95% Chebyshev (MVUE) UCL		116	97.5% Chebyshev (MVUE) UCL					139
65				99% Chebyshev (MVUE) UCL		184.1						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data do not follow a Discernible Distribution (0.05)**											
69												
70	**Nonparametric Distribution Free UCLs**											
71				95% CLT UCL		85.08	95% Jackknife UCL					85.85
72				95% Standard Bootstrap UCL		84.41	95% Bootstrap-t UCL					120.2
73				95% Hall's Bootstrap UCL		180.6	95% Percentile Bootstrap UCL					86.03
74				95% BCA Bootstrap UCL		100.8						
75				90% Chebyshev(Mean, Sd) UCL		104.3	95% Chebyshev(Mean, Sd) UCL					123.6
76				97.5% Chebyshev(Mean, Sd) UCL		150.4	99% Chebyshev(Mean, Sd) UCL					202.9
77												
78	**Suggested UCL to Use**											
79				95% Chebyshev (Mean, Sd) UCL		123.6						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												
86												
87	**Benzo(a) pyrene**											
88												
89	**General Statistics**											
90				Total Number of Observations		30	Number of Distinct Observations					9
91							Number of Missing Observations					0
92				Minimum		0.05	Mean					0.171
93				Maximum		1.4	Median					0.05
94				SD		0.278	Std. Error of Mean					0.0507
95				Coefficient of Variation		1.624	Skewness					3.385
96												
97	**Normal GOF Test**											
98				Shapiro Wilk Test Statistic		0.506	**Shapiro Wilk GOF Test**					
99				5% Shapiro Wilk Critical Value		0.927	Data Not Normal at 5% Significance Level					
100				Lilliefors Test Statistic		0.401	**Lilliefors GOF Test**					
101				5% Lilliefors Critical Value		0.159	Data Not Normal at 5% Significance Level					
102	**Data Not Normal at 5% Significance Level**											
103												
104	**Assuming Normal Distribution**											

	A	B	C	D	E	F	G	H	I	J	K	L
105	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
106					95% Student's-t UCL	0.257					95% Adjusted-CLT UCL (Chen-1995)	0.288
107											95% Modified-t UCL (Johnson-1978)	0.262
108												
109	**Gamma GOF Test**											
110					A-D Test Statistic	4.795	**Anderson-Darling Gamma GOF Test**					
111					5% A-D Critical Value	0.779	Data Not Gamma Distributed at 5% Significance Level					
112					K-S Test Statistic	0.346	**Kolmogorov-Smirnov Gamma GOF Test**					
113					5% K-S Critical Value	0.165	Data Not Gamma Distributed at 5% Significance Level					
114	**Data Not Gamma Distributed at 5% Significance Level**											
115												
116	**Gamma Statistics**											
117					k hat (MLE)	0.934					k star (bias corrected MLE)	0.863
118					Theta hat (MLE)	0.183					Theta star (bias corrected MLE)	0.198
119					nu hat (MLE)	56.02					nu star (bias corrected)	51.75
120					MLE Mean (bias corrected)	0.171					MLE Sd (bias corrected)	0.184
121											Approximate Chi Square Value (0.05)	36.23
122					Adjusted Level of Significance	0.041					Adjusted Chi Square Value	35.48
123												
124	**Assuming Gamma Distribution**											
125				95% Approximate Gamma UCL (use when n>=50))		0.244					95% Adjusted Gamma UCL (use when n<50)	0.249
126												
127	**Lognormal GOF Test**											
128					Shapiro Wilk Test Statistic	0.684	**Shapiro Wilk Lognormal GOF Test**					
129					5% Shapiro Wilk Critical Value	0.927	Data Not Lognormal at 5% Significance Level					
130					Lilliefors Test Statistic	0.304	**Lilliefors Lognormal GOF Test**					
131					5% Lilliefors Critical Value	0.159	Data Not Lognormal at 5% Significance Level					
132	**Data Not Lognormal at 5% Significance Level**											
133												
134	**Lognormal Statistics**											
135					Minimum of Logged Data	-2.996					Mean of logged Data	-2.389
136					Maximum of Logged Data	0.336					SD of logged Data	0.956
137												
138	**Assuming Lognormal Distribution**											
139					95% H-UCL	0.223					90% Chebyshev (MVUE) UCL	0.226
140					95% Chebyshev (MVUE) UCL	0.265					97.5% Chebyshev (MVUE) UCL	0.318
141					99% Chebyshev (MVUE) UCL	0.422						
142												
143	**Nonparametric Distribution Free UCL Statistics**											
144	**Data do not follow a Discernible Distribution (0.05)**											
145												
146	**Nonparametric Distribution Free UCLs**											
147					95% CLT UCL	0.254					95% Jackknife UCL	0.257
148					95% Standard Bootstrap UCL	0.255					95% Bootstrap-t UCL	0.333
149					95% Hall's Bootstrap UCL	0.515					95% Percentile Bootstrap UCL	0.261
150					95% BCA Bootstrap UCL	0.292						
151					90% Chebyshev(Mean, Sd) UCL	0.323					95% Chebyshev(Mean, Sd) UCL	0.392
152					97.5% Chebyshev(Mean, Sd) UCL	0.488					99% Chebyshev(Mean, Sd) UCL	0.675
153												
154	**Suggested UCL to Use**											
155					95% Chebyshev (Mean, Sd) UCL	0.392						
156												

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

TRH C16-C34

General Statistics

Total Number of Observations	30	Number of Distinct Observations	8
		Number of Missing Observations	0
Minimum	100	Mean	122
Maximum	420	Median	100
SD	62.33	Std. Error of Mean	11.38
Coefficient of Variation	0.511	Skewness	4.133

Normal GOF Test

Shapiro Wilk Test Statistic	0.414	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.927	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.376	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.159	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	141.3	95% Adjusted-CLT UCL (Chen-1995)	149.9
		95% Modified-t UCL (Johnson-1978)	142.8

Gamma GOF Test

A-D Test Statistic	6.43	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.746	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.396	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.16	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	7.867	k star (bias corrected MLE)	7.103
Theta hat (MLE)	15.51	Theta star (bias corrected MLE)	17.18
nu hat (MLE)	472	nu star (bias corrected)	426.2
MLE Mean (bias corrected)	122	MLE Sd (bias corrected)	45.78
		Approximate Chi Square Value (0.05)	379.3
Adjusted Level of Significance	0.041	Adjusted Chi Square Value	376.8

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	137.1	95% Adjusted Gamma UCL (use when n<50)	138

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.51	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.927	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.399	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.159	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

209												
210	**Lognormal Statistics**											
211					Minimum of Logged Data	4.605				Mean of logged Data		4.739
212					Maximum of Logged Data	6.04				SD of logged Data		0.314
213												
214	**Assuming Lognormal Distribution**											
215					95% H-UCL	133.5				90% Chebyshev (MVUE) UCL		140.8
216					95% Chebyshev (MVUE) UCL	150.3				97.5% Chebyshev (MVUE) UCL		163.5
217					99% Chebyshev (MVUE) UCL	189.4						
218												
219	**Nonparametric Distribution Free UCL Statistics**											
220	**Data do not follow a Discernible Distribution (0.05)**											
221												
222	**Nonparametric Distribution Free UCLs**											
223					95% CLT UCL	140.7				95% Jackknife UCL		141.3
224					95% Standard Bootstrap UCL	140.2				95% Bootstrap-t UCL		171.9
225					95% Hall's Bootstrap UCL	199.9				95% Percentile Bootstrap UCL		142.7
226					95% BCA Bootstrap UCL	152						
227					90% Chebyshev(Mean, Sd) UCL	156.1				95% Chebyshev(Mean, Sd) UCL		171.6
228					97.5% Chebyshev(Mean, Sd) UCL	193.1				99% Chebyshev(Mean, Sd) UCL		235.2
229												
230	**Suggested UCL to Use**											
231					95% Student's-t UCL	141.3				or 95% Modified-t UCL		142.8
232												
233	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
234	Recommendations are based upon data size, data distribution, and skewness.											
235	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
236	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
237												

Appendix F – Analytical Reports and Chain of Custody

Sydney Laboratory Services

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128
Ph: (02) 9648-6669

A.B.N. 52 093 452 950

Analysis report: A101023.0436.00

Laboratory LOT NO: 2304101

Date Received: 28.09.2023
Date Analysed: 05.10.2023
Report Date: 06.10.2023
Client: ADE Consulting Group
Job Location: As received
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

*Asbestos identification as per "National Environment Protection (Assessment of site contamination) Measure, Schedule B1" and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" is not coverd by NATA scope of accreditation

Analysis performed by:

Grace (Weichen) Jia
Approved asbestos identifier

Results Authorised By:

Grace (Weichen) Jia
Approved Signatory

General Comments:

Sydney Laboratory Services is responsible for all the information in the report, except that provided by the customer. All sampling information included in the report has been provided by the client

Sample analysed as received.
Samples are stored for minimum period of 1 month if longer time is not advised by client.
Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.01g/kg (0.001% w/w) for friable asbestos and 0.1g/kg (0.01% w/w) for bonded asbestos.
This form of analysis is outside the scope of NATA accreditation.
Bonded asbestos containing material (bonded ACM) : Bonded ACM comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin.This term is restricted to material that cannot pass a 7 mm x 7 mm sieve.
Fibrous asbestos (FA): FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
Asbestos fines (AF): AF includes free fibres, small fibre bundles and also small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve.
Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

Client Sample ID.	Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Weight (Dry Weight)	Trace Analysis Completed Y/N	Result	Comments
TP1_0.1-0.2_230925	2023028507	Granulated dark soil	500ml	659 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP2_0.1-0.2_230925	2023028508	Granulated dark soil	500ml	592 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP3_0.0-0.2_230925	2023028509	Granulated dark soil	500ml	730 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP4_0.0-0.2_230925	2023028510	Granulated dark soil	500ml	711 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP5_0.0-0.2_230925	2023028511	Granulated dark soil	500ml	482 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP6_0.0-0.2_230925	2023028512	Granulated dark soil	500ml	604 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP7_0.0-0.2_230925	2023028513	Granulated dark soil	500ml	486 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP9_0.1-0.2_230925	2023028514	Granulated dark soil	500ml	585 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil

Client Sample ID.	Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Weight (Dry Weight)	Trace Analysis Completed Y/N	Result	Comments
TP10_0.0-0.2_230925	2023028515	Granulated dark soil	500ml	535 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP11_0.0-0.2_230925	2023028516	Granulated dark soil	500ml	757 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP12_0.0-0.1_230925	2023028517	Granulated dark soil	500ml	613 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP13_0.1-0.2_230925	2023028518	Granulated dark soil	500ml	530 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP14_0.0-0.2_230925	2023028519	Granulated dark soil	500ml	599 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP15_0.0-0.2_230925	2023028520	Granulated dark soil	500ml	634 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP16_0.1-0.2_230925	2023028521	Granulated dark soil	500ml	586 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
TP17_0.0-0.2_230925	2023028522	Granulated dark soil	500ml	500 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil

Sydney Laboratory Services

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128
Ph: (02) 9648-6669

A.B.N. 52 093 452 950

Analysis report: A101023.0436.00
Laboratory LOT NO: 2304101

Date Received: 28.09.2023
Date Analysed: 05.10.2023
Report Date: 06.10.2023
Client: ADE Consulting Group
Job Location: As received
Analytical method: ABI-P-01: Procedure for the Analysis and ID of Bulk Samples for Asbestos

Analysis performed by:

Grace (Weichen) Jia
Approved asbestos identifier

Results Authorised By:

Grace (Weichen) Jia
Approved Signatory

This report superceeds all previous reports with the same reference. This report shall not be reproduced except in full

Accreditation No.14664.
Accredited for compliance with ISO/IEC 17025 - Testing.

Tests not covered by NATA are denoted with *.

General Comments:

Sydney Laboratory Services is responsible for all the information in the report, except that provided by the customer. All sampling information included in the report has been provided by the client.

Sample analysed as received.
Samples are stored for minimum period of 4 weeks, if longer time is not advised by client.
All positive/negative results have been confirmed by polarized light microscopy including dispersion staining.
ABI-P-01: Qualitative Identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques as per AS4964.

Accreditation No.14664.
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Tests not covered by NATA are denoted with *.

Client Sample ID.	Laboratory Sample No.	Sample Description/Matrix	Sample Dry Weight (g)	Trace Analysis (> 5 Fibres)	Asbestos ID in Soil (AS4964) >0.1g/kg	Weight Total ACM (g)	Comments
BH01_1.0	2023028501	Granulated dark soil with rocks	143.00	ND	No asbestos detected at the reporting limit of 0.1g/kg Organic Fibres Detected	N/A	Nil
BH03_1.0	2023028502	Granulated dark soil with rocks	127.00	ND	No asbestos detected at the reporting limit of 0.1g/kg Organic Fibres Detected	N/A	Nil
BH04_1.0	2023028503	Granulated dark soil with rocks	135.00	ND	No asbestos detected at the reporting limit of 0.1g/kg Organic Fibres Detected	N/A	Nil
BH06_1.0	2023028504	Granulated dark soil with rocks	123.00	ND	No asbestos detected at the reporting limit of 0.1g/kg Organic Fibres Detected	N/A	Nil
BH09_1.0	2023028505	Granulated dark soil with rocks	161.00	ND	No asbestos detected at the reporting limit of 0.1g/kg Organic Fibres Detected	N/A	Nil
BH10_1.0	2023028506	Granulated dark soil with rocks	102.00	ND	No asbestos detected at the reporting limit of 0.1g/kg Organic Fibres Detected	N/A	Nil

Sydney Laboratory Services

A division of A. D. Envirotech Australia Pty Ltd
Unit 4/10-11 Millennium Court,
Silverwater 2128
Ph: (02) 9648-6669

A.B.N. 52 093 452 950

Analysis report: A101023.0436.00

Laboratory LOT NO: 2304153

Date Received: 05.10.2023
Date Analysed: 06.10.2023
Report Date: 06.10.2023
Client: ADE Consulting Group
Job Location: As received
Analytical method: Polarised Light Microscopy with dispersion staining (ADE method ABI)

*Asbestos identification as per "National Environment Protection (Assessment of site contamination) Measure, Schedule B1" and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" is not coverd by NATA scope of accreditation

Analysis performed by:

Michelle Ogilvie
Approved asbestos identifier

Results Authorised By:

Grace (Weichen) Jia
Approved Signatory

General Comments:

Sydney Laboratory Services is responsible for all the information in the report, except that provided by the customer. All sampling information included in the report has been provided by the client

Sample analysed as received.
Samples are stored for minimum period of 1 month if longer time is not advised by client.
Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.01g/kg (0.001% w/w) for friable asbestos and 0.1g/kg (0.01% w/w) for bonded asbestos.
This form of analysis is outside the scope of NATA accreditation.
Bonded asbestos containing material (bonded ACM) : Bonded ACM comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin.This term is restricted to material that cannot pass a 7 mm x 7 mm sieve.
Fibrous asbestos (FA): FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
Asbestos fines (AF): AF includes free fibres, small fibre bundles and also small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve.
Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.

Client Sample ID.	Laboratory Sample No.	Sample Description/Matrix	Sample Dimensions (cm) unless stated otherwise	Weight (Dry Weight)	Trace Analysis Completed Y/N	Result	Comments
BH2_0.0-0.1	2023028927	Granulated dark soil	500ml	476 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
BH3_0.0-0.1	2023028928	Granulated dark soil	500ml	538 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
BH5_0.0-0.1	2023028929	Granulated dark soil	500ml	605 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
BH7_0.0-0.1	2023028930	Granulated dark soil	500ml	480 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
BH8_0.0-0.1	2023028931	Granulated dark soil	500ml	563 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil
BH9_0.0-0.1	2023028932	Granulated dark soil	500ml	582 grams	Yes, no trace asbestos detected by polarized light microscopy including dispersion staining.	No Chrysotile asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Amosite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Crocidolite asbestos detected by polarized light microscopy including dispersion staining.	Nil
						No Synthetic Mineral Fibres detected by polarized light microscopy including dispersion staining.	Nil
						Organic fibres detected by polarized light microscopy including dispersion staining.	Nil

CHAIN OF CUSTODY FORM - Client

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ENVIROLAB GROUP **ENVIROLAB GROUP**
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✆ 08 8967 1201 | ✉ darwin@envirolab.com.au

Client: ADE Consulting group	Client Project Name/Number/Site etc (ie report title): A101023.0436 / Melrose Park
Contact Person: Karin Azzam	
Project Mgr: Karin Azzam	PO No.:
Sampler: Ankita Saxena	Envirolab Quote No. :
Address: 6/7 Millennium Ct, Silverwater NSW 2128	Date results required: Or choose: **standard** / same day / 1 day / 2 day / 3 day *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: Mob: 0490 072 877	Additional report format: esdat / equis /
Email: karin.azzam@ade.group, ankita.saxena@ade.group, stephen.bowly@ade.group	Lab Comments:

Sample Information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Combination 6															Provide as much information about the sample as you can
1	SR1		25.09.2023	Soil	x															

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): ADE	Received by (Company): ELS SYD	*Lab Use Only*	
Print Name: KARIN AZZAM	Print Name: Katy Wayne	Job number: 333985	Cooling: Ice / Ice pack / None
Date & Time: 26.09.2023	Date & Time: 26/9/23 1640	Temperature: 2°c	Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

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	ADE CONSULTING GROUP PTY LTD
Attention	Karin Azzam

Sample Login Details

Your reference	A101023.0436/Melrose Park
Envirolab Reference	333985
Date Sample Received	26/09/2023
Date Instructions Received	26/09/2023
Date Results Expected to be Reported	04/10/2023

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	2
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
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12 Ashley St Chatswood NSW 2067
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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
SR1	✓	✓	✓	✓	✓	✓	✓

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.

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CERTIFICATE OF ANALYSIS 333985

Client Details

Client	ADE CONSULTING GROUP PTY LTD
Attention	Karin Azzam
Address	Unit 6, 7 Millenium Court, Silverwater, NSW, 2128

Sample Details

Your Reference	**A101023.0436/Melrose Park**
Number of Samples	1 Soil
Date samples received	26/09/2023
Date completed instructions received	26/09/2023

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	04/10/2023
Date of Issue	04/10/2023

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

Results Approved By
Dragana Tomas, Senior Chemist
Loren Bardwell, Development Chemist
Nancy Zhang, Laboratory Manager, Sydney
Tim Toll, Chemist (FAS)

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date extracted	-	27/09/2023
Date analysed	-	28/09/2023
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	89

svTRH (C10-C40) in Soil		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date extracted	-	27/09/2023
Date analysed	-	28/09/2023
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	120
Total +ve TRH (C10-C36)	mg/kg	120
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	130
Total +ve TRH (>C10-C40)	mg/kg	230
Surrogate o-Terphenyl	%	76

PAHs in Soil		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date extracted	-	27/09/2023
Date analysed	-	29/09/2023
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	0.3
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	0.6
Pyrene	mg/kg	0.6
Benzo(a)anthracene	mg/kg	0.3
Chrysene	mg/kg	0.3
Benzo(b,j+k)fluoranthene	mg/kg	0.5
Benzo(a)pyrene	mg/kg	0.3
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	0.2
Total +ve PAH's	mg/kg	3.2
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	%	83

Organochlorine Pesticides in soil		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date extracted	-	27/09/2023
Date analysed	-	28/09/2023
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Mirex	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	95

Organophosphorus Pesticides in Soil		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date extracted	-	27/09/2023
Date analysed	-	29/09/2023
Dichlorvos	mg/kg	<0.1
Mevinphos	mg/kg	<0.1
Phorate	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Disulfoton	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Parathion-Methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Fenthion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Methidathion	mg/kg	<0.1
Fenamiphos	mg/kg	<0.1
Ethion	mg/kg	<0.1
Phosalone	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Coumaphos	mg/kg	<0.1
Surrogate TCMX	%	82

PCBs in Soil		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date extracted	-	27/09/2023
Date analysed	-	28/09/2023
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 TCMX	%	95

Acid Extractable metals in soil		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date prepared	-	04/10/2023
Date analysed	-	04/10/2023
Arsenic	mg/kg	6
Cadmium	mg/kg	<0.4
Chromium	mg/kg	17
Copper	mg/kg	28
Lead	mg/kg	55
Mercury	mg/kg	<0.1
Nickel	mg/kg	11
Zinc	mg/kg	75

Moisture		
Our Reference		333985-1
Your Reference	UNITS	SR1
Date Sampled		25/09/2023
Type of sample		Soil
Date prepared	-	27/09/2023
Date analysed	-	04/10/2023
Moisture	%	14

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

Method ID	Methodology Summary
Org-022/025	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-4	[NT]
Date extracted	-			27/09/2023	[NT]	[NT]	[NT]	[NT]	27/09/2023	[NT]
Date analysed	-			28/09/2023	[NT]	[NT]	[NT]	[NT]	28/09/2023	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	97	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	99	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	94	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	98	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	83	[NT]	[NT]	[NT]	[NT]	85	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			27/09/2023	[NT]	[NT]	[NT]	[NT]	27/09/2023	[NT]
Date analysed	-			28/09/2023	[NT]	[NT]	[NT]	[NT]	28/09/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	76	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	76	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	108	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	76	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	76	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	108	[NT]
Surrogate o-Terphenyl	%		Org-020	80	[NT]	[NT]	[NT]	[NT]	111	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			27/09/2023	[NT]	[NT]	[NT]	[NT]	27/09/2023	[NT]
Date analysed	-			29/09/2023	[NT]	[NT]	[NT]	[NT]	29/09/2023	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	90	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	92	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			27/09/2023	[NT]	[NT]	[NT]	[NT]	27/09/2023	[NT]
Date analysed	-			28/09/2023	[NT]	[NT]	[NT]	[NT]	28/09/2023	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	89	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	71	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	90	[NT]	[NT]	[NT]	[NT]	84	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			27/09/2023	[NT]	[NT]	[NT]	[NT]	27/09/2023	[NT]
Date analysed	-			29/09/2023	[NT]	[NT]	[NT]	[NT]	29/09/2023	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	121	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Fenthion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Phosalone	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	84	[NT]	[NT]	[NT]	[NT]	89	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			27/09/2023	[NT]	[NT]	[NT]	[NT]	27/09/2023	[NT]
Date analysed	-			28/09/2023	[NT]	[NT]	[NT]	[NT]	28/09/2023	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	90	[NT]	[NT]	[NT]	[NT]	84	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			04/10/2023	[NT]	[NT]	[NT]	[NT]	04/10/2023	[NT]
Date analysed	-			04/10/2023	[NT]	[NT]	[NT]	[NT]	04/10/2023	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	112	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	112	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	116	[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.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

CHAIN OF CUSTODY FORM - Client

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Client Project Name/Number/Site etc (to report title): A101023.0436 / Melrose Park
PO No.: A101023.0436.002
Envirolab Quote No.:
Date results required:
Or choose: standard / same day / 1 day / 2 day / 3 day
Note: Inform lab in advance if urgent turnaround is required - surcharges apply
Additional report format: esdat / nquis /
Lab Comments:

Sample Information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Combination 6	VOC	Phenols	Cyanide	PFAS short suite	pH	EC	Fe	CEC	TOC					HOLD		Provide as much information about the sample as you can
1 1	BH01_1.0	1.0	25.09.2023	Soil															X		
2 2	BH02_1.5	1.5	25.09.2023	Soil	X																
3 3	BH03_1.0	1.0	25.09.2023	Soil															X		
4 4	BH04_1.0	1.0	25.09.2023	Soil	X																
5 5	BH05_1.0	1.0	25.09.2023	Soil															X		
6 6	BH06_1.0	1.0	25.09.2023	Soil	X																
7 7	BH07_1.0	1.0	25.09.2023	Soil															X		
NR 8	BH08_1.0	1.0	25.09.2023	Soil	X																
8 9	BH08_2.5	2.5	25.09.2023	Soil															X		
9 10	BH09_1.0	1.0	25.09.2023	Soil	X																
10 11	BH10_1.0	1.0	25.09.2023	Soil															X		
11 12	TP1_0.1-0.2_230925	0.1-0.2	25.09.2023	Soil	X	X	X	X	X												
12 13	TP1_0.5-0.6_230925	0.5-0.6	25.09.2023	Soil															X		
13 14	TP2_0.1-0.2_230925	0.1-0.2	25.09.2023	Soil	X																
14 15	TP3_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
15 16	TP3_0.3-0.4_230925	0.3-0.4	25.09.2023	Soil															X		
16 17	TP4_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
17 18	TP4_0.5-0.6_230925	0.5-0.6	25.09.2023	Soil															X		
18 19	TP5_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
19 20	TP6_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
20 21	TP7_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X	X	X	X	X												
21 22	TP7_0.4-0.6_230925	0.4-0.6	25.09.2023	Soil															X		
22 23	TP8_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
23 24	TP9_0.1-0.2_230925	0.1-0.2	25.09.2023	Soil	X																
24 25	TP9_0.4-0.5_230925	0.4-0.5	25.09.2023	Soil															X		
25 26	TP10_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
26 27	TP11_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X	X	X	X	X												
27 28	TP11_0.3-0.4_230925	0.3-0.4	25.09.2023	Soil	X					X	X	X	X	X							
28 29	TP12_0.0-0.1_230925	0.0-0.1	25.09.2023	Soil	X																
29 30	TP13_0.1-0.2_230925	0.1-0.2	25.09.2023	Soil	X																
30 31	TP14_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
31 32	TP15_0.0-0.2_230925	0.0-0.2	25.09.2023	Soil	X																
32 33	TP16_0.1-0.2_230925	0.1-0.2	25.09.2023	Soil	X																
33 34	TP17_0.0-0.1_230925	0.0-0.1	25.09.2023	Soil	X																
34 35	TP17_0.4-0.5_230925	0.4-0.5	25.09.2023	Soil															X		
35 36	SP1		25.09.2023	Soil	X																
36	BH05 - 2.5 (extra) KW 28/9																				

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): ADE	Received by (Company): ELS SYD	Lab Use Only	
Print Name: KARIN AZZAM	Print Name: Katy Wayne	Job number: 334223	Cooling: Ice / Ice pack / None
Date & Time: 28.09.2023	Date & Time: 28/9/23 1520	Temperature: 4°C	Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

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

Job No: 334223
Date Received: 28/9/23
Time Received: 15 20
Received By: KW
Temp: Cool/Ambient 4°c
Cooling: Ice/Icepack
Security: Intact/Broken/None

37 TP8 0.0-0.2_230925 (extra) KW 28/9

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
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www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	ADE CONSULTING GROUP PTY LTD
Attention	Karin Azzam

Sample Login Details

Your reference	A101023.0436 / Melrose Park
Envirolab Reference	334223
Date Sample Received	28/09/2023
Date Instructions Received	28/09/2023
Date Results Expected to be Reported	06/10/2023

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	37 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
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:

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Sample ID	VOCs in soil	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 Soil - Inorg	Misc Inorg - Soil	CEC	PFAS in Soils Short	On Hold
BH01_1.0-1.0													✓
BH02_1.5-1.5		✓	✓	✓	✓	✓	✓	✓					
BH03_1.0-1.0													✓
BH04_1.0-1.0		✓	✓	✓	✓	✓	✓	✓					
BH05_1.0-1.0													✓
BH06_1.0-1.0		✓	✓	✓	✓	✓	✓	✓					
BH07_1.0-1.0													✓
BH08_2.5-2.5													✓
BH09_1.0-1.0		✓	✓	✓	✓	✓	✓	✓					
BH10_0.0-0.5-1.0													✓
TP1_0.1-0.2_230925-0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
TP1_0.5-0.6_230925-0.5-0.6													✓
TP2_0.1-0.2_230925-0.1-0.2		✓	✓	✓	✓	✓	✓	✓					
TP3_0.0-0.2_230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP3_0.3-0.4_230925-0.3-0.4													✓
TP4_0.0-0.2_230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP4_0.5-0.6_230925-0.5-0.6													✓
TP5_0.0-0.2_230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP6_0.0-0.2_230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP7_0.0-0.2_230925-0.0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	

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Sample ID	VOCs in soil	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 Soil - Inorg	Misc Inorg - Soil	CEC	PFAS in Soils Short	On Hold
TP7_0.4-0.6_230925-0.4-0.6													✓
TP8_0.0-0.2_230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP9_0.1-0.2_230925-0.1-0.2		✓	✓	✓	✓	✓	✓	✓					
TP9_0.4-0.5_230925-0.4-0.5													✓
TP10_0.0-0.2_230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP11_0.0-0.2_230925-0.0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
TP11_0.3-0.4_230925-0.3-0.4		✓	✓	✓	✓	✓	✓	✓		✓	✓		
TP12_0.0-0.1_230925-0.0-0.1		✓	✓	✓	✓	✓	✓	✓					
TP13_0.1-0.2_230925-0.1-0.2		✓	✓	✓	✓	✓	✓	✓					
TP14_0.0-0.2_230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP15_0.0-0.2 _230925-0.0-0.2		✓	✓	✓	✓	✓	✓	✓					
TP16_0.1-0.2_230925-0.1-0.2		✓	✓	✓	✓	✓	✓	✓					
TP17_0.0-0.1_230925-0.0-0.1		✓	✓	✓	✓	✓	✓	✓					
TP17_0.4-0.5_230925-0.4-0.5													✓
SP1		✓	✓	✓	✓	✓	✓	✓					
BH05-2.5													✓
TP8-0-0.2													✓

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

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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.

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CERTIFICATE OF ANALYSIS 334223

Client Details

Client	ADE CONSULTING GROUP PTY LTD
Attention	Karin Azzam
Address	Unit 6, 7 Millenium Court, Silverwater, NSW, 2128

Sample Details

Your Reference	**A101023.0436 / Melrose Park**
Number of Samples	37 Soil
Date samples received	28/09/2023
Date completed instructions received	28/09/2023

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	06/10/2023
Date of Issue	06/10/2023

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

Results Approved By
Amanda Chui, Air Toxics Team Leader
Diego Bigolin, Inorganics Supervisor
Liam Timmins, Organics Supervisor
Loren Bardwell, Development Chemist
Priya Samarawickrama, Senior Chemist
Steven Luong, Senior Chemist
Tim Toll, Chemist (FAS)

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in soil				
Our Reference		334223-11	334223-20	334223-26
Your Reference	UNITS	TP1_0.1-0.2_230925	TP7_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date Extracted	-	29/09/2023	29/09/2023	29/09/2023
Date Analysed	-	03/10/2023	03/10/2023	03/10/2023
Dichlorodifluoromethane	mg/kg	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1
chloroform	mg/kg	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1

VOCs in soil				
Our Reference		334223-11	334223-20	334223-26
Your Reference	UNITS	TP1_0.1-0.2_230925	TP7_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
chlorobenzene	mg/kg	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1
bromoform	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
styrene	mg/kg	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1
Surrogate Dibromofluoromethane	%	98	98	98
Surrogate aaa-Trifluorotoluene	%	79	66	76
Surrogate Toluene-d_8	%	99	100	99
Surrogate 4-Bromofluorobenzene	%	98	99	98

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH 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	%	80	73	68	72	79

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	04/10/2023	04/10/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	05/10/2023	05/10/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH 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	%	74	73	81	71	76

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH 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	%	66	81	73	71	76

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH 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	%	64	72	79	69	74

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	79	61	66

svTRH (C10-C40) in Soil						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
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	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	79	80	77	79	78

svTRH (C10-C40) in Soil						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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	190	<100	<100	150	<100
Total +ve TRH (C10-C36)	mg/kg	190	<50	<50	150	<50
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	200	<100	<100	150	<100
TRH >C_{34} -C_{40}	mg/kg	190	<100	<100	160	<100
Total +ve TRH (>C10-C40)	mg/kg	380	<50	<50	320	<50
Surrogate o-Terphenyl	%	80	78	79	80	78

svTRH (C10-C40) in Soil						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	30/09/2023	30/09/2023	30/09/2023
TRH C_{10} - C_{14}	mg/kg	63	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	120	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	140	130	100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	320	130	100	<50	<50
TRH >C_{10} -C_{16}	mg/kg	57	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	57	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	190	160	120	<100	<100
TRH >C_{34} -C_{40}	mg/kg	100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	350	160	120	<50	<50
Surrogate o-Terphenyl	%	79	79	78	78	77

svTRH (C10-C40) in Soil						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	30/09/2023	30/09/2023	30/09/2023	30/09/2023	30/09/2023
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	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
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	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	79	81	77	77	78

svTRH (C10-C40) in Soil				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	30/09/2023	30/09/2023	30/09/2023
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	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<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	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	77	77	76

PAHs in Soil						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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	0.3
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.7
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.6
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.9
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.5
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	0.3
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	4.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.6
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.7
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.7
Surrogate p-Terphenyl-d14	%	96	96	95	95	98

PAHs in Soil						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.2	0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.9	0.6	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.2	0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	2.0	1	0.2	0.2	<0.1
Pyrene	mg/kg	1.8	0.8	0.1	0.1	<0.1
Benzo(a)anthracene	mg/kg	1.0	0.4	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.8	0.4	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	2.2	0.8	0.2	0.2	<0.2
Benzo(a)pyrene	mg/kg	1.4	0.5	0.1	0.1	0.07
Indeno(1,2,3-c,d)pyrene	mg/kg	1	0.3	0.1	0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.6	0.2	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	12	5.2	0.69	0.74	0.07
Benzo(a)pyrene TEQ calc (zero)	mg/kg	2.0	0.6	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	2.0	0.7	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	2.0	0.7	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	96	93	96	97	95

PAHs in Soil						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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	0.2	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	0.2	<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	0.3	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.1	<0.05	0.1	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	1.1	<0.05	0.4	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	%	95	96	94	93	90

PAHs in Soil						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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	0.2	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.2	<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	0.3	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.1	<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	1.1	<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	%	94	101	93	96	96

PAHs in Soil				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	03/10/2023	03/10/2023
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	0.8	<0.1	<0.1
Anthracene	mg/kg	0.2	<0.1	<0.1
Fluoranthene	mg/kg	1.2	<0.1	<0.1
Pyrene	mg/kg	1.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.5	<0.1	<0.1
Chrysene	mg/kg	0.4	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	1	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.55	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.4	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.3	<0.1	<0.1
Total +ve PAH's	mg/kg	6.8	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.8	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.8	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.9	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	101	98

Organochlorine Pesticides in soil						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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
Surrogate TCMX	%	95	96	95	96	100

Organochlorine Pesticides in soil						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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
Surrogate TCMX	%	94	91	94	96	95

Organochlorine Pesticides in soil						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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
Surrogate TCMX	%	92	93	95	95	91

Organochlorine Pesticides in soil						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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
Surrogate TCMX	%	98	105	97	96	97

Organochlorine Pesticides in soil				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	03/10/2023	03/10/2023
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
Surrogate TCMX	%	96	102	98

Organophosphorus Pesticides in Soil						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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 TCMX	%	95	96	95	96	100

Organophosphorus Pesticides in Soil						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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 TCMX	%	94	91	94	96	95

Organophosphorus Pesticides in Soil						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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 TCMX	%	92	93	95	95	91

Organophosphorus Pesticides in Soil						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
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 TCMX	%	98	105	97	96	97

Organophosphorus Pesticides in Soil				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	03/10/2023	03/10/2023
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 TCMX	%	96	102	98

PCBs in Soil						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	96	95	96	100

PCBs in Soil						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	91	94	96	95

PCBs in Soil						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	93	95	95	91

PCBs in Soil						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	98	105	97	96	97

PCBs in Soil				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	03/10/2023	03/10/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	102	98

Acid Extractable metals in soil						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Date analysed	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Arsenic	mg/kg	<4	11	12	11	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	26	13	15	16
Copper	mg/kg	14	9	29	28	35
Lead	mg/kg	18	25	21	33	53
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	2	1	3	9
Zinc	mg/kg	6	9	11	16	94

Acid Extractable metals in soil						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Date analysed	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Arsenic	mg/kg	9	6	11	11	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	18	27	26	26
Copper	mg/kg	28	17	19	31	13
Lead	mg/kg	440	37	62	150	46
Mercury	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Nickel	mg/kg	10	11	5	5	5
Zinc	mg/kg	180	72	91	88	41

Acid Extractable metals in soil						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Date analysed	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Arsenic	mg/kg	18	12	20	8	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	30	27	34	22	21
Copper	mg/kg	31	32	35	24	17
Lead	mg/kg	110	69	46	84	35
Mercury	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	12	12	5	7	5
Zinc	mg/kg	130	200	87	36	16

Acid Extractable metals in soil						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Date analysed	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Arsenic	mg/kg	9	7	8	10	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	24	19	24	24	20
Copper	mg/kg	33	18	20	19	25
Lead	mg/kg	23	42	39	35	35
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	6	5	5	7
Zinc	mg/kg	17	36	150	20	28
Iron	mg/kg	66,000	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	03/10/2023	03/10/2023	03/10/2023
Date analysed	-	04/10/2023	04/10/2023	04/10/2023
Arsenic	mg/kg	11	8	4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	24	20	2
Copper	mg/kg	41	24	<1
Lead	mg/kg	100	31	2
Mercury	mg/kg	0.2	<0.1	<0.1
Nickel	mg/kg	7	7	<1
Zinc	mg/kg	140	27	5

Misc Soil - Inorg				
Our Reference	UNITS	334223-11	334223-20	334223-26
Your Reference		TP1_0.1-0.2_230925	TP7_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023
Total Cyanide	mg/kg	<0.5	<0.5	<0.5
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5

Misc Inorg - Soil		
Our Reference		334223-27
Your Reference	UNITS	TP11_0.3-0.4_230925
Depth		0.3-0.4
Date Sampled		25/09/2023
Type of sample		Soil
Date prepared	-	29/09/2023
Date analysed	-	29/09/2023
pH 1:5 soil:water	pH Units	5.1
Electrical Conductivity 1:5 soil:water	µS/cm	42
Total Organic Carbon in soil/solids	mg/kg	7,400

CEC		
Our Reference		334223-27
Your Reference	UNITS	TP11_0.3-0.4_230925
Depth		0.3-0.4
Date Sampled		25/09/2023
Type of sample		Soil
Date prepared	-	05/10/2023
Date analysed	-	05/10/2023
Exchangeable Ca	meq/100g	2.4
Exchangeable K	meq/100g	0.2
Exchangeable Mg	meq/100g	2.5
Exchangeable Na	meq/100g	0.2
Cation Exchange Capacity	meq/100g	5.2

Moisture						
Our Reference		334223-2	334223-4	334223-6	334223-9	334223-11
Your Reference	UNITS	BH02_1.5	BH04_1.0	BH06_1.0	BH09_1.0	TP1_0.1-0.2_230925
Depth		1.5	1.0	1.0	1.0	0.1-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Moisture	%	13	17	13	16	14

Moisture						
Our Reference		334223-13	334223-14	334223-16	334223-18	334223-19
Your Reference	UNITS	TP2_0.1-0.2_230925	TP3_0.0-0.2_230925	TP4_0.0-0.2_230925	TP5_0.0-0.2_230925	TP6_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Moisture	%	17	22	12	15	16

Moisture						
Our Reference		334223-20	334223-22	334223-23	334223-25	334223-26
Your Reference	UNITS	TP7_0.0-0.2_230925	TP8_0.0-0.2_230925	TP9_0.1-0.2_230925	TP10_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.0-0.2	0.0-0.2	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Moisture	%	14	17	22	22	19

Moisture						
Our Reference		334223-27	334223-28	334223-29	334223-30	334223-31
Your Reference	UNITS	TP11_0.3-0.4_230925	TP12_0.0-0.1_230925	TP13_0.1-0.2_230925	TP14_0.0-0.2_230925	TP15_0.0-0.2_230925
Depth		0.3-0.4	0.0-0.1	0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/09/2023	29/09/2023	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023	03/10/2023	03/10/2023
Moisture	%	28	19	15	20	23

Moisture				
Our Reference		334223-32	334223-33	334223-35
Your Reference	UNITS	TP16_0.1-0.2_230925	TP17_0.0-0.1_230925	SP1
Depth		0.1-0.2	0.0-0.1	-
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	03/10/2023	03/10/2023	03/10/2023
Moisture	%	20	15	18

PFAS in Soils Short				
Our Reference		334223-11	334223-20	334223-26
Your Reference	UNITS	TP1_0.1-0.2_230925	TP7_0.0-0.2_230925	TP11_0.0-0.2_230925
Depth		0.1-0.2	0.0-0.2	0.0-0.2
Date Sampled		25/09/2023	25/09/2023	25/09/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	29/09/2023	29/09/2023	29/09/2023
Date analysed	-	29/09/2023	29/09/2023	29/09/2023
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.2	0.5	0.7
Perfluorooctanesulfonic acid PFOS	µg/kg	5.5	7.5	0.5
Perfluorooctanoic acid PFOA	µg/kg	0.3	1.0	0.2
6:2 FTS	µg/kg	<0.1	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	102	98	101
Surrogate $^{13}C_2$ *PFOA*	%	105	110	106
Extracted ISTD $^{18}O_2$ *PFHxS*	%	98	89	92
Extracted ISTD $^{13}C_4$ *PFOS*	%	97	79	93
Extracted ISTD $^{13}C_4$ *PFOA*	%	98	82	95
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	83	67	79
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	92	43	88
Total Positive PFHxS & PFOS	µg/kg	5.8	8.0	1.2
Total Positive PFOS & PFOA	µg/kg	5.8	8.5	0.7
Total Positive PFAS	µg/kg	6.0	9.1	1.4

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25°C in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids/Filters and sorbents are extracted in a caustic media prior to analysis. Impingers are pH adjusted as required prior to analysis. Cyanides amenable to Chlorination - samples are analysed untreated and treated with hypochlorite to assess the potential for chlorination of cyanide forms. Based on APHA latest edition, 4500-CN_G,H.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
INORG-137	Total Carbon Nitrogen Sulfur by high temperature catalytic combustion with IR detection.
Metals-020	Determination of various metals by ICP-AES.
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	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.

Method ID	Methodology Summary
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
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.

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date Extracted	-			29/09/2023	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date Analysed	-			03/10/2023	11	03/10/2023	03/10/2023		03/10/2023	03/10/2023
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	11	<1	<1	0	138	131
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	11	<1	<1	0	126	119
2,2-dichloropropane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	11	<1	<1	0	126	119
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	11	<1	<1	0	127	119
1,1-dichloropropene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	11	<0.2	<0.2	0	132	125
dibromomethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	11	<1	<1	0	117	108
bromodichloromethane	mg/kg	1	Org-023	<1	11	<1	<1	0	131	125
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	11	<0.5	<0.5	0	128	119
1,3-dichloropropane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	11	<1	<1	0	132	125
1,2-dibromoethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	11	<1	<1	0	123	110
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	126	115
bromoform	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	11	<2	<2	0	127	115
styrene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
o-Xylene	mg/kg	1	Org-023	<1	11	<1	<1	0	129	119
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	11	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	98	11	98	99	1	98	99
Surrogate aaa-Trifluorotoluene	%		Org-023	77	11	79	72	9	82	73
Surrogate Toluene-d_8	%		Org-023	99	11	99	101	2	100	100
Surrogate 4-Bromofluorobenzene	%		Org-023	97	11	98	98	0	100	98

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date Extracted	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Date Analysed	-			[NT]	26	03/10/2023	03/10/2023		[NT]	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
2,2-dichloropropane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,1-dichloropropene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	26	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
bromodichloromethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	26	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2-dibromoethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	26	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	[NT]	26	98	98	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	26	76	71	7	[NT]	[NT]
Surrogate Toluene-d_8	%		Org-023	[NT]	26	99	100	1	[NT]	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	[NT]	26	98	99	1	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date extracted	-			04/10/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			05/10/2023	2	03/10/2023	03/10/2023		03/10/2023	03/10/2023
TRH C_6 - C_9	mg/kg	25	Org-023	<25	2	<25	<25	0	128	118
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	2	<25	<25	0	128	118
Benzene	mg/kg	0.2	Org-023	<0.2	2	<0.2	<0.2	0	132	125
Toluene	mg/kg	0.5	Org-023	<0.5	2	<0.5	<0.5	0	128	119
Ethylbenzene	mg/kg	1	Org-023	<1	2	<1	<1	0	126	115
m+p-xylene	mg/kg	2	Org-023	<2	2	<2	<2	0	127	115
o-Xylene	mg/kg	1	Org-023	<1	2	<1	<1	0	129	119
Naphthalene	mg/kg	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	102	2	80	72	11	82	73

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	334223-32
Date extracted	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			[NT]	11	03/10/2023	03/10/2023		03/10/2023	03/10/2023
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	11	<25	<25	0	111	117
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	11	<25	<25	0	111	117
Benzene	mg/kg	0.2	Org-023	[NT]	11	<0.2	<0.2	0	115	124
Toluene	mg/kg	0.5	Org-023	[NT]	11	<0.5	<0.5	0	111	117
Ethylbenzene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	109	114
m+p-xylene	mg/kg	2	Org-023	[NT]	11	<2	<2	0	110	114
o-Xylene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	111	117
Naphthalene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	11	79	72	9	73	73

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]	26	29/09/2023	29/09/2023		[NT]	[NT]
Date analysed	-			[NT]	26	03/10/2023	03/10/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	26	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	26	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	26	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	26	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	26	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	26	76	71	7	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date extracted	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			30/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	2	<50	<50	0	110	96
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	2	<100	<100	0	110	100
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	2	<100	<100	0	129	#
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	2	<50	<50	0	110	96
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	2	<100	<100	0	110	100
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	2	<100	<100	0	129	#
Surrogate o-Terphenyl	%		Org-020	81	2	79	80	1	92	85

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	334223-32
Date extracted	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			[NT]	11	29/09/2023	29/09/2023		30/09/2023	30/09/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	11	<50	<50	0	105	105
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	109	117
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	11	<100	110	10	105	105
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	11	<50	<50	0	105	105
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	109	117
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	11	<100	120	18	105	105
Surrogate o-Terphenyl	%		Org-020	[NT]	11	78	78	0	89	88

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Date analysed	-			[NT]	26	30/09/2023	30/09/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	26	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	26	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	26	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	26	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	26	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	26	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	26	77	76	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date extracted	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	92	92
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	105	101
Fluorene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	95	93
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	100	94
Anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	102	96
Pyrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	99	100
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	93	83
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	2	<0.05	<0.05	0	98	136
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	96	2	96	98	2	102	97

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	334223-32
Date extracted	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	97	92
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	107	101
Fluorene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	93	92
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	11	0.3	0.3	0	102	61
Anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	11	0.7	0.8	13	104	130
Pyrene	mg/kg	0.1	Org-022/025	[NT]	11	0.6	0.8	29	103	66
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	11	0.3	0.4	29	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	11	0.3	0.4	29	89	71
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	11	0.9	1	11	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	11	0.5	0.67	29	116	95
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	11	0.5	0.6	18	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	11	0.3	0.5	50	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	11	98	98	0	101	96

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Date analysed	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	26	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	26	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	26	90	91	1	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date extracted	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	96	98
HCB	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	92	96
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	81	77
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	81	91
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	92	97
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	107	105
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	116	114
Endrin	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	76	82
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	84	88
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	100	81
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	97	2	95	97	2	101	96

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	334223-32
Date extracted	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	96	92
HCB	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	92	87
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	75	75
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	91	87
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	94	98
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	111	107
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	108	101
Endrin	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	66	70
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	82	83
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	100	100
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	11	100	98	2	101	96

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Date analysed	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	26	91	96	5	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date extracted	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	105	111
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	91	97
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	79	134
Malathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	103	138
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	94	102
Fenthion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	82	133
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	88	121
Phosalone	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	97	2	95	97	2	101	96

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	334223-32
Date extracted	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	105	99
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	97	93
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	91	96
Malathion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	112	112
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	98	95
Fenthion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	99	111
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	100	115
Phosalone	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	11	100	98	2	101	96

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Date analysed	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	26	91	96	5	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date extracted	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			29/09/2023	2	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	107	100
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	2	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	97	2	95	97	2	101	96

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	334223-32
Date extracted	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			[NT]	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	11	<0.1	<0.1	0	113	100
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	11	100	98	2	101	96

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Date analysed	-			[NT]	26	29/09/2023	29/09/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	26	91	96	5	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date prepared	-			03/10/2023	2	03/10/2023	03/10/2023		03/10/2023	03/10/2023
Date analysed	-			04/10/2023	2	04/10/2023	04/10/2023		04/10/2023	04/10/2023
Arsenic	mg/kg	4	Metals-020	<4	2	<4	5	22	126	#
Cadmium	mg/kg	0.4	Metals-020	<0.4	2	<0.4	<0.4	0	120	113
Chromium	mg/kg	1	Metals-020	<1	2	7	8	13	124	127
Copper	mg/kg	1	Metals-020	<1	2	14	14	0	121	#
Lead	mg/kg	1	Metals-020	<1	2	18	19	5	124	114
Mercury	mg/kg	0.1	Metals-021	<0.1	2	<0.1	<0.1	0	103	102
Nickel	mg/kg	1	Metals-020	<1	2	<1	<1	0	121	119
Zinc	mg/kg	1	Metals-020	<1	2	6	7	15	129	#
Iron	mg/kg	10	Metals-020	<10	[NT]	[NT]	[NT]	[NT]	109	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	334223-32
Date prepared	-			[NT]	11	03/10/2023	03/10/2023		03/10/2023	03/10/2023
Date analysed	-			[NT]	11	04/10/2023	04/10/2023		04/10/2023	04/10/2023
Arsenic	mg/kg	4	Metals-020	[NT]	11	6	6	0	129	120
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	121	107
Chromium	mg/kg	1	Metals-020	[NT]	11	16	19	17	116	119
Copper	mg/kg	1	Metals-020	[NT]	11	35	30	15	124	123
Lead	mg/kg	1	Metals-020	[NT]	11	53	52	2	117	100
Mercury	mg/kg	0.1	Metals-021	[NT]	11	<0.1	<0.1	0	89	99
Nickel	mg/kg	1	Metals-020	[NT]	11	9	9	0	123	114
Zinc	mg/kg	1	Metals-020	[NT]	11	94	110	16	129	#

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	26	03/10/2023	03/10/2023		[NT]	[NT]
Date analysed	-			[NT]	26	04/10/2023	04/10/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	26	8	7	13	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	26	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	26	21	21	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	26	17	20	16	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	26	35	35	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	26	5	5	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	26	16	17	6	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date prepared	-			29/09/2023	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			03/10/2023	11	03/10/2023	03/10/2023		03/10/2023	03/10/2023
Total Cyanide	mg/kg	0.5	Inorg-014	<0.5	11	<0.5	<0.5	0	101	83
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	11	<5	<5	0	102	102

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			29/09/2023	[NT]	[NT]	[NT]	[NT]	29/09/2023	[NT]
Date analysed	-			29/09/2023	[NT]	[NT]	[NT]	[NT]	29/09/2023	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Total Organic Carbon in soil/solids	mg/kg	100	INORG-137	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			05/10/2023	[NT]	[NT]	[NT]	[NT]	05/10/2023	[NT]
Date analysed	-			05/10/2023	[NT]	[NT]	[NT]	[NT]	05/10/2023	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: PFAS in Soils Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334223-20
Date prepared	-			29/09/2023	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Date analysed	-			29/09/2023	11	29/09/2023	29/09/2023		29/09/2023	29/09/2023
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	11	0.2	0.3	40	109	108
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	11	5.5	6.8	21	105	88
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	11	0.3	0.3	0	123	106
6:2 FTS	µg/kg	0.1	Org-029	<0.1	11	<0.1	<0.1	0	113	111
8:2 FTS	µg/kg	0.2	Org-029	<0.2	11	<0.2	<0.2	0	114	113
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	102	11	102	104	2	100	98
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	104	11	105	110	5	109	109
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	100	11	98	92	6	101	92
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	99	11	97	93	4	101	83
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	102	11	98	95	3	96	86
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	89	11	83	87	5	83	69
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	91	11	92	92	0	90	55

Result Definitions

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

Quality Control Definitions

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

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

Report Comments

PFAS_S:
For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

TRH Soil C10-C40 NEPM - # Percent recovery for the matrix spike is not possible to report as the high concentration of analytes in sample 334223-20ms have caused interference.

Acid Extractable 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.

CHAIN OF CUSTODY FORM - Client

ENVIROLAB GROUP **ENVIROLAB GROUP**
National phone number 1300 424 344 National phone number 1300 424 344

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
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Darwin Office - Envirolab Services
Unit 20/119 Reichardt Road, Winnellie, NT 0820

Client: ADE Consulting group
Contact Person: Karin Azzam
Project Mgr: Karin Azzam
Sampler: Karin Azzam
Address: 6/7 Millennium Ct, Silverwater NSW 2128
Phone: Mob: 0490 072 877
Email: karin.azzam@ade.group, stephen.bowly@ade.group

Client Project Name/Number/Site etc (ie report title):
A101023.0436 / Melrose Park
PO No.: A101023.0436.002
Envirolab Quote No. :
Date results required:
Or choose: standard / same day / 1 day / 2 day / 3 day
Note: Inform lab in advance if urgent turnaround is required - surcharges apply
Additional report format: esdat / equis /
Lab Comments:

Sample Information					Tests Required																Comments
Envirolab Sample ID	Client Sample ID or Information	Depth	Date sampled	Type of sample	Combination 6 (soil)		Combination 6 (water)														Provide as much information about the sample as you can
1	BH2_0.0-0.1	0.0-0.1	4.10.2023	Soil	X																
2	BH3_0.0-0.1	0.0-0.1	04.10.2023	Soil	X																
3	BH5_0.0-0.1	0.0-0.1	04.10.2023	Soil	X																
4	BH7_0.0-0.1	0.0-0.1	04.10.2023	Soil	X																
5	BH8_0.0-0.1	0.0-0.1	04.10.2023	Soil	X																
6	BH9_0.0-0.1	0.0-0.1	04.10.2023	Soil	X																
7	RB		04.10.2023	Water			X														

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): ADE	Received by (Company): ES	*Lab Use Only*
Print Name: KARIN AZZAM	Print Name: RA	Job number: 334606 / Cooling: Ice / Ice pack / None
Date & Time: 5.10.2023 9 am	Date & Time: 5/10/23 1240	Temperature: 4 / Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD

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	ADE CONSULTING GROUP PTY LTD
Attention	Karin Azzam

Sample Login Details

Your reference	A101023.0436/Melrose Park
Envirolab Reference	334606-A
Date Sample Received	05/10/2023
Date Instructions Received	13/10/2023
Date Results Expected to be Reported	20/10/2023

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	Additional silica gel cleanup 1 sample
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
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
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www.envirolab.com.au

Sample ID	svTRH (C10-C40) in Soil Pre Clean Up	sTPH in Soil (C10-C40)-Silica	On Hold
BH2_0.0-0.1-0-0.1	✓	✓	
BH3_0.0-0.1-0-0.1			✓
BH5_0.0-0.1-0-0.1			✓
BH7_0.0-0.1-0-0.1			✓
BH8_0.0-0.1-0-0.1			✓
BH9_0.0-0.1-0-0.1			✓
RB			✓

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.

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CERTIFICATE OF ANALYSIS 334606

Client Details

Client	ADE CONSULTING GROUP PTY LTD
Attention	Karin Azzam
Address	Unit 6, 7 Millenium Court, Silverwater, NSW, 2128

Sample Details

Your Reference	**A101023.0436/Melrose Park**
Number of Samples	6 Soil, 1 Water
Date samples received	05/10/2023
Date completed instructions received	05/10/2023

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	12/10/2023
Date of Issue	10/10/2023

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

Results Approved By
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor
Loren Bardwell, Development Chemist
Steven Luong, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023	09/10/2023	09/10/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	109	89	89	90

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date extracted	-	06/10/2023
Date analysed	-	09/10/2023
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	82

svTRH (C10-C40) in Soil						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023	09/10/2023	09/10/2023
TRH C_{10} - C_{14}	mg/kg	88	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	240	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	370	<100	<100	100	160
Total +ve TRH (C10-C36)	mg/kg	690	<50	<50	100	160
TRH >C_{10} -C_{16}	mg/kg	74	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	74	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	420	<100	<100	100	110
TRH >C_{34} -C_{40}	mg/kg	200	<100	<100	<100	140
Total +ve TRH (>C10-C40)	mg/kg	690	<50	<50	100	260
Surrogate o-Terphenyl	%	95	84	85	87	84

svTRH (C10-C40) in Soil		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date extracted	-	06/10/2023
Date analysed	-	09/10/2023
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	<50
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	110
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	110
Surrogate o-Terphenyl	%	86

PAHs in Soil						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	07/10/2023	07/10/2023	07/10/2023	07/10/2023	07/10/2023
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	0.6	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	1.1	0.2	0.1
Pyrene	mg/kg	0.1	<0.1	1	0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.7	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.06	<0.05	0.4	0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<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	0.2	<0.1	<0.1
Total +ve PAH's	mg/kg	0.4	<0.05	5.1	0.3	0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.7	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	103	107	110	108	102

PAHs in Soil		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date extracted	-	06/10/2023
Date analysed	-	07/10/2023
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	0.1
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	%	105

Organochlorine Pesticides in soil						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	07/10/2023	07/10/2023	07/10/2023	07/10/2023	07/10/2023
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
Surrogate TCMX	%	98	104	107	102	102

Organochlorine Pesticides in soil		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date extracted	-	06/10/2023
Date analysed	-	07/10/2023
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Mirex	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	105

Organophosphorus Pesticides in Soil						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	07/10/2023	07/10/2023	07/10/2023	07/10/2023	07/10/2023
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 TCMX	%	98	104	107	102	102

Organophosphorus Pesticides in Soil		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date extracted	-	06/10/2023
Date analysed	-	07/10/2023
Dichlorvos	mg/kg	<0.1
Mevinphos	mg/kg	<0.1
Phorate	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Disulfoton	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Parathion-Methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Fenthion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Methidathion	mg/kg	<0.1
Fenamiphos	mg/kg	<0.1
Ethion	mg/kg	<0.1
Phosalone	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Coumaphos	mg/kg	<0.1
Surrogate TCMX	%	105

PCBs in Soil						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	07/10/2023	07/10/2023	07/10/2023	07/10/2023	07/10/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	98	104	107	102	102

PCBs in Soil		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date extracted	-	06/10/2023
Date analysed	-	07/10/2023
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 TCMX	%	105

Acid Extractable metals in soil						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Arsenic	mg/kg	14	<4	16	7	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	18	11	21	18	23
Copper	mg/kg	22	4	30	23	19
Lead	mg/kg	60	6	57	46	53
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	7	6	14	8	6
Zinc	mg/kg	140	40	120	58	50

Acid Extractable metals in soil		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date prepared	-	06/10/2023
Date analysed	-	06/10/2023
Arsenic	mg/kg	7
Cadmium	mg/kg	<0.4
Chromium	mg/kg	19
Copper	mg/kg	21
Lead	mg/kg	39
Mercury	mg/kg	<0.1
Nickel	mg/kg	6
Zinc	mg/kg	40

Moisture						
Our Reference		334606-1	334606-2	334606-3	334606-4	334606-5
Your Reference	UNITS	BH2_0.0-0.1	BH3_0.0-0.1	BH5_0.0-0.1	BH7_0.0-0.1	BH8_0.0-0.1
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	06/10/2023	06/10/2023	06/10/2023	06/10/2023	06/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023	09/10/2023	09/10/2023
Moisture	%	15	1.5	26	28	21

Moisture		
Our Reference		334606-6
Your Reference	UNITS	BH9_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date prepared	-	06/10/2023
Date analysed	-	09/10/2023
Moisture	%	28

vTRH(C6-C10)/BTEXN in Water		
Our Reference		334606-7
Your Reference	UNITS	RB
Depth		-
Date Sampled		04/10/2023
Type of sample		Water
Date extracted	-	06/10/2023
Date analysed	-	09/10/2023
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	105
Surrogate Toluene-d8	%	101
Surrogate 4-Bromofluorobenzene	%	102

svTRH (C10-C40) in Water		
Our Reference		334606-7
Your Reference	UNITS	RB
Depth		-
Date Sampled		04/10/2023
Type of sample		Water
Date extracted	-	06/10/2023
Date analysed	-	07/10/2023
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	130
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	130
TRH >C_{10} - C_{16}	µg/L	110
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	110
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	110
Surrogate o-Terphenyl	%	85

PAHs in Water		
Our Reference		334606-7
Your Reference	UNITS	RB
Depth		-
Date Sampled		04/10/2023
Type of sample		Water
Date extracted	-	06/10/2023
Date analysed	-	09/10/2023
Naphthalene	µg/L	<0.1
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5
Total +ve PAH's	µg/L	<0.1
Surrogate p-Terphenyl-d14	%	96

Organochlorine Pesticides in Water		
Our Reference		334606-7
Your Reference	UNITS	RB
Depth		-
Date Sampled		04/10/2023
Type of sample		Water
Date extracted	-	06/10/2023
Date analysed	-	09/10/2023
alpha-BHC	µg/L	<0.2
HCB	µg/L	<0.2
beta-BHC	µg/L	<0.2
gamma-BHC	µg/L	<0.2
Heptachlor	µg/L	<0.2
delta-BHC	µg/L	<0.2
Aldrin	µg/L	<0.2
Heptachlor Epoxide	µg/L	<0.2
gamma-Chlordane	µg/L	<0.2
alpha-Chlordane	µg/L	<0.2
Endosulfan I	µg/L	<0.2
pp-DDE	µg/L	<0.2
Dieldrin	µg/L	<0.2
Endrin	µg/L	<0.2
Endosulfan II	µg/L	<0.2
pp-DDD	µg/L	<0.2
Endrin Aldehyde	µg/L	<0.2
pp-DDT	µg/L	<0.2
Endosulfan Sulphate	µg/L	<0.2
Methoxychlor	µg/L	<0.2
Mirex	ug/L	<0.2
Surrogate TCMX	%	93

OP Pesticides in Water		
Our Reference		334606-7
Your Reference	UNITS	RB
Depth		-
Date Sampled		04/10/2023
Type of sample		Water
Date extracted	-	06/10/2023
Date analysed	-	09/10/2023
Dichlorvos	µg/L	<0.2
Mevinphos	µg/L	<0.2
Phorate	µg/L	<0.2
Dimethoate	µg/L	<0.2
Diazinon	µg/L	<0.2
Disulfoton	µg/L	<0.2
Chlorpyriphos-methyl	µg/L	<0.2
Parathion-Methyl	µg/L	<0.2
Ronnel	µg/L	<0.2
Fenitrothion	µg/L	<0.2
Malathion	µg/L	<0.2
Chlorpyriphos	µg/L	<0.2
Fenthion	µg/L	<0.2
Parathion	µg/L	<0.2
Bromophos ethyl	µg/L	<0.2
Methidathion	µg/L	<0.2
Fenamiphos	µg/L	<0.2
Ethion	µg/L	<0.2
Phosalone	µg/L	<0.2
Azinphos-methyl (Guthion)	µg/L	<0.2
Coumaphos	µg/L	<0.2
Surrogate TCMX	%	93

PCBs in Water		
Our Reference		334606-7
Your Reference	UNITS	RB
Depth		-
Date Sampled		04/10/2023
Type of sample		Water
Date extracted	-	06/10/2023
Date analysed	-	09/10/2023
Aroclor 1016	µg/L	<2
Aroclor 1221	µg/L	<2
Aroclor 1232	µg/L	<2
Aroclor 1242	µg/L	<2
Aroclor 1248	µg/L	<2
Aroclor 1254	µg/L	<2
Aroclor 1260	µg/L	<2
Surrogate TCMX	%	93

Metals in Waters - Acid extractable		
Our Reference		334606-7
Your Reference	UNITS	RB
Depth		-
Date Sampled		04/10/2023
Type of sample		Water
Date prepared	-	06/10/2023
Date analysed	-	06/10/2023
Arsenic - Total	mg/L	<0.05
Cadmium - Total	mg/L	<0.01
Chromium - Total	mg/L	<0.01
Copper - Total	mg/L	<0.01
Lead - Total	mg/L	<0.03
Mercury - Total	mg/L	<0.0005
Nickel - Total	mg/L	<0.02
Zinc - Total	mg/L	<0.02

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.

Method ID	Methodology Summary
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	Water samples are analysed directly 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.
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	[NT]
Date extracted	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			09/10/2023	[NT]	[NT]	[NT]	[NT]	09/10/2023	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	117	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	117	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	118	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	118	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	116	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	116	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	102	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			06/10/2023	1	06/10/2023	06/10/2023		06/10/2023	[NT]
Date analysed	-			10/10/2023	1	09/10/2023	09/10/2023		10/10/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	88	65	30	125	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	240	160	40	121	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	370	320	14	116	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	74	57	26	125	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	420	330	24	121	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	200	190	5	116	[NT]
Surrogate o-Terphenyl	%		Org-020	80	1	95	87	9	92	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334606-2
Date extracted	-			06/10/2023	1	06/10/2023	06/10/2023		06/10/2023	06/10/2023
Date analysed	-			06/10/2023	1	07/10/2023	07/10/2023		06/10/2023	07/10/2023
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	99
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	91	103
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	95
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	100
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	0.2	0	88	106
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	0.1	0.2	67	105	111
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	81	89
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	0.06	0.09	40	90	94
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	108	1	103	105	2	97	97

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334606-2
Date extracted	-			06/10/2023	1	06/10/2023	06/10/2023		06/10/2023	06/10/2023
Date analysed	-			06/10/2023	1	07/10/2023	07/10/2023		06/10/2023	07/10/2023
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	94
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	88
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	97	87
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	81	77
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	92
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	105
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	116	112
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	80
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	74
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	120	120
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	101	1	98	100	2	96	96

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334606-2
Date extracted	-			06/10/2023	1	06/10/2023	06/10/2023		06/10/2023	06/10/2023
Date analysed	-			06/10/2023	1	07/10/2023	07/10/2023		06/10/2023	07/10/2023
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	113	109
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	97	94
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	89	72
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	103	94
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	106	92
Fenthion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	89	68
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	82	84
Phosalone	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	101	1	98	100	2	96	96

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	334606-2
Date extracted	-			06/10/2023	1	06/10/2023	06/10/2023		06/10/2023	06/10/2023
Date analysed	-			06/10/2023	1	07/10/2023	07/10/2023		06/10/2023	07/10/2023
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	104	80
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	101	1	98	100	2	96	96

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	105	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	98	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			09/10/2023	[NT]	[NT]	[NT]	[NT]	09/10/2023	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	103	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	107	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	102	[NT]	[NT]	[NT]	[NT]	102	[NT]
Surrogate Toluene-d8	%		Org-023	101	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			07/10/2023	[NT]	[NT]	[NT]	[NT]	07/10/2023	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	98	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	98	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	87	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			9/10/2023	[NT]	[NT]	[NT]	[NT]	9/10/2023	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	64	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	64	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	60	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	62	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	62	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	91	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: Organochlorine Pesticides in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			9/10/2023	[NT]	[NT]	[NT]	[NT]	9/10/2023	[NT]
alpha-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	64	[NT]
HCB	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	64	[NT]
gamma-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	70	[NT]
delta-BHC	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	68	[NT]
Heptachlor Epoxide	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	70	[NT]
gamma-Chlordane	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
Dieldrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
Endrin	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	64	[NT]
Endosulfan II	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	74	[NT]
Endrin Aldehyde	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
Methoxychlor	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mirex	ug/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	90	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: OP Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			9/10/2023	[NT]	[NT]	[NT]	[NT]	9/10/2023	[NT]
Dichlorvos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	74	[NT]
Mevinphos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion-Methyl	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	68	[NT]
Fenitrothion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	60	[NT]
Malathion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	72	[NT]
Chlorpyriphos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	74	[NT]
Fenthion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	60	[NT]
Bromophos ethyl	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	60	[NT]
Phosalone	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Azinphos-methyl (Guthion)	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	90	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: PCBs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			9/10/2023	[NT]	[NT]	[NT]	[NT]	9/10/2023	[NT]
Aroclor 1016	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	110	[NT]
Aroclor 1260	µg/L	2	Org-021	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	90	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Date analysed	-			06/10/2023	[NT]	[NT]	[NT]	[NT]	06/10/2023	[NT]
Arsenic - Total	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	112	[NT]
Cadmium - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	107	[NT]
Chromium - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	107	[NT]
Copper - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	106	[NT]
Lead - Total	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury - Total	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	102	[NT]
Nickel - Total	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	105	[NT]
Zinc - Total	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	109	[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.
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Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

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Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

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Measurement Uncertainty estimates are available for most tests upon request.

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

Report Comments

TRH_W_NEPM:
The positive result in the rinsate sample is due to a single peak with no hydrocarbon profile that is consistent with the use of plastic containers.

Anna Bui

From: Nick Sarlamis
Sent: Friday, 13 October 2023 1:23 PM
To: Customer Service
Cc: Liam Timmins; Organics NSW
Subject: FW: Results for Registration 334606 A101023.0436/Melrose Park

Hi All,

ELS REF: 334606-A
TAT: STANDARD
DUE: 20/10/23
AB.

A job request.

Also note Andrew from SPOCAS section is listed in the email chain.

From: Karin Azzam <karin.azzam@ade.group>
Sent: Friday, October 13, 2023 1:05 PM
To: Nick Sarlamis <NSarlamis@envirolab.com.au>
Cc: Stephen Bowly <Stephen.Bowly@ade.group>; Junaid Riaz <Junaid.Riaz@ade.group>; Ankita Saxena <Ankita.Saxena@ade.group>; Andrew Carmichael <Andrew.Carmichael@ade.group>
Subject: RE: Results for Registration 334606 A101023.0436/Melrose Park

Hi Nick and Envirolab team,

(1)

Could you please schedule BH2_0.0-0.1 for a silica gel clean up and subsequent TRH analysis.

Kind regards,

Karin Azzam
Environmental Consultant

ADECONSULTINGGROUP
SOLUTIONS THROUGH INNOVATION

6/7 Millennium Court,
Silverwater NSW, 2128
Phone: 0490 072 877
E-mail: karin.azzam@ade.group
Website: ade.group

Follow Us

I acknowledge the Traditional Owners of the land on which I work and recognise their continuing connection to land, waters and community. I pay my respects to them and their cultures; and to Elders both past and present.

Please consider the environment before printing this email.

From: Nick Sarlamis <NSarlamis@envirolab.com.au>
Sent: Tuesday, October 10, 2023 7:02 PM
To: Info <info@ade.group>; Karin Azzam <karin.azzam@ade.group>; Stephen Bowly <Stephen.Bowly@ade.group>
Subject: Results for Registration 334606 A101023.0436/Melrose Park

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 334606-A

Client Details

Client	ADE CONSULTING GROUP PTY LTD
Attention	Karin Azzam
Address	Unit 6, 7 Millenium Court, Silverwater, NSW, 2128

Sample Details

Your Reference	**A101023.0436/Melrose Park**
Number of Samples	Additional silica gel cleanup 1 sample
Date samples received	05/10/2023
Date completed instructions received	13/10/2023

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	20/10/2023
Date of Issue	18/10/2023

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

Results Approved By
Dragana Tomas, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

sTPH in Soil (C10-C40)-Silica		
Our Reference		334606-A-1
Your Reference	UNITS	BH2_0.0-0.1
Depth		0-0.1
Date Sampled		04/10/2023
Type of sample		Soil
Date extracted	-	16/10/2023
Date analysed	-	17/10/2023
TPH C_{10} - C_{14}	mg/kg	<50
TPH C_{15} - C_{28}	mg/kg	<100
TPH C_{29} - C_{36}	mg/kg	<100
TPH >C_{10} -C_{16}	mg/kg	<50
TPH >C_{16} -C_{34}	mg/kg	<100
TPH >C_{34} -C_{40}	mg/kg	<100
Surrogate o-Terphenyl	%	82

Method ID	Methodology Summary
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.

QUALITY CONTROL: sTPH in Soil (C10-C40)-Silica					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/10/2023	[NT]	[NT]	[NT]	[NT]	16/10/2023	[NT]
Date analysed	-			17/10/2023	[NT]	[NT]	[NT]	[NT]	17/10/2023	[NT]
TPH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	121	[NT]
TPH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	121	[NT]
TPH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TPH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	121	[NT]
TPH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	121	[NT]
TPH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	107	[NT]	[NT]	[NT]	[NT]	115	[NT]

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CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ Sydney Laboratory
Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1 21 Smallwood Place Murarrie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company	ADE Consulting Group	Project №	A103023.0436.002	Project Manager	Karin Azzam
Address	4 / 10-11 Millennium Ct, Silverwater, NSW 2128	Project Name	Melrose Park DSI	EDD Format (ESdat, EQuIS etc)	Esdat
Contact Name	Karin Azzam				
Phone №	0490 072 877				
Special Directions	**Standard TAT**				
Purchase Order	A103023.0436.002				
Quote ID №					

Sampler(s)	Karin Azzam, Ankita Saxena
Handed over by	Karin Azzam
Email for Invoice	accounts@ade.group
Email for Results	karin.azzam@ade.group, Stephen.bowly@

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

Containers (Change container type & size if necessary)

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

♦Surcharge will apply

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

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	B10B - TRH, BTEXN, PAH, OCP, OPP, PCB, Metals 8	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
11	BR1	25.09.2023	Soil	✖							1		
12													
13													
14													
15													
16													
17													
18													
19													
20													
	Total Counts			1							1		

Method of Shipment: ☑ Courier (#) ☐ Hand Delivered ☐ Postal | Name: Karin Azzam | Signature | Date: 45197 | Time: 1pm

Laboratory Use Only

Received By	Brendan	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	28/9/23	Time: 2:35	Temperature: 5.1
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date		Time	Report №

Eurofins Environment Testing Australia Pty Ltd

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

1030306

eurofins | Environment Testing

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

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	Tel: +61 2 4968 8448
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	NATA# 1261
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794	

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

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

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch	Tauranga
35 O'Rorke Road	43 Detroit Drive	1277 Cameron Road,
Penrose,	Rolleston,	Gate Pa,
Auckland 1061	Christchurch 7675	Tauranga 3112
Tel: +64 9 526 4551	Tel: +64 3 343 5201	Tel: +64 9 525 0568
IANZ# 1327	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name:	ADE Consulting Group Pty Ltd
Contact name:	Karin Azzam
Project name:	MELROSE PARK DSI
Project ID:	A103023.0436.002
Turnaround time:	5 Day
Date/Time received	Sep 28, 2023 2:35 PM
Eurofins reference	1030306

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 5.1 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Asim Khan on phone : or by email: AsimKhan@eurofins.com

Results will be delivered electronically via email to Karin Azzam - karin.azzam@ade.group.

Note: A copy of these results will also be delivered to the general ADE Consulting Group Pty Ltd email address.

eurofins

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

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

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	Tel: +61 2 4968 8448
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	NATA# 1261
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
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Tel: +64 9 526 4551	Tel: +64 3 343 5201	Tel: +64 9 525 0568
IANZ# 1327	IANZ# 1290	IANZ# 1402

Company Name: ADE Consulting Group Pty Ltd
Address: Unit 6/7 Millennium Court
Silverwater
NSW 2128

Project Name: MELROSE PARK DSI
Project ID: A103023.0436.002

Order No.: A103023.0436.002
Report #: 1030306
Phone: 02 9400 7711
Fax: 02 9401 0097

Received: Sep 28, 2023 2:35 PM
Due: Oct 6, 2023
Priority: 5 Day
Contact Name: Karin Azzam

Eurofins Analytical Services Manager : Asim Khan

Sample Detail						Moisture Set	Suite B10E:TRH/BTEXN/PAH/OCP/OPP/PCB/M8
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BR1	Sep 25, 2023		Soil	S23-Se0067971	X	X
Test Counts						1	1

ADE Consulting Group Pty Ltd
Unit 6/7 Millennium Court
Silverwater
NSW 2128

Attention: **Karin Azzam**

Report **1030306-S**
Project name MELROSE PARK DSI
Project ID A103023.0436.002
Received Date Sep 28, 2023

Client Sample ID			G01 **BR1**
Sample Matrix			**Soil**
Eurofins Sample No.			**S23-Se0067971**
Date Sampled			**Sep 25, 2023**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	74
TRH C29-C36	50	mg/kg	210
TRH C10-C36 (Total)	50	mg/kg	284
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	210
TRH >C34-C40	100	mg/kg	270
TRH >C10-C40 (total)*	100	mg/kg	480
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene N02	0.5	mg/kg	< 0.5
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene N07	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5

Client Sample ID			G01 BR1
Sample Matrix			Soil
Eurofins Sample No.			S23-Se0067971
Date Sampled			Sep 25, 2023
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	0.6
Total PAH*	0.5	mg/kg	0.6
2-Fluorobiphenyl (surr.)	1	%	105
p-Terphenyl-d14 (surr.)	1	%	109
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 1
4.4'-DDD	0.05	mg/kg	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5
a-HCH	0.05	mg/kg	< 0.5
Aldrin	0.05	mg/kg	< 0.5
b-HCH	0.05	mg/kg	< 0.5
d-HCH	0.05	mg/kg	< 0.5
Dieldrin	0.05	mg/kg	< 0.5
Endosulfan I	0.05	mg/kg	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5
Endrin	0.05	mg/kg	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5
Heptachlor	0.05	mg/kg	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5
Toxaphene	0.5	mg/kg	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1
Dibutylchlorendate (surr.)	1	%	51
Tetrachloro-m-xylene (surr.)	1	%	95
Organophosphorus Pesticides			
Azinphos-methyl	0.2	mg/kg	< 0.5
Bolstar	0.2	mg/kg	< 0.5
Chlorfenvinphos	0.2	mg/kg	< 0.5
Chlorpyrifos	0.2	mg/kg	< 0.5
Chlorpyrifos-methyl	0.2	mg/kg	< 0.5
Coumaphos	2	mg/kg	< 5
Demeton-S	0.2	mg/kg	< 0.5
Demeton-O	0.2	mg/kg	< 0.5
Diazinon	0.2	mg/kg	< 0.5
Dichlorvos	0.2	mg/kg	< 0.5

Client Sample ID			[G01]BR1
Sample Matrix			Soil
Eurofins Sample No.			S23-Se0067971
Date Sampled			Sep 25, 2023
Test/Reference	LOR	Unit	
Organophosphorus Pesticides			
Dimethoate	0.2	mg/kg	< 0.5
Disulfoton	0.2	mg/kg	< 0.5
EPN	0.2	mg/kg	< 0.5
Ethion	0.2	mg/kg	< 0.5
Ethoprop	0.2	mg/kg	< 0.5
Ethyl parathion	0.2	mg/kg	< 0.5
Fenitrothion	0.2	mg/kg	< 0.5
Fensulfothion	0.2	mg/kg	< 0.5
Fenthion	0.2	mg/kg	< 0.5
Malathion	0.2	mg/kg	< 0.5
Merphos	0.2	mg/kg	< 0.5
Methyl parathion	0.2	mg/kg	< 0.5
Mevinphos	0.2	mg/kg	< 0.5
Monocrotophos	2	mg/kg	< 5
Naled	0.2	mg/kg	< 0.5
Omethoate	2	mg/kg	< 5
Phorate	0.2	mg/kg	< 0.5
Pirimiphos-methyl	0.2	mg/kg	< 0.5
Pyrazophos	0.2	mg/kg	< 0.5
Ronnel	0.2	mg/kg	< 0.5
Terbufos	0.2	mg/kg	< 0.5
Tetrachlorvinphos	0.2	mg/kg	< 0.5
Tokuthion	0.2	mg/kg	< 0.5
Trichloronate	0.2	mg/kg	< 0.5
Triphenylphosphate (surr.)	1	%	73
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 1
Aroclor-1221	0.1	mg/kg	< 1
Aroclor-1232	0.1	mg/kg	< 1
Aroclor-1242	0.1	mg/kg	< 1
Aroclor-1248	0.1	mg/kg	< 1
Aroclor-1254	0.1	mg/kg	< 1
Aroclor-1260	0.1	mg/kg	< 1
Total PCB*	0.1	mg/kg	< 1
Dibutylchlorendate (surr.)	1	%	51
Tetrachloro-m-xylene (surr.)	1	%	95
Heavy Metals			
Arsenic	2	mg/kg	5.7
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	16
Copper	5	mg/kg	24
Lead	5	mg/kg	48
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	7.3
Zinc	5	mg/kg	88
Sample Properties			
% Moisture	1	%	16

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 04, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 04, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 04, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 04, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 04, 2023	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Oct 04, 2023	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Oct 04, 2023	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Oct 04, 2023	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Oct 04, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Sep 28, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			

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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794	

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Eurofins Analytical Services Manager : Asim Khan

Sample Detail						Moisture Set	Suite B10E:TRH/BTEXN/PAH/OCP/OPP/PCB/M8
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BR1	Sep 25, 2023		Soil	S23-Se0067971	X	X
Test Counts						1	1

eurofins | Environment Testing

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	80			70-130	Pass	
TRH C10-C14	%	92			70-130	Pass	
TRH C6-C10	%	79			70-130	Pass	
TRH >C10-C16	%	91			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	94			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	89			70-130	Pass	
m&p-Xylenes	%	73			70-130	Pass	
o-Xylene	%	92			70-130	Pass	
Xylenes - Total*	%	79			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	101			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	99			70-130	Pass	
Acenaphthylene	%	106			70-130	Pass	
Anthracene	%	103			70-130	Pass	
Benz(a)anthracene	%	98			70-130	Pass	
Benzo(a)pyrene	%	94			70-130	Pass	
Benzo(b&j)fluoranthene	%	96			70-130	Pass	
Benzo(g.h.i)perylene	%	87			70-130	Pass	
Benzo(k)fluoranthene	%	100			70-130	Pass	
Chrysene	%	98			70-130	Pass	
Dibenz(a.h)anthracene	%	86			70-130	Pass	
Fluoranthene	%	102			70-130	Pass	
Fluorene	%	99			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	88			70-130	Pass	
Naphthalene	%	98			70-130	Pass	
Phenanthrene	%	102			70-130	Pass	
Pyrene	%	104			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	95			70-130	Pass	
4.4'-DDD	%	89			70-130	Pass	
4.4'-DDE	%	100			70-130	Pass	
4.4'-DDT	%	104			70-130	Pass	
a-HCH	%	95			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	%	93			70-130	Pass	
b-HCH	%	98			70-130	Pass	
d-HCH	%	97			70-130	Pass	
Dieldrin	%	96			70-130	Pass	
Endosulfan I	%	96			70-130	Pass	
Endosulfan II	%	91			70-130	Pass	
Endosulfan sulphate	%	90			70-130	Pass	
Endrin	%	103			70-130	Pass	
Endrin aldehyde	%	83			70-130	Pass	
Endrin ketone	%	93			70-130	Pass	
g-HCH (Lindane)	%	98			70-130	Pass	
Heptachlor	%	101			70-130	Pass	
Heptachlor epoxide	%	96			70-130	Pass	
Hexachlorobenzene	%	99			70-130	Pass	
Methoxychlor	%	100			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	98			70-130	Pass	
Dimethoate	%	95			70-130	Pass	
Ethion	%	95			70-130	Pass	
Fenitrothion	%	82			70-130	Pass	
Methyl parathion	%	103			70-130	Pass	
Mevinphos	%	106			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	94			70-130	Pass	
Aroclor-1260	%	105			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	113			80-120	Pass	
Cadmium	%	108			80-120	Pass	
Chromium	%	108			80-120	Pass	
Copper	%	106			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	107			80-120	Pass	
Nickel	%	108			80-120	Pass	
Zinc	%	107			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S23-Se0068507	NCP	%	71			70-130	Pass	
TRH C10-C14	N23-Oc0001761	NCP	%	76			70-130	Pass	
TRH C6-C10	S23-Se0068507	NCP	%	70			70-130	Pass	
TRH >C10-C16	N23-Oc0001761	NCP	%	73			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S23-Se0068507	NCP	%	85			70-130	Pass	
Toluene	S23-Se0068507	NCP	%	72			70-130	Pass	
Ethylbenzene	S23-Se0068507	NCP	%	79			70-130	Pass	
m&p-Xylenes	S23-Se0068507	NCP	%	82			70-130	Pass	
o-Xylene	S23-Se0068507	NCP	%	81			70-130	Pass	
Xylenes - Total*	S23-Se0068507	NCP	%	82			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	S23-Se0068507	NCP	%	82			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S23-Oc0006638	NCP	%	86			70-130	Pass	
Acenaphthylene	S23-Oc0006638	NCP	%	91			70-130	Pass	
Anthracene	S23-Oc0006638	NCP	%	79			70-130	Pass	
Benz(a)anthracene	S23-Oc0006638	NCP	%	72			70-130	Pass	
Benzo(k)fluoranthene	S23-Oc0006638	NCP	%	76			70-130	Pass	
Chrysene	S23-Oc0006638	NCP	%	78			70-130	Pass	
Fluorene	S23-Oc0006638	NCP	%	90			70-130	Pass	
Naphthalene	S23-Oc0006638	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S23-Se0067971	CP	%	89			70-130	Pass	
Dimethoate	S23-Se0067971	CP	%	73			70-130	Pass	
Methyl parathion	S23-Se0067971	CP	%	100			70-130	Pass	
Mevinphos	S23-Se0067971	CP	%	102			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-Oc0004327	NCP	%	108			75-125	Pass	
Cadmium	S23-Oc0004327	NCP	%	106			75-125	Pass	
Chromium	S23-Se0069155	NCP	%	89			75-125	Pass	
Copper	S23-Oc0004327	NCP	%	101			75-125	Pass	
Lead	S23-Oc0004327	NCP	%	107			75-125	Pass	
Mercury	S23-Oc0004327	NCP	%	110			75-125	Pass	
Nickel	S23-Oc0004327	NCP	%	98			75-125	Pass	
Zinc	S23-Oc0004327	NCP	%	106			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S23-Se0068506	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	N23-Oc0001758	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	N23-Oc0001758	NCP	mg/kg	86	63	31	30%	Fail	Q15
TRH C29-C36	N23-Oc0001758	NCP	mg/kg	150	100	39	30%	Fail	Q15
TRH C6-C10	S23-Se0068506	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	N23-Oc0001758	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	N23-Oc0001758	NCP	mg/kg	200	140	36	30%	Fail	Q15
TRH >C34-C40	N23-Oc0001758	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-Se0068506	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-Se0068506	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-Se0068506	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-Se0068506	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-Se0068506	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-Se0068506	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Se0068506	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S23-Se0069155	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bolstar	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorfenvinphos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos-methyl	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Coumaphos	S23-Se0069155	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Demeton-S	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Demeton-O	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diazinon	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorvos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethoate	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Disulfoton	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
EPN	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Ethoprop	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethyl parathion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenitrothion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fensulfothion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenthion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Malathion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Merphos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl parathion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mevinphos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Monocrotophos	S23-Se0069155	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Naled	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Omethoate	S23-Se0069155	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Phorate	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pirimiphos-methyl	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrazophos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ronnel	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Terbufos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachlorvinphos	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tokuthion	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloronate	S23-Se0069155	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S23-Oc0006655	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-Se0067926	NCP	mg/kg	2.5	4.1	46	30%	Fail	Q15
Cadmium	S23-Se0067926	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S23-Se0067926	NCP	mg/kg	9.1	14	41	30%	Fail	Q15
Copper	S23-Se0067926	NCP	mg/kg	40	45	10	30%	Pass	
Lead	S23-Se0067926	NCP	mg/kg	15	14	6.5	30%	Pass	
Mercury	S23-Se0067926	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S23-Se0067926	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S23-Se0067926	NCP	mg/kg	56	49	14	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Se0067971	CP	%	16	18	13	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Asim Khan	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

Appendix G – Data Quality Objectives

The investigation was designed using the data quality objectives (DQO) as defined by the US EPA and the NSW EPA in the "Guidelines for the NSW DEC Site Auditor Scheme" (3rd Edition), (NSW EPA, 2017) and Australian Standard AS 4482.1 2005 (AS, 2005).

The DQO process consists of a seven-step planning approach to facilitate the development of qualitative and quantitative statements that specify the quality of the data required to support decision making within the scope of the investigation. This process utilises systematic planning and statistical hypothesis testing to differentiate between two or more clearly defined alternatives.

Step 1 – State the Problem

A review of available historical information and previous environmental investigations have inferred that the site has a low potential for contamination resulting from past and present land uses. Potential sources of contamination were identified to include potential pollutants from importation of fill across the site, migration of contaminants from offsite sources.

A targeted environmental investigation was therefore undertaken to assess soil conditions within the site. The following data collected was then used to evaluate and characterise the soil condition across the site to inform the need for remediation and further management (if required).

Step 2 – Identify the Decision

The purpose of the investigation is to focus on current and future human health and environmental risks associated with potential contamination. The decisions that need to be made on the contamination status of the site include:

- The extent of contamination (if present) in soil that would preclude the current land use of the site;
- The extent of contamination (if present) in soil at the site that has the potential to:
    - Impact upon a possible future land use of the site
    - Create a human or environmental risk within the site; and
    - Migrate to surrounding receptors.
- If contamination above the adopted criteria is identified, then a further assessment would be undertaken to assess feasible remediation/management options (if required)

The contamination would be considered not to pose a risk if analytical results for the media sampled and analysed are less than the adopted SAC presented in Site Investigation Criteria or are determined by a site-specific risk assessment not to represent an unacceptable risk to human health and/or the environment. Where an unacceptable risk is indicated, remediation and/or management options will need to be considered to address the risk and meet the site objectives.

Step 3- Identify Inputs to the Decision

To address the decision questions outlined in Step 2 of the DQOs, the following inputs to the decision have been identified:

- A review of previous environmental investigations undertaken at the site;
- A review of the historical and current use of the site;
- Investigation of soil vapour
- Investigation of the existing soil conditions at the site; and
- Comparison of soil analytical results with the site assessment criteria as outlined in the Site Investigation Design and Procedure

The CoPCs selected were determined through on-site observations following the completion a comprehensive desktop study and soil sampling and analysis.

Step 4 – Define the Boundaries of the Study

This step provides a detailed description of the spatial and temporal boundaries of the study area. These characteristics define the population of interest and any practical considerations for the study area (refer to **Table 16).**

Table 16 Summary of the Study Boundaries.

Spatial Boundaries	The works performed for this report cover the proposed development area, or construction footprint. The vertical boundaries of the proposed investigations are limited to a maximum depth 2.0 m BGL in soil. No assessment of groundwater was undertaken.
Temporal Boundaries	The investigation works were undertaken on the during September- October 2023.
Investigation Limit	The limit of the investigation has been undertaken to provide indicative/ detailed information as to the level and type of contamination within the site.
Constraints	Time, cost, redesign, remediation, and inaccessible areas across the site were considered constraints to the investigation.
Receptors of Concern	The potential receptors of concern are outlined in **Section 9**

Step 5 – Develop a Decision Rule

The purpose of this step is to define the parameters of interest, specify the action level and combine the outputs of the previous DQO steps into an "if…then…" decision rule that defines the conditions that would cause the decision-maker to choose alternative actions. The types of data quality required during the fieldwork, the laboratory components of the investigation and the acceptable limits for this data as provided in **Section 8.8.** A summary of the decision rules is included in **Table 17.**

Table 17 Summary of the Decision Rules.

Decision Rules	Based on the data quality types and limits the following decision rules applied: • If the relative percent difference (RPD) values for blind replicates or split samples are outside the acceptable limits, then there may have been errors in a laboratory analysis process. When assessing duplicate pairs with elevated RPD values, the project Environmental Scientist will check the laboratory results and examine the nature of the sample being evaluated since heterogeneous samples can often provide high RPD values. If it is believed that irreversible errors had occurred during the laboratory process, then an additional investigation may be deemed to be required to resolve the decision question; • Should greater than 5% of the laboratory QA / QC data fail to meet the acceptable limits outlined in this report, the laboratory may be requested to re-analyse samples or justify the analytical results; • For the analysis of investigation samples, if the absolute value of the measured concentration of a parameter or compound is above the nominated SAC; and were deemed suitable for 95% UCL analysis, then the subject material can be considered suitable to remain onsite; and

	• 95% UCL data will only be considered where the standard deviation of the data set is less than 50% of the SAC, and the maximum concentration is less than 250% of the SAC. Samples exceeding these criteria will be excluded from the dataset and treated as a hotspot.

Step 6 – Specify Acceptable Limits on Decision Errors

This step is to establish the specific limits on decision errors, which were used to determine the targets for limiting uncertainty in the data. Data generated during the environmental investigation needs to be appropriate to allow decisions to be made with confidence. The specific limits for this investigation were based on appropriate guidance from the NSW EPA, NEPC (2013), AS 2005 and appropriate indicators of DQIs used to assess QA / QC for field sampling and handling.

To assess the suitability of the analytical data obtained prior to making decisions, the data was assessed against pre-determined Data Quality Indicators (DQIs) to assess precision, accuracy, representativeness, comparability, and completeness (PARCC parameters), as outlined in AS 2005. The acceptable limit on decision error was 95% compliance with the DQIs. The pre-determined DQIs specified for the investigation works are discussed below in relation to the PARCC parameters as summarised in **Table 18.**

Table 18 Summary of Acceptable Limits on Decision Errors.

Precision	• Sampling and analysis of field blind duplicates and split replicates to be undertaken at a minimum rate of 1 pair per every 20 samples. • Laboratory duplicate analysis to be undertaken by the testing laboratory at a minimum rate of 1 per 20 samples. • Field and laboratory RPD values to be less than 30% for analytical results greater than (>) 30 times the laboratory LOR, less than (<) 50 % for analytical results between 10 and 30 times the laboratory LOR and a control limit of ± the LOR if either the sample or duplicate value is less than 10 times the laboratory LOR.
Accuracy	• Laboratory surrogate spike recoveries were to be within 70 – 130% for all organic analyses (if applicable). • Laboratory control sample (LCS) recoveries to be assessed at a rate of one (1) sample per laboratory batch. LCS recoveries were to be within 70 – 130% (if applicable). • Matrix spike (MS) recoveries are to be assessed at a rate of one sample per laboratory batch. LCS recoveries were to be within 70 – 130% (if applicable).
Representativeness	• Appropriate sampling methods undertaken for all samples. • All samples were extracted and analysed within holding times. • One laboratory blank was collected per laboratory batch. All laboratory blank analytical results were below the laboratory LOR. • One trip spike is to be submitted with each sampling batch. Trip spike recoveries are to be within 70 – 130% (if applicable). • One trip blank is to be submitted with each sampling batch. Trip spike recoveries are to be within 70 – 130% (if applicable).
Comparability	• Sampling was completed in accordance with the recommended methods outlined within Section 5, Systematic planning for the collection of environmental data, in Schedule B2 of NEPM (2013), AS 2005 and ADE Standard Operating Procedures (SOPs) which are in line with industry standards.

	• Standard analytical methodologies were used by laboratories that were NATA accredited for the requested analyses. • Laboratory LORs were appropriate and consistent for the objectives of the validation assessment.
Completeness	• Field documentation complete and appropriate for all samples to meet the objectives of the validation assessment. • Sample description and CoC documentation complete and appropriate for all samples to meet the objectives of the validation assessment. • The sampling frequency and findings of the QA/QC sample review valid for >95% of samples.

Step 7 – Optimise the Design for Obtaining Data

The organisation of the data collection and analysis design for optimising the generation of data to satisfy the DQOs and the objective of the investigation has been achieved via the following procedures outlined in **Table 19.**

Table 19 Summary of Procedures to be Undertaken to Optimize the Design for Obtaining Data.

Pre-approved Work Plan	The sampling plan for the investigation at the site has been developed to assess the concentrations of contaminants present in soils at the site through the implementation of the components outlined within NEPM (2013), AS 4482.1 (2005) and AS/NZS 5667.1 (1998).
Compliance with EPA Guidelines	• Use of appropriate techniques for the sampling, storage, and transportation of samples. • Implementation of NATA certified laboratory using analytical procedures as outlined in NEPM (2013). • Use of a secondary laboratory for split samples which is NATA certified for the required analyses.

Appendix H - Data Quality Assessment

A summary of the Quality Assurance / Quality Control (QA/QC) results for the soil analysis is shown below in **Table 20**. Refer to *Appendix I – QA/QC* Tables for further information and data analysis.

Table 20 Summary of Soil Sample QA/QC Analysis.

Quality Assurance / Quality Control	To check the accuracy and validity of soil sampling results, a range of quality assurance and quality control measures were implemented.
Sample collection & handling measures appropriate?	Yes
Field QA/QC Samples	BR1 is a duplicate of primary sample TP6_0.2-0.3 RPD exceedances (>30% in select heavy metals such as copper, select TRHs and TPHs) are attributed to difficulties in obtaining homogenous samples from heterogeneous matrices. The exceedances are not considered to have an adverse impact on the overall quality of the dataset for environmental interpretive use (Refer to *Appendix I – QAQC Table*).
Inter-Laboratory QA/QC Samples	SR is a duplicate of primary sample TP6_0.2-0.3. RPD exceedances (>30% in select TRHs and PAHs) are attributed to difficulties in obtaining homogenous samples from heterogeneous matrices. The exceedances are not considered to have an adverse impact on the overall quality of the dataset for environmental interpretive use (Refer to *Appendix I – QAQC Table*).
Laboratory QA/QC results acceptable?	Yes. ADE considers that the internal QA/QC undertaken by the laboratories is satisfactory (refer to *Appendix E – Results Tables* for the laboratory quality control report*)*.
Rinsate	No equipment rinsate collected.
Trip Blank, Trip Spike	No Trip Blank and Trip Spike used.
Field & Laboratory Data Usable?	ADE considers that the analytical results are representative of the conditions of the sampling locations at the time of sampling and are directly usable for the purpose of this assessment.

Equipment Decontamination

Dedicated disposable materials (such as nitrile gloves) were changed between each sampling point. All disposable sampling equipment/materials were collected and removed before leaving the site. All non-disposable sampling equipment were decontaminated by a three-stage decontamination process which included rinsing the piece of equipment with deionised water, followed by a rinse of a detergent (Liquinox) and a final rinse using deionised water.

To carry out the data quality assessment for the lab analytical results acquired in the course of this investigation, the US EPA Guidelines were used. The Guidelines provide a general strategy for assessing data quality criteria and performance specifications as part of decision making. The following assessment methodology addresses most of the steps of the data quality assessment (DQA) process provided in the guidelines.

Data Review
Quality control reports from the laboratories subcontracted for sample analyses were reviewed. Laboratory blank samples, duplicate samples, control samples, spiked samples and method blanks were evaluated.

This review was conducted as per the items recommended by the NSW EPA for inclusion in the consultants' reports. Some additional recommendations from the US EPA methodology, as referred to by AS 4482.1, were also followed.

Following the QA/QC assessment, the validity of the results is determined based on the assessment criteria adopted with the results expressed as either valid or invalid data (acceptable or unacceptable). An overall summary of the QA/QC assessment can be found in *Appendix I – QA/QC Output.*

CoC
Australian Standard AS 4482.1 defines the chain-of-custody documentation as the link in the transfer of samples between the time of collection and arrival at the laboratory.

The CoC utilised by ADE included the items recommended by the Standard:

- The person transferred the samples;
- The person who received the samples;
- Date the samples were collected;
- Date the samples were received at the laboratory; and
- Contact name and details for the client.

Copies of the CoCs completed during this investigation are provided in in *Appendix F – Analytical Reports and Chain of Custody*

Field Equipment Calibration
Field equipment requiring calibration included the use of a photo-ionisation detector (PID) and GFM. The PID and GFM was calibrated by an external qualified technician before the sampling events and further calibrated onsite i.e., bump tested (as required) by a suitably qualified environmental consultant (refer to *Appendix D* for the attached calibration certificate).

Laboratory Analytical Methodology and Accreditation
All chemical analysis was undertaken by NATA accredited laboratories using US EPA approved methodology. Refer to *Appendix F – Analytical Reports and Chain of Custody Documentation* for the details of the adopted laboratory analytical methods and their respective accreditations. The laboratory methodologies and the respective accreditations of Eurofins and Envirolab were deemed suitable for the required analyses.

Detection Limits / Practical Quantification Limits
The smallest amount of a substance that can be detected by the laboratories used – Eurofins and Envirolab, above the background method noise in a procedure and within a stated confidence level is referred as detection limit.

Current practice identifies several detection limits including the following: (1) the instrument detection limit (IDL), (2) the lower-level detection limit (LLD), the method detection limit (MDL) and the practical quantitation limit (LOR).

The relationship among these levels is approximately IDL: LLD: MDL: LOR = 1: 2: 4: 10. Refer to Envirolab and Eurofins for the list of LORs provided by their respective laboratories. When dilution of a sample is involved in the sample preparation, the method detection limit is adjusted by the dilution factor.

Record of Holding Times

The objective is to ascertain the validity of the analytical results based on meeting the holding times for the samples from the time of collection to the time of analysis.

All primary and QAQC samples collected over the course of the investigation were submitted within the recommended holding times of the required analysis. As such, the holding times of the samples to the final submission to the laboratories used (SLS and Envirolab) meet the recommended holding time criteria, with all samples analysed within 7 days (or specific to an analyte) from the time of collection.

Analytical Methods Used

Analysis was undertaken by NATA accredited laboratories using US EPA approved methodologies. Refer to *Appendix F – Chain of Custody Documentation* and Laboratory Analytical Reports for the analytical methods used by the laboratories, which in all cases were deemed appropriate for the required analyses.

Laboratory QA/QC

Laboratory Duplicates
Duplicate sample determinations were provided by the laboratories to demonstrate acceptable method precision at the time of analysis. Duplicates are, generally, analysed at a frequency of 1 for every 10 samples. Australia Standard AS 4482.1 provides an acceptable range of the RPD values up to 50% for quality control samples.

Analysis of laboratory duplicates did not identify any invalid values.

Laboratory Blanks
The assessment of blank analysis results was to determine the existence and magnitude of contamination resulting from laboratory activities.

The assessment of blank analysis results was carried out to determine the existence and magnitude of contamination resulting from laboratory activities. No contaminants were found in the blanks analysed by the laboratory.

Analysis of laboratory blanks showed 1215 valid values and 61 invalid values.

Laboratory Spikes and Surrogates
The laboratory limit of 70-130% for inorganics / metals, and 60-140% for organics was used to validate matrix spikes and laboratory control samples. The laboratory limit of 50-150% was implemented to validate surrogate recoveries for organic analytes. These criteria, generally, conform to the USEPA recommended standards.

Analysis of spikes and surrogates showed 1918 valid values and 15 invalid values.

The acceptable limits on decision errors to be applied in the investigation and the manner of addressing possible decision errors have been applied. The data is considered fit for its intended use in operations, decision making and planning as per step 6 of the Data quality objectives and assessment.

Appendix I – QAQC Table

			Lab Report Number	334223	333985		334223	1030306	
			Field ID	TP1_0.1-0.2_230925	SR1		TP1_0.1-0.2_230925	BR1	
			Date	25 Sep 2023	25 Sep 2023		25 Sep 2023	25 Sep 2023	
			Matrix Type	Soil	Soil	RPD	Soil	Soil	RPD
	Unit	EQL							
Metals									
Arsenic	mg/kg	2	6	6	0	6	5.7	5	
Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0	
Chromium (III+VI)	mg/kg	1	16	17	6	16	16	0	
Copper	mg/kg	1	35	28	22	35	24	37	
Lead	mg/kg	1	53	55	4	53	48	10	
Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	
Nickel	mg/kg	1	9	11	20	9	7.3	21	
Zinc	mg/kg	1	94	75	22	94	88	7	
BTEX									
Benzene	mg/kg	0.1	<0.2	<0.2	0	<0.2	<0.1	0	
Toluene	mg/kg	0.1	<0.5	<0.5	0	<0.5	<0.1	0	
Ethylbenzene	mg/kg	0.1	<1	<1	0	<1	<0.1	0	
Xylene (m & p)	mg/kg	0.2	<2	<2	0	<2	<0.2	0	
Xylene (o)	mg/kg	0.1	<1	<1	0	<1	<0.1	0	
Xylene Total	mg/kg	0.3	<1	<1	0	<1	<0.3	0	
Naphthalene (VOC)	mg/kg	0.5	<1	<1	0	<1	<0.5	0	
PAH									
Acenaphthene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Anthracene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Benzo(b+j+k)fluoranthene	mg/kg	0.2	0.9	0.5	57	0.9			
Benz(a)anthracene	mg/kg	0.1	0.3	0.3	0	0.3	<0.5	0	
Benzo(a) pyrene	mg/kg	0.05	0.5	0.3	50	0.5	<0.5	0	
Benzo(b+j)fluoranthene	mg/kg	0.5					<0.5		
Benzo(g,h,i)perylene	mg/kg	0.1	0.3	0.2	40	0.3	<0.5	0	
Benzo(k)fluoranthene	mg/kg	0.5					<0.5		
Chrysene	mg/kg	0.1	0.3	0.3	0	0.3	<0.5	0	
Dibenz(a,h)anthracene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Fluoranthene	mg/kg	0.1	0.7	0.6	15	0.7	<0.5	33	
Fluorene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	0.5	0.1	133	0.5	<0.5	0	
Naphthalene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Phenanthrene	mg/kg	0.1	0.3	0.3	0	0.3	<0.5	0	
Pyrene	mg/kg	0.1	0.6	0.6	0	0.6	0.6	0	
PAHs (Sum of total)	mg/kg	0.5					0.6		
PAHs (Sum of positives)	mg/kg	0.05	4.3	3.2	29	4.3			
PCBs									
Arochlor 1016	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
Arochlor 1221	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
Arochlor 1232	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
Arochlor 1242	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
Arochlor 1248	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
Arochlor 1254	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
Arochlor 1260	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
PCBs (Sum of total)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	
Perfluoroalkane Sulfonic Acids									
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0001	0.0002			0.0002			
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0001	0.0055			0.0055			
Perfluoroalkane Carboxylic Acids									
Perfluorooctanoic acid (PFOA)	mg/kg	0.0001	0.0003			0.0003			
PFAS									
Sum of PFHxS and PFOS	mg/kg	0.0001	0.0058			0.0058			
Sum of PFAS	mg/kg	0.0001	0.0060			0.0060			
Sum of PFAS (PFOS + PFOA)	mg/kg	0.0001	0.0058			0.0058			
Physical									
Moisture Content	%	0.1	14	14	0	14			
Moisture Content (dried @ 103°C)	%	1					16		
TRH									
C6-C10 Fraction (F1)	mg/kg	20	<25	<25	0	<25	<20	0	
C6-C10 (F1 minus BTEX)	mg/kg	20	<25	<25	0	<25	<20	0	
>C10-C16 Fraction (F2)	mg/kg	50	<50	<50	0	<50	<50	0	
>C10-C16 Fraction (F2 minus Naphthalene)	mg/kg	50	<50	<50	0	<50	<50	0	
>C16-C34 Fraction (F3)	mg/kg	100	<100	100	0	<100	210	71	
>C34-C40 Fraction (F4)	mg/kg	100	<100	130	26	<100	270	92	
>C10-C40 Fraction (Sum)	mg/kg	50	<50	230	129	<50	480	162	
TPH									
C6-C9 Fraction	mg/kg	20	<25	<25	0	<25	<20	0	
C10-C14 Fraction	mg/kg	20	<50	<50	0	<50	<20	0	
C15-C28 Fraction	mg/kg	50	<100	<100	0	<100	74	0	
C29-C36 Fraction	mg/kg	50	<100	120	18	<100	210	71	
C10-C36 Fraction (Sum)	mg/kg	50	<50	120	82	<50	284	140	
MAH									
1,2,4-trimethylbenzene	mg/kg	1	<1			<1			
1,3,5-trimethylbenzene	mg/kg	1	<1			<1			
Isopropylbenzene	mg/kg	1	<1			<1			
n-butylbenzene	mg/kg	1	<1			<1			
n-propylbenzene	mg/kg	1	<1			<1			
p-isopropyltoluene	mg/kg	1	<1			<1			
sec-butylbenzene	mg/kg	1	<1			<1			
Styrene	mg/kg	1	<1			<1			
tert-butylbenzene	mg/kg	1	<1			<1			
Organochlorine Pesticides									
Organochlorine pesticides EPAVic	mg/kg	0.1					<1		
Other organochlorine pesticides EPAVic	mg/kg	0.1					<1		
4,4-DDE	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
a-BHC	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Aldrin	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Aldrin + Dieldrin	mg/kg	0.05					<0.5		
b-BHC	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Chlordane	mg/kg	0.1					<1		
Chlordane (cis)	mg/kg	0.1	<0.1	<0.1	0	<0.1			
Chlordane (trans)	mg/kg	0.1	<0.1	<0.1	0	<0.1			
d-BHC	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
DDD	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
DDT	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
DDT+DDE+DDD	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Dieldrin	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Endosulfan I	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Endosulfan II	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Endosulfan sulphate	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Endrin	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Endrin aldehyde	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Endrin ketone	mg/kg	0.05					<0.5		
Fenamiphos	mg/kg	0.1	<0.1	<0.1	0	<0.1			
g-BHC (Lindane)	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Heptachlor	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Heptachlor epoxide	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Methoxychlor	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Mirex	mg/kg	0.1	<0.1	<0.1	0	<0.1			
Toxaphene	mg/kg	0.5					<10		
Organophosphorous Pesticides									
Tokuthion	mg/kg	0.2					<0.5		
Azinophos methyl	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Bolstar (Sulprofos)	mg/kg	0.2					<0.5		
Bromophos-ethyl	mg/kg	0.1	<0.1	<0.1	0	<0.1			
Chlorfenvinphos	mg/kg	0.2					<0.5		
Chlorpyrifos	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Chlorpyrifos-methyl	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Coumaphos	mg/kg	0.1	<0.1	<0.1	0	<0.1	<5	0	
Demeton-O	mg/kg	0.2					<0.5		
Demeton-S	mg/kg	0.2					<0.5		
Diazinon	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Dichlorvos	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Dimethoate	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Disulfoton	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Ethion	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Ethoprop	mg/kg	0.2					<0.5		
Fenitrothion	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Fensulfothion	mg/kg	0.2					<0.5		
Fenthion	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
EPN	mg/kg	0.2					<0.5		
Malathion	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Merphos	mg/kg	0.2					<0.5		
Methidathion	mg/kg	0.1	<0.1	<0.1	0	<0.1			
Methyl parathion	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Mevinphos (Phosdrin)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Monocrotophos	mg/kg	2					<5		
Naled (Dibrom)	mg/kg	0.2					<0.5		
Omethoate	mg/kg	2					<5		
Parathion	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Phorate	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Pirimiphos-methyl	mg/kg	0.2					<0.5		
Pyrazophos	mg/kg	0.2					<0.5		
Ronnel	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	
Terbufos	mg/kg	0.2					<0.5		
Trichloronate	mg/kg	0.2					<0.5		
Tetrachlorvinphos	mg/kg	0.2					<0.5		
Halogenated Benzenes									
1,2,3-trichlorobenzene	mg/kg	1	<1			<1			
1,2,4-trichlorobenzene	mg/kg	1	<1			<1			
1,2-dichlorobenzene	mg/kg	1	<1			<1			
1,3-dichlorobenzene	mg/kg	1	<1			<1			
1,4-dichlorobenzene	mg/kg	1	<1			<1			
2-chlorotoluene	mg/kg	1	<1			<1			
4-chlorotoluene	mg/kg	1	<1			<1			
Bromobenzene	mg/kg	1	<1			<1			
Chlorobenzene	mg/kg	1	<1			<1			
Hexachlorobenzene	mg/kg	0.05	<0.1	<0.1	0	<0.1	<0.5	0	
Chlorinated Hydrocarbons									
1,1,1,2-tetrachloroethane	mg/kg	1	<1			<1			
1,1,1-trichloroethane	mg/kg	1	<1			<1			
1,1,2,2-tetrachloroethane	mg/kg	1	<1			<1			
1,1,2-trichloroethane	mg/kg	1	<1			<1			
1,1-dichloroethane	mg/kg	1	<1			<1			
1,1-dichloroethene	mg/kg	1	<1			<1			
1,1-dichloropropene	mg/kg	1	<1			<1			
1,2,3-trichloropropane	mg/kg	1	<1			<1			
1,2-dibromo-3-chloropropane	mg/kg	1	<1			<1			
1,2-dichloroethane	mg/kg	1	<1			<1			
1,2-dichloropropane	mg/kg	1	<1			<1			
1,3-dichloropropane	mg/kg	1	<1			<1			
2,2-dichloropropane	mg/kg	1	<1			<1			
Bromochloromethane	mg/kg	1	<1			<1			
Bromodichloromethane	mg/kg	1	<1			<1			
Bromoform	mg/kg	1	<1			<1			
Carbon tetrachloride	mg/kg	1	<1			<1			
Chlorodibromomethane	mg/kg	1	<1			<1			
Chloroethane	mg/kg	1	<1			<1			
Chloroform	mg/kg	1	<1			<1			
Chloromethane	mg/kg	1	<1			<1			
cis-1,2-dichloroethene	mg/kg	1	<1			<1			
cis-1,3-dichloropropene	mg/kg	1	<1			<1			
Dibromomethane	mg/kg	1	<1			<1			
Hexachlorobutadiene	mg/kg	1	<1			<1			
Trichloroethene	mg/kg	1	<1			<1			
Tetrachloroethene	mg/kg	1	<1			<1			
trans-1,2-dichloroethene	mg/kg	1	<1			<1			
trans-1,3-dichloropropene	mg/kg	1	<1			<1			
Vinyl chloride	mg/kg	1	<1			<1			
(n:2) Fluorotelomer Sulfonic Acids									
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/kg	0.0001	<0.0001			<0.0001			
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0002	<0.0002			<0.0002			
Phenols									
Phenolics Total	mg/kg	5	<5			<5			
Solvents									
Cyclohexane	mg/kg	1	<1			<1			
Halogenated Hydrocarbons									
1,2-dibromoethane	mg/kg	1	<1			<1			
Bromomethane	mg/kg	1	<1			<1			
Dichlorodifluoromethane	mg/kg	1	<1			<1			
Trichlorofluoromethane	mg/kg	1	<1			<1			
Inorganics									
Cyanide Total	mg/kg	0.5	<0.5			<0.5			
Other									
Phosalone	mg/kg	0.1	<0.1	<0.1	0	<0.1			

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 100 (1 - 10 x EQL); 50 (10 - 20 x EQL); 30 (> 20 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

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