REPORT TO

TTW (NSW) PTY LTD

ON

ADDITIONAL CONTAMINATION INVESTIGATION

FOR

PROPOSED NEXTDC S5 DATA CENTRE

AT

269 LANE COVE ROAD, MACQUARIE PARK, NSW

Date: 8 October 2025
Ref: E36466PRrpt4Rev4

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Executive Summary

TTW (NSW) Pty Limited ('the client') commissioned JK Environments (JKE) to undertake an additional contamination investigation for the proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW ('the site'). The purpose of the investigation was to obtain additional data to better understand the contamination risks at the site, inform the preparation of a remediation strategy, and inform construction-phase cost estimates and the assessment of options associated with waste disposal or potential on-site re-use for excavated materials. The site location is shown on Figure 1 attached in Appendix A, and the investigation was confined to the site boundaries as shown on Figure 2 attached in Appendix A. This report has been updated to account for the proposed development details.

Based on the information provided, it is understood that the proposed development includes demolition of all existing structures and construction of a multi-storey data centre building. A 10-storey office building is proposed to be connected to the north of the data centre building. The buildings are to be terraced into the existing slope. A plaza is proposed to the north of the buildings and landscaping is to be included within the setbacks. A new road is proposed in a generalised north-south direction along the south-eastern boundary. Excavation to depths of approximately 10-12m below ground level (BGL) is proposed to accommodate the development. Selected preliminary development plans provided to JKE are attached in the appendices. A detailed description of the proposal is presented in Section 1.1 of this report.

The overarching aims of the additional contamination investigation were to fill some of the data gaps identified in the Preliminary Site Investigation (PSI) where there was adequate site access, and to provide updated preliminary advice in relation to waste disposal/on-site re-use options and potential remediation requirements. The objectives were to:

- Assess the soil, soil vapour and groundwater contamination conditions via implementation of a sampling and analysis program;
- Document an iteration and review of the Conceptual Site Model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Provide a preliminary waste classification for off-site disposal of soil; and
- Inform the preparation of a Remediation Action Plan (RAP).

The investigation included a review of supplementary site information provided to JKE, soil sampling from 23 additional boreholes, preliminary hazardous ground gases (HGG) screening, soil vapour sampling from seven temporary sub-slab sampling points, groundwater sampling from five monitoring wells installed at the site. The supplementary site information reviewed indicated that the underground storage tank (UST) in the north of the site was previously abandoned in-situ via filling with inert material.

The sub-surface conditions encountered were generally consistent with the findings of the PSI, typically comprising fill and residual clay soils, underlain by shallow siltstone bedrock. The maximum depth of fill encountered was 3.5m below ground level (BGL). Groundwater was not encountered during auger drilling for the investigation.

The standing water level (SWL) recorded in the monitoring wells installed at the site ranged from approximately 2.6m to 12.83mBGL. Groundwater relative levels (RLs) calculated on these measurements ranged from approximately 50m Australian Height Datum (AHD) to 63.2mAHD. The groundwater RLs indicate that the excavation for the proposed basement will likely intercept groundwater.

The investigation identified fill soils impacted by asbestos (in the form of asbestos fines/fibrous asbestos - AF/FA) at concentrations above the adopted site assessment criteria (SAC) in two locations within the large fill mound in the north-west of the site. The AF/FA concentrations trigger a need for remediation/management. Based on the depth of occurrence within the fill mound, and the existing ground conditions, JKE is of the opinion that the AF/FA identified with the fill mound in the north-west does not pose an immediate risk to human health. Nevertheless, interim measures should be undertaken to mitigate the potential risk of exposure.

JKE note that the PSI identified asbestos (in the form of AF/FA and fibre cement/asbestos containing material - FCF/ACM) which triggered a need for remediation. Interim measures in relation to the potential risks posed by asbestos to receptors were also recommended in the PSI.

The investigation identified that the groundwater beneath the site was impacted by heavy metals at concentrations above the adopted SAC. The pH of the groundwater was also outside of the acceptable ranges (i.e. below the lower threshold). The concentrations of heavy metals and the low pH of the groundwater was considered likely to be a regional issue. The concentrations of heavy metals were considered unlikely to pose an unacceptable risk to onsite receptors in the context of the proposed development, provided that appropriate management of the groundwater occurs during dewatering (temporary or otherwise).

The soil vapour investigation did not identify any triggers for remediation. As the soil vapour results were all less than 20% of the respective SAC, the trigger for additional soil vapour investigation was not met. JKE is of the opinion that further soil vapour investigation is not warranted at this stage.

The preliminary HGG screening did not identify potential risks related to HGG within the deep fill mound in the north-west of the site. JKE is of the opinion that further investigation of the potential for HGG to be generated at the site is not warranted.

Based on the findings of the investigation, JKE is of the opinion that the site can be made suitable for the proposed development, via remediation. The following is recommended:

- Interim management of the site is to occur under an Asbestos Management Plan (AMP), until remediation occurs. The AMP is to be prepared by a SafeWork NSW Licensed Asbestos Assessor (LAA). We note that this was also a recommendation of the PSI;
- A RAP is to be prepared to address the contamination issues identified at the site. The RAP is also to include a framework for the additional investigation (once access is available) to address the data gaps outlined in Section 9.3 of this report; and
- The site is to be managed, remediated and validated in accordance with the RAP and AMP.

JKE note that the PSI recommended that a surface walkover and removal of all visible FCF/ACM from the site surface should be undertaken and an asbestos clearance certificate obtained from an LAA. This should be undertaken as soon as possible.

The conclusions and recommendations should be read in conjunction with the limitations presented in the body of this report.

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Abbreviations

Ambient Background Concentrations	**ABC**
Asbestos Fines/Fibrous Asbestos	**AF/FA**
Asphaltic Concrete	**AC**
Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
Australian Drinking Water Guidelines	**ADWG**
Area of Environmental Concern	**AEC**
Australian Height Datum	**AHD**
Asbestos Management Plan	**AMP**
Australia and New Zealand Governments	**ANZG**
Acid Sulfate Soil	**ASS**
Above-Ground Storage Tank	**AST**
Benzo(a)pyrene Toxicity Equivalent Factor	**BaP TEQ**
Below Ground Level	**BGL**
Borehole	**BH**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
Before You Dig Australia	**BYDA**
Cation Exchange Capacity	**CEC**
Cis-1,2-dichloroethene	**cis-DCE**
Contaminated Land Management	**CLM**
Contaminant(s) of Potential Concern	**CoPC**
Chain of Custody	**COC**
Centre for Contamination	**CRC**
Conceptual Site Model	**CSM**
Contamination Threshold	**CT**
Dichlorodiphenyldichloroethane	**DDD**
Dichlorodiphenyldichloroethylene	**DDE**
Dichlorodiphenyltrichloroethane	**DDT**
Dissolved Oxygen	**DO**
Department of Health	**DoH**
Data Quality Indicator	**DQI**
Data Quality Objective	**DQO**
Detailed Site Investigation	**DSI**
Electrical Conductivity	**EC**
Ecological Investigation Level	**EIL**
Environmental Management Plan	**EMP**
Environment Protection Authority	**EPA**
Ecological Screening Level	**ESL**
Fibre Cement Fragment(s)	**FCF**
Full-Time Equivalent	**FTE**
Gross Floor Area	**GFA**
Groundwater Investigation Level	**GIL**
Hazardous Building Material	**HAZMAT**
Hazardous Ground Gas	**HGG**
Health Investigation Level	**HIL**
Health Screening Level	**HSL**
Health Screening Level-Site Specific Assessment	**HSL-SSA**
Insite Remediation Services	**InSite**
International Organisation of Standardisation	**ISO**
JK Environments	**JKE**
Licenced Asbestos Assessor	**LAA**
Light Non-Aqueous Phase Liquid	**LNAPL**
Monitoring Well	**MW**

National Association of Testing Authorities	**NATA**
National Environmental Protection Council	**NEPC**
National Environmental Protection Measure	**NEPM**
National Health & Medical Research Council	**NHMRC**
Not Limited	**NL**
No Set Limit	**NSL**
Organochlorine Pesticides	**OCP**
Organophosphate Pesticides	**OPP**
Polycyclic Aromatic Hydrocarbons	**PAH**
Polychlorinated Biphenyls	**PCB**
Perchloroethylene (also known as tetrachloroethene)	**PCE**
Per-and Polyfluoroalkyl Substances	**PFAS**
Photo-ionisation Detector	**PID**
Practical Quantitation Limit	**PQL**
Preliminary Site Investigation	**PSI**
Quality Assurance	**QA**
Quality Control	**QC**
Remediation Action Plan	**RAP**
Reduced/Relative Level	**RL**
Relative Percentage Difference	**RPD**
Site Assessment Criteria	**SAC**
Sampling, Analysis and Quality Plan	**SAQP**
Specific Contamination Concentration	**SCC**
State Environmental Planning Policy	**SEPP**
Synthetic Mineral Fibres	**SMF**
Source, Pathway, Receptor	**SPR**
Standard Penetration Test	**SPT**
Site Specific Assessment	**SSA**
Standing Water Level	**SWL**
Trichloroethene	**TCE**
Toxicity Characteristic Leaching Procedure	**TCLP**
Total Recoverable Hydrocarbons	**TRH**
1, 1, 1-Trichloroethane	**THQ**
Target Hazardous Quotient	**1, 1, 1-TCA**
United States Environmental Protection Agency	**USEPA**
Underground Storage Tank	**UST**
Vinyl Chloride	**VC**
Virgin Excavated Natural Material	**VENM**
Volatile Organic Compounds	**VOC**
World Health Organisation	**WHO**

Units

Kilograms	**kg**
Kilograms per Litre	**kg/L**
Kilolitres	**KL**
Kilometres	**km**
Kilovolts	**KV**
Litres	**L**
Megawatt Electric	**MWe**
Metres	**m**
Metres BGL	**mBGL**
Micro Siemens per Centimetre	**µS/cm**
Micrograms per Litre	**µg/L**
Micrograms per cubic metre	**µg/m^3**
Milligrams per Kilogram	**mg/kg**
Millilitres	**ml or mL**
Millimetres	**mm**
Millivolts	**mV**
Parts Per Million	**ppm**
Percentage	**%**
Percentage weight for weight	**%w/w**

1 INTRODUCTION

TTW (NSW) Pty Limited ('the client') commissioned JK Environments (JKE) to undertake an additional contamination investigation for the proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW ('the site'). The purpose of the investigation was to obtain additional data to better understand the contamination risks at the site, inform the preparation of a remediation strategy, and inform construction-phase cost estimates and the assessment of options associated with waste disposal or potential on-site re-use for excavated materials. The site location is shown on Figure 1 attached in Appendix A and the investigation was confined to the site boundaries as shown on Figure 2 attached in Appendix A. This report has been revised to account for the updated development details.

JKE has previously undertaken a PSI at the site. A summary of this information has been included in Section 2.

A Preliminary Hazardous Building Materials (HAZMAT) survey was undertaken in conjunction with this investigation. The results of the HAZMAT survey are presented in a separate report (Ref: E36466PRrpt5-HAZ)[1]. This report should be read in conjunction with the JKE HAZMAT report.

1.1 Project Description

The proposed development includes:

- Site preparation works include demolition and removal of existing structures, tree removal and bulk earthworks;
- Staged construction and operation of two connected data centre buildings (Building A and Building B) with a maximum height of 65 metres and a combined total gross floor area (GFA) of 47,285m^2 comprising 33,142m^2 of technical data hall floor space and 14,143m^2 of office, retail and innovation hub floor space;
    - Building A will be delivered in Stage 1 and will comprise the following:
        - Basement parking for 51 car spaces including two accessible spaces and 10 EV spaces;
        - Seven storeys of technical data floor space accommodating seven data houses (16,571m^2);
        - Utilities including diesel generators (3MWe), above-ground water tanks for industrial water (600kL each), above-ground diesel storage tanks (100kL each) and an aboveground water tank for fire water (400kL each);
        - Business identification signage facing Waterloo Road and Land Cove Road; and
        - Integrated 'Building O' component within Building A, comprising:
            - Two retail tenancies at ground level (326m^2);
            - Lobby and innovation hub including auditorium and training rooms (3,186m^2); and
            - NEXTDC and ancillary office floor space on upper levels (10,631m^2).
    - Building B will be delivered in Stage 2 and will comprise the following:
        - Seven storeys of technical data floor space accommodating seven data halls (16,571m^2);

[1] JKE, (2024b). *Report to TTW (NSW) Pty Ltd on Hazardous Building Materials Survey for Proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW*. (referred to as JKE HAZMAT report)

- Utilities including diesel generators (3MWe), above-ground water tanks for industrial water (600kL each), above-ground diesel storage tanks (100kL each) and an aboveground water tank for fire water (400kL each); and
- Business identification signage on the western and southern building facades.

- Landscaping across the site in accordance with the project staging, delivering a mix of native and endemic plant species, shrubs and grasses, including 139 additional trees within a total area of 4,959m^2 deep soil and a resultant tree canopy cover of 5,707m^2;
- Staged delivery of public domain works including:
  - Stage 1: construction of Road 13 within the subject site and urban plaza; and
  - Stage 2: construction of Road 6 (half-width) within the subject site, including provision for a future pedestrian/cycle overbridge (to be delivered by others), and works along Lane Cove Road.
- Delivery of 90 megawatts of power with a 33kV switching station to be accommodated on site, as well as other site services, including stormwater infrastructure.

Based on the provided information, excavation to depths of approximately 10-12m below ground level (BGL) is required to accommodate the development. Selected preliminary development plans provided to JKE are attached in the appendices.

1.2 Aims and Objectives

The overarching aims of the investigation were to fill some of the data gaps identified in the PSI where there was adequate site access, and to provide updated preliminary advice in relation to waste disposal/on-site re-use options and potential remediation requirements. The objectives were to:

- Assess the soil, soil vapour and groundwater contamination conditions via implementation of a sampling and analysis program;
- Document an iteration and review of the Conceptual Site Model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Provide a preliminary waste classification for off-site disposal of soil; and
- Inform the preparation of a Remediation Action Plan (RAP).

1.3 Scope of Work

The investigation was undertaken generally in accordance with a JKE proposal (Ref: EP61043Prev1) of 21 August 2024 and written acceptance from the client in the form of a purchase order dated 10 September 2024. The scope of work included the following:

- Review of site information, including background and site history information from various sources outlined in the report;
- Review and update (if required) the CSM;
- Design and implementation of a sampling, analysis and quality plan (SAQP);
- Interpretation of the analytical results against the adopted Site Assessment Criteria (SAC);
- Data Quality Assessment; and
- Preparation of a report including a Tier 1 risk assessment.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[2], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[3] and State Environmental Planning Policy (Resilience and Hazards) 2021[4]. A list of reference documents/guidelines is included in the appendices.

[2] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[3] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

[4] *State Environmental Planning Policy (Resilience and Hazards) 2021* (NSW) (referred to as SEPP Resilience and Hazards 2021)

2 SITE INFORMATION

2.1 Background

A PSI was previously undertaken by JKE in 2024[5]. The PSI included a review of site history information, a walkover site inspection, soil sampling from 34 boreholes and groundwater sampling from three groundwater monitoring wells installed at the site. The PSI sample locations are shown on Figure 3 in Appendix A. The PSI identified that the site was historically used for agricultural purposes until the 1950s, and has been used for various commercial activities since the 1980s. Fuel storage (including in underground storage tanks - USTs) occurred during this time.

The PSI encountered fill and/or clay soils to depths of approximately 0.2mBGL to 5mBGL, underlain by siltstone and sandstone bedrock. The maximum depth of fill encountered was 4mBGL, within the fill mound in the north-west of the site. Groundwater was not encountered during auger drilling for the PSI. The fill typically comprised of silty and/or gravelly sand, sandy gravel, and silty and/or sandy clay. Inclusions noted within the fill included igneous, siltstone and sandstone gravel, tile and glass fragments, slag, ash, roots and root fibres. A fibre cement fragment (FCF) was observed in the fill in BH2 at a depth of approximately 0.5-1.5mBGL, however, subsequent laboratory analysis confirmed this FCF did not contain asbestos.

The standing water level (SWL) recorded in the monitoring wells installed for the PSI ranged from approximately 5.15mBGL to 13.26mBGL. Groundwater levels calculated on these measurements ranged from approximately 49.7m Australian height datum (AHD) to 62.9mAHD.

During the site walkover inspection, FCF/asbestos containing material (ACM) was observed on the surface within the paved area in the central portion of the site (refer to figures attached in Appendix A). The FCF/ACM was collected for laboratory testing and subsequently confirmed to contain asbestos. At the completion of the fieldworks, no visible FCF/ACM remained at the surface in the vicinity of the borehole locations.

The PSI identified fill soils impacted by asbestos (in the form of asbestos fines/fibrous asbestos - AF/FA) at concentrations above the adopted site assessment criteria (SAC) in two locations in the north of the site. Asbestos (in the form of FCF/ACM) was detected at concentrations below the SAC at two locations in the central section of the site.

The PSI identified that the groundwater beneath the site was impacted by heavy metals at concentrations above the adopted SAC. The pH of the groundwater was also outside of the acceptable ranges (i.e. below the lower threshold). The low pH of the groundwater was considered likely to be a regional issue.

SAC exceedances from the PSI are shown on Figure 4 in Appendix A.

The PSI also identified several data gaps, which were required to be addressed. JKE concluded that the site could be made suitable for the proposed data centre via remediation. The following was recommended:

- A surface walkover and 'emu-picking' of all visible FCF/ACM from the site surface should be undertaken and an asbestos clearance certificate obtained from a SafeWork NSW licensed asbestos assessor (LAA);

[5] JKE, (2024a). *Report to TTW (NSW) Pty Ltd on Preliminary Site Investigation (PSI) for Proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW.* (Ref: E36466PRrpt) (referred to as PSI)

- Interim management of the site is to occur under an Asbestos Management Plan (AMP), until remediation occurs. The AMP is to be prepared by an LAA;
- Undertake a Detailed Site Investigation (DSI) to better assess the risks associated with the AEC/potential sources of contamination and inform preparation of a Remediation Action Plan (RAP). The DSI should address the data gaps identified in the PSI. A SAQP should be prepared for the DSI prior to commencement of the investigation;
- A RAP is to be prepared to address the contamination issues identified at the site; and
- The site is to be managed, remediated and validated in accordance with the RAP and AMP.

2.2 Site Identification

Table 2-1: Site Identification

Current Site Owner (certificate of title):	NEXTDC Limited
Site Address:	269 Lane Cove Road, Macquarie Park, NSW (also known as 34 Waterloo Road, Macquarie Park)
Lot & Deposited Plan:	Lot 3 in DP1129811
Current Land Use:	Commercial (warehouse/distribution)
Proposed Land Use:	High Tech Industrial (data storage centre)
Local Government Area:	City of Ryde
Current Zoning:	E2 – Commercial Centre
Site Area (m^2) (approx.):	22,381
RL (AHD in m) (approx.):	57-66
Geographical Location (decimal degrees) (approx.):	Latitude: -33.785458 Longitude: 151.128366
Report Figures:	Appendix A

2.3 Site Location and Regional Setting

The site is located in a predominantly commercial area of Macquarie Park and is bound by Waterloo Road to the north-east and Lane Cove Road to the north-west. The site is located approximately 1km to the south-west of the Lane Cove River.

2.4 Topography

The site is located in an area of undulating topography falling towards the north/north-east at approximately 2-3°. Parts of the site appear to have been levelled to account for the slope and accommodate the existing development.

2.5 Site Inspection

Walkover inspections of the site were undertaken by JKE during the course of the fieldworks for the PSI between 27 November 2023 and 5 January 2024. The site has remained generally unchanged since the PSI. An internal inspection of the southern building was undertaken on 25 September 2024 for the additional investigation. A summary of the key observations is provided below:

- The majority of the site was occupied by two large warehouse-type buildings with associated office space. The majority of the remaining area was sealed with asphaltic concrete (AC) and/or concrete pavement which appeared to be in fair to good condition (based on a cursory inspection), with some evidence of heaving and cracking observed. No obvious staining on pavements and surfaces were observed;
- The buildings were of brick and metal construction (northern building) and pebblecrete construction with fibre cement in-fill panels (southern building). Warning labels on the in-fill panels indicated the fibre cement contained asbestos. The buildings appeared to be generally in good condition based on a cursory inspection;
- The internal inspection of the southern building identified a concrete loading dock and water treatment equipment located in the south and south-eastern portion of the building. The remainder of the building was occupied with rooms/office space. The internal walls and flooring appeared to be in relatively good condition based on a cursory inspection;
- A 1-2 storey carpark was located in the central portion of the site, between the two large buildings. A former tennis court was located to the west of carpark;
- A large grass-covered fill mound occupied the north-western portion of the site;
- No obvious indications of erosion were observed at the site boundaries;
- Exposed fill soils were observed in the formed gardens across the site and along the south-western and north-western boundaries;
- Parts of the site appear to have been levelled to accommodate the existing development;
- An UST was identified in the north-east of the site, and a former holding tank was observed in the south of the site. Additional USTs were suspected within the south of the site (see Figure 2 in Appendix A);
- Surface water run-off was expected to generally flow in a northerly direction in sympathy with the local topography and collect within on-site stormwater drainage infrastructure. Infiltration of rainwater was expected to occur within the landscaped and unpaved areas of the site;
- Sensitive environments, such as wetland, ponds, creeks or extensive areas of native vegetation were not identified on-site or in the immediate surrounds; and
- The vegetation within the site appeared to be generally healthy (based on a cursory inspection) with no obvious indications of plant stress or die-back.

2.6 Surrounding Land Use

During the site inspection, JKE observed the following land uses in the immediate surrounds:

- North-east: Macquarie Park Metro Station and Waterloo Road, with offices and commercial units beyond;
- North-west: Lane Cove Road, with a veterinary clinic, car display room and offices (Hyundai), and a construction site (presumably offices and/or residential apartments);
- South–east: Commercial offices, including Foxtel and Sky News; and
- South-west: A large warehouse (Chamberlain), with commercial offices, a hotel (Quest) and Epping Road beyond.

JKE did not observe any land uses in the immediate surrounds that were identified as potential contamination sources for the site.

2.7 Underground Services

The 'Before You Dig Australia' (BYDA) plans were reviewed for the PSI in order to establish whether any major underground services exist at the site or in the immediate vicinity that could act as a preferential pathway for contamination migration.

The BYDA plans indicate that fibre optic cables and communication (Telstra) main cables extend through the site, generally within the southern areas and in the vicinity of the USTs. An electrical cottage/chamber is located in the south-eastern corner of the southern building, and the associated high voltage cables extend along the southern wall of the building and extends to the north-west beyond the site boundary. Considering the geological conditions (discussed in Section 2.8.1), there is a potential for the service trenches to act as preferential pathway for contamination migration (i.e. through relatively permeable backfill). The approximate locations of the underground services have been transposed onto the figures attached in Appendix A.

2.8 Summary of Regional Geology and Hydrogeology

2.8.1 Regional Geology

Regional geological information was reviewed for the PSI. The PSI indicated that the site is underlain by Ashfield Shale of the Wianamatta Group, which typically consists of black to dark grey shale and laminite. The site is located near the geological boundary with Hawkesbury Sandstone, which typically consists of medium to coarse grained quartz sandstone with minor shale and laminite lenses.

2.8.2 Acid Sulfate Soil (ASS) Risk and Planning

ASS risk maps were reviewed for the PSI. The PSI indicated that the site is not located within a risk area.

2.8.3 Hydrogeology

Hydrogeological information presented in the PSI indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive aquifers of low to moderate productivity. There was a total of 41 registered bores within the report buffer of 1,000m. In summary:

- There were two bores on-site (EMW1 and EMW2, as shown on Figure 2). The bores were registered for monitoring purposes and were located in the north of the site;
- The majority of the bores in the surrounds were registered for monitoring purposes;
- There were no nearby bores (i.e. within 1km) registered for domestic or irrigation uses; and
- The drillers log information from the closest registered bores typically identified fill and/or clay soil to depths ranging from approximately 2.1m to 5.2mBGL, underlain by shale. Sandstone bedrock was encountered beneath the shale at depths of approximately 8.4m to 15mBGL; and
- The SWL was reported for one bore located approximately 170m to the north of the site. The SWL was reported to be at a depth of approximately 18mBGL. JKE note that the construction details recorded on the licence indicate the well was screened within the sandstone bedrock aquifer and are likely to be representative of a deeper aquifer. SWLs were not reported for the other nearby bores.

The information reviewed for the PSI, and the intrusive investigation identified that the subsurface conditions typically consist of relatively low permeability (residual) soils overlying shallow bedrock. The potential for viable groundwater abstraction and use of groundwater under these conditions is considered to be low. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur. Use of groundwater is not proposed as part of the development as far as we are aware.

Though the local topography typically falls towards the north/north-east, considering the information reviewed for the PSI and the SWLs measured in the monitoring wells during the PSI, the groundwater is inferred to flow towards the north/north-west as shown on Figure 5 attached in Appendix A.

2.9 Receiving Water Bodies

Surface water bodies were not identified in the immediate vicinity of the site. The closest down-gradient surface water body is Shrimptons Creek (a tributary of the Lane Cove River) located approximately 1km to the north-west of the site. This waterbody may be a potential receptor.

3 SUMMARY OF SITE HISTORY INFORMATION

3.1 Supplementary Reports Provided to JKE

JKE was provided supplementary environmental reports relating to the site. A review of these reports was undertaken for this investigation and relevant information is summarised in the following table:

Table 3-1: Summary of Supplementary Reports Provided to JKE

Report	Summary Information
Coffey, 2013[6]	Coffey prepared a site suitability assessment for a proposed rezoning of the site in 2013. It was proposed to rezone the site to allow for redevelopment for a mixed use (commercial and high-rise residential). The scope of work for the assessment was limited to a desktop review of site information (including previous investigation reports for the northern portion of the site), and a site walkover inspection. Based on the review, Coffey identified the following potential contamination sources/areas of environmental concern (AEC): • USTs within the north and south of the site; • An above-ground storage tank (AST) used for diesel storage located in the south-east of the site; and • Historical filling activities, including fill material of unknown origin. Coffey also noted the presence of two service stations to the north of the site. However, given the distance and the fact that the Metro railway station entrance (and station box) intersects the inferred migration pathway, the service stations were considered unlikely to represent potential off-site sources of contamination. The previous investigations also identified asbestos in sandy fill soils within the central portion of the site, to the south of the northern building. These locations were sealed with concrete pavement and were considered to not pose an immediate risk to human health. Based on the findings of the assessment, Coffey concluded that the site could be made suitable for the proposed commercial and high-density residential uses, during construction activities related to the redevelopment.
InSite, 2017[7]	InSite Remediation Services (InSite) was engaged to undertake in-situ abandonment of the UST in the north of the site in 2017. The UST was is located beneath an operational driveway and InSite noted that the UST was to be removed during site redevelopment. Therefore, temporary in-situ abandonment was considered appropriate. The UST was previously filled with water and rust inhibitor in 1992. For the in-situ abandonment, the contents (product/water) of the UST were removed and the tank was filled with foam. The vent pipe was removed as part of the works, and the vent lint and dispenser lines were filled with foam. A copy of the decommissioning report is attached in Appendix B.
JBS&G, 2017[8]	JBS&G prepared a UST validation report for the site in 2017. The scope of work included soil sampling from four boreholes (drilled using push-tube techniques) located in accessible areas around the abandoned UST in the north of the site. Soil sampling was undertaken to a maximum depth of 4mBGL. Samples were collected at 0.5m increments. JKE note the locations targeted the north-east, south-east and south of the UST.

[6] Coffey, (2013). *Environmental Site Suitability Report. 271 Lane Cove Road, Macquarie Park NSW.* (Ref: ENAURHOd04568AA-R01)

[7] InSite Remediation Services, (2017). *In-Situ Tank Abandonment, Former Fuel Tank UST at Workarena, 34 Waterloo Road, North Ryde, NSW*

[8] JBS&G, (2017). *Underground Storage Tank Validation Investigation – 34 Waterloo Road, Macquarie Park, NSW* (Ref: 52969-109879. L01-UPSS Investigation – 34 Waterloo Road, Macquarie Park [RevA])

Report	Summary Information
	The investigation identified gravelly silty clay fill soils to depths of approximately 2.4m-2.6mBGL, underlain by residual silty clay with weathered shale (siltstone) inclusions. No stained, discoloured or odorous soils were encountered. Four soil samples were selected for analysis of the following: lead; total recoverable hydrocarbons (TRHs); benzene, toluene, ethylbenzene and xylene (BTEX); and polycyclic aromatic hydrocarbons (PAHs). The results indicated that the lead concentrations were consistent with expected background levels, and the BTEX, TRH and PAH concentrations were below the laboratory Practical Quantitation Limit (PQL). JKE note that the four samples selected for analysis were collected from depths of approximately 3m-4mBGL and all were collected from the residual soil profile. Based on the size of the UST (27,600L), the depth of these samples is considered likely to align with the level at the base of the UST. JBS&G concluded that the investigation did not identify soil contamination associated with the decommissioned UST. An assessment of groundwater was therefore not required.
Coffey, 2020[9]	Coffey conducted a HAZMAT survey of the site in 2019 (reported in early 2020). The survey identified the following hazardous materials: • ACM was identified throughout the exterior walls of the southern building, within a pit on the north-east side of the northern building, and was also suspected throughout the eaves of the northern building; • Synthetic Mineral Fibres (SMF) were suspected within the ceiling insulation and ductwork of the plant rooms of both buildings; and • Ozone depleting substances were identified within a chiller in the plant room of the southern building. The survey did not identify or suspect lead-based paints and polychlorinated biphenyl (PCB) containing capacitors within the site. Reference should be made to the JKE HAZMAT report for further information in this regard.

3.2 Summary of Site History Information

A time line summary of the historical land uses and activities is presented in the following table. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by JKE during the PSI and over the course of the additional investigation.

[9] Coffey, (2020). *Asbestos and Hazardous Materials Re-Inspection. 34 Waterloo Road, Macquarie Park NSW 2113.* (Ref: 754-SYDEN228268

Table 3-2: Summary of Historical Land Uses / Activities

Year(s)	On-site - Potential Land Use / Activities	Off-site - Potential Land Use / Activities
1930s-1950s	Agricultural (orchards/market gardens, possibly grazing) and vacant land. Construction and demolition activities also occurred.	Agricultural (orchards/market gardens and grazing), and some low-density residential.
1960s-1970s	Drive-in cinema (eastern portion) and vacant land. Construction and demolition activities also occurred.	Low-density residential and commercial land uses, including warehouses and vehicle dealerships/repairers.
1980s- Present	Commercial land use (warehouses). Fuel storage occurred at the site. Construction and demolition activities also occurred. Decommissioning of the UST in the north of the site in 2017. It is also noted that the UST was previously filled with water and rust inhibitor in 1992.	Predominantly commercial land uses (offices and warehouses). Residential in the wider surrounds to the south of the site (beyond Epping Road).

4 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and the review of site history information. Reference should also be made to the figures attached in the appendices.

A review of the CSM in relation to source, pathway and receptor (SPR) linkages has been undertaken as part of the Tier 1 risk assessment process, as outlined in Section 9.

4.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/AEC and CoPC are presented in the following table:

Table 4-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site has been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated. The PSI identified fill soils across the site, extending to depths of approximately 0.1m to 4mBGL. A large fill mound was also observed in the north-west of the site. There is potential for the deep filling to generate hazardous ground gasses (HGG).	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), TRHs, BTEX, PAHs, organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), PCBs, asbestos and HGG, primarily including methane and carbon dioxide.
Fuel storage – A fuel holding tank (UST) was identified in the south of the site, and other USTs were also suspected in this area. Another UST was identified in the north-east of the site (see figures attached in Appendix A). The records reviewed for the PSI identified that the USTs were previously used to store petrol and diesel. JKE has more recently been provided documentation indicating that the UST in the north-east of the site was decommissioned in-situ, and the associated infrastructure (vent pipes) were removed (refer to Section 3.1).	Lead, TRH, BTEX and PAHs.
Historical agricultural use – The site appears to have been used for grazing and market garden/orchard purposes. This could have resulted in contamination across the site via use of machinery, application of pesticides and building/ demolition of various structures. Irrigation pipes made from asbestos cement may also be associated with this AEC.	Heavy metals, TRH, PAHs, OCPs, PCBs and asbestos. JKE note that OCPs only became commercially available in the 1940s. Prior to this time pesticides were predominantly heavy metal compounds.
Use of pesticides – Pesticides may have been used beneath the buildings and/or around the site.	Heavy metals and OCPs.

Source / AEC	CoPC
Hazardous Building Material – Hazardous building materials may be present as a result of former building and demolition activities. These materials have also been identified in the existing buildings/ structures on site. The PSI identified FCF/ACM on the surface of exposed soils in the central portion of the site (see figures attached in Appendix A). Asbestos in soil was also previously identified by Coffey (2013).	Asbestos, lead and PCBs.
Commercial Printing/Publishing – The historical records indicate that the southern building at the site was used for book publishing during the 1980s and 1990s. Leaks and spills of fluids and solvents may have occurred during this time.	Volatile organic compounds (VOCs) including tetrachloroethene (also known as perchloroethylene - PCE) and the breakdown products trichloroethene (TCE), cis-1,2-dichloroethene (cis-DCE) and vinyl chloride (VC).

JKE note that herbicides have not been included as CoPC as herbicides are not commonly found at residual concentrations likely to pose a risk to human health or the environment (NSW DEC 2005, *Guidelines for Assessing Former Orchards and Market Gardens*).

JKE note that the PSI identified Per-and Polyfluoroalkyl substances (PFAS) as CoPC associated with historical commercial printing/publishing activities, and potentially related to historic firefighting activities at the site. However, based on the findings of the PSI, JKE do not consider PFAS to be CoPC for the additional investigation as the reported PFAS concentrations in soil and groundwater were low.

4.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 4-2: CSM

Potential mechanism for contamination	Potential mechanisms for contamination include: • Fill material – importation of impacted material, 'top-down' impacts (e.g. placement of fill, leaching from surficial material etc), or sub-surface release (e.g. impacts from buried material); • Fuel storage – 'top-down', spills (e.g. during filling of the tanks and/or dispensing activities), or sub-surface release (e.g. from leaking tank or pipework); • Historical agricultural use – 'top-down' and spills (e.g. application of pesticides, refuelling or repairing machinery, and other activities at the ground surface level); • Use of pesticides – 'top-down' and spills (e.g. during normal use, application and/or improper storage); and • Hazardous building materials – 'top-down' (e.g. demolition resulting in surficial impacts in unpaved areas).
Affected media	Soil, soil vapour, HGG and groundwater have been identified as potentially affected media.

Receptor identification	Human receptors include site users (predominantly adults), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users, and recreational water users within Shrimptons Creek and the Lane Cove River. Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas), and freshwater ecology in Shrimptons Creek and the Lane Cover River.
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants), HGG and vapours (volatile TRH, naphthalene and BTEX). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Potential exposure pathways for ecological receptors include primary/direct contact and ingestion. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of HGG/vapours within enclosed spaces such as buildings and basements.
Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the proposed building (either from soil contamination or volatilisation of contaminants from groundwater); • HGG intrusion into the proposed building; • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; and • Migration of groundwater off-site and into nearby water bodies, including aquatic ecosystems and those being used for recreation.
Presence of preferential pathways for contaminant movement	The fibre optics/communication and high voltage power cables and duct (see figures attached in Appendix A) and associated services trench/trench backfill are potential preferential pathways for contaminant migrations throughout the site and off-site. This could occur via groundwater/seepage if present, or via soil vapour/HGG migration through the trenches and/or trench backfill.

5 SAMPLING, ANALYSIS AND QUALITY PLAN

5.1 Summary of SAQP

JKE prepared a stand-alone SAQP[10] for the additional investigation which is attached in Appendix J. The SAQP can be summarised as follows:

- Data Quality Objectives (DQOs) were developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2 of this report;
- Soil samples were obtained from 23 additional locations (BH101 to BH123 inclusive) as shown on the figures attached in Appendix A. The locations were positioned to investigate the following;
    - BH101 to BH103 were located within the large fill mound in the north-west of the site;
    - BH104 to BH106 were located within the smaller fill mound in the south-west of the site;
    - BH107 to BH117 were located in accessible areas of the southern building footprint;
    - BH118 to BH120 were targeted in the vicinity of the abandoned UST in the north of the site; and
    - BH121 to BH123 were targeted in the vicinity of the USTs in the south of the site;
- Soil samples were obtained using a combination of a track-mounted excavator, a track-mounted drill rig (spiral auger and SPT sampling methods) and hand tools;
- Soil samples were obtained between 8 and 11 October 2024;
- Field screening for HGG was undertaken from the annulus of BH101 to BH103 during drilling using a hand-held landfill gas analyser;
- Two groundwater monitoring wells were installed in BH121 (MW121) and BH122 (MW122) during the additional investigation. Three monitoring wells were installed previously for the PSI in BH18 (MW18), BH26 (MW26) and BH29 (MW29). The well locations are shown on the figures attached in Appendix A. MW121 and MW122 were targeted in close proximity to the location of the disused USTs in the south of the site. The remaining wells were generally positioned to provide spatial coverage of the site;
- The monitoring well construction details are documented on the respective borehole logs attached in Appendix D;
- The monitoring wells were developed on 10 October 2024 using a submersible electric pump. MW121 and MW122 were pumped until effectively dry. MW18 and MW26 were developed until three bore volumes of water had been removed;
- The monitoring wells were allowed to recharge for approximately five days after development. Groundwater samples were obtained from all monitoring wells using low flow sampling techniques on 15 October 2024;
- Soil vapour samples were obtained on 17 October 2024;
- The field monitoring records and calibration data are attached in Appendix H; and
- Soil, soil vapour and groundwater samples were submitted to NATA accredited laboratories for analysis.

A monitoring well was also previously installed in BH8 (MW8) for the PSI. However, MW8 remained dry throughout the course of the PSI and was not considered further.

[10] JKE, (2024b). *Report to TTW (NSW) Pty Ltd on Sampling, Analysis and Quality Plan (SAQP) for Additional Contamination Investigation for Proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW*. (Referred to as SAQP)

5.2 Deviations to the SAQP

Deviations to the SAQP are outlined below:

- Due to changes in the availability of drilling resources, a 4x4 mounted push-tube drilling rig was used for sampling from BH118 to BH120 inclusive. Following push-tube drilling, the intention was to use the spiral auger attachment to facilitate obtaining a larger volume for the bulk screening for asbestos. Due to an oversight from JKE field personnel, the auger was not used. It is also noted that the volume of recovery achieved using the push-tube drilling was insufficient to obtain 500mL asbestos quantification samples for these locations. Quantification analysis was undertaken on whatever return was achieved from the push-tubes;
- The intention was to redevelop the existing monitoring wells (MW18, MW26 and MW29) due to the passage of time since they were sampled for the PSI. However, MW29 was not redeveloped. As these wells had already been developed as part of the PSI scope, not redeveloping MW29 is not considered to have impacted the results;
- The intention was to compare the soil results for the fill in the deep soil mound to the Excavated Natural Material Order 2014[11] requirements. However, all soil data collected for the additional investigation, not only the data from the fill mound, was preliminarily screened against the ENM Order requirements to assess the potential for shallow fill in other areas to potentially meet the requirements;
- A number of the sampling locations in the SAQP were repositioned due to access constraints and/or to avoid underground services. The final locations are reflected on the Figures in Appendix A; and
- The SAQP did not provide details on how groundwater RLs were to be established. The relative heights of the groundwater monitoring well locations were interpolated based on the provided survey to establish approximate surface RLs of the monitoring wells. The SWLs were then subtracted from the inferred surface RLs to establish approximate groundwater levels relative to the Australian Height Datum (AHD).

Reference should be made to the SAQP attached in the appendices for further information. The above deviations to the SAQP are considered unlikely to adversely impact on the findings of the additional investigation. It is noted that further additional investigation is required once access permits (i.e. following demolition).

5.3 Laboratory Details

Samples were analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. Reference should be made to the laboratory reports attached in the appendices for further details.

[11] NSW EPA, (2014). *The excavated natural material order 2014*. (referred to as ENM Order)

Table 5-1: Laboratory Details

Samples	Laboratory	Report Reference
All primary samples and field QA/QC samples including (intra-laboratory duplicates, trip blanks, trip spikes and field rinsate samples)	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	363994, 363994-A, 364096 and 364385
Inter-laboratory duplicates	Envirolab Services Pty Ltd VIC, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	MFJ0388 and MFJ0410

6 SITE ASSESSMENT CRITERIA (SAC)

The SAC were derived from the NEPM 2013 and other guidelines as discussed in the following sub-sections. The guideline values for individual contaminants are presented in the attached report tables and further explanation of the various criteria adopted is provided in the appendices.

6.1 Soil

Soil data will be compared to relevant Tier 1 screening criteria in accordance with NEPM (2013) as outlined below.

6.1.1 Human Health

- Health Investigation Levels (HILs) for a 'commercial/industrial' exposure scenario (HIL-D);
- Health Screening Levels (HSLs) for a 'commercial/industrial' exposure scenario (HSL-D). HSLs were calculated based on conservative assumptions including a 'sand' type and a depth interval of 0m to 1m;
- HSLs for direct contact presented in the CRC Care Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[12]; and
- Asbestos was assessed against the HSL-D criteria. A summary of the asbestos criteria is provided in the table below:

Table 6-1: Details for Asbestos SAC

Guideline	Applicability
Asbestos in Soil	The HSL-D criteria will be adopted for the assessment of asbestos in soil. The SAC adopted for asbestos are derived from the NEPM 2013 and based on the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[13]. The SAC include the following: • No visible asbestos at the surface/in the top 10cm of soil; • <0.05% w/w bonded asbestos containing material (ACM) in soil; and • <0.001% w/w asbestos fines/fibrous asbestos (AF/FA) in soil. Concentrations for bonded ACM concentrations in soil are based on the following equation which is presented in Schedule B1 of NEPM (2013): **% w/w asbestos in soil = % asbestos content x bonded ACM (kg) / Soil volume (L) x soil density (kg/L)** However, we are of the opinion that the actual soil volume in a 10L bucket varies considerably due to the presence of voids, particularly when assessing cohesive soils. Therefore, each bucket sample was weighed using electronic scales and the above equation was adjusted as follows (we note that the units have also converted to grams): **% w/w asbestos in soil = % asbestos content x bonded ACM (g) / Soil weight (g)**

[12] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

[13] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

6.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for a 'commercial/industrial' exposure scenario. Though the NEPM (2013) requires only the top 2m of soil to be compared to EILs and ESLs, JKE has compared all results to the EILs and ESLs to account for potential cut/fill activities during the redevelopment of the site;
- The criterion for benzo(a)pyrene has been increased from the value presented in NEPM (2013) based on the Canadian Soil Quality Guidelines[14];
- ESLs were adopted based on the soil type;
- EILs for selected metals were calculated based on the most conservative added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values presented in the document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[15] as an initial screen; and
- Where the initial screen identified exceedances of the EILs, representative samples were analysed for soil pH and CEC. Arithmetic averages were calculated based on the soil types (i.e. coarse vs fine etc). For this investigation, the arithmetic averages for coarse soils were calculated as soil pH of 7.6 and CEC value of 20 (all fine-grained soil results were below the initial screen EILs). The average concentrations were then used to select the ACL values presented in Schedule B(1) of NEPM (2013). This method is considered to be adequate for the Tier 1 screening.

6.1.3 Management Limits for Petroleum Hydrocarbons

Management limits for petroleum hydrocarbons (as presented in Schedule B1 of NEPM 2013) were considered.

6.1.4 Waste Classification

Data for the waste classification assessment were assessed in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (2014)[16] as outlined in the following table:

Table 6-2: Waste Categories

Category	Description
General Solid Waste (non-putrescible)	• If Specific Contaminant Concentration (SCC) ≤ Contaminant Threshold (CT1) then Toxicity Characteristics Leaching Procedure (TCLP) not needed to classify the soil as general solid waste; and • If TCLP ≤ TCLP1 and SCC ≤ SCC1 then treat as general solid waste.
Restricted Solid Waste (non-putrescible)	• If SCC ≤ CT2 then TCLP not needed to classify the soil as restricted solid waste; and • If TCLP ≤ TCLP2 and SCC ≤ SCC2 then treat as restricted solid waste.
Hazardous Waste	• If SCC > CT2 then TCLP must be undertaken to classify the soil as hazardous waste; and • If TCLP > TCLP2 and/or SCC > SCC2 then treat as hazardous waste.

[14] Canadian Council of Ministers of the Environment, (1999). *Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)* (referred to as the Canadian Soil Quality Guidelines)

[15] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

[16] NSW EPA, (2014). *Waste Classification Guidelines, Part 1: Classifying Waste.* (referred to as Waste Classification Guidelines 2014)

Category	Description
Virgin Excavated Natural Material (VENM)	Natural material (such as clay, gravel, sand, soil or rock fines) that meet the following: • That has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial mining or agricultural activities; • That does not contain sulfidic ores or other waste; and • Includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a notice published in the NSW Government Gazette.

The investigation also included a high-level assessment of the soil data in relation to ENM Order criteria.

6.2 Soil Vapour

Soil vapour data were assessed against the HSL-D and interim HIL-D concentrations presented in Schedule B1 of NEPM (2013). Conservatively, the HSLs were derived using a 0-1m depth interval and a sand soil type.

For VOC compounds detected above the PQL and for which there are no NEPM (2013) SAC, the USEPA vapour intrusion screening level calculator were used to derive screening criteria based on a target cancer risk (TCR) of $1x10^{-5}$ for non-threshold/carcinogenic compounds and target hazard quotient (THQ) of 1 for threshold/non-carcinogenic compounds.

6.3 Groundwater

Groundwater data were compared to relevant Tier 1 screening criteria in accordance with NEPM (2013), following an assessment of environmental values in accordance with the Guidelines for the Assessment and Management of Groundwater Contamination (2007)[17]. Environmental values for the investigation included aquatic ecosystems, human uses (incidental contact and recreational water use), and human-health risks in non-use scenarios (vapour intrusion).

6.3.1 Human Health

- The NEPM (2013) HSLs were not applicable for this project as bedrock has previously been encountered at depths shallower than 2m. On this basis, JKE have undertaken a site-specific assessment (SSA) for the Tier 1 screening of human health risks posed by volatile contaminants in groundwater. The assessment included selection of alternative Tier 1 criteria that are considered suitably protective of human health. These criteria were based on drinking water guidelines and have been referred to as HSL-SSA. The criteria were based on the following:
  - Australian Drinking Water Guidelines 2011 (updated 2021)[18] for BTEX compounds and selected VOCs;
  - World Health Organisation (WHO) document titled Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality

[17] NSW Department of Environment and Conservation, (2007). *Guidelines for the Assessment and Management of Groundwater Contamination.*

[18] National Health and Medical Research Council (NHMRC), (2021). *National Water Quality Management Strategy, Australian Drinking Water Guidelines 2011* (referred to as ADWG 2011)

(2008)[19] for petroleum hydrocarbons. We have conservatively adopted the value of 100µg/L for TRH F1 and F2;

- USEPA screening levels for naphthalene (threshold value for tap water); and
- The use of the laboratory PQLs for other contaminants where there are no Australian guidelines.

- The ADWG 2011 were multiplied by a factor of 10 to assess potential risks associated with incidental/recreational-type exposure to groundwater (e.g. within down-gradient water bodies, with bore water used for irrigation, or with seepage water in the basement). These have been deemed as 'recreational' SAC.

6.3.2 Environment (Ecological - aquatic ecosystems)

Groundwater Investigation Levels (GILs) for 95% protection of freshwater species were adopted based on the Default Guideline Values in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018)[20]. The 99% trigger values were adopted where required to account for bioaccumulation. Low and moderate reliability trigger values were adopted for some contaminants where high-reliability trigger values don't exist.

[19] World Health Organisation (WHO), (2008). *Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality* (referred to as WHO 2008)

[20] Australian and New Zealand Governments (ANZG), (2018). *Australian and New Zealand Guidelines for Fresh and Marine Water Quality.* Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia (referred to as ANZG 2018)

7 RESULTS

7.1 Summary of Data (QA/QC) Evaluation

The data evaluation is presented in the appendices. In summary, JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

7.2 Subsurface Conditions

A summary of the subsurface conditions encountered during the investigation is presented in the following table. Reference should be made to the borehole logs attached in the appendices for further details.

Table 7-1: Summary of Subsurface Conditions

Profile	Description
Pavement	AC Pavement was encountered at the surface in BH108, and BH118 to BH123. The AC pavement ranged from approximately 10mm to 30mm in thickness. Concrete pavement was encountered at the surface in BH107, and BH109 to BH117, and ranged from approximately 120mm to 230mm in thickness.
Fill	Fill was encountered at the surface or beneath the pavement in all boreholes and extended to depths of approximately 0.15m to 3.5mBGL. BH104 to BH106, BH108, BH110, BH113, BH114, BH116, BH117, BH119, and BH120 were terminated in the fill at maximum depths of approximately 0.15m to 2mBGL. The fill typically comprised silty and/or gravelly sand, and silty clay, with varying proportions of sand and gravel. The fill contained inclusions of igneous, ironstone, quartz, siltstone and sandstone gravel, slag, ash, demolition rubble (brick, metal, tile and glass fragments), roots and root fibres. No stained or odorous fill soils were encountered during the investigation.
Natural Soil	Residual silty clay soils were encountered beneath the fill in BH101 to BH103, BH107, BH109, BH111, BH112, BH115, BH118, and BH119 at depths of approximately 0.3m to 3.5mBGL. No stained or odorous soils were encountered during the investigation.
Bedrock	Extremely weathered siltstone was encountered beneath the fill in BH121 to BH123 at a depth of approximately 0.3mBGL. The siltstone became distinctly weathered at depths of approximately 1m to 1.3mBGL in BH121 and BH122, and extended to the terminal depths of the boreholes.
Groundwater	Groundwater seepage was not encountered in the boreholes during drilling. All boreholes remained dry on completion of drilling and a short time after.

7.3 Field Screening

A summary of the field screening results is presented in the following table:

Table 7-2: Summary of Field Screening

Aspect	Details
PID Screening of Soil Samples for VOCs and bulk gas	PID soil sample headspace readings are presented in attached report tables and the COC documents attached in the appendices. The results ranged from 0ppm to 2.2ppm equivalent isobutylene. These results indicate generally low concentrations of PID detectable VOCs in the samples which aligned with other observations of no staining or odours. A hand-held landfill gas analyser was used to screen the annulus of the boreholes in the deep fill mound (BH101 to BH103) during drilling. Methane and/or carbon dioxide concentrations were not detected. The HGG drilling field sheet is included in Appendix H.
Bulk Screening for Asbestos	The bulk field screening results are summarised in the attached report Table S5 attached in the appendices. All results were below the SAC. There was no visible FCF or other suspected asbestos materials observed in any of the bulk samples.
Groundwater Depth & Flow	SWLs measured in the monitoring wells installed at the site ranged from 2.6m to 12.83mBGL. Groundwater RLs calculated on these measurements ranged from approximately 50mAHD to 63.2mAHD. The groundwater RLs indicate that excavation for the proposed basement will likely intercept groundwater. A contour plot was prepared for the groundwater levels as shown on Figure 5 attached in the appendices. Groundwater flow generally occurs in a down-gradient direction perpendicular to the groundwater elevation contours. The contour plot indicates that groundwater generally flows towards the north and north-west which is consistent with expectations based on the topography and down-gradient waterbodies (existing and former).
Groundwater Field Parameters	Field measurements recorded during sampling were as follows: - pH ranged from 4.59 to 5.48; - EC ranged from 659µS/cm to 3,021µS/cm; - Eh ranged from 75.9mV to 179.4mV; and - DO ranged from 0.3ppm to 1.5ppm. Due to very low water volume within MW29, no field measurements were recorded. The PID readings in the monitoring well headspace recorded during sampling ranged from 0ppm in MW18 to 6.2ppm in MW122.
LNAPLs petroleum hydrocarbons	Phase separated product (i.e. LNAPL) was not detected using the interphase probe during groundwater sampling.

7.4 Soil Laboratory Results

The soil laboratory results were assessed against the SAC presented in Section 6.1. Individual SAC are shown in the report tables attached in the appendices. A summary of the results is presented below:

7.4.1 Human Health and Environmental (Ecological) Assessment

Table 7-3: Summary of Soil Laboratory Results – Human Health and Environmental (Ecological)

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Arsenic	59	25	0	0	-
Cadmium	59	<0.4	0	NSL	-
Chromium (total)	59	37	0	0	-
Copper	59	130	0	0	-
Lead	59	77	0	0	-
Mercury	59	0.5	0	NSL	-
Nickel	59	88	0	0	-
Zinc	59	190	0	0	-
Total PAHs	59	8.9	0	NSL	-
Benzo(a)pyrene	59	0.62	NSL	0	-
Carcinogenic PAHs (as BaP TEQ)	59	1	0	NSL	-
Naphthalene	59	<1	0	0	-
DDT+DDE+DDD	40	1.7	0	NSL	-
DDT	40	<0.1	NSL	0	-
Aldrin and dieldrin	40	<0.1	0	NSL	-
Chlordane	40	1	0	NSL	-
Heptachlor	40	0.3	0	NSL	-
Chlorpyrifos (OPP)	40	0.1	0	NSL	-
PCBs	40	<0.1	0	NSL	-

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
TRH F1	59	<25	0	0	-
TRH F2	59	<50	0	0	-
TRH F3	59	520	0	0	-
TRH F4	59	460	0	0	-
Benzene	59	<0.2	0	0	-
Toluene	59	<0.5	0	0	-
Ethylbenzene	59	<1	0	0	-
Xylenes	59	<1	0	0	-
Asbestos (in soil) (%w/w)	42	ACM <0.01 AF/FA 0.1343	2	NA	Asbestos, in the form of AF/FA was recorded at concentrations above the human health SAC in two fill soil samples collected from BH102 (0.8-1.0m) and BH103 (1.8-2.0m).

Notes:

N: Total number (primary samples)

NSL: No set limit

NL: Not limiting

7.4.2 Waste Classification Assessment

The laboratory results were assessed against the criteria presented in Section 6.1.4. The results are presented in the report tables attached in the appendices. A summary of the results is presented in the following table:

Table 7-4: Summary of Soil Laboratory Results Compared to CT and SCC Criteria

Analyte	N	N > CT Criteria	N > SCC Criteria	Comments
Arsenic	59	0	0	-
Cadmium	59	0	0	-
Chromium	59	0	0	-
Copper	59	NSL	NSL	-
Lead	59	0	0	-
Mercury	59	0	0	-
Nickel	59	8	0	Nickel concentrations exceeded the CT1 criterion in several fill soil samples analysed. The maximum nickel concentration was 88mg/kg.

Analyte	N	N > CT Criteria	N > SCC Criteria	Comments
Zinc	59	NSL	NSL	-
TRH (C_6-C_9)	59	0	0	-
TRH (C_{10}-C_{36})	59	0	0	-
BTEX	59	0	0	-
Total PAHs	59	0	0	-
Benzo(a)pyrene	59	0	0	-
OCPs & OPPs	40	0	0	-
PCBs	40	0	0	-
Total VOCs	5	0	0	-
Asbestos	42	-	-	Asbestos was detected in two fill soil samples collected from BH102 (0.8-1.0m) and BH103 (1.8-2.0m). Due to the confirmed presence of asbestos in soil, the fill soils in the vicinity of these locations are classified as special waste (asbestos).

N: Total number (primary samples)

NSL: No set limit

Table 7-5: Summary of Soil Laboratory Results Compared to TCLP Criteria

Analyte	N	N > TCLP Criteria	Comments
Nickel	8	0	The eight fill soil samples with nickel concentrations above the CT1 criterion were analysed for TCLP nickel. The maximum TCLP nickel result was 0.2mg/L.

N: Total number (primary samples)

7.4.3 Preliminary ENM Assessment

The soil laboratory results for the additional investigation were screened against the requirements of the ENM Order. The results are presented in Table S9 attached in the appendices. A summary of the results is presented below:

- Nickel concentrations in five fill soil samples collected from BH108 (0.1-0.2m), BH118 (0.02-0.2m), BH120 (0.02-0.2m), BH121 (0.01-0.15m) and BH122 (0.01-0.1m) exceeded the absolute maximum concentration limit;
- The total TRH (C_{10}-C_{36} fraction) concentration recorded in the fill soil sample collected from BH106 (0-0.1m) exceeded the absolute maximum concentration limit;
- Asbestos was identified in two fill soil samples collected from BH102 (0.8-1.0m) and BH103 (1.8-2.0m); and

- The remaining results were below the respective absolute maximum concentration limits. The arithmetic average concentrations were also below the respective maximum average concentration limits.

Limited pH and EC analysis was undertaken on 10 selected fill soil samples. The results indicated the results were within the absolute maximum concentration ranges, and the arithmetic average results were within the respective thresholds.

7.5 Soil Vapour Assessment

The soil vapour laboratory results were assessed against the criteria presented in Section 6.2. The results are presented in the report tables attached in the appendices. A summary of the results is presented in the following table:

Table 7-6: Summary of Soil Vapour Laboratory Results – Human Health

Analyte	N ^	Max. ($\mu g/m^3$)	N > Human Health SAC	Comments
TRH F1	7	<200	0	-
TRH F2	7	2,800	0	-
Benzene	7	790	0	-
Toluene	7	160	0	-
Ethylbenzene	7	9	0	-
Total Xylenes	7	123	0	-
Naphthalene	7	<2.6	0	-
TCE	7	10	0	-
1,1,1-Trichloroethane (1,1,1-TCA)	7	<2.7	0	-
PCE	7	<3.4	0	-
Cis 1,2 dichloro-ethene	7	<2	0	-
Vinyl chloride	7	7	0	-
Other VOCs	7			-
Propylene		1,400	0	
Dichlorodifluoromethane		4	0	
chloroethane		440	0	
Ethanol		1,300	NSL	
Acetone		12,000	NSL	
Isopropyl alcohol		1,000	NSL	
Dichloromethane		30	0	
Carbon Disulphide		20	0	

Analyte	N ^	Max. (µg/m³)	N > Human Health SAC	Comments
Methyl Ethyl Ketone		220	0	
Hexane		170	0	
Chloroform		20	0	
Cyclohexane		31	0	
Heptane		360	0	
Styrene		10	0	
1,3,5-Trimethylbenzene		3	0	
1,2,4-Trimethylbenzene		10	0	
1,4-Dicholorobenzene		30	0	

Notes:

^: Primary samples

N: Total number of samples

NSL: No set limit

*: TRH F2 is TRH C_{10}-C_{12} only

7.6 Groundwater Laboratory Results

The groundwater laboratory results were assessed against the SAC presented in Section 6.3. Individual SAC are shown in the report tables attached in the appendices. A summary of the results is presented below:

Table 7-7: Summary of Groundwater Laboratory Results – Human Health and Environmental (Ecological)

Analyte	N ^	Max. (µg/L)	N> Human Health SAC	N> Ecological SAC	Comments
Arsenic	5	1	0	0	-
Cadmium	5	0.2	0	0	-
Chromium (total)	5	<1	0	0	-
Copper	5	22	0	3	Copper concentrations above the ecological SAC of 1.4µg/L were recorded in the primary (and field duplicate) groundwater samples collected from MW18, MW121 and MW122.
Lead	5	<1	0	0	-
Mercury	5	<0.05	0	0	-
Nickel	5	140	0	3	Nickel concentrations above the ecological SAC of 11µg/L were recorded in the primary (and field duplicate) groundwater samples collected from MW18, MW26 and MW122.
Zinc	5	680	0	4	Zinc concentrations above the ecological SAC of 8µg/L were recorded in the primary (and field duplicate)

Analyte	N ^	Max. (µg/L)	N> Human Health SAC	N> Ecological SAC	Comments
					groundwater samples collected from MW18, MW26, MW121 and MW122.
Total PAHs	5	0.7	NSL	NSL	A naphthalene concentration was recorded in the groundwater sample collected from MW121.
Benzo(a)pyrene	5	<0.1	0	0	-
Naphthalene	5	0.7	0	0	-
TRH F1	5	<10	0	NSL	-
TRH F2	5	85	0	NSL	-
TRH F3	5	180	NSL	NSL	A TRH F3 concentration was recorded in the primary (and field duplicate) groundwater sample collected from MW122.
TRH F4	5	<100	NSL	NSL	-
Benzene	5	<1	0	0	-
Toluene	5	<1	0	0	-
Ethylbenzene	5	<1	0	0	-
m+p-Xylene	5	<2	0	0	-
o-Xylene	5	2	0	0	-
Total Xylenes	5	2	0	0	-
Total VOCs	5	3	NSL	NSL	A trace concentration of 1,2,4-trimethyl benzene (in addition to o-Xylene tabulated above) were recorded in the primary (and field duplicate) groundwater sample collected from MW122.
pH	5	4.5 (min) 6.1 (max)	5	5	The pH of all of the groundwater samples were below the lower threshold for human health and ecological SAC.
EC	5	4,400 µS/cm	NSL	NSL	The EC of the groundwater samples ranged from 670µS/cm to 4,400µS/cm.

Notes:

^: Primary samples

N: Total number

NSL: No set limit

NL: Not limiting

8 PRELIMINARY WASTE CLASSIFICATION AND RE-USE ASSESSMENT

8.1 Preliminary Waste Classification of Fill

Based on the results of the PSI and this additional investigation, and at the time of reporting, the fill materials are assigned the following preliminary classifications for off-site disposal purposes:

- The fill soils in the deep fill soil mound in the north-west of the site are likely to be classified as **General Solid Waste (non-putrescible) containing Special Waste (asbestos)**;
- The fill soils within the northern portion of the site (i.e. north of the southern building) are likely to be classified as **General Solid Waste (non-putrescible) containing Special Waste (asbestos)**; and
- The fill soils across the remainder of the site are likely to be classified as **General Solid Waste (non-putrescible)**.

The above classifications are preliminary and are to be confirmed via additional testing and analysis. Further assessment is required to confirm the extent of the special waste (asbestos) prior to off-site disposal. Additional sampling will also be required in areas not previously sampled during the PSI and this investigation, and at point source AEC locations (e.g. beneath buildings, UST backfill, etc). The anticipated waste quantities should also be confirmed at that time and documented in the report.

8.2 Preliminary Classification of Natural Soil and Bedrock

Based on the scope of work undertaken for this assessment, and at the time of reporting, the residual silty clay soils in the vicinity of BH111 and BH114 are assigned a preliminary waste classification of **General Solid Waste (non-putrescible)**.

JKE is of the opinion that the residual soils (with the exception of the vicinity of BH111 and BH114), and the sandstone bedrock at the site will likely meet the definition of **VENM** for off-site disposal or re-use purposes. VENM is considered suitable for re-use on-site (from a contamination viewpoint), or alternatively, the information included in this report may be used to assess whether the material is suitable for beneficial reuse at another site as fill material.

The above classifications are to be confirmed following removal of the overlying fill soils, and must include additional sampling and laboratory analysis to confirm the classifications. The anticipated waste quantities should also be confirmed at that time and documented in the report.

8.3 High Level Commentary Regarding Potential for ENM Classification

Based on the results of the PSI and this additional investigation, JKE consider the following:

- The sandy and/or gravelly fill soils beneath the pavements surrounding the buildings is generally not suitable for consideration as ENM due to elevated nickel concentrations reported. Asbestos was also identified within the carpark areas to the north and south of the northern (Work Arena) building. Further, a detection of benzo(a)pyrene above the absolute maximum concentration threshold was reported in BH8;
- The sandy gravelly clay fill soils in the vicinity of BH10 is not suitable for consideration as ENM due to the elevated concentration of benzo(a)pyrene reported;

- The silty clay fill soils in the vicinity of BH106 may not suitable due to the elevated concentration of TRHs. It is possible that the reported concentration may be associated with interference from organic and/or non-petroleum TRHs;
- The deep fill soil mound in the north of the site is not suitable for ENM due to the presence of asbestos;
- The shallow fill soils beneath the southern (Foxtel) building, and adjacent to the west of the southern building may meet the requirements of the ENM order;
- The residual silty clay soils in the vicinity of BH111 and BH114 will likely meet the ENM Order requirements; and
- No soil data was available beneath the northern (Work Arena) building. JKE consider the fill soil characteristics would likely be similar to beneath the southern (Foxtel) building. However, further investigation is needed to confirm this assumption.

It should be noted that this review has been undertaken at a high level and the sampling density and analysis requirements do not meet the ENM Order requirements. The opinions above are based on limited soil information and there is potential that further investigation may identify other non-conformances with the ENM Order requirements.

The client should engage a quantity surveyor to estimate the extent of filling that may be suitable for ENM analysis, based on the above information. The client should also undertake their own cost-benefit analysis to assess whether the potential isolation and classification of material as ENM should be considered further.

8.4 On-Site Re-Use

From an on-site re-use perspective for site-won excavated materials, as it relates to contamination risks, we note that:

- Fill/soil containing asbestos should not be re-used on site. However, this does not preclude soil containing asbestos being managed/encapsulated on-site as part of a remediation process, should this be the preferred approach. This will require further evaluation as part of the RAP development;
- Fill that does not contain asbestos is considered to be suitable for on-site re-use from a contamination perspective;
- Natural soil/bedrock is considered to be suitable for on-site re-use from a contamination perspective (except potentially for some localised materials in the vicinity of the USTs, which requires further assessment as noted below); and
- Re-use of excavated materials from around the USTs will require further consideration as part of the validation process if these materials are to be assessed for on-site re-use suitability.

9 DISCUSSION

9.1 Tier 1 Risk Assessment and Review of CSM

For a contaminant to represent a risk to a receptor, the following three conditions must be present:

1. Source – The presence of a contaminant;
2. Pathway – A mechanism or action by which a receptor can become exposed to the contaminant; and
3. Receptor – The human or ecological entity which may be adversely impacted following exposure to contamination.

If one of the above components is missing, the potential for adverse risks is relatively low.

9.1.1 Soil

Asbestos, in the form of AF/FA, was identified in the fill soils in BH102 (0.8-1.0m) and BH103 (1.8-2.0m) at concentrations above the human health SAC. BH102 and BH103 were located in the large fill mound in the north-west of the site, as shown on Figure 4 attached in the appendices. The source of the asbestos is considered likely to be associated with impacted fill historically imported to the site, and/or historic demolition and disposal activities. JKE note that the asbestos impacts were identified as fibrous matted material within the sub-surface soils, and consider the fibrous mattered material is likely indicative of degraded FCF/ACM.

The fill mound is located in the north-west of the site and is publicly accessible (i.e. the mound is not fenced). However, use of the area is likely limited to short durations (such as sitting and walking), and the use of the area would be generally benign (i.e. non-intrusive). The grass cover appeared to be in good condition based on a cursory inspection, limiting access to the underlying soils. Considering the above, a complete SPR linkage is unlikely in the current site configuration. A complete SPR linkage could be realised once the surface is disturbed (i.e. during demolition/redevelopment). Remediation will be required to address the potential risk.

JKE note that the PSI identified bonded (non-friable) FCF/ACM at the surface in one location (FCF-1), and in shallow fill soils in two locations (BH8 and BH9), at concentrations above the human health SAC. Asbestos, in the form of AF/FA, was also identified in the shallow fill soils in two other locations (BH1 and BH2), at concentrations above the SAC. The SAC exceedances and location of the surficial FCF/ACM are shown on Figure 4 attached in the appendices. The source of the asbestos is considered likely to be associated with impacted fill historically imported to the site, and/or historic demolition and disposal activities.

The bonded (non-friable) FCF/ACM collected from the site surface (FCF-1) was located within an area of exposed soils between two carpark levels in the central portion of the site. The site is currently tenanted and the area between the carparks is readily accessible to site users and visitors. As such, the soils in this area may be disturbed. On this basis, a complete SPR linkage could be realised and the asbestos is considered to pose a potential risk to human health if the soil/asbestos is disturbed. However, we note that asbestos fibres bound within a fibre cement matrix are not likely to mobilise readily to air during typical site use, therefore we consider it unlikely that exposure to unacceptable concentrations of airborne respirable asbestos fibres would have occurred from the FCF that was collected during fieldwork. Notwithstanding, remediation will be required to address the potential risk. Interim measures should be implemented to mitigate potential risk to the current site users and visitors (as previously recommended).

The shallow fill soils impacted by asbestos identified in the PSI (i.e. BH1, BH2, BH8 and BH9) were sealed with AC pavement, inhibiting access to the underlying soils. The relevant exposure pathway for asbestos impacts is via inhalation. As the soils are sealed beneath pavement, a complete SPR linkage does not exist in the current configuration. A complete SPR linkage could be realised once the pavements are removed (i.e. during demolition/redevelopment). Remediation will be required to address the potential risk.

The bonded (non-friable) FCF/ACM at the site surface (FCF-1) was collected and removed from the site for laboratory analysis. On completion of all boreholes, a walkover inspection of all sampling locations and their immediate vicinity was undertaken by JKE. No visible FCF/ACM remained at the surface on the completion of reinstating the borehole locations of both the PSI and the additional investigation.

As the site configuration and general use has not changed since the time of the PSI, the SPR linkages, conclusions and recommendations presented in the PSI remain valid.

As previously recommended in the PSI, JKE recommend preparing an Asbestos Management Plan (AMP) to outline the management strategy for addressing the risks posed by AF/FA and FCM/ACM in soils. The AMP should be prepared by a SafeWork NSW Licensed Asbestos Assessor (LAA).

All other CoPC in soil were below the relevant SAC.

9.1.2 Soil Vapour

The soil vapour sampling targeted the southern (Foxtel) building, and the abandoned UST in the north-east of the site. These locations were selected based on the site history and were targeted to areas identified as potential point-sources of VOC impacts. The soil vapour sampling locations are shown on the figures attached in the appendices.

All of the soil vapour results were well below the respective SAC (i.e. the results were <20% of the SAC). Considering the low VOC concentrations recorded, JKE is of the opinion that soil vapour does not pose an unacceptable risk to human health in the context of the current and proposed development.

9.1.3 HGG

The field screening for HGG focussed on the deep filling within the large mound in the north-west of the site. Screening was undertaken from the annulus of boreholes BH101 to BH103 during drilling (refer to figures attached in appendices).

The screening did not identify detectable concentrations of methane and/or carbon dioxide using the portable landfill gas analyser. JKE is of the opinion that the potential for HGG to be generated at concentrations that would be significant (i.e. to the extent they would trigger a need for gas risk mitigation measures) is very low. On this basis, to potential for HGG to be generated is not considered further.

9.1.4 Groundwater

9.1.4.1 Heavy Metals

Copper, nickel and/or zinc concentrations above the respective ecological SAC were reported in the groundwater samples collected from MW18, MW26, MW121 and MW122. The SAC exceedances are shown on Figure 4 attached in the appendices. MW18 was located in the south-east and up-gradient area of the site, MW26 was located in the south-west and down-gradient area of the site and MW29 was located in the north-west and down-gradient area of the site. MW121 and MW122 were targeted to the USTs in the south of the site. The monitoring well locations and inferred groundwater flow direction are shown on Figure 5 attached in the appendices.

The concentrations of heavy metals recorded within the soil samples collected from these locations were generally consistent with the expected ambient conditions. On this basis, it is considered likely that the concentrations of heavy metals may be, at least in part, associated with leaks from potable water supply infrastructure, and are likely to be reflective of general background conditions in the region. It is also possible that the heavy metals in the groundwater may also be associated with historical printing/publishing activities undertaken at the site, although there is no clear evidence supporting this and we consider the historical printing/publishing is not the likely source.

Considering multiple lines of evidence, the concentrations recorded are considered unlikely to pose an unacceptable risk to on-site receptors in the context of the proposed development provided and groundwater is managed appropriately during dewatering (temporary or otherwise).

All other heavy metal results were below the respective SAC.

9.1.4.2 Physical Parameters

The pH of all of the groundwater samples were outside of the acceptable ranges for the ecological and recreational SAC. All of the results were below the lower acceptable threshold. The pH of the groundwater was considered likely to be a regional issue and did not pose an unacceptable risk to on-site receptors in the context of the proposed development.

9.1.4.3 Other CoPC in Groundwater

All remaining CoPC in groundwater were below the relevant SAC.

A low concentration of TRH F2 (marginally above the PQL) was reported for the groundwater sample collected from MW29. No point-source of petroleum-based TRH was identified in the immediate vicinity of MW29. As MW29 is located in the down-gradient area of the site, it is possible that the TRH F2 concentration may be associated with non-petroleum hydrocarbons. It is also possible that the concentrations may be in part at least, attributed to the USTs in the south of the site.

Within the groundwater samples collected from MW121 and MW122, low concentrations of TRH F2 and TRH F3 (MW122 only) were recorded. Trace concentrations of xylene, naphthalene (MW121) and 1,2,4-trimethylbenzene (MW122) were also reported in the groundwater samples. MW121 and MW122 were

targeted to the immediate vicinity of the USTs in the south of the site. It is likely that these impacts are associated with the use of the USTs. Though the concentrations do not pose an unacceptable risk to on-site receptors in the context of the proposed development, management/treatment of the groundwater will be required during dewatering (temporary or otherwise) for the construction and use of the basement.

9.2 Decision Statements

The decision statements are addressed below:

What are the preliminary waste classifications for soils?

The preliminary waste classifications are outlined in Section 8, along with a discussion of on-site re-use of excavated materials.

Are any results above the SAC?

Yes. The results above the SAC are presented in Section 7.

Do potential risks associated with contamination exist, and if so, what are they?

Yes. Potential risks associated with exposure to asbestos were identified. Based on the current site configurations, the asbestos impacts were not considered to pose an immediate risk to human health.

Other potential risks exist in the context of the AEC and CoPC that were not investigated under the PSI scope, or this additional investigation (i.e. soils associated with the USTs and UST infrastructure, beneath buildings).

What are the most likely remedial options to address contamination risks?

Based on the findings of this investigation, the preferred remedial option for asbestos-impacted soils, the USTs and associated infrastructure, and any associated impacted soil/rock (if identified), would likely be excavation and disposal off-site at an appropriately licensed landfill facility. This option is technically achievable, and generally fits with the proposed development plans (i.e. bulk excavation is required to accommodate the proposed development). Alternatively, the impacted soils could be consolidated in a dedicated contaminant cell, or capped in-situ, and managed with an Environmental Management Plan (EMP).

Based on the available data, remediation of groundwater is unlikely to be required. However, groundwater management (from a contamination/human health perspective) will likely be required during construction and dewatering (temporary or otherwise), as the basement will likely intersect the groundwater.

9.3 Data Gaps

The primary data gaps include:

- The soil contaminant conditions within areas not readily accessible (i.e. beneath buildings, most notably the northern building);
- The soil contaminant conditions in the immediate vicinity of UST and associated infrastructure (i.e. tank pit backfill, backfilling of trenches and lines, etc); and
- The vertical and lateral extent of asbestos impacts in fill soils on the basis that the investigations have occurred from boreholes which do not disturb large quantities of soil.

Further soil investigation is required to address these data gaps. Whilst soil sampling was undertaken within the southern (Foxtel) building, due to access constraints this was targeted to accessible areas and completed using hand tools. Additional sampling should be undertaken to confirm these conclusions, once adequate access permits. Given the current access limitations, the additional investigation will largely need to be undertaken following demolition of the existing buildings.

It is acknowledged that no soil vapour sampling has occurred within the footprint of the northern building. The historical records indicated that the southern building was potentially a point-source of VOC contamination, and soil vapour sampling was targeted to the footprint of the southern building. Soil vapour sampling also occurred in the vicinity of the UST in the north of the site. Based on the existing soil vapour and groundwater data, the potential for soil vapour to be encountered to the extent that it poses an unacceptable risk to receptors is considered to be low. No further assessment of soil vapour is warranted at this stage.

10 CONCLUSIONS AND RECOMMENDATIONS

The investigation included a review of supplementary site information, soil sampling from 23 additional boreholes, preliminary HGG screening, soil vapour sampling from seven temporary sub-slab sampling points, groundwater sampling from five monitoring wells installed at the site. The supplementary site information reviewed indicated that the UST in the north of the site was previously abandoned in-situ via filling with inert material.

The sub-surface conditions encountered were generally consistent with the findings of the PSI, typically comprising fill and residual clay soils, underlain by shallow siltstone bedrock. The maximum depth of fill encountered was 3.5mBGL. Groundwater was not encountered during auger drilling for the investigation.

The SWLs recorded in the monitoring wells installed as part of the investigation ranged from approximately 2.6m to 12.83mBGL. Groundwater RLs calculated on these measurements ranged from approximately 50mAHD to 63.2mAHD. The groundwater RLs indicate that the excavation for the proposed building will likely intercept groundwater.

The investigation identified fill soils impacted by asbestos (in the form of AF/FA) at concentrations above the adopted SAC in two locations within the large fill mound in the north-west of the site. The AF/FA concentrations trigger a need for remediation/management. Based on the depth of occurrence within the fill mound, and the existing ground conditions, JKE is of the opinion that the AF/FA identified with the fill mound in the north-west does not pose an immediate risk to human health. Nevertheless, interim measures should be undertaken to mitigate the potential risk of exposure.

JKE note that the PSI identified asbestos (in the form of FCF/ACM and AF/FA) which triggered a need for remediation. Interim measures in relation to the potential risks posed by asbestos to receptors were also recommended in the PSI.

The investigation identified that the groundwater beneath the site was impacted by heavy metals at concentrations above the adopted SAC. The pH of the groundwater was also outside of the acceptable ranges (i.e. below the lower threshold). The concentrations of heavy metals and the low pH of the groundwater was considered likely to be a regional issue. The concentrations of heavy metals were considered unlikely to pose an unacceptable risk to onsite receptors in the context of the proposed development, provided that appropriate management of the groundwater occurs during dewatering (temporary or otherwise).

The soil vapour investigation did not identify any triggers for remediation. As the soil vapour results were all less than 20% of the respective SAC, the trigger for additional soil vapour investigation was not met. JKE is of the opinion that further soil vapour investigation is not warranted at this stage.

The preliminary HGG screening did not identify potential risks related to HGG within the deep fill mound in the north-west of the site. JKE is of the opinion that further investigation of the potential for HGG to be generated at the site is not warranted.

Based on the findings of the investigation, JKE is of the opinion that the site can be made suitable for the proposed development described in Section 1.1, via remediation. The following is recommended:

- Interim management of the site is to occur under an AMP, until remediation occurs. The AMP is to be prepared by an LAA. We note that this was also a recommendation of the PSI;
- A RAP is to be prepared to address the contamination issues identified at the site. The RAP is also to include a framework for the additional investigation (once access is available) to address the data gaps outlined in Section 9.3 of this report; and
- The site is to be managed, remediated and validated in accordance with the RAP and AMP.

JKE note that the PSI recommended that a surface walkover and removal of all visible FCF/ACM from the site surface should be undertaken and an asbestos clearance certificate obtained from an LAA. This should be undertaken as soon as possible.

At this stage, JKE consider there is no requirement to notify the NSW EPA under the NSW EPA Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015)[21]. The duty to report should be reconsidered following completion of each stage of additional work recommended above.

JKE consider that the report objectives outlined in Section 1.2 have been addressed.

[21] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997* (referred to as Duty to Report Contamination)

11 LIMITATIONS

The report limitations are outlined below:

- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or land use. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors
This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions
Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data
Site investigations identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an investigation indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Investigation Limitations
Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Investigation Report

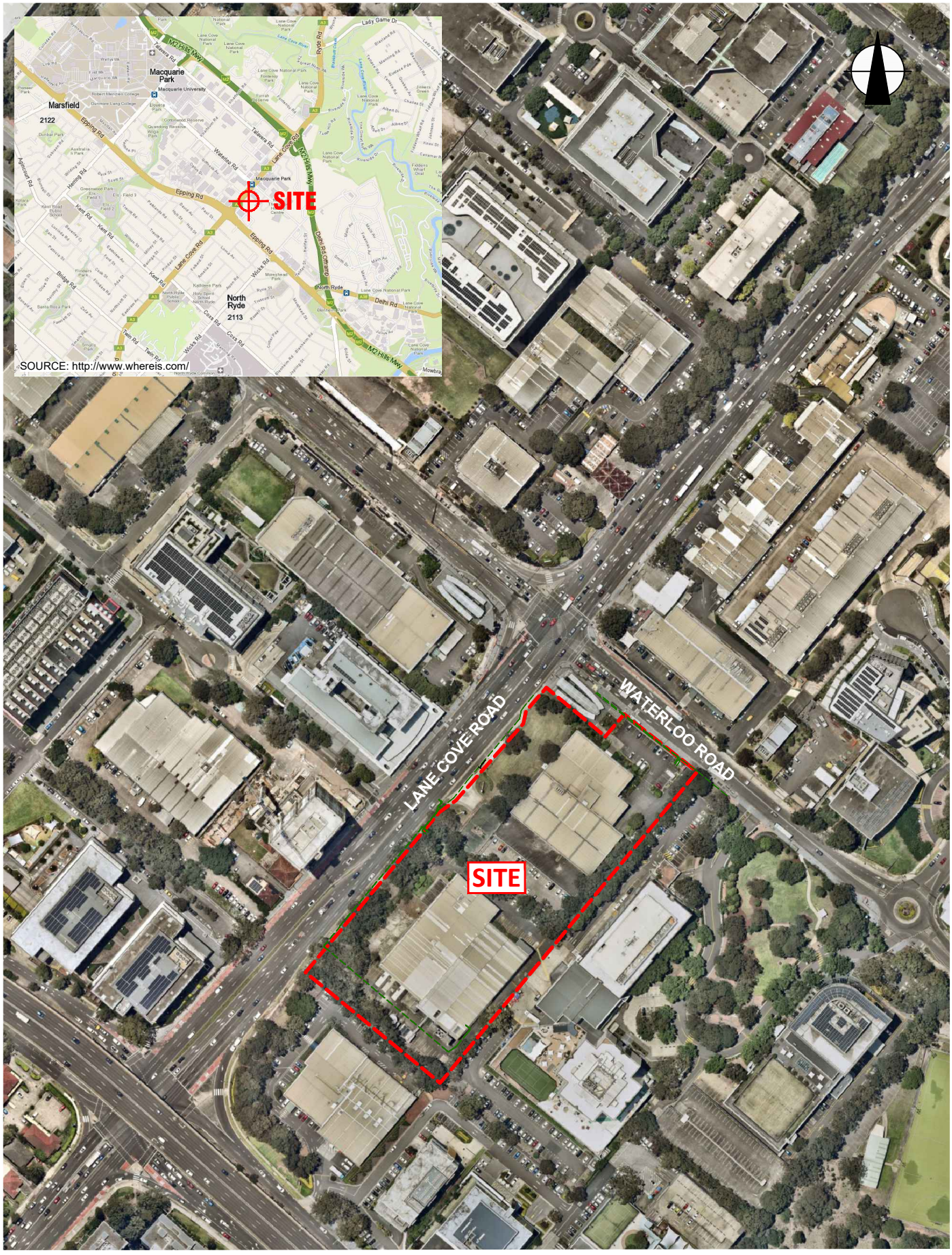
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the investigation. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the investigation. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete investigation should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely

Because an environmental site investigation is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site investigation, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.

Appendix A: Report Figures



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

This plan should be read in conjunction with the Environmental report.

Title:	**SITE LOCATION PLAN**
Location:	269 LANE COVE ROAD, MACQUARIE PARK, NSW
Project No:	E36466PR
Figure No:	1

JKEnvironments

PLOT DATE: 22/11/2024 11:55:08 AM DWG FILE: K:\5C EIS JOBS\36000'S\E36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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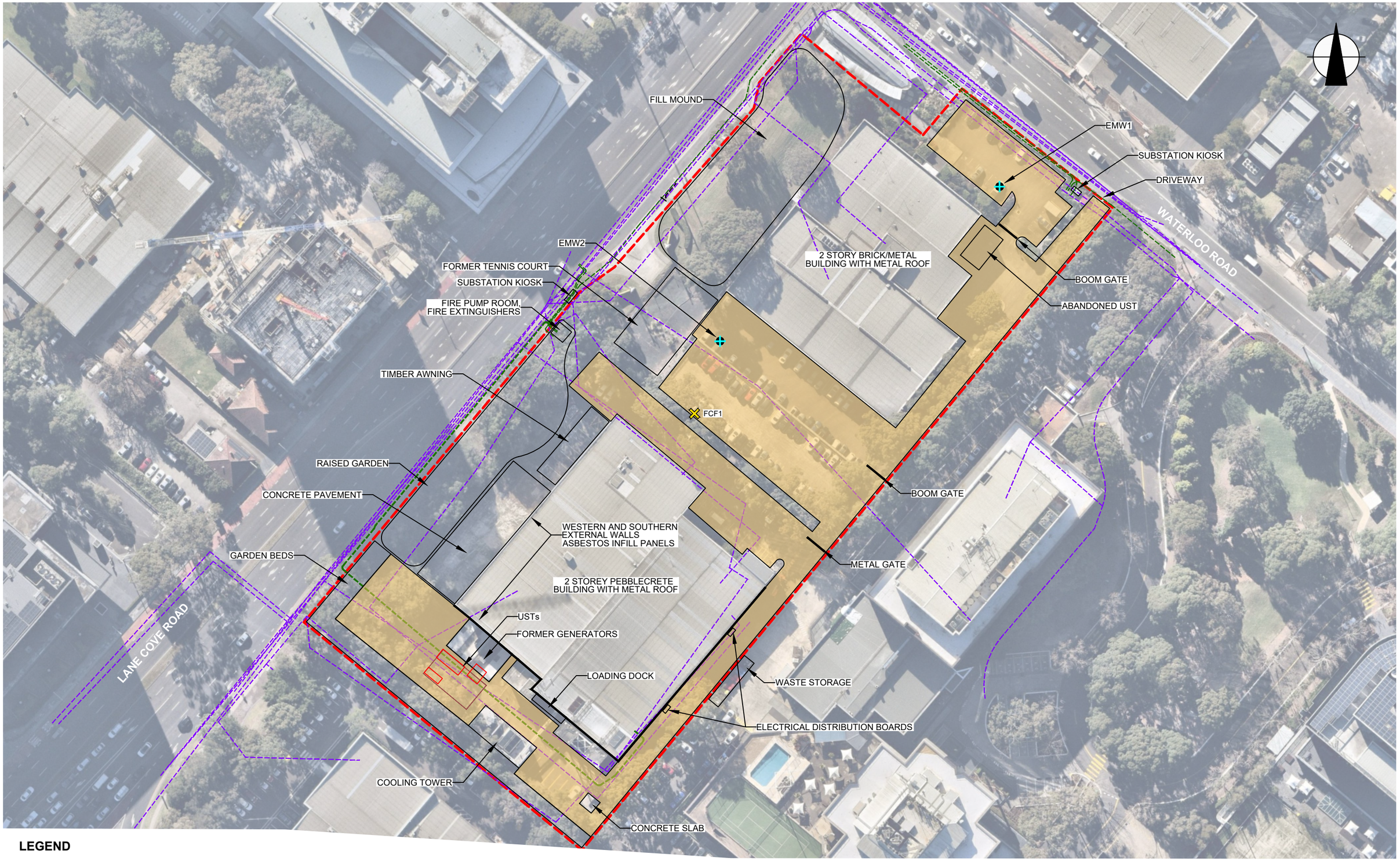

LEGEND

- APPROXIMATE SITE BOUNDARY
- CONCRETE AND ASPHALT HARDSTANDS
- EXISTING MONITORING WELL LOCATION
- FCF(Surface) FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
- APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
- APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SITE FEATURES PLAN**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 2

JKEnvironments

PLOT DATE: 24/12/2024 1:46:53 PM DWG FILE: K:\5C EIS JOBS\36000\SIE36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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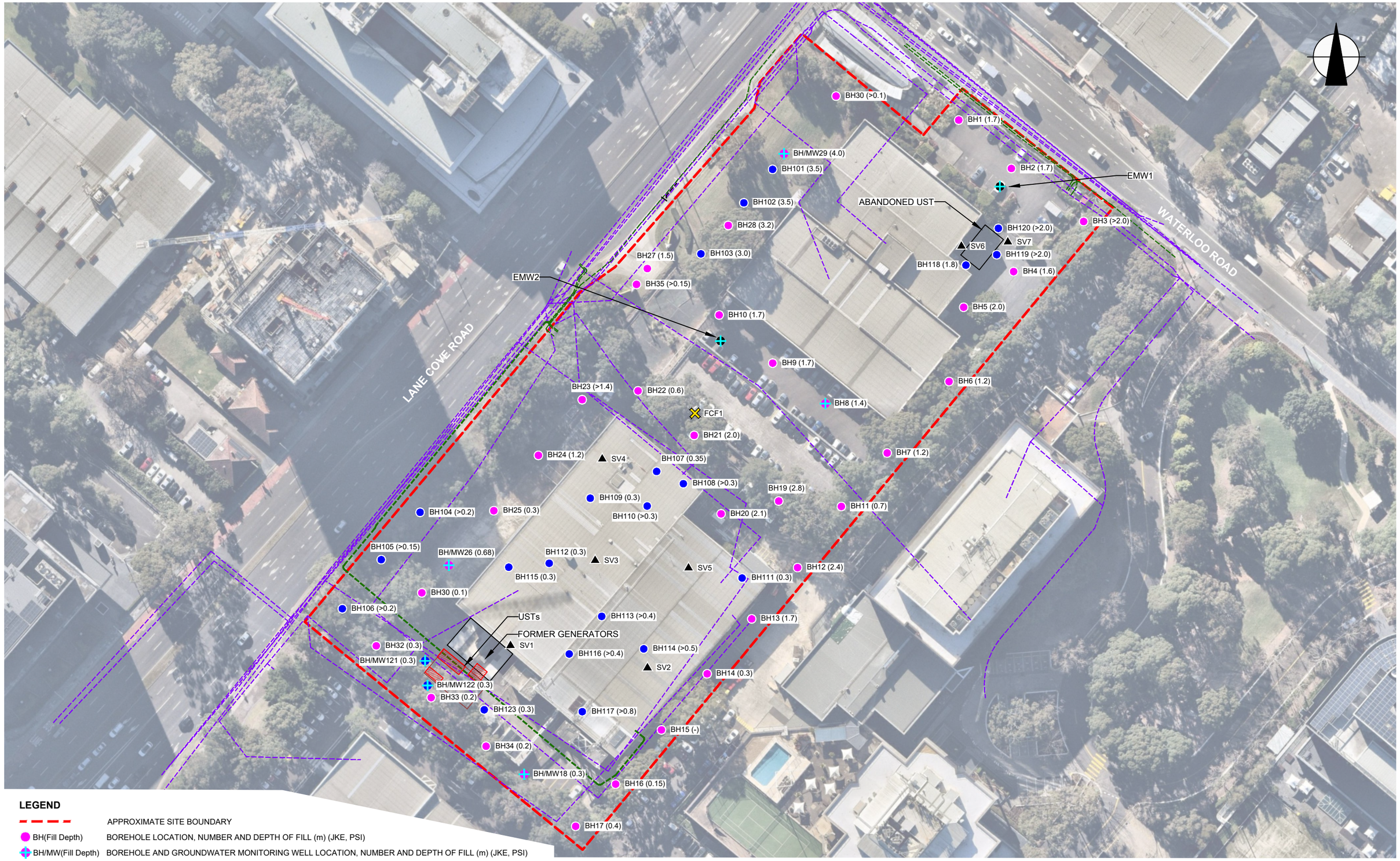

LEGEND

APPROXIMATE SITE BOUNDARY	
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
FCF(Surface)	FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
	EXISTING MONITORING WELL LOCATION
	APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
	APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES
BH101	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
	SOIL VAPOR PIN LOCATION AND NUMBER

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SAMPLE LOCATION PLAN**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 3

JKEnvironments

PLOT DATE: 24/12/2024 1:47:09 PM DWG FILE: K:\5C EIS JOBS\36000\SIE36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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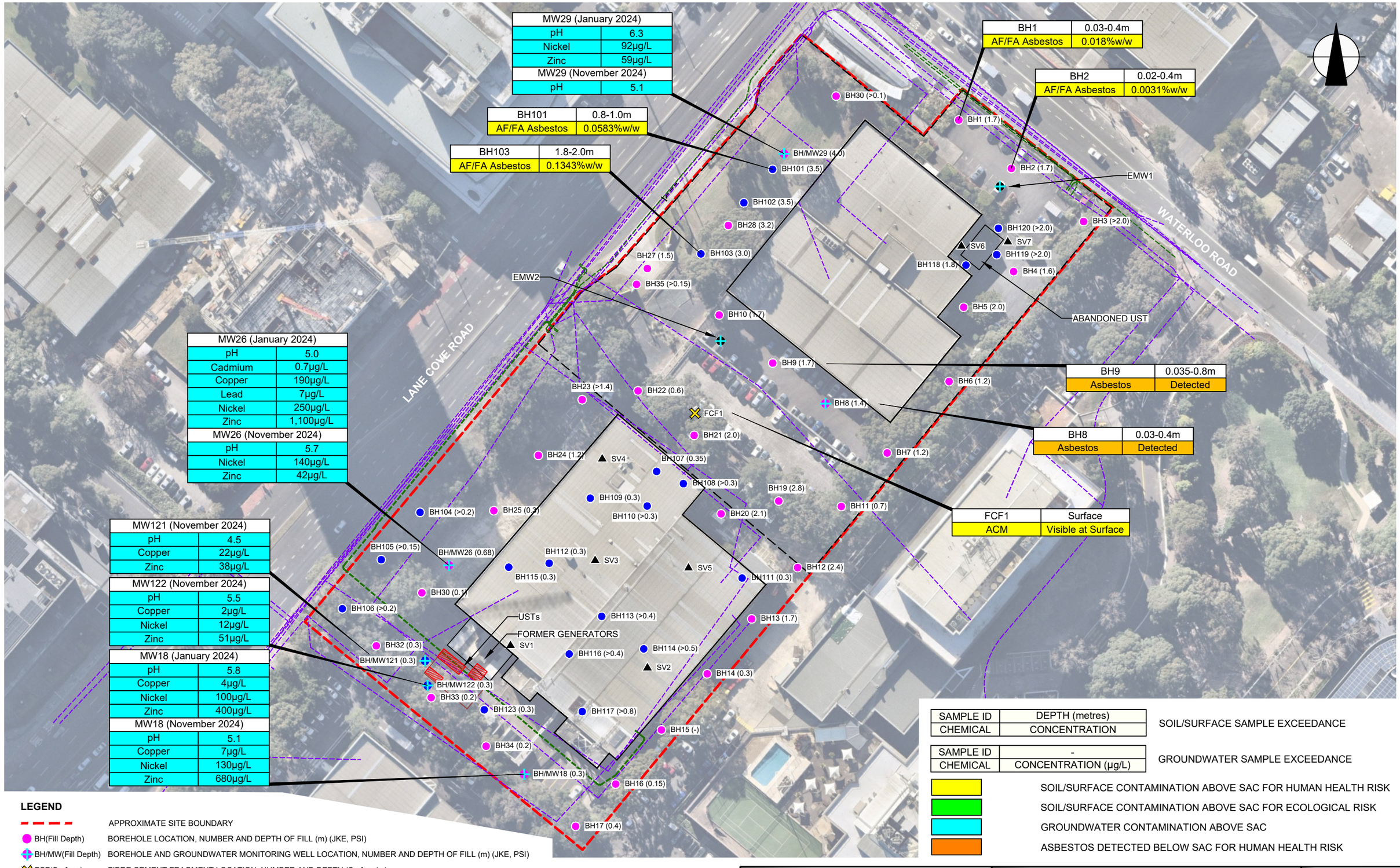

LEGEND

- APPROXIMATE SITE BOUNDARY
- BH(Fill Depth) — BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
- BH/MW(Fill Depth) — BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
- FCF(Surface) — FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
- EXISTING MONITORING WELL LOCATION
- APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
- APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES
- BH101 — BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
- BH/MW(Fill Depth) — BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
- SOIL VAPOR PIN LOCATION AND NUMBER

SAMPLE ID	DEPTH (metres)
CHEMICAL	CONCENTRATION

SOIL/SURFACE SAMPLE EXCEEDANCE

SAMPLE ID	-
CHEMICAL	CONCENTRATION (µg/L)

GROUNDWATER SAMPLE EXCEEDANCE

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR HUMAN HEALTH RISK

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK

GROUNDWATER CONTAMINATION ABOVE SAC

ASBESTOS DETECTED BELOW SAC FOR HUMAN HEALTH RISK

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SAC EXCEEDANCE PLAN**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 4

JKEnvironments

PLOT DATE: 5/03/2025 1:55:34 PM DWG FILE: K:\5C EIS JOBS\36000'S\E36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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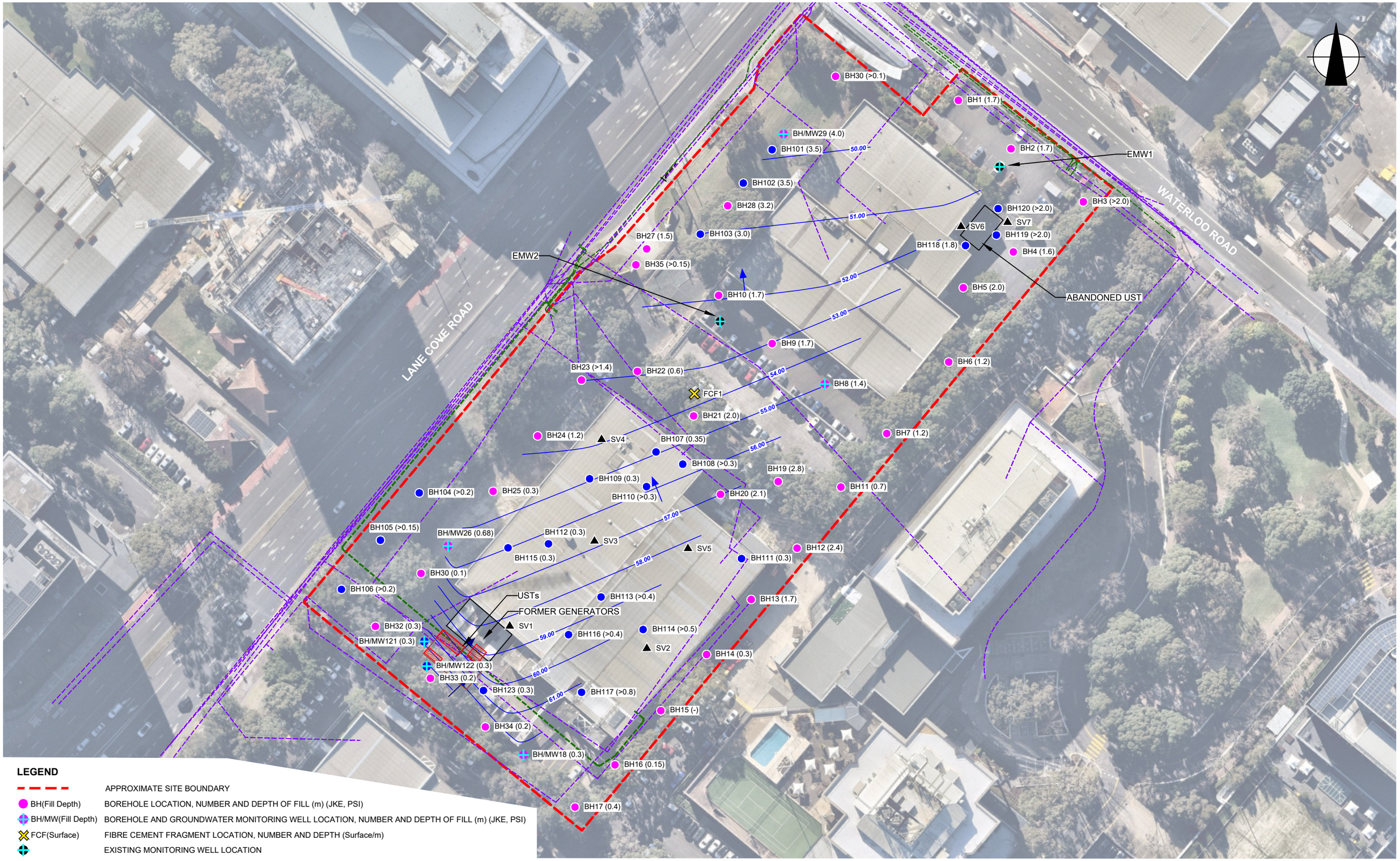

LEGEND

APPROXIMATE SITE BOUNDARY	
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
FCF(Surface)	FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
	EXISTING MONITORING WELL LOCATION
	APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
	APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES
BH101	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
	SOIL VAPOR PIN LOCATION AND NUMBER
54.00	GROUNDWATER CONTOUR INTERVALS (m)
	INFERRED GROUNDWATER FLOW DIRECTION

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **GROUNDWATER CONTOUR PLOT**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 5

JKEnvironments

PLOT DATE: 22/11/2024 1:00:21 PM DWG FILE: K:\5C EIS JOBS\36000'S\E36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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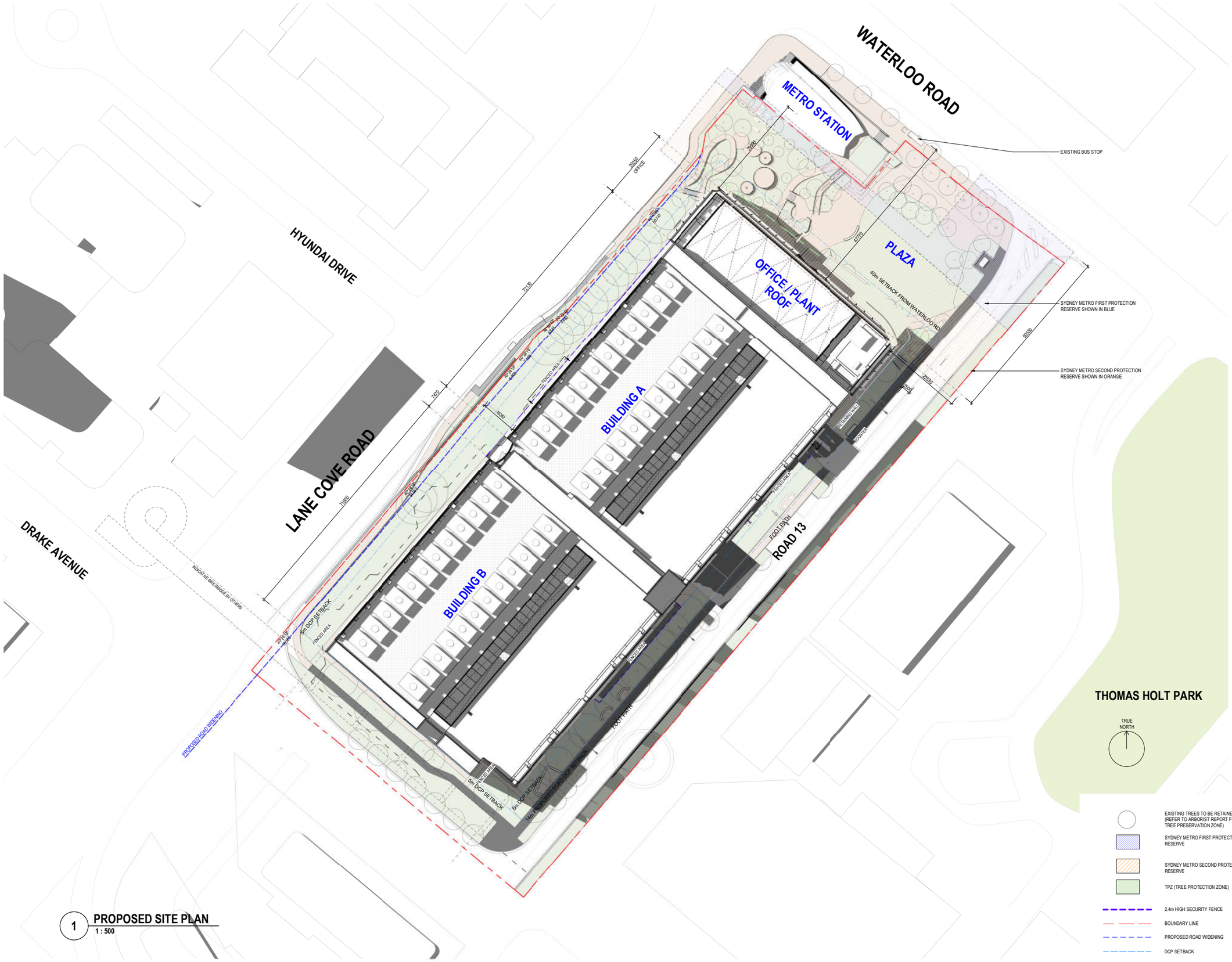
Appendix B: Site Information

Selected Preliminary Development Plans



1 **PROPOSED SITE PLAN**
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DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND
- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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Brisbane QLD 4001
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HDR Pty Limited ABN 76 158 075 220 trading as HDR

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Document Author Project Number
10374547

Key Plan

KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
PROPOSED SITE PLAN

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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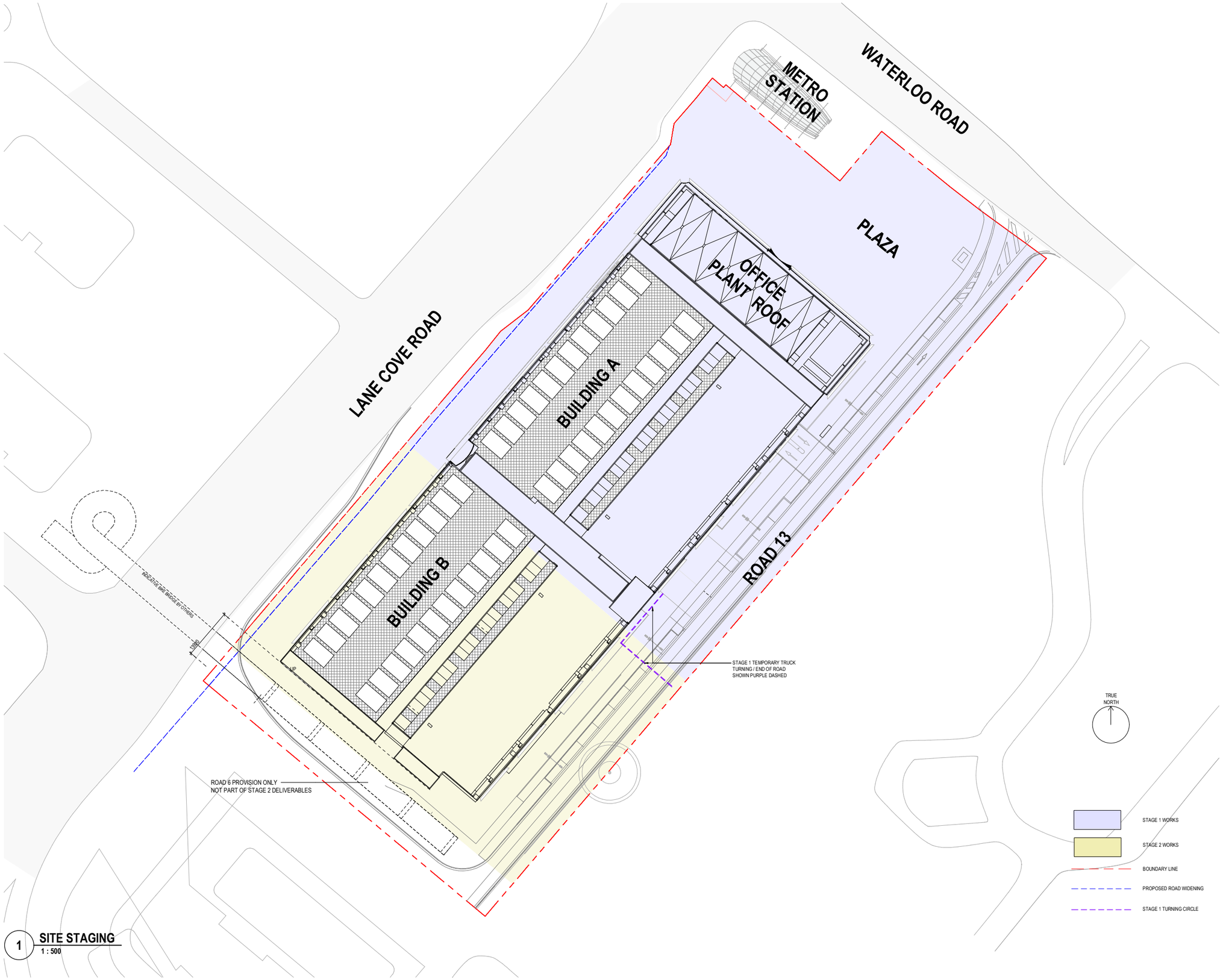

1 **SITE STAGING**
1 : 500

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24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

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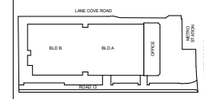
Document Author Project Number
10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
SITE STAGING PLAN

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-0065	CP03

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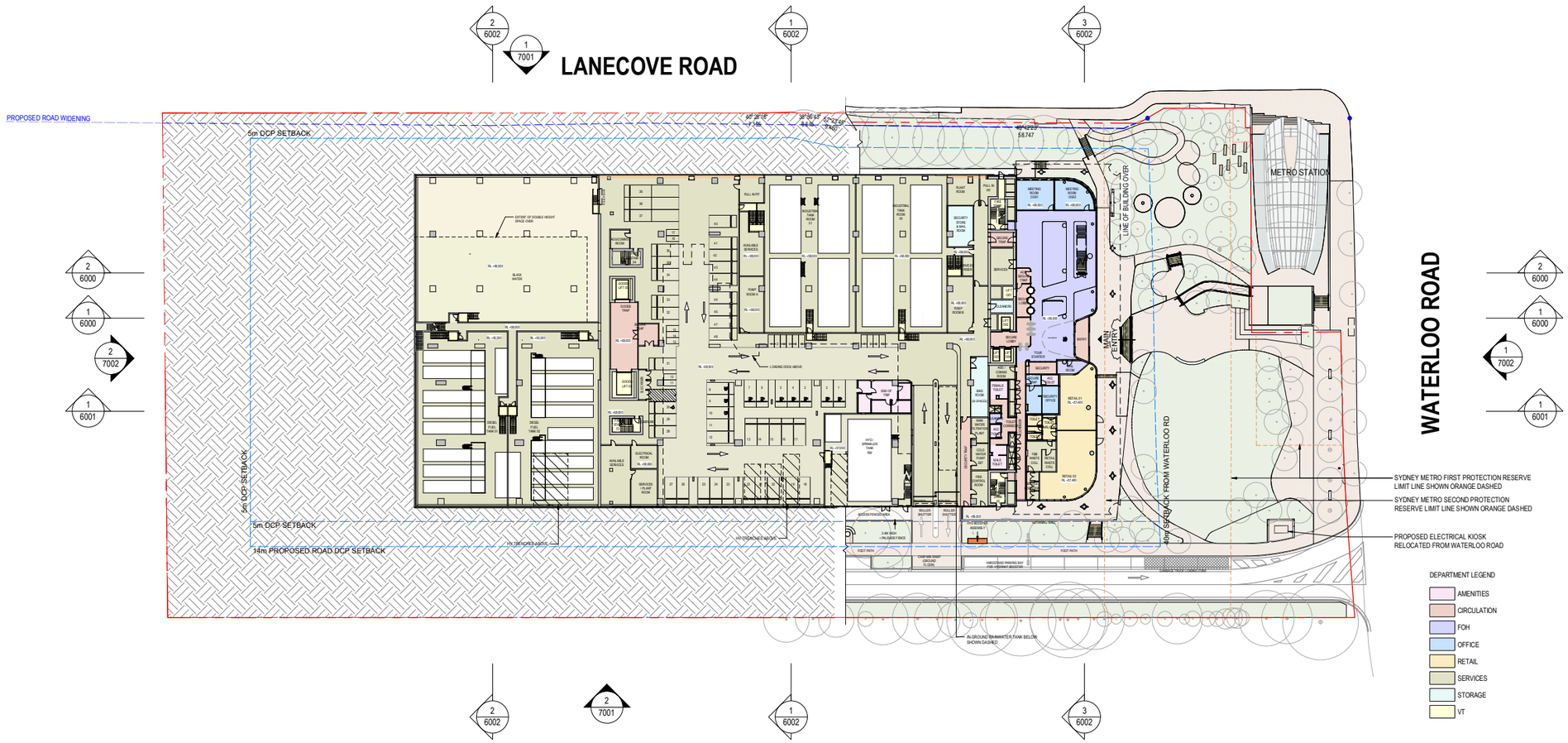

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- FOH
- OFFICE
- RETAIL
- SERVICES
- STORAGE
- VT

TREE LEGEND:

- PROPOSED TREE
- EXISTING TREE

OUTDATED LANDSCAPE MODEL

LANDSCAPE SHOWN IS FROM PREVIOUS CONSULTANT MODEL AND IS INDICATIVE ONLY. UPDATED MODEL TO BE INCORPORATED IN THE NEXT ISSUE.

PARKING SPACES LEGEND:

NUMBER OF CAR SPACES (INCLUDING 10 EV's AND 1 ACCESSIBLE CAR SPACES) =48 SPACES

NUMBER OF EV'S=10 SPACES

NUMBER OF MOTORBIKES (MB)=17 SPACES

NUMBER OF BICYCLES=20 SPACES

SSDA Parking Schedule

Level	Type	Count
GROUND FLOOR		
GROUND FLOOR	Parking - 2500 x 1200 - Motorbike	17
GROUND FLOOR	Parking - 5400 x 2400 - Accessible Car	1
GROUND FLOOR	Parking - 5400 x 2400 - Standard Car	37
GROUND FLOOR	Parking - 5400 x 2400 - Standard Car EV	10
GROUND FLOOR	Parking - 5400 x 2400 - Standard Car Waiting Space	3
GROUND FLOOR	Parking - 5400 x 2700 - Acessible Zone	1

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

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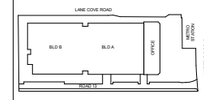
Document Author Project Number

10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - BUILDINGS A AND B - GROUND

Drawing Status:

SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3000	CP03

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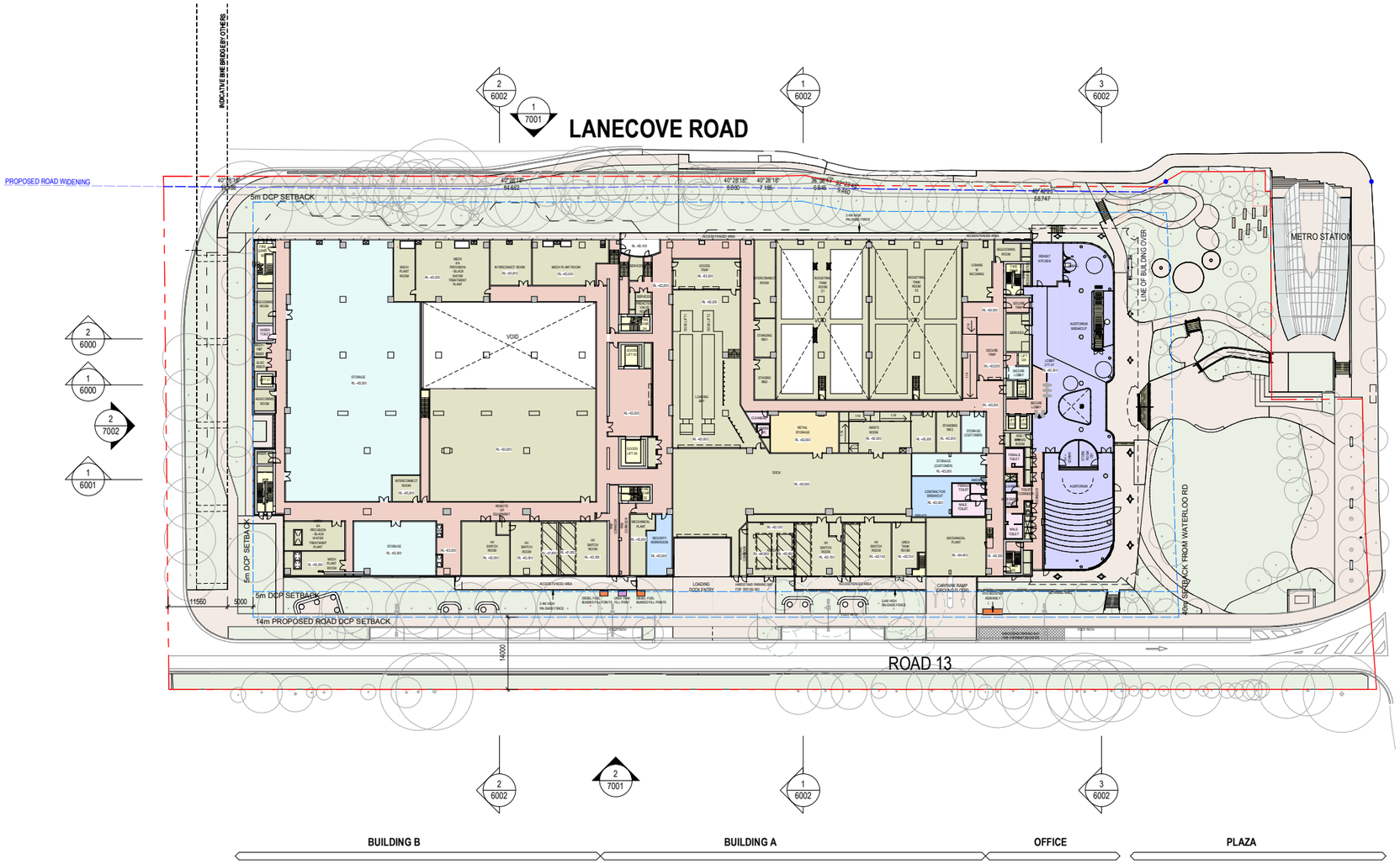

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- FOH
- OFFICE
- RETAIL
- SERVICES
- STORAGE
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
QLD Cate Cowlishaw 4139

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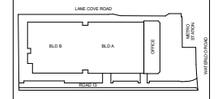
Document Author Project Number
10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - BUILDINGS A AND B - LEVEL 01

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3001	CP03

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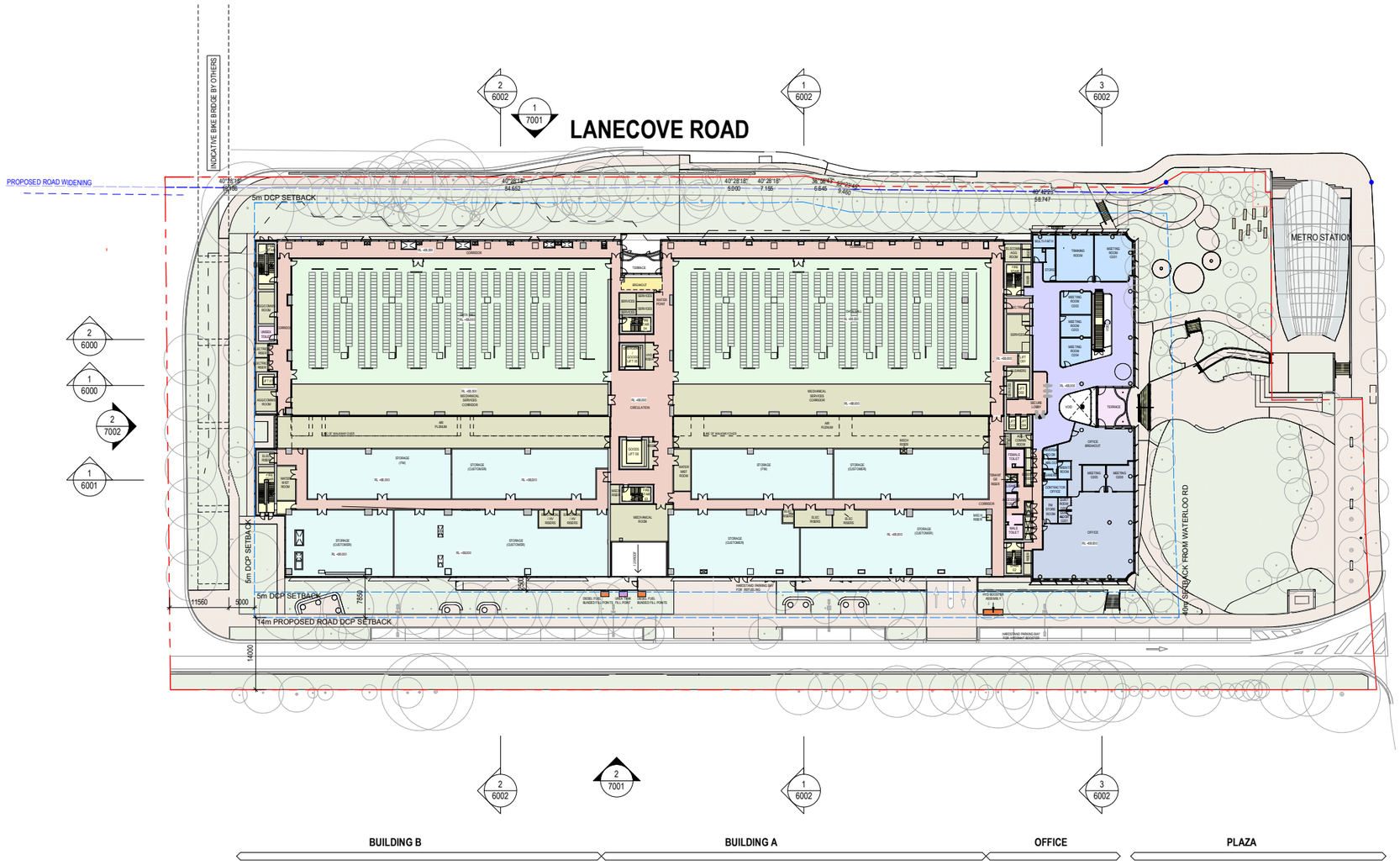

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- FOH
- OFFICE
- OFFICE - NEXTDC
- SERVICES
- STORAGE
- TERRACE
- VOID
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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TAS Cate Cowlishaw 1479
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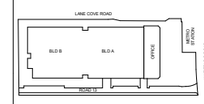
Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - BUILDINGS A AND B - LEVEL 02

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3002	CP03

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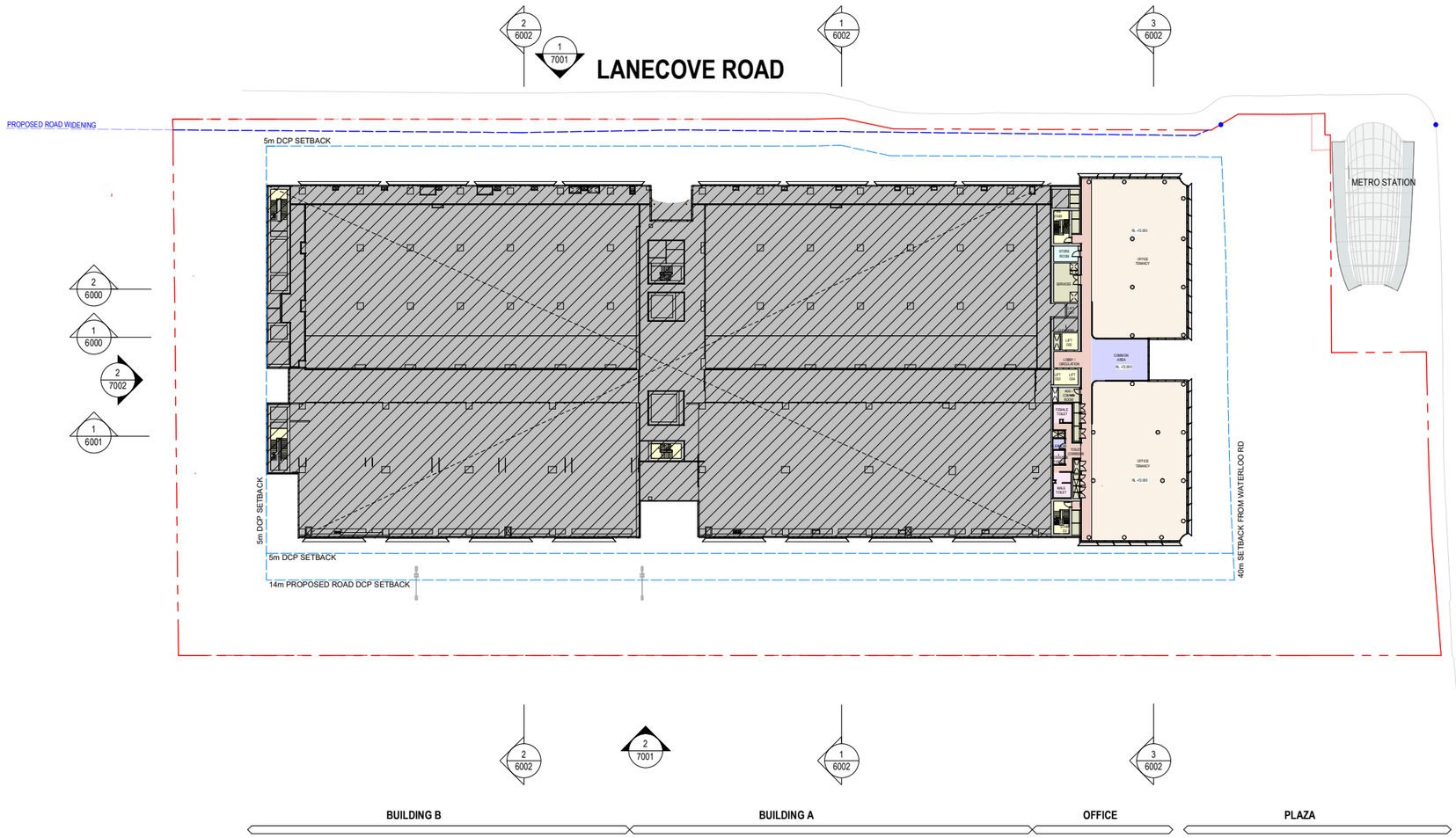

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- FOH
- SERVICES
- STORAGE
- TENANCY
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
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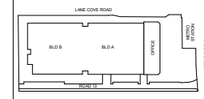
Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - OFFICE - LEVEL 03

Drawing Status:

SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3003	CP03

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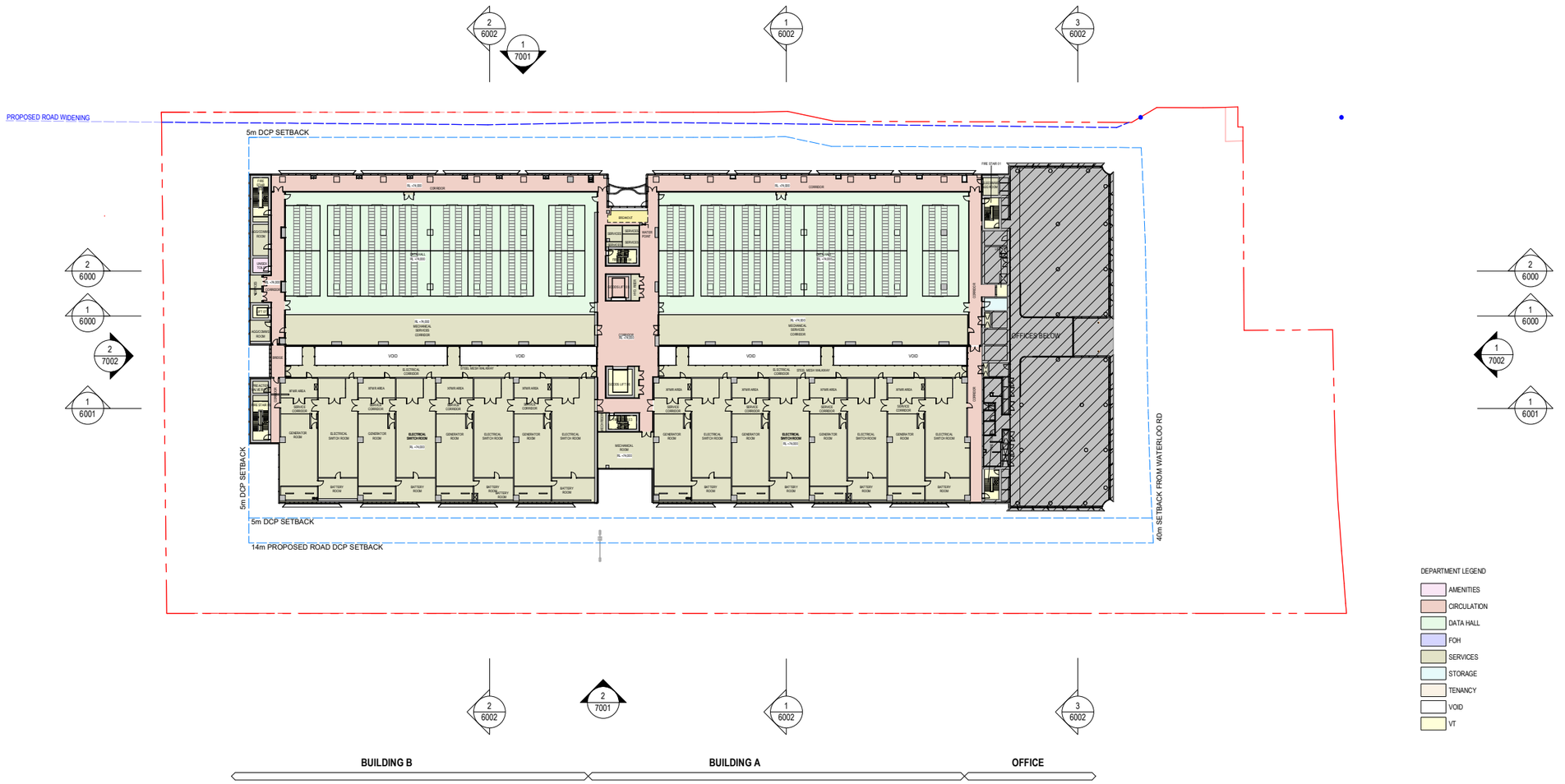

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- FOH
- SERVICES
- STORAGE
- TENANCY
- VOID
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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TAS Cate Cowlishaw 1479
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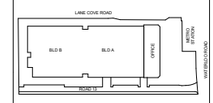
Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - BUILDINGS A AND B - LEVEL 03

Drawing Status:

SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3004	CP03

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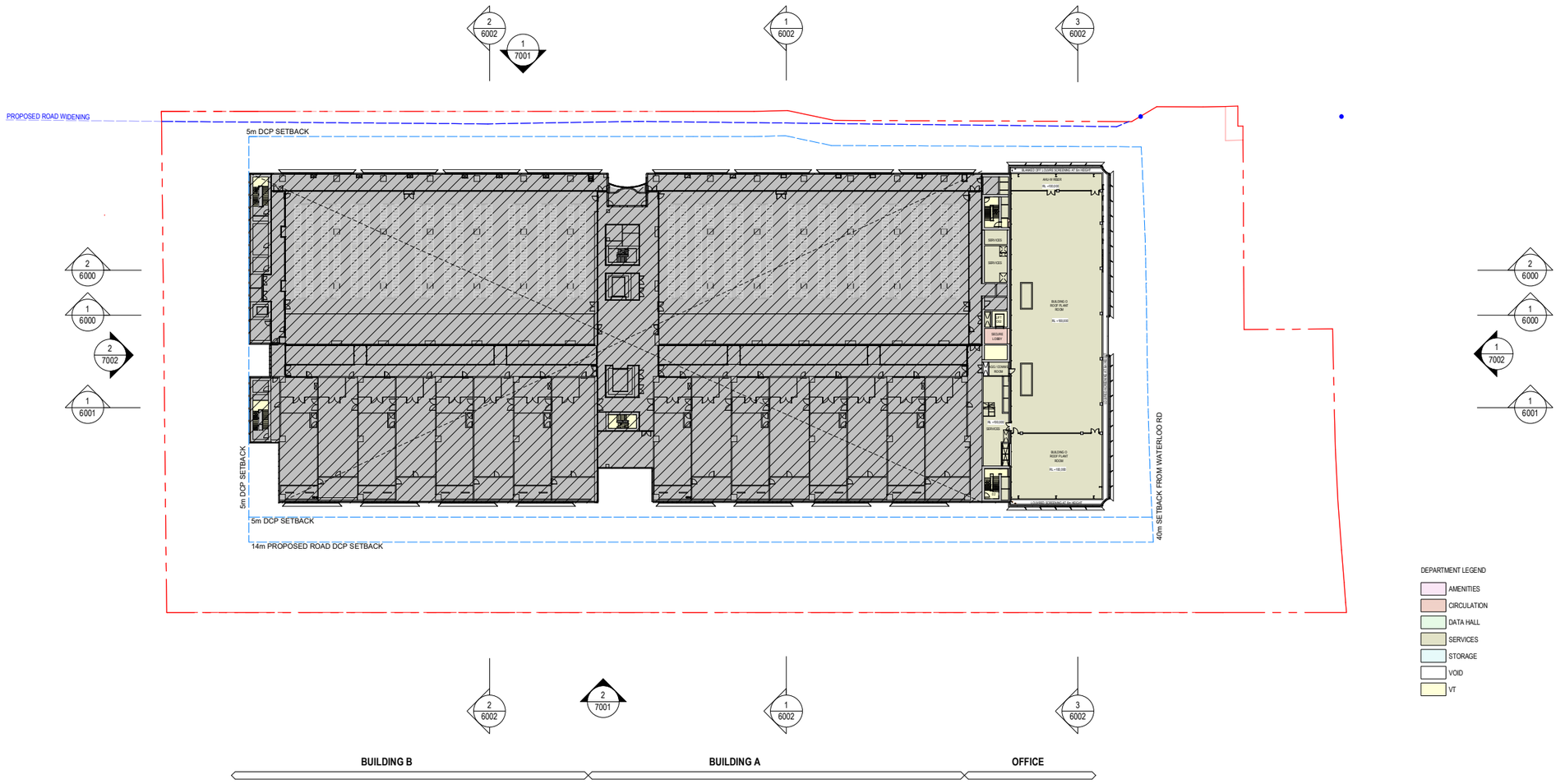

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

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ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
QLD Cate Cowlishaw 6139

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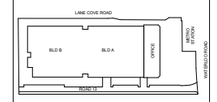
Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- SERVICES
- STORAGE
- VOID
- VT

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - OFFICE - ROOF LEVEL

Drawing Status:

SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3013	CP03

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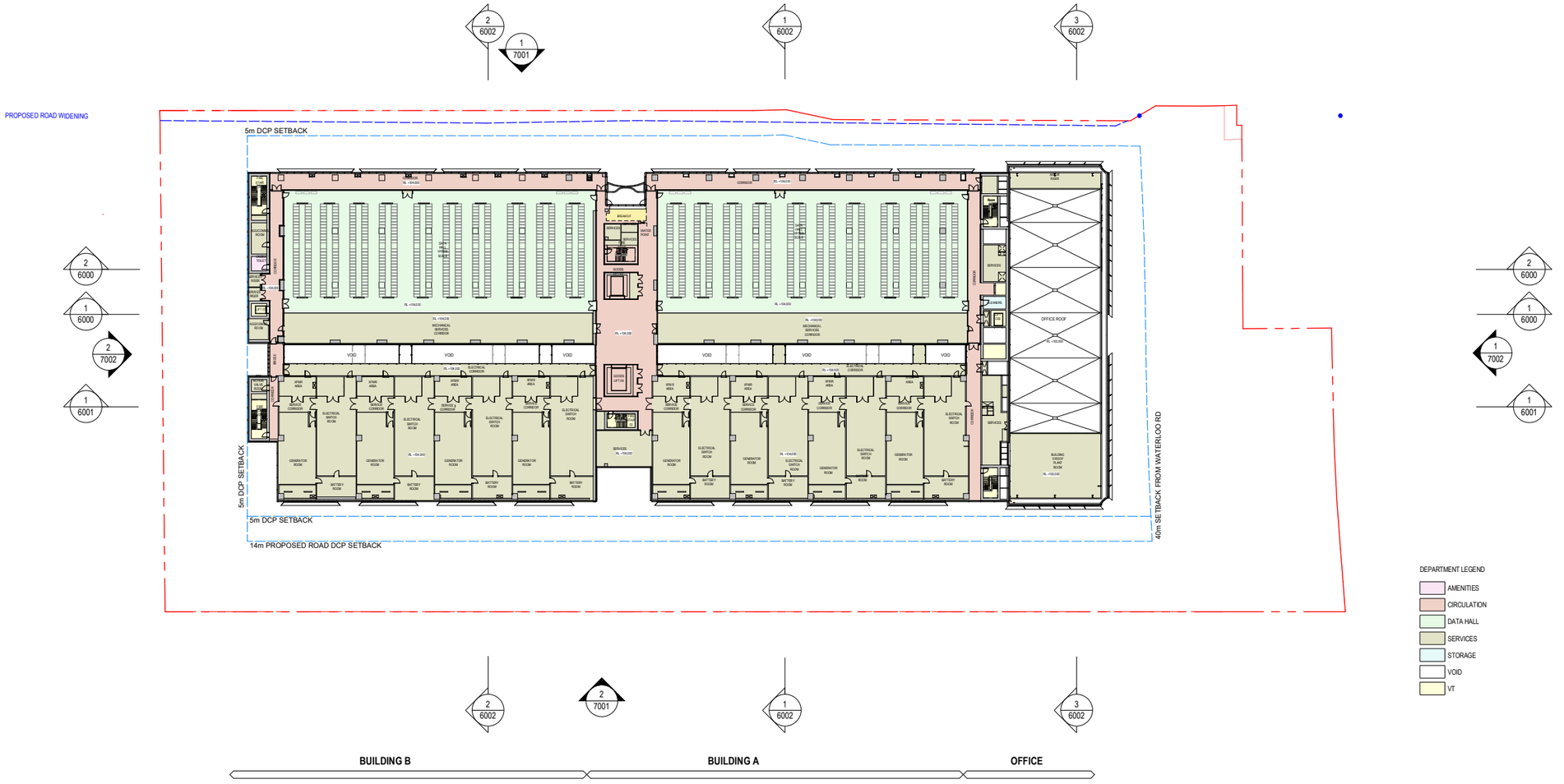

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- SERVICES
- STORAGE
- VOID
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

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HDR Pty. Limited ABN 76 158 075 220 trading as HDR

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VIC. Cate Cowlishaw 15211
ACT Cate Cowlishaw 2707
TAS Cate Cowlishaw 1479
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Document Author Project Number

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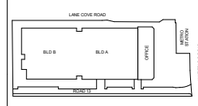
Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - BUILDINGS A AND B - LEVEL 08

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3014	CP03

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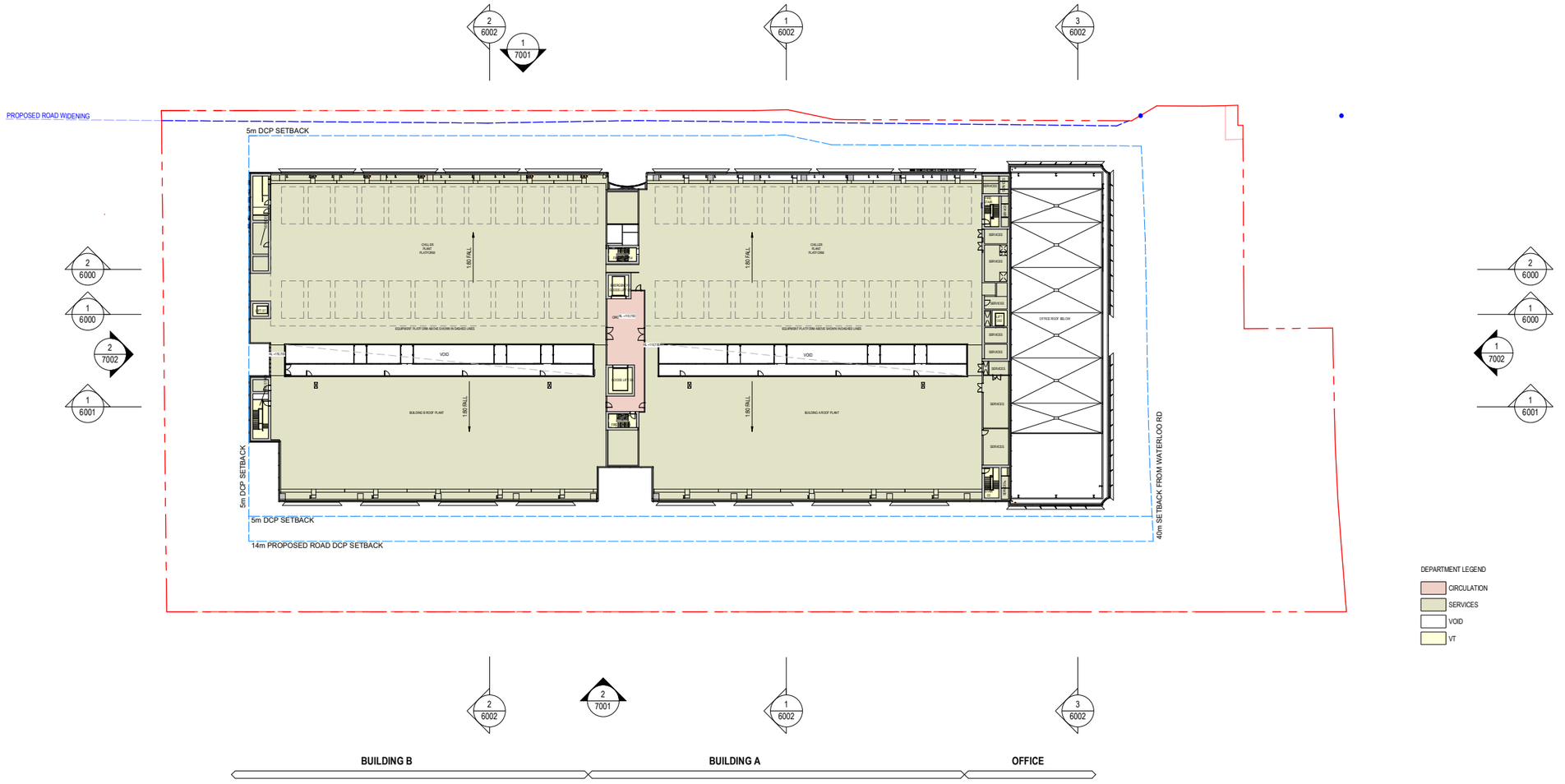

DEPARTMENT LEGEND

- CIRCULATION
- SERVICES
- VOID
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

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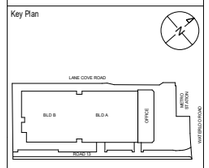
Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - BUILDINGS A AND B - ROOF PLANT LEVEL

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3015	CP03

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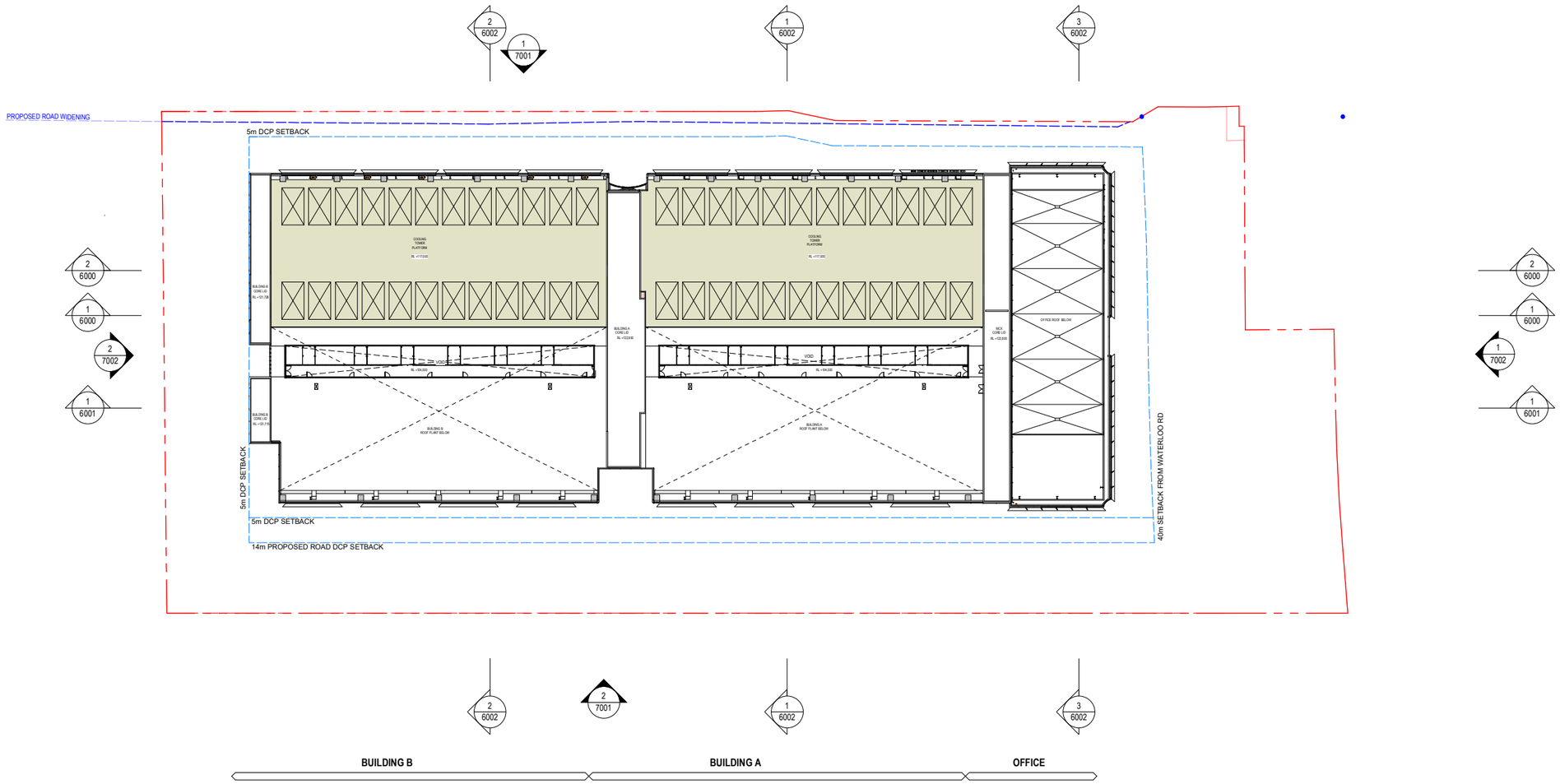

DATE	No.	REVISION HISTORY	DRW	CHK	QA
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24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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Document Author Project Number
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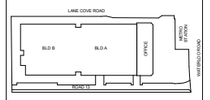
Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - COOLING TOWER PLATFORM LEVEL

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
PM	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3016	CP03

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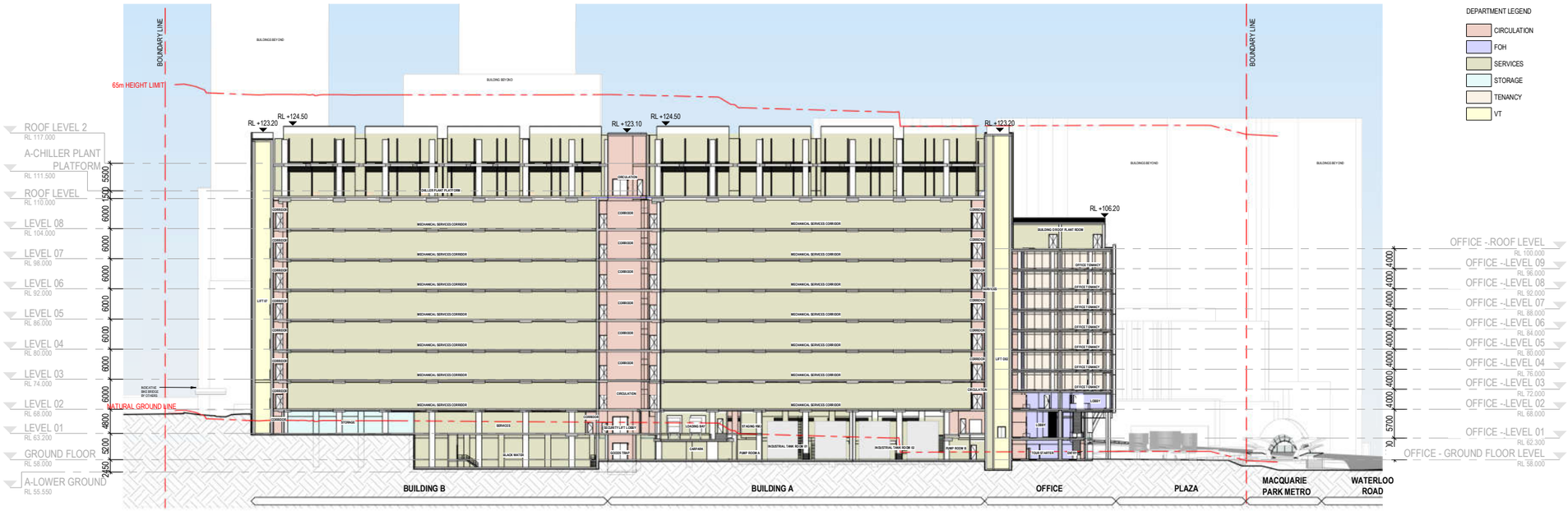

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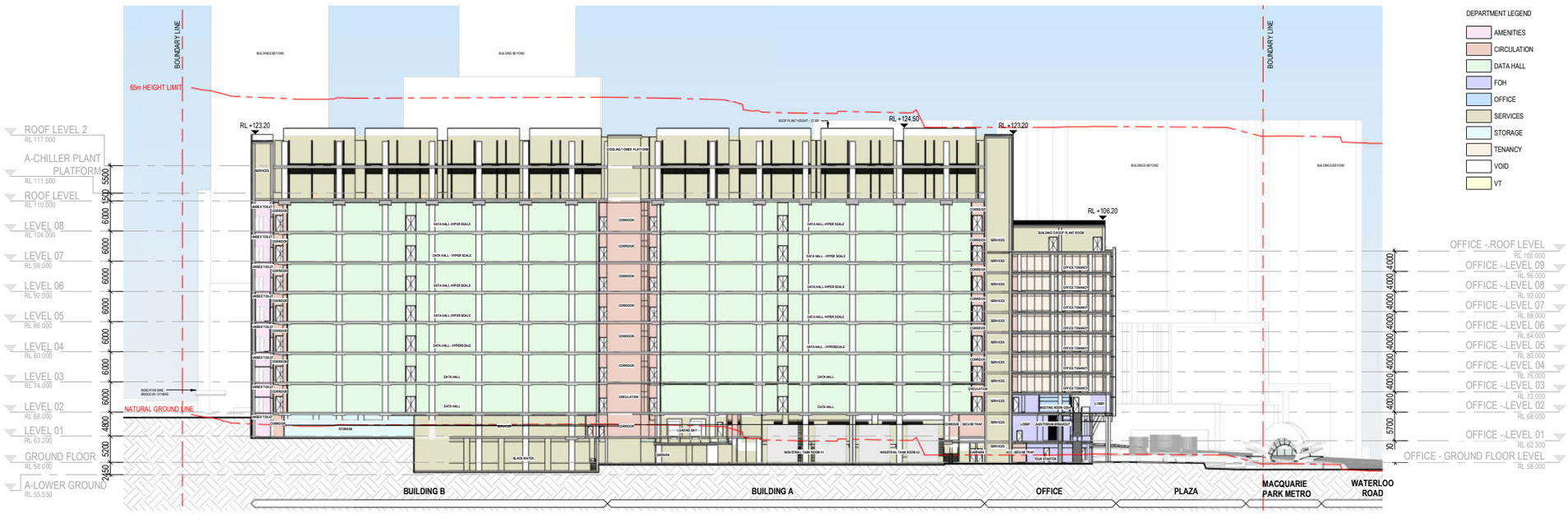

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DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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TAS Cate Cowlishaw 1479
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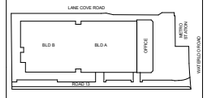
Document Author Project Number
10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL LONGITUDINAL SECTION - SHEET 1

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
HS	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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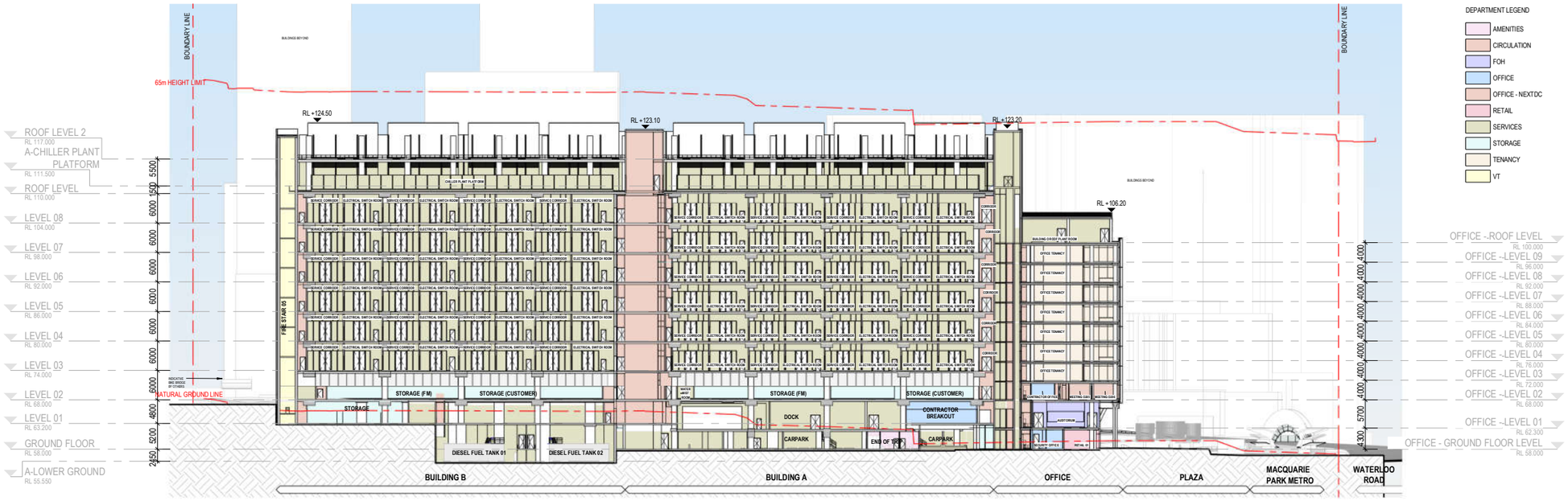

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1 : 500

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- FOH
- OFFICE
- OFFICE - NEXTDC
- RETAIL
- SERVICES
- STORAGE
- TENANCY
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
GPO Box 3219
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Document Author Project Number

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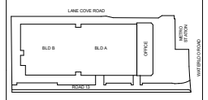
Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL LONGITUDINAL SECTION - SHEET 2

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
HS	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-6001	CP03

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MATERIALS AND FINISHES LEGEND

ALP-01
POWDERCOATED ALUMINIUM PANELS
NEXTDC RED

ALP-02
POWDERCOATED ALUMINIUM PANELS
DARK GREY

AL-01
ALUMINIUM EXTRUSION
TIMBER LOOKING

AL-02
VERTICAL LOUCRES/BATTONS
DARK GREY

AL-03
HORIZONTAL LOUVRES
DARK GREY

GLZ-01
DOUBLE GLAZED FACADE

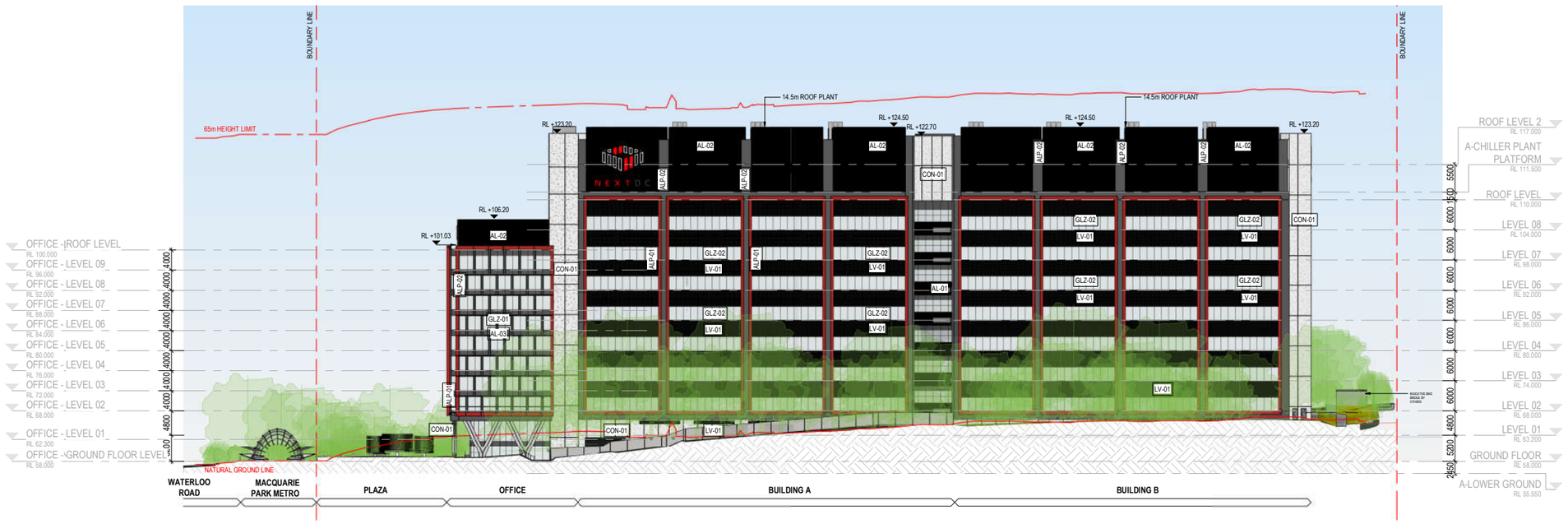
GLZ-02
DOUBLE GLAZED WINDOW

CON-01
LIGHT GREY PANELS

LV-01
ALUMINIUM HORIZONTAL LOUVRE - DARK GREY

SS-01
STAINLESS STEEL FLUES

WMW-01
WIRED MESH WALL



1 OVERALL - NORTH ELEVATION
1 : 500

2 OVERALL - SOUTH ELEVATION
1 : 500

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

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Architect HDR

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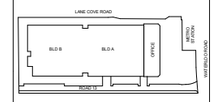
Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL ELEVATION - SHEET 1

Drawing Status:
SPATIAL COORDINATION

Drawn	Date
HS	26/08/25
CHK	Date
AW	26/08/25

Scale:	Sheet:	File Name:
1 : 500	A1	S5-ARC-HDR-R23-A-0101-0001

Drawing Number	Rev
S5-ARC-HDR-DRG-00000-7001	CP03

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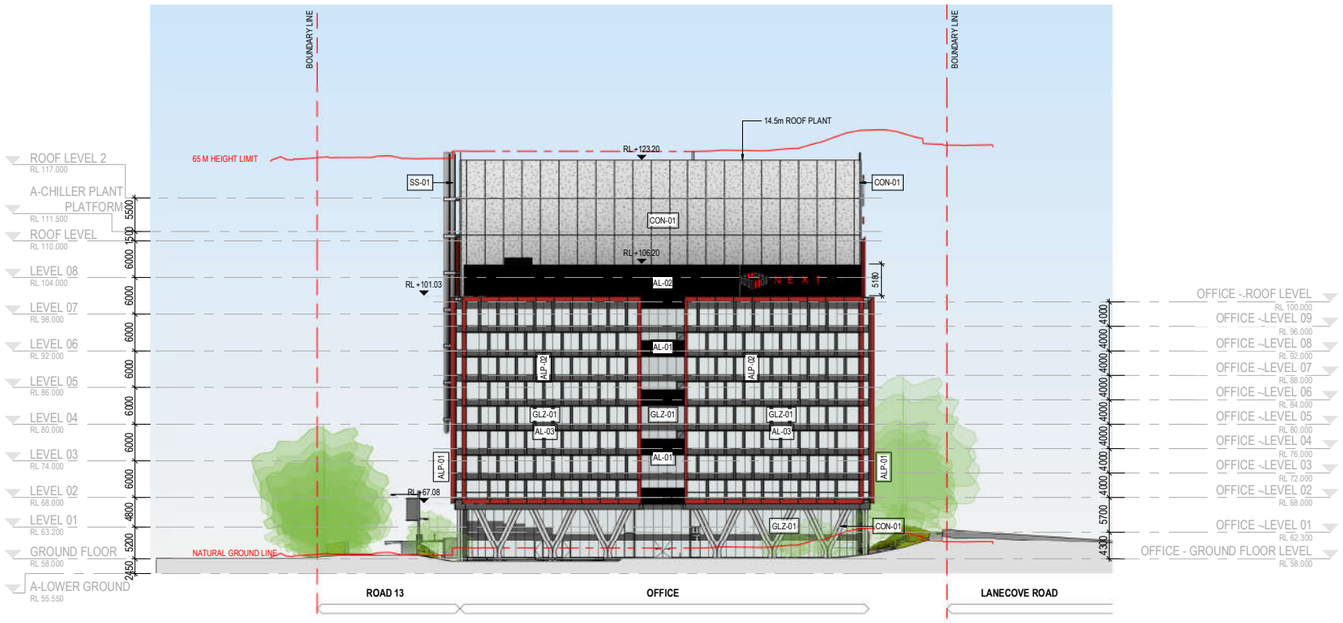

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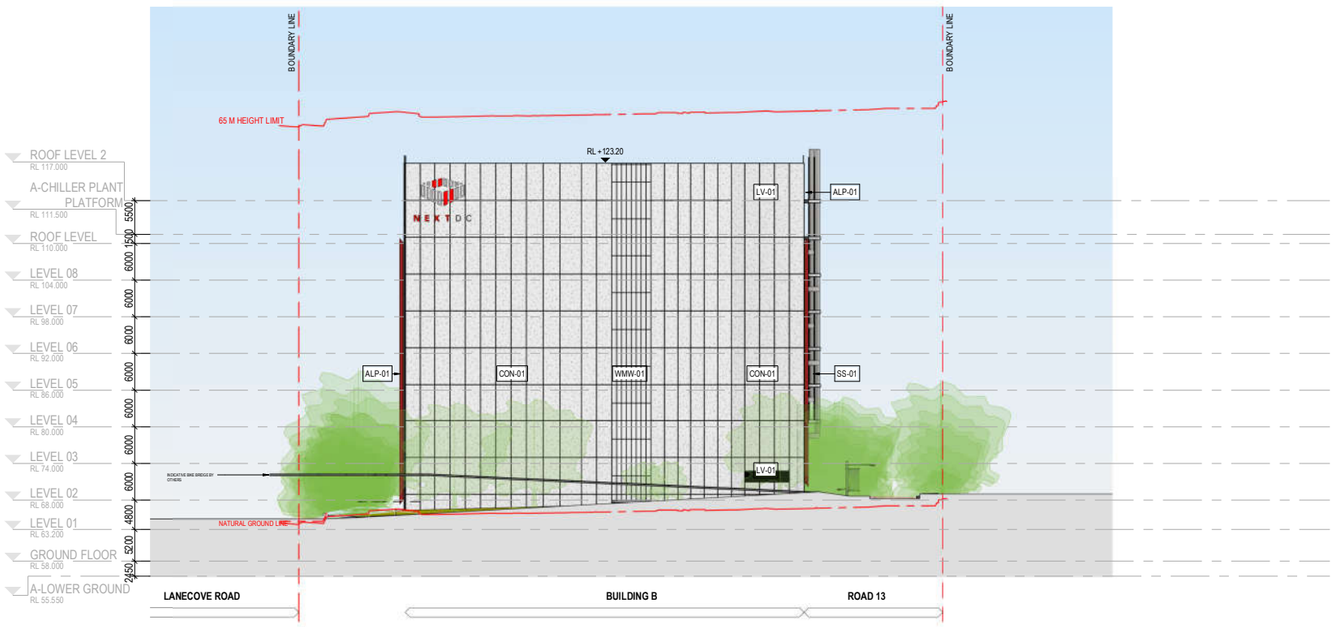
1 : 500



2 OVERALL - WEST ELEVATION - BLD B

1 : 500

MATERIALS AND FINISHES LEGEND

ALP-01
POWDERCOATED ALUMINIUM PANELS
NEXTDC RED

ALP-02
POWDERCOATED ALUMINIUM PANELS
DARK GREY

AL-01
ALUMINIUM EXTRUSION TIMBER LOOKING

AL-02
VERTICAL LOUCRES/BATTONS DARK GREY

AL-03
HORIZONTAL LOUVRES DARK GREY

GLZ-01
DOUBLE GLAZED FACADE

GLZ-02
DOUBLE GLAZED WINDOW

CON-01
LIGHT GREY PANELS

LV-01
ALUMINIUM HORIZONTAL LOUVRE - DARK GREY

SS-01
STAINLESS STEEL FLUES

WMW-01
WIRED MESH WALL

DATE	No.	REVISION HISTORY	DRW	CHK	QA
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24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

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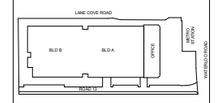
Document Author Project Number

10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL ELEVATION - SHEET 2

Drawing Status:

SPATIAL COORDINATION

Drawn	Date
HS	26/08/25
CHK	Date
AW	26/08/25

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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-7002	CP03

25/08/2025 3:40:14 PM

UST Decommissioning Report

InSite Remediation Services Pty Ltd
ABN 83 705 183 104
Unit 10, 3 Box Road
CARINGBAH NSW 2229
Phone: 02 9525 7543

info@insiteremediation.com.au

16th February 2017

Attention: Brad Wagstaff
Facility Manager
Mirvac Operations

Re: In-Situ Tank Abandonment, Former Fuel Tank UST at Workarena, 34 Waterloo Road, North Ryde, NSW

Dear Brad,

Introduction

InSite Remediation Services Pty Ltd (InSite) is pleased to provide Mirvac with a brief summary of the in-situ tank abandonment works completed on 14th and 15th February 2017, at 34 Waterloo Road, North Ryde (Mirvac site Ref: 271 Lane Cove Rd).

The objective of the works was to temporarily abandon the underground storage tank (UST) in accordance with Australian Standards (AS4976-2008), as the underground storage tank was no longer in use. The UST is located under an operational driveway and it is understood it will be removed during site development.

A SafeWork NSW records search by Prensa indicated a 27,000L petrol UST was installed in 1980. The record indicated the UST responsibility was transferred from Ampol and Alder Business Machines to Phillips Industries in October 1988 and that it was then filled with water and rust inhibitor in May 1992.

Site Works

Preliminaries and Inspection:

- Preparation and review of safety documentation, site safety plan, job safety analysis (JSAs) and daily work briefings.
- Mobilisation to site of all personnel, plant and equipment.
- Site specific induction for all personnel and subcontractors (Mirvac and InSite).
- Establishment of site safety and environmental controls.
- Inspection of the UST confirmed:
    - The UST is a T25, with a safe fill of 27,600L
    - Approximately 15,400 L product/water remained in the UST.

Tank Abandonment works:

- Toxfree (formerly Worth Recycling) were engaged to pump out and remove a total of 15,400L (2 loads 8,300L & 7,100L) of oily water (J120) from the UST. Waste liquids were transported and disposed at the Windsor waste treatment facility. Waste dockets are provided in **Attachment A**.
- Foamed Insulations were then engaged to fill the UST with foam using their patented TankFoam™ foam filling product. An Approximate total of ~28m^3 of foam agent and resin

was injected into the UST via the dip point. The UST vent was used to vent the UST during filling and to monitor air flow during foam filling.
- The vent line was removed as part of the works.
- The vent line and dispenser line (blocked/filled) were also filled with foam.
- General site make good and disposal of wastes.

Photographs of the site works are included in **Attachment B**.

Closing

InSite trusts that the information provided meets your needs. Should you require any additional information please do not hesitate to contact Gary Davoren or the undersigned.

Best Regards

Terry Rodgers– Senior Project Manager
InSite Remediation Services Pty Ltd
0448 087 817
terry@insiteremediation.com.au

Attachments

Attachment A: Liquid Waste Docket
Attachment B: Photographs

Attachment A: Liquid Waste Dockets

NSW Environment Protection Authority - Online Waste Tracking System

TRANSPORT CERTIFICATE - No. 2T00775094

Created by: Anne Ratcliffe 13-Feb-2017 2:24 pm **Status:** Created

CA no: 2C00116346 **CA start date:** 14-Mar-2016 **CA end date:** 13-Mar-2017

PART 1 (this part to be completed by consignor at pickup)

CONSIGNOR

INSITE REMEDIATION SERVICES PTY LTD
UNIT 32/7 PRODUCTION ROAD
TAREN POINT, NSW 2229

Contact: GARY DAVOREN **Role:** Producer
Email: N/A
Phone: (02) 9525 7543 **Fax:** N/A **Emergency:** (02) 9525 7543
ABN: 83 705 183 104 **ANZSIC code:** 0 **Licence no.:** 20200

Pickup details: Various

WASTE

Waste code: J120 - Waste oil/hydrocarbons mixtures/emulsions in water
Description: Oil/hydrocarbon (below 50%) mixed with water
Form: Liquid **Liquid waste levy applies:** Yes
Proposed treatment: Chemical/Physical treatment **Classification:** Liquid
Contaminants: N/A
Dangerous goods class: N/A **Subsidiary risk class:** N/A **UN no.:** N/A
Packaging type: N/A **Packing group no:** N/A **No. package:** N/A

PICKUP

Waste amount at pickup: 8300 (required - Yes)
I declare that to the best of my knowledge and belief the above information is true and correct.
Name and Position (Block letters) K TERRY Rowsell
Signature ..... Date 14/2/2017

PART 2 - TRANSPORTER (this part to be completed by the transporter at pickup)

INSITE REMEDIATION SERVICES PTY LTD
UNIT 32/7 PRODUCTION ROAD
TAREN POINT, NSW 2229

Contact: GREG DICK **Email:** greg@insiteremediation.com.au
Phone: (02) 9525 7543 **Fax :** N/A **Transit state:** N/A
Licence no.: 20200 **Vehicle reg:** TBA **Transport type:** Road

I declare that to the best of my knowledge and belief the above information is true and correct.
Name and Position (Block letters) ROD BOSSLEY
Signature ..... Date 14/2/2017

PART 3 - RECEIVING FACILITY (this part to be completed by the receiving facility)

TOX FREE - SOUTH WINDSOR
CNR BLACKMAN CRESCENT & FAIRLY R
SOUTH WINDSOR, NSW 2756

Contact: MR JOHN LEE **Email:** john.lee@toxfree.com.au
Phone: (02) 4573 3820 **Fax:**
Licence no.: 4602 **Receiving facility ref no.:** N/A

Waste amount at arrival: 8302 Date waste arrived at the facility : 14/2/2017

ACCEPT / REJECT THE WASTE

☑ The receiving facility accepted the waste - Date accepted: 14/2/2017 Date Processed: 14/2/2017 Treatment: Recycling
☐ The receiving facility rejected the waste (complete section below)
Reason for rejection: .....
Rejected waste sent to - Name: .....
Address: .....

I declare that to the best of my knowledge and belief the above information is true and correct - complete if accepted or rejected:
Name and Position (Block letters) ROD
Signature ..... Date 14/2/2017

NOTE

ENTERED
Date | By

NSW Environment Protection Authority - Online Waste Tracking System

TRANSPORT CERTIFICATE - No. 2T00775095

Created by: Anne Ratcliffe 13-Feb-2017 2:24 pm **Status:** Created

CA no: 2C00116346 **CA start date:** 14-Mar-2016 **CA end date:** 13-Mar-2017

PART 1 (this part to be completed by consignor at pickup)

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UNIT 32/7 PRODUCTION ROAD
TAREN POINT, NSW 2229

Role: Producer
Contact: GARY DAVOREN **Email:** N/A
Phone: (02) 9525 7543 **Fax:** N/A **Emergency:** (02) 9525 7543
ABN: 83 705 183 104 **ANZSIC code:** 0 **Licence no.:** 20200

Pickup details: Various

WASTE

Waste code: J120 - Waste oil/hydrocarbons mixtures/emulsions in water
Description: Oil/hydrocarbon (below 50%) mixed with water
Form: Liquid **Liquid waste levy applies:** Yes
Proposed treatment: Chemical/Physical treatment **Classification:** Liquid
Contaminants: N/A
Dangerous goods class: N/A **Subsidiary risk class:** N/A **UN no.:** N/A
Packaging type: N/A **Packing group no:** N/A **No. package:** N/A

PICKUP

Waste amount at pickup: 7,100 LITRES (required - Yes)
I declare that to the best of my knowledge and belief the above information is true and correct.
Name and Position (Block letters) TROY ROACH (SUPERVISOR)
Signature ..... Date 14/2/17

PART 2 - TRANSPORTER (this part to be completed by the transporter at pickup)

INSITE REMEDIATION SERVICES PTY LTD
UNIT 32/7 PRODUCTION ROAD
TAREN POINT, NSW 2229

Contact: GREG DICK **Email:** greg@insiteremediation.com.au
Phone: (02) 9525 7543 **Fax :** N/A **Transit state:** N/A
Licence no.: 20200 **Vehicle reg:** TBA AL87LE **Transport type:** Road

I declare that to the best of my knowledge and belief the above information is true and correct.
Name and Position (Block letters) BRAD TRANS
Signature ..... Date 14/2/17

PART 3 - RECEIVING FACILITY (this part to be completed by the receiving facility)

TOX FREE - SOUTH WINDSOR
CNR BLACKMAN CRESCENT & FAIRLY R
SOUTH WINDSOR, NSW 2756

Contact: MR JOHN LEE **Email:** john.lee@toxfree.com.au
Phone: (02) 4573 3820 **Fax:**
Licence no.: 4602 **Receiving facility ref no.:** N/A

Waste amount at arrival: 7.1 14-2-17 Date waste arrived at the facility : 14.2.17

ACCEPT / REJECT THE WASTE

☑ The receiving facility accepted the waste - Date accepted: 14.2.17 Date Processed: 14.2.17 Treatment: Reprocessing
☐ The receiving facility rejected the waste (complete section below)
Reason for rejection: .....
Rejected waste sent to - Name: .....
Address: .....

I declare that to the best of my knowledge and belief the above information is true and correct - complete if accepted or rejected:
Name and Position (Block letters) .....
Signature ..... Date 14 FEB 2017

NOTE

ENTERED
Date By

Printed on : 13-Feb-2017 2:23 pm

Attachment B: Photographs

Photo 1. UST dip prior to removal (PSH and water)

Photo 2. UST dip stick (T25, SF 27,600L)

Photo 3. Vent pipe on NE corner of building

Photo 4. Vent pipe removed

Photo 5. Vacuum truck pumping out UST (two loads)

Photo 6. Foam injection – foam filling through dip point

Photo 7. Foam injection – foam filling injection rig

Photo 8. UST filled with foam and prior to cap being replaced

Photo 9. Vent pipe removed and foam filled

Photo 10. Dispenser pipe

Appendix C: Laboratory Results Summary Tables

Additional Contamination Investigation Laboratory Results Summary Tables

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration
ACM:	Asbestos Containing Material
ADWG:	Australian Drinking Water Guidelines
AF:	Asbestos Fines
AMC:	Absolute Maximum Concentration
ANZG	Australian and New Zealand Guidelines
B(a)P:	Benzo(a)pyrene
BTEX:	Benzene, Toluene, Ethylbenzene & Xylene
CEC:	Cation Exchange Capacity
CRC:	Cooperative Research Centre
CT:	Contaminant Threshold
EC:	Electrical Conductivity
EILs:	Ecological Investigation Levels
ENM	Excavated Natural Material
ESLs:	Ecological Screening Levels
FA:	Fibrous Asbestos
GIL:	Groundwater Investigation Levels
GSW:	General Solid Waste
HILs:	Health Investigation Levels
HSLs:	Health Screening Levels
HSL-SSA:	Health Screening Level-SiteSpecific Assessment
kg/L:	kilograms per litre
MAC:	Maximum Average Concentration
NA:	Not Analysed
NC:	Not Calculated
NEPM:	National Environmental Protection Measure
NHMRC:	National Health and Medical Research Council
NL:	Not Limiting
NSL:	No Set Limit
OCP:	Organochlorine Pesticides
OPP:	Organophosphorus Pesticides
PAHs:	Polycyclic Aromatic Hydrocarbons
ppm:	Parts per million
PCBs:	Polychlorinated Biphenyls
PCE:	Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
PID:	Photoionisation Detector
PQL:	Practical Quantitation Limit
RPD:	Relative Percentage Difference
RS:	Rinsate Sample
RSL:	Regional Screening Levels
RSW:	Restricted Solid Waste
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
SSA:	Site Specific Assessment
SSHSLs:	Site Specific Health Screening Levels
TB:	Trip Blank
TCA:	1,1,1 Trichloroethane (methyl chloroform)
TCE:	Trichloroethylene (Trichloroethene)
TCLP:	Toxicity Characteristics Leaching Procedure
TPA:	Total Potential Acidity, 1M KCL peroxide digest
TS:	Trip Spike
TRH:	Total Recoverable Hydrocarbons
UCL:	Upper Level Confidence Limit on Mean Value
USEPA	United States Environmental Protection Agency
VOCC:	Volatile Organic Chlorinated Compounds
WHO:	World Health Organisation
%w/w:	weight per weight

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also refered to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with high traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

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TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-D: 'Commercial/Industrial'

All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			3000	900	3600	240000	1500	730	6000	400000	4000	40	80	2000	2500	45	530	3600	50	2000	7	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH101	0-0.1	F: Clayey Sand	**8**	<0.4	**14**	**13**	**30**	<0.1	**5**	**29**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**32**	<0.1	**5**	**31**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH101	0.4-0.5	F: Silty Clay	**11**	<0.4	**21**	**8**	**21**	<0.1	**7**	**120**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101	1.8-2	F: Silty Clay	**9**	<0.4	**19**	**8**	**23**	<0.1	**4**	**15**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101	2.8-3	F: Silty Clay	**10**	<0.4	**26**	**31**	**47**	<0.1	**12**	**73**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101	3.6-3.8	Silty Clay	**9**	<0.4	**21**	**3**	**20**	<0.1	<1	**3**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH102	0-0.1	F: Silty Clay	**10**	<0.4	**21**	**17**	**52**	<0.1	**12**	**52**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH102	0.8-1	F: Silty Clay	**21**	<0.4	**20**	**15**	**23**	<0.1	**25**	**46**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH102	1.8-2	F: Silty Clay	**9**	<0.4	**22**	**22**	**40**	<0.1	**15**	**47**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH102	2.8-3	F: Silty Clay	**9**	<0.4	**25**	**29**	**63**	<0.1	**11**	**87**	**0.53**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH102	3.5-3.6	Silty Clay	**9**	<0.4	**24**	**5**	**16**	<0.1	**1**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH103	0-0.1	F: Silty Clay	**11**	<0.4	**21**	**13**	**33**	<0.1	**9**	**40**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**9**	<0.4	**16**	**14**	**32**	<0.1	**9**	**42**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH103	0.4-0.5	F: Silty Clay	**9**	<0.4	**24**	**9**	**28**	<0.1	**10**	**35**	**0.07**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH103	0.8-1	F: Silty Clay	**9**	<0.4	**19**	**11**	**35**	<0.1	**6**	**42**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH103	1.8-2	F: Silty Clay	**10**	<0.4	**24**	**21**	**77**	<0.1	**15**	**190**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	**1.7**	<0.1	<0.1	<0.1	Detected
BH103	2.8-3	F: Silty Clay	**10**	<0.4	**20**	**14**	**24**	<0.1	**3**	**19**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH103	3.1-3.2	Silty Clay	**10**	<0.4	**16**	**9**	**22**	<0.1	**1**	**15**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH104	0-0.1	F: Silty Sand	**10**	<0.4	**9**	**14**	**22**	<0.1	**2**	**16**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH104	0.1-0.2	F: Silty Clay	**6**	<0.4	**11**	**15**	**19**	<0.1	**8**	**24**	**0.07**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH105	0-0.05	F: Silty Sand	**4**	<0.4	**8**	**12**	**40**	<0.1	**4**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH105	0.1-0.15	F: Silty Clay	**9**	<0.4	**12**	**15**	**22**	<0.1	**9**	**12**	**0.07**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH106	0-0.1	F: Silty Clay	**5**	<0.4	**11**	**19**	**29**	<0.1	**11**	**48**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**11**	**16**	**30**	<0.1	**6**	**47**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	**6**	<0.4	**11**	**17**	**30**	<0.1	**6**	**48**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH107	0.12-0.3	F: Silty Gravelly Sand	<4	<0.4	**12**	**57**	**9**	<0.1	**54**	**53**	**4**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	NA
BH107 - [LAB_DUP]	0.12-0.3	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.1**	NA	NA
BH107	0.3-0.35	Silty Clay	**7**	<0.4	**20**	**33**	**11**	<0.1	**39**	**35**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH108	0.1-0.2	F: Gravelly Sand	<4	<0.4	**10**	**120**	**5**	<0.1	**72**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH108	0.2-0.3	F: Silty Sand	**4**	<0.4	**19**	**14**	**33**	<0.1	**18**	**32**	**0.52**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH109	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**7**	**32**	**0.1**	**5**	**21**	**0.58**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH109	0.6-0.8	Silty Clay	**6**	<0.4	**14**	**2**	**22**	<0.1	**1**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH110	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**12**	**43**	**0.1**	**8**	**32**	**2.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH111	0.23-0.3	F: Silty Sand	<4	<0.4	**6**	**13**	**32**	<0.1	**4**	**22**	**0.3**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH111	0.3-0.4	Silty Clay	<4	<0.4	**12**	**7**	**19**	<0.1	**10**	**15**	**2.5**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH112	0.2-0.3	F: Silty Sand	<4	<0.4	**13**	**13**	**34**	**0.1**	**9**	**23**	**2.4**	<0.5	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	Not Detected
BH112	0.4-0.6	Silty Clay	**12**	<0.4	**13**	**4**	**17**	<0.1	<1	**3**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	**11**	<0.4	**16**	**3**	**21**	<0.1	<1	**2**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH113	0.2-0.4	F: Silty Sand	<4	<0.4	**14**	**47**	**44**	<0.1	**13**	**31**	**5.2**	**0.9**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	<4	<0.4	**17**	**21**	**48**	**0.1**	**12**	**30**	**6.2**	**1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	<4	<0.4	**14**	**51**	**50**	**0.1**	**12**	**30**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH114	0.23-0.3	F: Silty Sand	<4	<0.4	**7**	**39**	**37**	<0.1	**7**	**28**	**1.3**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH114	0.4-0.5	Silty Clay	**5**	<0.4	**11**	**13**	**22**	<0.1	**3**	**10**	**0.4**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH115	0.17-0.3	F: Silty Sand	<4	<0.4	**11**	**58**	**37**	**0.1**	**18**	**31**	**1.5**	<0.5	<0.1	<0.1	<0.1	<0.1	**1**	<0.1	**0.3**	<0.1	<0.1	Not Detected
BH115	0.4-0.5	Silty Clay	**5**	<0.4	**24**	**6**	**26**	<0.1	**10**	**6**	**8.9**	**0.9**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH116	0.22-0.4	F: Silty Sand	<4	<0.4	**12**	**7**	**46**	**0.1**	**6**	**32**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH117	0.23-0.3	F: Silty Sand	**5**	<0.4	**14**	**39**	**16**	<0.1	**36**	**21**	**1.8**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH117	0.4-0.5	F: Silty Clay	**6**	<0.4	**11**	**20**	**16**	<0.1	**20**	**11**	**1.7**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH118	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**88**	**39**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH118	0.6-0.8	F: Silty Clay	**8**	<0.4	**23**	**22**	**55**	<0.1	**36**	**43**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH118	1.6-1.7	F: Silty Clay	**8**	<0.4	**32**	**6**	**27**	<0.1	**3**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH118	1.8-2	Silty Clay	**11**	<0.4	**37**	**11**	**20**	<0.1	**2**	**7**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**8**	**44**	**2**	**0.5**	**57**	**32**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH119	0.8-1	F: Silty Clay	**7**	<0.4	**15**	**8**	**19**	<0.1	**2**	**3**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**22**	<0.1	**2**	**3**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH119	1.65-1.8	F: Silty Clay	**7**	<0.4	**33**	**4**	**24**	<0.1	**3**	**9**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH119	1.9-2	F: Silty Clay	**8**	<0.4	**31**	**4**	**25**	<0.1	**4**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH120	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**12**	**66**	**3**	<0.1	**86**	**44**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH120	0.5-0.7	F: Sand	**8**	<0.4	**5**	**2**	**2**	<0.1	**1**	**7**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH120	1-1.2	F: Silty Clay	**6**	<0.4	**22**	**21**	**21**	<0.1	**24**	**12**	**0.08**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH120	1.8-2	F: Silty Clay	**12**	<0.4	**37**	**3**	**20**	<0.1	**2**	**2**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH121	0.01-0.15	F: Gravelly Sand	<4	<0.4	**12**	**60**	**5**	<0.1	**61**	**37**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	<4	<0.4	**17**	**66**	**5**	<0.1	**66**	**40**	**1.2**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH121	0.7-0.9	XW Siltstone: Silty Clay	**25**	<0.4	**7**	**4**	**20**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH122	0.01-0.1	F: Gravelly Sand	<4	<0.4	**12**	**66**	**4**	<0.1	**65**	**40**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH122	0.7-0.9	XW Siltstone: Silty Clay	<4	<0.4	**4**	**8**	**19**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH122	1-1.2	Siltstone	**6**	<0.4	**4**	**11**	**10**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH123	0.01-0.2	F: Gravelly Sand	<4	<0.4	**6**	**46**	**3**	<0.1	**45**	**31**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH123	0.4-0.6	XW Siltstone: Silty Clay	**10**	<0.4	**8**	**15**	**14**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP101	0.01-0.15	Duplicate of BH121	<4	<0.4	**10**	**44**	**10**	<0.1	**47**	**36**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP102	0.2-0.4	Duplicate of BH113	<4	<0.4	**29**	**17**	**44**	**0.1**	**18**	**28**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP103	0-0.1	Duplicate of BH103	**11**	<0.4	**20**	**17**	**41**	<0.10	**11**	**61**	<0.05	<0.50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP104	0.12-0.3	Duplicate of BH107	<4	<0.4	**13**	**62**	**13**	<0.10	**62**	**51**	**0.07**	<0.50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP105	0.1-0.2	Duplicate of BH108	<4	<0.4	**11**	**130**	**5.1**	<0.10	**79**	**39**	<0.05	<0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP106	0.15-0.3	Duplicate of BH110	<4	<0.4	**10**	**8**	**47**	**0.1**	**6**	**32**	**1.3**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Number of Samples			74	74	74	74	74	74	74	74	72	72	51	51	51	51	51	51	51	52	51	42
Maximum Value			25	<PQL	37	130	77	0.5	88	190	8.9	1	<PQL	<PQL	<PQL	<PQL	1	1.7	0.3	0.1	<PQL	Detected

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
Asbestos Detected — **Detected**

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TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

					C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					HSL-D: COMMERCIAL/INDUSTRIAL							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH101	0-0.1	F: Clayey Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH101	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH101	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH101	2.8-3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH101	3.6-3.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH102	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH102	0.8-1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH102	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH102	2.8-3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH102	3.5-3.6	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH103	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH103	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH103	0.8-1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH103	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH103	2.8-3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH103	3.1-3.2	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH104	0-0.1	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH104	0.1-0.2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH105	0-0.05	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH105	0.1-0.15	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH106	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH107	0.12-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0
BH107	0.3-0.35	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH108	0.1-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH108	0.2-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH109	0.15-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH109	0.6-0.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH110	0.15-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH111	0.23-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH111	0.3-0.4	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH112	0.2-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH112	0.4-0.6	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH113	0.2-0.4	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH114	0.23-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH114	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH115	0.17-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH115	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.6
BH116	0.22-0.4	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH117	0.23-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH117	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH118	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
BH118	0.6-0.8	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH118	1.6-1.7	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH118	1.8-2	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH119	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH119	0.8-1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH119	1.65-1.8	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH119	1.9-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH120	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH120	0.5-0.7	F: Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH120	1-1.2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH120	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH121	0.01-0.15	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH121	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH122	0.01-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH122	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH122	1-1.2	Siltstone	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH123	0.01-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH123	0.4-0.6	XW Siltstone: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
SDUP101	0.01-0.15	Duplicate of BH121	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
SDUP102	0.2-0.4	Duplicate of BH113	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
SDUP103	0-0.1	Duplicate of BH103	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP104	0.12-0.3	Duplicate of BH107	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP105	0.1-0.2	Duplicate of BH108	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP106	0.15-0.3	Duplicate of BH110	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
Total Number of Samples					72	72	72	72	72	72	72	59
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	2.2

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below

HSL SOIL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
BH101	0-0.1	F: Clayey Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	2.8-3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	3.6-3.8	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	0-0.1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	0.8-1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	2.8-3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	3.5-3.6	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	0-0.1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	0.8-1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	2.8-3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	3.1-3.2	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH104	0-0.1	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH104	0.1-0.2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH105	0-0.05	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH105	0.1-0.15	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH106	0-0.1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH107	0.12-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH107	0.3-0.35	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH108	0.1-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH108	0.2-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH109	0.15-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH109	0.6-0.8	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH110	0.15-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH111	0.23-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH111	0.3-0.4	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH112	0.2-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH112	0.4-0.6	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH113	0.2-0.4	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH114	0.23-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH114	0.4-0.5	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH115	0.17-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH115	0.4-0.5	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH116	0.22-0.4	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH117	0.23-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH117	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	0.6-0.8	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	1.6-1.7	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	1.8-2	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	0.8-1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	1.65-1.8	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	1.9-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	0.5-0.7	F: Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	1-1.2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH121	0.01-0.15	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH121	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH122	0.01-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH122	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH122	1-1.2	Siltstone	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH123	0.01-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH123	0.4-0.6	XW Siltstone: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP101	0.01-0.15	Duplicate of BH121	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP102	0.2-0.4	Duplicate of BH113	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP103	0-0.1	Duplicate of BH103	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP104	0.12-0.3	Duplicate of BH107	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP105	0.1-0.2	Duplicate of BH108	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP106	0.15-0.3	Duplicate of BH110	0m to <1m	Sand	260	NL	3	NL	NL	230	NL

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TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category			COMMERCIAL/INDUSTRIAL			
Samole Reference	**Sample Depth**	**Soil Texture**				
BH101	0-0.1	Coarse	<25	<50	**120**	**100**
BH101 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**190**	**210**
BH101	0.4-0.5	Coarse	<25	<50	<100	<100
BH101	1.8-2	Coarse	<25	<50	<100	<100
BH101	2.8-3	Coarse	<25	<50	<100	<100
BH101	3.6-3.8	Coarse	<25	<50	<100	<100
BH102	0-0.1	Coarse	<25	<50	<100	<100
BH102	0.8-1	Coarse	<25	<50	<100	<100
BH102	1.8-2	Coarse	<25	<50	<100	<100
BH102	2.8-3	Coarse	<25	<50	<100	<100
BH102	3.5-3.6	Coarse	<25	<50	<100	<100
BH103	0-0.1	Coarse	<25	<50	<100	<100
BH103 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**100**	<100
BH103	0.4-0.5	Coarse	<25	<50	<100	<100
BH103	0.8-1	Coarse	<25	<50	<100	<100
BH103	1.8-2	Coarse	<25	<50	<100	<100
BH103	2.8-3	Coarse	<25	<50	<100	<100
BH103	3.1-3.2	Coarse	<25	<50	<100	<100
BH104	0-0.1	Coarse	<25	<50	<100	<100
BH104	0.1-0.2	Coarse	<25	<50	<100	<100
BH105	0-0.05	Coarse	<25	<50	**100**	<100
BH105	0.1-0.15	Coarse	<25	<50	<100	<100
BH106	0-0.1	Coarse	<25	<50	**440**	**260**
BH106 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**520**	**320**
BH107	0.12-0.3	Coarse	<25	<50	<100	<100
BH107	0.3-0.35	Coarse	<25	<50	<100	<100
BH108	0.1-0.2	Coarse	<25	<50	<100	<100
BH108	0.2-0.3	Coarse	<25	<50	<100	<100
BH109	0.15-0.3	Coarse	<25	<50	<100	<100
BH109	0.6-0.8	Coarse	<25	<50	<100	<100
BH110	0.15-0.3	Coarse	<25	<50	<100	<100
BH111	0.23-0.3	Coarse	<25	<50	<100	<100
BH111	0.3-0.4	Coarse	<25	<50	<100	<100
BH112	0.2-0.3	Coarse	<25	<50	<100	<100
BH112	0.4-0.6	Coarse	<25	<50	<100	<100
BH112 - [LAB_DUP]	0.4-0.6	Coarse	<25	<50	<100	<100
BH113	0.2-0.4	Coarse	<25	<50	**280**	**130**
BH113 - [LAB_DUP]	0.2-0.4	Coarse	<25	<50	<100	<100
BH114	0.23-0.3	Coarse	<25	<50	<100	<100
BH114	0.4-0.5	Coarse	<25	<50	<100	<100
BH115	0.17-0.3	Coarse	<25	<50	<100	<100
BH115	0.4-0.5	Coarse	<25	<50	<100	<100
BH116	0.22-0.4	Coarse	<25	<50	<100	<100
BH117	0.23-0.3	Coarse	<25	<50	**320**	**310**
BH117	0.4-0.5	Coarse	<25	<50	**110**	**130**
BH118	0.02-0.2	Coarse	<25	<50	<100	**190**
BH118	0.6-0.8	Coarse	<25	<50	**160**	**160**
BH118	1.6-1.7	Coarse	<25	<50	<100	<100
BH118	1.8-2	Coarse	<25	<50	<100	<100
BH119	0.02-0.2	Coarse	<25	<50	**140**	**260**
BH119	0.8-1	Coarse	<25	<50	<100	<100
BH119 - [LAB_DUP]	0.8-1	Coarse	<25	<50	<100	<100
BH119	1.65-1.8	Coarse	<25	<50	<100	<100
BH119	1.9-2	Coarse	<25	<50	<100	<100
BH120	0.02-0.2	Coarse	<25	<50	<100	**130**
BH120	0.5-0.7	Coarse	<25	<50	<100	<100
BH120	1-1.2	Coarse	<25	<50	<100	<100
BH120	1.8-2	Coarse	<25	<50	<100	<100
BH121	0.01-0.15	Coarse	<25	<50	<100	<100
BH121 - [LAB_DUP]	0.01-0.15	Coarse	<25	<50	<100	<100
BH121	0.7-0.9	Coarse	<25	<50	<100	<100
BH122	0.01-0.1	Coarse	<25	<50	<100	<100
BH122	0.7-0.9	Coarse	<25	<50	<100	<100
BH122	1-1.2	Coarse	<25	<50	<100	<100
BH123	0.01-0.2	Coarse	<25	<50	**200**	**460**
BH123	0.4-0.6	Coarse	<25	<50	<100	<100
SDUP101	0.01-0.15	Coarse	<25	<50	<100	<100
SDUP102	0.2-0.4	Coarse	<25	<50	<100	<100
SDUP103	0-0.1	Coarse	<25	<50	<100	<100
SDUP104	0.12-0.3	Coarse	<25	<50	<100	<100
SDUP105	0.1-0.2	Coarse	<25	<50	<100	<100
SDUP106	0.15-0.3	Coarse	<25	<50	<100	<100
Total Number of Samples			72	72	72	72
Maximum Value			<PQL	<PQL	520	460

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Soil Texture	C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
BH101	0-0.1	Coarse	700	1000	3500	10000
BH101 - [LAB_DUP]	0-0.1	Coarse	700	1000	3500	10000
BH101	0.4-0.5	Coarse	700	1000	3500	10000
BH101	1.8-2	Coarse	700	1000	3500	10000
BH101	2.8-3	Coarse	700	1000	3500	10000
BH101	3.6-3.8	Coarse	700	1000	3500	10000
BH102	0-0.1	Coarse	700	1000	3500	10000
BH102	0.8-1	Coarse	700	1000	3500	10000
BH102	1.8-2	Coarse	700	1000	3500	10000
BH102	2.8-3	Coarse	700	1000	3500	10000
BH102	3.5-3.6	Coarse	700	1000	3500	10000
BH103	0-0.1	Coarse	700	1000	3500	10000
BH103 - [LAB_DUP]	0-0.1	Coarse	700	1000	3500	10000
BH103	0.4-0.5	Coarse	700	1000	3500	10000
BH103	0.8-1	Coarse	700	1000	3500	10000
BH103	1.8-2	Coarse	700	1000	3500	10000
BH103	2.8-3	Coarse	700	1000	3500	10000
BH103	3.1-3.2	Coarse	700	1000	3500	10000
BH104	0-0.1	Coarse	700	1000	3500	10000
BH104	0.1-0.2	Coarse	700	1000	3500	10000
BH105	0-0.05	Coarse	700	1000	3500	10000
BH105	0.1-0.15	Coarse	700	1000	3500	10000
BH106	0-0.1	Coarse	700	1000	3500	10000
BH106 - [LAB_DUP]	0-0.1	Coarse	700	1000	3500	10000
BH107	0.12-0.3	Coarse	700	1000	3500	10000
BH107	0.3-0.35	Coarse	700	1000	3500	10000
BH108	0.1-0.2	Coarse	700	1000	3500	10000
BH108	0.2-0.3	Coarse	700	1000	3500	10000
BH109	0.15-0.3	Coarse	700	1000	3500	10000
BH109	0.6-0.8	Coarse	700	1000	3500	10000
BH110	0.15-0.3	Coarse	700	1000	3500	10000
BH111	0.23-0.3	Coarse	700	1000	3500	10000
BH111	0.3-0.4	Coarse	700	1000	3500	10000
BH112	0.2-0.3	Coarse	700	1000	3500	10000
BH112	0.4-0.6	Coarse	700	1000	3500	10000
BH112 - [LAB_DUP]	0.4-0.6	Coarse	700	1000	3500	10000
BH113	0.2-0.4	Coarse	700	1000	3500	10000
BH113 - [LAB_DUP]	0.2-0.4	Coarse	700	1000	3500	10000
BH114	0.23-0.3	Coarse	700	1000	3500	10000
BH114	0.4-0.5	Coarse	700	1000	3500	10000
BH115	0.17-0.3	Coarse	700	1000	3500	10000
BH115	0.4-0.5	Coarse	700	1000	3500	10000
BH116	0.22-0.4	Coarse	700	1000	3500	10000
BH117	0.23-0.3	Coarse	700	1000	3500	10000
BH117	0.4-0.5	Coarse	700	1000	3500	10000
BH118	0.02-0.2	Coarse	700	1000	3500	10000
BH118	0.6-0.8	Coarse	700	1000	3500	10000
BH118	1.6-1.7	Coarse	700	1000	3500	10000
BH118	1.8-2	Coarse	700	1000	3500	10000
BH119	0.02-0.2	Coarse	700	1000	3500	10000
BH119	0.8-1	Coarse	700	1000	3500	10000
BH119 - [LAB_DUP]	0.8-1	Coarse	700	1000	3500	10000
BH119	1.65-1.8	Coarse	700	1000	3500	10000
BH119	1.9-2	Coarse	700	1000	3500	10000
BH120	0.02-0.2	Coarse	700	1000	3500	10000
BH120	0.5-0.7	Coarse	700	1000	3500	10000
BH120	1-1.2	Coarse	700	1000	3500	10000
BH120	1.8-2	Coarse	700	1000	3500	10000
BH121	0.01-0.15	Coarse	700	1000	3500	10000
BH121 - [LAB_DUP]	0.01-0.15	Coarse	700	1000	3500	10000
BH121	0.7-0.9	Coarse	700	1000	3500	10000
BH122	0.01-0.1	Coarse	700	1000	3500	10000
BH122	0.7-0.9	Coarse	700	1000	3500	10000
BH122	1-1.2	Coarse	700	1000	3500	10000
BH123	0.01-0.2	Coarse	700	1000	3500	10000
BH123	0.4-0.6	Coarse	700	1000	3500	10000
SDUP101	0.01-0.15	Coarse	700	1000	3500	10000
SDUP102	0.2-0.4	Coarse	700	1000	3500	10000
SDUP103	0-0.1	Coarse	700	1000	3500	10000
SDUP104	0.12-0.3	Coarse	700	1000	3500	10000
SDUP105	0.1-0.2	Coarse	700	1000	3500	10000
SDUP106	0.15-0.3	Coarse	700	1000	3500	10000

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TABLE S4
SOIL LABORATORY RESULTS COMPARED T0 DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C_6-C_{10}	>C_{10}-C_{16}	>C_{16}-C_{34}	>C_{34}-C_{40}	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 -Direct contact Criteria		26,000	20,000	27,000	38,000	430	99,000	27,000	81,000	11,000	
Site Use		COMMERCIAL/INDUSTRIAL - DIRECT SOIL CONTACT									
Sample Reference	**Sample Depth**										
BH101	0-0.1	<25	<50	**120**	**100**	<0.2	<0.5	<1	<1	<1	**1.5**
BH101 - [LAB_DUP]	0-0.1	<25	<50	**190**	**210**	<0.2	<0.5	<1	<1	<1	-
BH101	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH101	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH101	2.8-3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH101	3.6-3.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH102	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH102	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH102	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH102	2.8-3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH102	3.5-3.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH103	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH103 - [LAB_DUP]	0-0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	-
BH103	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH103	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH103	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH103	2.8-3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH103	3.1-3.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH104	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH104	0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH105	0-0.05	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH105	0.1-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH106	0-0.1	<25	<50	**440**	**260**	<0.2	<0.5	<1	<1	<1	**0.6**
BH106 - [LAB_DUP]	0-0.1	<25	<50	**520**	**320**	<0.2	<0.5	<1	<1	<1	-
BH107	0.12-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	0
BH107	0.3-0.35	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH108	0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH108	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH109	0.15-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH109	0.6-0.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH110	0.15-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH111	0.23-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.2**
BH111	0.3-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH112	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH112	0.4-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	0
BH112 - [LAB_DUP]	0.4-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH113	0.2-0.4	<25	<50	**280**	**130**	<0.2	<0.5	<1	<1	<1	**1.7**
BH113 - [LAB_DUP]	0.2-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH114	0.23-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH114	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH115	0.17-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH115	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.6**
BH116	0.22-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH117	0.23-0.3	<25	<50	**320**	**310**	<0.2	<0.5	<1	<1	<1	**1**
BH117	0.4-0.5	<25	<50	**110**	**130**	<0.2	<0.5	<1	<1	<1	**1.5**
BH118	0.02-0.2	<25	<50	<100	**190**	<0.2	<0.5	<1	<1	<1	**1.7**
BH118	0.6-0.8	<25	<50	**160**	**160**	<0.2	<0.5	<1	<1	<1	**1.4**
BH118	1.6-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH118	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH119	0.02-0.2	<25	<50	**140**	**260**	<0.2	<0.5	<1	<1	<1	**1.1**
BH119	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH119 - [LAB_DUP]	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH119	1.65-1.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH119	1.9-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH120	0.02-0.2	<25	<50	<100	**130**	<0.2	<0.5	<1	<1	<1	**1.5**
BH120	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH120	1-1.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH120	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH121	0.01-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH121 - [LAB_DUP]	0.01-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH121	0.7-0.9	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH122	0.01-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH122	0.7-0.9	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH122	1-1.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
BH123	0.01-0.2	<25	<50	**200**	**460**	<0.2	<0.5	<1	<1	<1	**0.2**
BH123	0.4-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
SDUP101	0.01-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
SDUP102	0.2-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
SDUP103	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP104	0.12-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP105	0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP106	0.15-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
Total Number of Samples		72	72	72	72	72	72	72	72	72	59
Maximum Value		<PQL	<PQL	520	460	<PQL	<PQL	<PQL	<PQL	<PQL	2.2

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**

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TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HSL-D: Commercial/Industrial

FIELD DATA															LABORATORY DATA										
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample reference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation %(w/w)	FA and AF Estimation %(w/w)
SAC			**No**					**0.05**			**0.001**			**0.001**											**0.05**	**0.001**
10/10/2024	BH101	0-0.1	No	10	1,010	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	0-0.1	579.65	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH101	0.1-1.0	No	<10	621	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	0.4-0.5	645.76	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH101	1.0-2.0	No	10	1,080	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	1.8-2	652.96	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH101	2.5-3	No	<10	835	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	2.8-3	546.46	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH102	0-0.1	No	10	1,010	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	0-0.1	531.42	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH102	0.1-1.0	No	<10	552	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	0.8-1	724.16	Chrysotile asbestos detected: Organic fibres detected	No asbestos detected	0.5825	Asbestos detected	–	0.4218	<0.01	0.0583
10/10/2024	BH102	1.0-2.0	No	<10	835	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	1.8-2	670.87	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH102	2.5-3.0	No	<10	735	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	2.8-3	565.93	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH103	0-0.1	No	10	1,088	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH103	0-0.1	706.46	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH103	0.4-0.5	727.15	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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10/10/2024	BH103	1.0-2.0	No	10	1,165	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH103	1.8-2	676.7	Chrysotile asbestos detected: Amosite asbestos detected: Crocidolite asbestos detected: Organic fibres detected	No asbestos detected	1.3432	Asbestos detected	–	0.909	<0.01	0.1343
10/10/2024	BH103	2.0-3.0	No	<10	723	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH103	2.8-3	748.13	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH104	0-0.1	No	10	1,015	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH104	0-0.1	827.3	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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10/10/2024	BH105	0-0.05	No	10	1,005	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH105	0-0.05	724.46	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH105	0.1-0.15	785.46	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH106	0-0.1	No	10	1,007	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH106	0-0.1	489.95	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH107	0.12-0.3	No	<10	435	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	–	–	–	–	–	–	–	–	–	–	–	–
11/10/2024	BH108	0.03-0.2	No	<10	558	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH108	0.1-0.2	714.81	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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9/10/2024	BH109	0.15-0.3	No	<10	342	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH109	0.15-0.3	828.34	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/10/2024	BH110	0.15-0.3	No	<10	368	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH110	0.15-0.3	788.01	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
10/10/2024	BH111	0.23-0.3	No	<10	370	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH111	0.23-0.3	972.7	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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10/10/2024	BH114	0.23-0.3	No	<10	345	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH114	0.23-0.3	798.98	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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9/10/2024	BH116	0.2-0.4	No	<10	345	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH116	0.22-0.4	844.74	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
9/10/2024	BH117	0.23-0.3	No	<10	185	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH117	0.23-0.3	663.62	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH120	0.5-0.7	199.96	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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8/10/2024	BH121	0.03-0.3	No	<10	413	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH121	0.01-0.15	827.33	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/10/2024	BH122	0-0.3	No	<10	178	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH122	0.01-0.1	802.17	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001

Concentration above the SAC **VALUE**

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TABLE S6
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				COMMERCIAL/INDUSTRIAL																	
						AGED HEAVY METALS-EILs						EILs		ESLs							
				pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	13	28	163	5	122	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																				
BH101	0-0.1	F: Clayey Sand	Coarse	**20**	**7.6**	NA	**8**	**14**	**13**	**30**	**5**	**29**	<1	<0.1	<25	<50	**120**	**100**	<0.2	<0.5	<1	<1	<0.05
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	**20**	**7.6**	NA	**8**	**16**	**10**	**32**	**5**	**31**	<1	<0.1	<25	<50	**190**	**210**	<0.2	<0.5	<1	<1	<0.05
BH101	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**11**	**21**	**8**	**21**	**7**	**120**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH101	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**9**	**19**	**8**	**23**	**4**	**15**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH101	2.8-3	F: Silty Clay	Fine	NA	NA	NA	**10**	**26**	**31**	**47**	**12**	**73**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH101	3.6-3.8	Silty Clay	Fine	NA	NA	NA	**9**	**21**	**3**	**20**	<1	**3**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**10**	**21**	**17**	**52**	**12**	**52**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	0.8-1	F: Silty Clay	Fine	NA	NA	NA	**21**	**20**	**15**	**23**	**25**	**46**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**9**	**22**	**22**	**40**	**15**	**47**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	2.8-3	F: Silty Clay	Fine	NA	NA	NA	**9**	**25**	**29**	**63**	**11**	**87**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH102	3.5-3.6	Silty Clay	Fine	NA	NA	NA	**9**	**24**	**5**	**16**	**1**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**11**	**21**	**13**	**33**	**9**	**40**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	**9**	**16**	**14**	**32**	**9**	**42**	<1	<0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<0.05
BH103	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**9**	**24**	**9**	**28**	**10**	**35**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH103	0.8-1	F: Silty Clay	Fine	NA	NA	NA	**9**	**19**	**11**	**35**	**6**	**42**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**10**	**24**	**21**	**77**	**15**	**190**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	2.8-3	F: Silty Clay	Fine	NA	NA	NA	**10**	**20**	**14**	**24**	**3**	**19**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	3.1-3.2	Silty Clay	Fine	NA	NA	NA	**10**	**16**	**9**	**22**	**1**	**15**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH104	0-0.1	F: Silty Sand	Coarse	**20**	**7.6**	NA	**10**	**9**	**14**	**22**	**2**	**16**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH104	0.1-0.2	F: Silty Clay	Fine	NA	NA	NA	**6**	**11**	**15**	**19**	**8**	**24**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH105	0-0.05	F: Silty Sand	Coarse	**20**	**7.6**	NA	**4**	**8**	**12**	**40**	**4**	**33**	<1	<0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<0.05
BH105	0.1-0.15	F: Silty Clay	Fine	NA	NA	NA	**9**	**12**	**15**	**22**	**9**	**12**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH106	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**5**	**11**	**19**	**29**	**11**	**48**	<1	<0.1	<25	<50	**440**	**260**	<0.2	<0.5	<1	<1	<0.05
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	**5**	**11**	**16**	**30**	**6**	**47**	<1	<0.1	<25	<50	**520**	**320**	<0.2	<0.5	<1	<1	<0.05
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	Fine	NA	NA	NA	**6**	**11**	**17**	**30**	**6**	**48**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH107	0.12-0.3	F: Silty Clayey Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**57**	**9**	**54**	**53**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
BH107	0.3-0.35	Silty Clay	Fine	NA	NA	NA	**7**	**20**	**33**	**11**	**39**	**35**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH108	0.1-0.2	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**10**	**120**	**5**	**72**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH108	0.2-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	**4**	**19**	**14**	**33**	**18**	**32**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH109	0.15-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**11**	**7**	**32**	**5**	**21**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH109	0.6-0.8	Silty Clay	Fine	NA	NA	NA	**6**	**14**	**2**	**22**	**1**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH110	0.15-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**11**	**12**	**43**	**8**	**32**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
BH111	0.23-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**6**	**13**	**32**	**4**	**22**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.09**
BH111	0.3-0.4	Silty Clay	Fine	NA	NA	NA	<4	**12**	**7**	**19**	**10**	**15**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH112	0.2-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**13**	**13**	**34**	**9**	**23**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH112	0.4-0.6	Silty Clay	Fine	NA	NA	NA	**12**	**13**	**4**	**17**	<1	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	Fine	NA	NA	NA	**11**	**16**	**3**	**21**	<1	**2**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH113	0.2-0.4	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**14**	**47**	**44**	**13**	**31**	<1	<0.1	<25	<50	**280**	**130**	<0.2	<0.5	<1	<1	**0.59**
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	Coarse	**20**	**7.6**	NA	<4	**17**	**21**	**48**	**12**	**30**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.62**
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	Coarse	**20**	**7.6**	NA	<4	**14**	**51**	**50**	**12**	**30**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH114	0.23-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**7**	**39**	**37**	**7**	**28**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH114	0.4-0.5	Silty Clay	Fine	NA	NA	NA	**5**	**11**	**13**	**22**	**3**	**10**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.06**
BH115	0.17-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**11**	**58**	**37**	**18**	**31**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH115	0.4-0.5	Silty Clay	Fine	NA	NA	NA	**5**	**24**	**6**	**26**	**10**	**6**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.59**
BH116	0.22-0.4	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**7**	**46**	**6**	**32**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH117	0.23-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	**5**	**14**	**39**	**16**	**36**	**21**	<1	<0.1	<25	<50	**320**	**310**	<0.2	<0.5	<1	<1	**0.2**
BH117	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**6**	**11**	**20**	**16**	**20**	**11**	<1	NA	<25	<50	**110**	**130**	<0.2	<0.5	<1	<1	**0.2**
BH118	0.02-0.2	F: Silty Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**10**	**60**	**3**	**88**	**39**	<1	<0.1	<25	<50	<100	**190**	<0.2	<0.5	<1	<1	<0.05
BH118	0.6-0.8	F: Silty Clay	Fine	NA	NA	NA	**8**	**23**	**22**	**55**	**36**	**43**	<1	<0.1	<25	<50	**160**	**160**	<0.2	<0.5	<1	<1	**0.1**
BH118	1.6-1.7	F: Silty Clay	Fine	NA	NA	NA	**8**	**32**	**6**	**27**	**3**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH118	1.8-2	Silty Clay	Fine	NA	NA	NA	**11**	**37**	**11**	**20**	**2**	**7**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119	0.02-0.2	F: Silty Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**8**	**44**	**2**	**57**	**32**	<1	<0.1	<25	<50	**140**	**260**	<0.2	<0.5	<1	<1	<0.05
BH119	0.8-1	F: Silty Clay	Fine	NA	NA	NA	**7**	**15**	**8**	**19**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	Fine	NA	NA	NA	**8**	**16**	**10**	**22**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119	1.65-1.8	F: Silty Clay	Fine	NA	NA	NA	**7**	**33**	**4**	**24**	**3**	**9**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119	1.9-2	F: Silty Clay	Fine	NA	NA	NA	**8**	**31**	**4**	**25**	**4**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH120	0.02-0.2	F: Silty Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**66**	**3**	**86**	**44**	<1	<0.1	<25	<50	<100	**130**	<0.2	<0.5	<1	<1	<0.05
BH120	0.5-0.7	F: Sand	Coarse	**20**	**7.6**	NA	**8**	**5**	**2**	**2**	**1**	**7**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH120	1-1.2	F: Silty Clay	Fine	NA	NA	NA	**6**	**22**	**21**	**21**	**24**	**12**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.08**
BH120	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**12**	**37**	**3**	**20**	**2**	**2**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH121	0.01-0.15	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**60**	**5**	**61**	**37**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	Coarse	**20**	**7.6**	NA	<4	**17**	**66**	**5**	**66**	**40**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH121	0.7-0.9	XW Siltstone: Silty Clay	Fine	NA	NA	NA	**25**	**7**	**4**	**20**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH122	0.01-0.1	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**66**	**4**	**65**	**40**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH122	0.7-0.9	XW Siltstone: Silty Clay	Fine	NA	NA	NA	<4	**4**	**8**	**19**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH122	1-1.2	Siltstone	Fine	NA	NA	NA	**6**	**4**	**11**	**10**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH123	0.01-0.2	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**6**	**46**	**3**	**45**	**31**	<1	<0.1	<25	<50	**200**	**460**	<0.2	<0.5	<1	<1	<0.05
BH123	0.4-0.6	XW Siltstone: Silty Clay	Fine	NA	NA	NA	**10**	**8**	**15**	**14**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP101	0.01-0.15	Duplicate of BH121	Coarse	**20**	**7.6**	NA	<4	**10**	**44**	**10**	**47**	**36**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP102	0.2-0.4	Duplicate of BH113	Coarse	**20**	**7.6**	NA	<4	**29**	**17**	**44**	**18**	**28**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
SDUP103	0-0.1	Duplicate of BH103	Fine	NA	NA	NA	**11**	**20**	**17**	**41**	**11**	**61**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.050
SDUP104	0.12-0.3	Duplicate of BH107	Coarse	**20**	**7.6**	NA	<4.0	**13**	**62**	**13**	**62**	**51**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**0.07**
SDUP105	0.1-0.2	Duplicate of BH108	Coarse	**20**	**7.6**	NA	<4.0	**11**	**130**	**5.1**	**79**	**39**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.050
SDUP106	0.15-0.3	Duplicate of BH110	Coarse	**20**	**7.6**	NA	<4	**10**	**8**	**47**	**6**	**32**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**0.2**
Total Number of Samples				31	31	0	74	74	74	74	74	74	72	51	72	72	72	72	72	72	72	72	72
Maximum Value				20	7.6	NA	25	37	130	77	88	190	<PQL	<PQL	<PQL	<PQL	520	460	<PQL	<PQL	<PQL	<PQL	0.62

Concentration above the SAC — Value
Concentration above the PQL — Bold
The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below

EIL AND ESL ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Sample Description	Soil Texture	pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
BH101	0-0.1	F: Clayey Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH101	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH101	1.8-2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH101	2.8-3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH101	3.6-3.8	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH102	0-0.1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH102	0.8-1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH102	1.8-2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH102	2.8-3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH102	3.5-3.6	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH103	0-0.1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103	0.8-1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH103	1.8-2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103	2.8-3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH103	3.1-3.2	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH104	0-0.1	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH104	0.1-0.2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH105	0-0.05	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH105	0.1-0.15	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH106	0-0.1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	Fine	NA	NA	NA	160	320	110	2000	60	--	--	--	--	--	--	--	--	--	--	--	--
BH107	0.12-0.3	F: Silty Clayey Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH107	0.3-0.35	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH108	0.1-0.2	F: Gravelly Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH108	0.2-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	--	215	170	1700	3300	75	135	165	180	72
BH109	0.15-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH109	0.6-0.8	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH110	0.15-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH111	0.23-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH111	0.3-0.4	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH112	0.2-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH112	0.4-0.6	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH112 - [LAB_DUP]	0.4-0.7	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH113	0.2-0.4	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	Coarse	20	7.6	NA	160	320	310	2000	300	740	--	--	--	--	--	--	--	--	--	--	--
BH114	0.23-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH114	0.4-0.5	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH115	0.17-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH115	0.4-0.5	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH116	0.22-0.4	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH117	0.23-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH117	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH118	0.02-0.2	F: Silty Gravelly Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH118	0.6-0.8	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH118	1.6-1.7	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH118	1.8-2	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH119	0.02-0.2	F: Silty Gravelly Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH119	0.8-1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500

JKEnvironments

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		OC/OP PESTICIDES				Total PCBs	Total VOCs	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled			C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	Various	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	Varous	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	Varous	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	Various	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	**Sample Depth**	**Sample Description**																										
BH101	0-0.1	F: Clayey Sand	**8**	<0.4	**14**	**13**	**30**	<0.1	**5**	**29**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**32**	<0.1	**5**	**31**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	**120**	**200**	**320**	<0.2	<0.5	<1	<1	NA
BH101	0.4-0.5	F: Silty Clay	**11**	<0.4	**21**	**8**	**21**	<0.1	**7**	**120**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101	1.8-2	F: Silty Clay	**9**	<0.4	**19**	**8**	**23**	<0.1	**4**	**15**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101	2.8-3	F: Silty Clay	**10**	<0.4	**26**	**31**	**47**	<0.1	**12**	**73**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101	3.6-3.8	Silty Clay	**9**	<0.4	**21**	**3**	**20**	<0.1	<1	**3**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH102	0-0.1	F: Silty Clay	**10**	<0.4	**21**	**17**	**52**	<0.1	**12**	**52**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH102	0.8-1	F: Silty Clay	**21**	<0.4	**20**	**15**	**23**	<0.1	**25**	**46**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Detected
BH102	1.8-2	F: Silty Clay	**9**	<0.4	**22**	**22**	**40**	<0.1	**15**	**47**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH102	2.8-3	F: Silty Clay	**9**	<0.4	**25**	**29**	**63**	<0.1	**11**	**87**	**0.53**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH102	3.5-3.6	Silty Clay	**9**	<0.4	**24**	**5**	**16**	<0.1	**1**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH103	0-0.1	F: Silty Clay	**11**	<0.4	**21**	**13**	**33**	<0.1	**9**	**40**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**9**	<0.4	**16**	**14**	**32**	<0.1	**9**	**42**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH103	0.4-0.5	F: Silty Clay	**9**	<0.4	**24**	**9**	**28**	<0.1	**10**	**35**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103	0.8-1	F: Silty Clay	**9**	<0.4	**19**	**11**	**35**	<0.1	**6**	**42**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103	1.8-2	F: Silty Clay	**10**	<0.4	**24**	**21**	**77**	<0.1	**15**	**190**	<0.05	<0.05	<0.1	<0.1	<0.1	**1.7**	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Detected
BH103	2.8-3	F: Silty Clay	**10**	<0.4	**20**	**14**	**24**	<0.1	**3**	**19**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103	3.1-3.2	Silty Clay	**10**	<0.4	**16**	**9**	**22**	<0.1	**1**	**15**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH104	0-0.1	F: Silty Sand	**10**	<0.4	**9**	**14**	**22**	<0.1	**2**	**16**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH104	0.1-0.2	F: Silty Clay	**6**	<0.4	**11**	**15**	**19**	<0.1	**8**	**24**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH105	0-0.05	F: Silty Sand	**4**	<0.4	**8**	**12**	**40**	<0.1	**4**	**33**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH105	0.1-0.15	F: Silty Clay	**9**	<0.4	**12**	**15**	**22**	<0.1	**9**	**12**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH106	0-0.1	F: Silty Clay	**5**	<0.4	**11**	**19**	**29**	<0.1	**11**	**48**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	**200**	**350**	**550**	<0.2	<0.5	<1	<1	Not Detected
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**11**	**16**	**30**	<0.1	**6**	**47**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	**230**	**420**	**650**	<0.2	<0.5	<1	<1	NA
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	**6**	<0.4	**11**	**17**	**30**	<0.1	**6**	**48**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH107	0.12-0.3	F: Silty Gravelly Sand	<4	<0.4	**12**	**57**	**9**	<0.1	**54**	**53**	**4**	**0.3**	<0.1	**0.1**	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH107 - [LAB_DUP]	0.12-0.3	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.1**	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH107	0.3-0.35	Silty Clay	**7**	<0.4	**20**	**33**	**11**	<0.1	**39**	**35**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH108	0.1-0.2	F: Gravelly Sand	<4	<0.4	**10**	**120**	**5**	<0.1	**72**	**43**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH108	0.2-0.3	F: Silty Sand	**4**	<0.4	**19**	**14**	**33**	<0.1	**18**	**32**	**0.52**	**0.1**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH109	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**7**	**32**	**0.1**	**5**	**21**	**0.58**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH109	0.6-0.8	Silty Clay	**6**	<0.4	**14**	**2**	**22**	<0.1	**1**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH110	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**12**	**43**	**0.1**	**8**	**32**	**2.4**	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH111	0.23-0.3	F: Silty Sand	<4	<0.4	**6**	**13**	**32**	<0.1	**4**	**22**	**0.3**	**0.09**	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH111	0.3-0.4	Silty Clay	<4	<0.4	**12**	**7**	**19**	<0.1	**10**	**15**	**2.5**	**0.2**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH112	0.2-0.3	F: Silty Sand	<4	<0.4	**13**	**13**	**34**	**0.1**	**9**	**23**	**2.4**	**0.2**	<0.1	<0.1	<0.1	**0.2**	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH112	0.4-0.6	Silty Clay	**12**	<0.4	**13**	**4**	**17**	<0.1	<1	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	**11**	<0.4	**16**	**3**	**21**	<0.1	<1	**2**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH113	0.2-0.4	F: Silty Sand	<4	<0.4	**14**	**47**	**44**	<0.1	**13**	**31**	**5.2**	**0.59**	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	**160**	**180**	**340**	<0.2	<0.5	<1	<1	Not Detected
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	<4	<0.4	**17**	**21**	**48**	**0.1**	**12**	**30**	**6.2**	**0.62**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	<4	<0.4	**14**	**51**	**50**	**0.1**	**12**	**30**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH114	0.23-0.3	F: Silty Sand	<4	<0.4	**7**	**39**	**37**	<0.1	**7**	**28**	**1.3**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH114	0.4-0.5	Silty Clay	**5**	<0.4	**11**	**13**	**22**	<0.1	**3**	**10**	**0.4**	**0.06**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH115	0.17-0.3	F: Silty Sand	<4	<0.4	**11**	**58**	**37**	**0.1**	**18**	**31**	**1.5**	**0.2**	<0.1	<0.1	<0.1	**1.5**	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH115	0.4-0.5	Silty Clay	**5**	<0.4	**24**	**6**	**26**	<0.1	**10**	**6**	**8.9**	**0.59**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH116	0.22-0.4	F: Silty Sand	<4	<0.4	**12**	**7**	**46**	**0.1**	**6**	**32**	**1.4**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH117	0.23-0.3	F: Silty Sand	**5**	<0.4	**14**	**39**	**16**	<0.1	**36**	**21**	**1.8**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	**120**	**300**	**420**	<0.2	<0.5	<1	<1	Not Detected
BH117	0.4-0.5	F: Silty Clay	**6**	<0.4	**11**	**20**	**16**	<0.1	**20**	**11**	**1.7**	**0.2**	NA	NA	NA	NA	NA	NA	<25	<50	<100	**100**	**100**	<0.2	<0.5	<1	<1	Not Detected
BH118	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**88**	**39**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**110**	**110**	<0.2	<0.5	<1	<1	Not Detected
BH118	0.6-0.8	F: Silty Clay	**8**	<0.4	**23**	**22**	**55**	<0.1	**36**	**43**	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	Not Detected
BH118	1.6-1.7	F: Silty Clay	**8**	<0.4	**32**	**6**	**27**	<0.1	**3**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH118	1.8-2	Silty Clay	**11**	<0.4	**37**	**11**	**20**	<0.1	**2**	**7**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**8**	**44**	**2**	**0.5**	**57**	**32**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	Not Detected
BH119	0.8-1	F: Silty Clay	**7**	<0.4	**15**	**8**	**19**	<0.1	**2**	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**22**	<0.1	**2**	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH119	1.65-1.8	F: Silty Clay	**7**	<0.4	**33**	**4**	**24**	<0.1	**3**	**9**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH119	1.9-2	F: Silty Clay	**8**	<0.4	**31**	**4**	**25**	<0.1	**4**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**12**	**66**	**3**	<0.1	**86**	**44**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	0.5-0.7	F: Sand	**8**	<0.4	**5**	**2**	**2**	<0.1	**1**	**7**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	1-1.2	F: Silty Clay	**6**	<0.4	**22**	**21**	**21**	<0.1	**24**	**12**	**0.08**	**0.08**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	1.8-2	F: Silty Clay	**12**	<0.4	**37**	**3**	**20**	<0.1	**2**	**2**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH121	0.01-0.15	F: Gravelly Sand	<4	<0.4	**12**	**60**	**5**	<0.1	**61**	**37**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	<4	<0.4	**17**	**66**	**5**	<0.1	**66**	**40**	**1.2**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH121	0.7-0.9	XW Siltstone: Silty Clay	**25**	<0.4	**7**	**4**	**20**	<0.1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH122	0.01-0.1	F: Gravelly Sand	<4	<0.4	**12**	**66**	**4**	<0.1	**65**	**40**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH122	0.7-0.9	XW Siltstone: Silty Clay	<4	<0.4	**4**	**8**	**19**	<0.1	<1	<0.1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH122	1-1.2	Siltstone	**6**	<0.4	**4**	**11**	**10**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH123	0.01-0.2	F: Gravelly Sand	<4	<0.4	**6**	**46**	**3**	<0.1	**45**	**31**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**250**	**250**	<0.2	<0.5	<1	<1	Not Detected
BH123	0.4-0.6	XW Siltstone: Silty Clay	**10**	<0.4	**8**	**15**	**14**	<0.1	<1	<0.1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP101	0.01-0.15	Duplicate of BH121	<4	<0.4	**10**	**44**	**10**	<0.1	**47**	**36**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP102	0.2-0.4	Duplicate of BH113	<4	<0.4	**29**	**17**	**44**	**0.1**	**18**	**28**	**1.4**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP103	0-0.1	Duplicate of BH103	**11**	<0.4	**20**	**17**	**41**	<0.1	**11**	**61**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP104	0.12-0.3	Duplicate of BH107	<4.0	<0.4	**13**	**62**	**13**	<0.1	**62**	**51**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP105	0.1-0.2	Duplicate of BH108	<4.0	<0.4	**11**	**130**	**5.1**	<0.1	**79**	**39**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP106	0.15-0.3	Duplicate of BH110	<4	<0.4	**10**	**8**	**47**	**0.1**	**6**	**32**	**1.3**	**0.2**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
Total Number of Samples			74	74	74	74	74	74	74	74	72	72	51	52	52	52	51	5	72	72	72	72	72	72	72	72	72	42
Maximum Value			25	<PQL	37	130	77	0.5	88	190	8.9	0.62	<PQL	0.1	<PQL	1.7	<PQL	<PQL	<PQL	<PQL	<PQL	230	420	650	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the CT1 — **VALUE**
Concentration above SCC1 — **VALUE**
Concentration above the SCC2 — **VALUE**
Concentration above PQL — **Bold**
Asbestos Detected > Special Waste (asbestos) — **Detected**

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TABLE S8
SOIL LABORATORY TCLP RESULTS
All data in mg/L unless stated otherwise

			Arsenic	Cadmium	Chromium	Lead	Mercury	Nickel	B(a)P
PQL - Envirolab Services			0.05	0.01	0.01	0.03	0.0005	0.02	0.001
TCLP1 - General Solid Waste			5	1	5	5	0.2	2	0.04
TCLP2 - Restricted Solid Waste			20	4	20	20	0.8	8	0.16
TCLP3 - Hazardous Waste			>20	>4	>20	>20	>0.8	>8	>0.16
Sample Reference	**Sample Depth**	**Sample Description**							
BH107	0.12-0.3	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.05**	NA
BH107 - [LAB_DUP]	0.12-0.3	Laboratory Duplicate	NA	NA	NA	NA	NA	**0.05**	NA
BH108	0.1-0.2	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.2**	NA
BH118	0.02-0.2	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.1**	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.2**	NA
BH120	0.02-0.2	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.1**	NA
BH121	0.01-0.15	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.06**	NA
BH122	0.01-0.1	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.06**	NA
BH123	0.01-0.2	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.04**	NA
Total Number of samples			0	0	0	0	0	9	0
Maximum Value			NA	NA	NA	NA	NA	0.2	NA

General Solid Waste	**VALUE**
Restricted Solid Waste	**VALUE**
Hazardous Waste	**VALUE**
Concentration above PQL	**Bold**

Copyright JK Environments

TABLE S9
SUMMARY OF LABORATORY RESULTS COMPARED TO THE ENM ASSESSMENT CRITERIA
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		TRH				BTEX COMPOUNDS				EC	pH	FIELD PID VALUES	ASBESTOS
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	(µS/cm)			
PQL			4	0.5	1	1	1	0.1	1	1	0.05	0.05	50	100	100	250	0.2	0.5	1	3	1	0.1	--	--
Maximum Average Concentration (MAC) [1]			20	0.5	75	100	50	0.5	30	150	20	0.5		NSL		250	--	--	--	--	1500	5 to 9	--	--
Absolute Maximum Concentration (AMC) [1]			40	1	150	200	100	1	60	300	40	1		NSL		500	0.5	65	25	15	3000	4.5 to 10	--	--
Sample Reference	**Sample Depth**	**Sample Description**																						
BH101	0-0.1	F: Clayey Sand	**8**	<0.4	**14**	**13**	**30**	<0.1	**5**	**29**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**55**	**5**	1.5	Not Detected
BH101	0.4-0.5	F: Silty Clay	**11**	<0.4	**21**	**8**	**21**	<0.1	**7**	**120**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**33**	**4.8**	0.8	Not Detected
BH101	1.8-2	F: Silty Clay	**9**	<0.4	**19**	**8**	**23**	<0.1	**4**	**15**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.4	Not Detected
BH101	2.8-3	F: Silty Clay	**10**	<0.4	**26**	**31**	**47**	<0.1	**12**	**73**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**86**	**6**	1.1	Not Detected
BH101	3.6-3.8	Silty Clay	**9**	<0.4	**21**	**3**	**20**	<0.1	<1	**3**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	NA
BH102	0-0.1	F: Silty Clay	**10**	<0.4	**21**	**17**	**52**	<0.1	**12**	**52**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH102	0.8-1	F: Silty Clay	**21**	<0.4	**20**	**15**	**23**	<0.1	**25**	**46**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	**Detected**
BH102	1.8-2	F: Silty Clay	**9**	<0.4	**22**	**22**	**40**	<0.1	**15**	**47**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH102	2.8-3	F: Silty Clay	**9**	<0.4	**25**	**29**	**63**	<0.1	**11**	**87**	**0.53**	**0.1**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH102	3.5-3.6	Silty Clay	**9**	<0.4	**24**	**5**	**16**	<0.1	**1**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	NA
BH103	0-0.1	F: Silty Clay	**11**	<0.4	**21**	**13**	**33**	<0.1	**9**	**40**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.8	Not Detected
BH103	0.4-0.5	F: Silty Clay	**9**	<0.4	**24**	**9**	**28**	<0.1	**10**	**35**	**0.07**	**0.07**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH103	0.8-1	F: Silty Clay	**9**	<0.4	**19**	**11**	**35**	<0.1	**6**	**42**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	Not Detected
BH103	1.8-2	F: Silty Clay	**10**	<0.4	**24**	**21**	**77**	<0.1	**15**	**190**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.3	**Detected**
BH103	2.8-3	F: Silty Clay	**10**	<0.4	**20**	**14**	**24**	<0.1	**3**	**19**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	Not Detected
BH103	3.1-3.2	Silty Clay	**10**	<0.4	**16**	**9**	**22**	<0.1	**1**	**15**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.2	NA
BH104	0-0.1	F: Silty Sand	**10**	<0.4	**9**	**14**	**22**	<0.1	**2**	**16**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.4	Not Detected
BH104	0.1-0.2	F: Silty Clay	**6**	<0.4	**11**	**15**	**19**	<0.1	**8**	**24**	**0.07**	**0.07**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**36**	**5.1**	0.5	Not Detected
BH105	0-0.05	F: Silty Sand	**4**	<0.4	**8**	**12**	**40**	<0.1	**4**	**33**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	Not Detected
BH105	0.1-0.15	F: Silty Clay	**9**	<0.4	**12**	**15**	**22**	<0.1	**9**	**12**	**0.07**	**0.07**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH106	0-0.1	F: Silty Clay	**5**	<0.4	**11**	**19**	**29**	<0.1	**11**	**48**	<0.05	<0.05	<50	**200**	**350**	**550**	<0.2	<0.5	<1	<1	NA	NA	0.6	Not Detected
BH107	0.12-0.3	F: Silty Gravelly Sand	<4	<0.4	**12**	**57**	**9**	<0.1	**54**	**53**	**4**	**0.3**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0	NA
BH107	0.3-0.35	Silty Clay	**7**	<0.4	**20**	**33**	**11**	<0.1	**39**	**35**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	NA
BH108	0.1-0.2	F: Gravelly Sand	<4	<0.4	**10**	**120**	**5**	<0.1	**72**	**43**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	Not Detected
BH108	0.2-0.3	F: Silty Sand	**4**	<0.4	**19**	**14**	**33**	<0.1	**18**	**32**	**0.52**	**0.1**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH109	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**7**	**32**	**0.1**	**5**	**21**	**0.58**	**0.1**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**89**	**8.8**	0.8	Not Detected
BH109	0.6-0.8	Silty Clay	**6**	<0.4	**14**	**2**	**22**	<0.1	**1**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.3	NA
BH110	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**12**	**43**	**0.1**	**8**	**32**	**2.4**	**0.3**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	Not Detected
BH111	0.23-0.3	F: Silty Sand	<4	<0.4	**6**	**13**	**32**	<0.1	**4**	**22**	**0.3**	**0.09**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	2.2	Not Detected
BH111	0.3-0.4	Silty Clay	<4	<0.4	**12**	**7**	**19**	<0.1	**10**	**15**	**2.5**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.1	NA
BH112	0.2-0.3	F: Silty Sand	<4	<0.4	**13**	**13**	**34**	**0.1**	**9**	**23**	**2.4**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.4	Not Detected
BH112	0.4-0.6	Silty Clay	**12**	<0.4	**13**	**4**	**17**	<0.1	<1	**3**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0	NA
BH113	0.2-0.4	F: Silty Sand	<4	<0.4	**14**	**47**	**44**	<0.1	**13**	**31**	**5.2**	**0.59**	<50	**160**	**180**	**340**	<0.2	<0.5	<1	<1	NA	NA	1.7	Not Detected
BH114	0.23-0.3	F: Silty Sand	<4	<0.4	**7**	**39**	**37**	<0.1	**7**	**28**	**1.3**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.4	Not Detected
BH114	0.4-0.5	Silty Clay	**5**	<0.4	**11**	**13**	**22**	<0.1	**3**	**10**	**0.4**	**0.06**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	NA
BH115	0.17-0.3	F: Silty Sand	<4	<0.4	**11**	**58**	**37**	**0.1**	**18**	**31**	**1.5**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.5	Not Detected
BH115	0.4-0.5	Silty Clay	**5**	<0.4	**24**	**6**	**26**	<0.1	**10**	**6**	**8.9**	**0.59**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.6	NA
BH116	0.22-0.4	F: Silty Sand	<4	<0.4	**12**	**7**	**46**	**0.1**	**6**	**32**	**1.4**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**100**	**9.6**	1	Not Detected
BH117	0.23-0.3	F: Silty Sand	**5**	<0.4	**14**	**39**	**16**	<0.1	**36**	**21**	**1.8**	**0.2**	<50	**120**	**300**	**420**	<0.2	<0.5	<1	<1	NA	NA	1	Not Detected
BH117	0.4-0.5	F: Silty Clay	**6**	<0.4	**11**	**20**	**16**	<0.1	**20**	**11**	**1.7**	**0.2**	<50	<100	**100**	**100**	<0.2	<0.5	<1	<1	**180**	**8.3**	1.5	Not Detected
BH118	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**88**	**39**	<0.05	<0.05	<50	<100	**110**	**110**	<0.2	<0.5	<1	<1	NA	NA	1.7	Not Detected
BH118	0.6-0.8	F: Silty Clay	**8**	<0.4	**23**	**22**	**55**	<0.1	**36**	**43**	**0.5**	**0.1**	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	**81**	**6.4**	1.4	Not Detected
BH118	1.6-1.7	F: Silty Clay	**8**	<0.4	**32**	**6**	**27**	<0.1	**3**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**98**	**5.5**	1.5	Not Detected
BH118	1.8-2	Silty Clay	**11**	<0.4	**37**	**11**	**20**	<0.1	**2**	**7**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.3	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**8**	**44**	**2**	**0.5**	**57**	**32**	<0.05	<0.05	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH119	0.8-1	F: Silty Clay	**7**	<0.4	**15**	**8**	**19**	<0.1	**2**	**3**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	Not Detected
BH119	1.65-1.8	F: Silty Clay	**7**	<0.4	**33**	**4**	**24**	<0.1	**3**	**9**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.2	Not Detected
BH119	1.9-2	F: Silty Clay	**8**	<0.4	**31**	**4**	**25**	<0.1	**4**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.8	Not Detected
BH120	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**12**	**66**	**3**	<0.1	**86**	**44**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.5	Not Detected
BH120	0.5-0.7	F: Sand	**8**	<0.4	**5**	**2**	**2**	<0.1	**1**	**7**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.4	Not Detected
BH120	1-1.2	F: Silty Clay	**6**	<0.4	**22**	**21**	**21**	<0.1	**24**	**12**	**0.08**	**0.08**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.8	Not Detected
BH120	1.8-2	F: Silty Clay	**12**	<0.4	**37**	**3**	**20**	<0.1	**2**	**2**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.1	NA
BH121	0.01-0.15	F: Gravelly Sand	<4	<0.4	**12**	**60**	**5**	<0.1	**61**	**37**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH121	0.7-0.9	XW Siltstone: Silty Clay	**25**	<0.4	**7**	**4**	**20**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	NA
BH122	0.01-0.1	F: Gravelly Sand	<4	<0.4	**12**	**66**	**4**	<0.1	**65**	**40**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH122	0.7-0.9	XW Siltstone: Silty Clay	<4	<0.4	**4**	**8**	**19**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	NA
BH122	1-1.2	Siltstone	**6**	<0.4	**4**	**11**	**10**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.3	NA
BH123	0.01-0.2	F: Gravelly Sand	<4	<0.4	**6**	**46**	**3**	<0.1	**45**	**31**	<0.05	<0.05	<50	<100	**250**	**250**	<0.2	<0.5	<1	<1	**140**	**8.9**	0.2	NA
BH123	0.4-0.6	XW Siltstone: Silty Clay	**10**	<0.4	**8**	**15**	**14**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	NA
Total Number of samples			59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	10	10	59	42
Maximum Value			25	<PQL	37	120	77	0.5	88	190	8.9	0.59	<PQL	200	350	550	<PQL	<PQL	<PQL	<PQL	180	9.6	2.2	Detected
MAC			7	0.25	16	22	25	0.06	17	29	0.6	0.08	25	56	70	143	0.1	0.3	0.5	1.5	90	6.8	--	--

Average Concentration above the MAC — **VALUE**
Individual Concentration above the AMC — **VALUE**
Concentration above the PQL — **VALUE**

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TABLE SV1
SOIL VAPOUR LABORATORY RESULTS COMPARED TO HSLs AND INTERIM HILs FOR VOCC
All data in ug/m^3 unless stated otherwise

				SV1	SV1 (Lab-Duplicate)	SV2	SV3	SV4	SV5	SV6	SV7	SVDUP1
Land Use				COMMERCIAL/ INDUSTRIAL								
Compound	**PQL**	**NEPM 2013 Site Assessment Criteria (SAC)**	**USEPA****									
Total Recoverable Hydrocarbons (TRH)												
TRH F1	200	680000	See NEPM	<200	<200	<200	<200	<400	<200	<200	<200	<200
TRH F2	40	500000	See NEPM	<40	<40	<40	<40	2800	<40	60	<40	<40
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)												
Benzene	1.6	4000	See NEPM	**3**	**3**	**3**	**2**	**790**	<1.6	**6**	**7**	**3**
Toluene	1.9	4800000	See NEPM	**10**	**10**	**10**	**65**	**37**	**3**	**20**	**10**	**160**
Ethylbenzene	2.2	1300000	See NEPM	<2.2	<2.2	**4**	**2**	**4**	**9**	**3**	**3**	<2.2
Xylenes	2.2	840000	See NEPM	<2.2	<2.2	**29**	**18**	**8**	**123**	**11**	**7**	<2.2
Polycyclic Aromatic Hydrocarbons (PAHs)												
Naphthalene	2.6	3000	See NEPM	<2.6	<2.6	<2.6	<2.6	<5	<2.6	<2.6	<2.6	<2.6
Volatile Organic Compounds (VOCs) (NEPM 2013)												
TCE	2.7	80	See NEPM	<2.7	<2.7	<2.7	<2.7	**6**	<2.7	<2.7	**10**	<2.7
1,1,1-TCA	2.7	230000	See NEPM	<2.7	<2.7	<2.7	<2.7	<5	<2.7	<2.7	<2.7	<2.7
PCE	3.4	8000	See NEPM	<3.4	<3.4	<3.4	<3.4	<7	<3.4	<3.4	<3.4	<3.4
cis 1,2 dichloro-ethene	2	300	See NEPM	<2	<2	<2	<2	<4	<2	<2	<2	<2
Vinyl chloride	1.3	100	See NEPM	<1.3	<1.3	<1.3	<1.3	**7**	<1.3	<1.3	<1.3	<1.3
Other VOCs #												
Propylene	0.9	See USEPA	438000	**4**	**4**	**1**	**2**	**1400**	<0.9	<0.9	**19**	**38**
Dichlorodifluoromethane	2.5	See USEPA	14600	<2.5	<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	**4**
Chloromethane	1	See USEPA	13100	**1**	**2**	<1	<1	**32**	<1	<1	<1	**2**
Chloroethane	1.3	See USEPA	584000	<1.3	<1.3	<1.3	<1.3	**440**	<1.3	<1.3	<1.3	<1.3
Ethanol	9	See USEPA	NSL	**40**	**40**	**70**	**970**	**1300**	**330**	**40**	**30**	**95**
Acetone	11.9	See USEPA	NSL	**40**	**40**	**150**	**410**	**12000**	**70**	**60**	**20**	**20**
Isopropyl Alcohol	12	See USEPA	29200	**1000**	**1000**	**20**	**100**	**460**	**60**	**20**	**20**	**320**
Methylene chloride (Dichloromethane)	17	See USEPA	87600	<17	<17	<17	<17	<30	<17	<17	<17	**30**
Carbon Disulfide	16	See USEPA	102000	<16	<16	<16	<16	<30	<16	**20**	<16	<16
MEK	15	See USEPA	730000	<15	<15	<15	**15**	**220**	<15	**23**	<15	<15
Hexane	1.8	See USEPA	102000	**3**	**3**	<1.8	**10**	**170**	<1.8	**3**	**4**	**3**
Chloroform	2.4	See USEPA	178	<2.4	<2.4	<2.4	<2.4	<5	<2.4	**20**	**4**	<2.4
Cyclohexane	1.7	See USEPA	876000	<1.7	<1.7	<1.7	<1.7	**31**	<1.7	<1.7	<1.7	<1.7
Heptane	2	See USEPA	58400	<2	<2	**3**	<2	**360**	<2	**3**	**3**	<2
m-& p-Xylene	4.3	See USEPA	14600	<4.3	<4.3	**20**	**10**	**8**	**77**	**8**	**5**	<4.3
Styrene	2.1	See USEPA	146000	<2.1	<2.1	<2.1	<2.1	<4	<2.1	**5**	**10**	**3**
o-Xylene	2.2	See USEPA	14600	<2.2	<2.2	**9**	**8**	<4	46	**3**	**2**	<2.2
1,3,5-Trimethylbenzene	2.5	See USEPA	8760	<2.5	<2.5	**3**	**3**	<5	<2.5	**3**	<2.5	<2.5
1,2,4-Trimethylbenzene	2.5	See USEPA	8760	<2.5	<2.5	**8**	**10**	**5**	<2.5	**6**	**4**	<2.5
1,4-Dichlorobenzene	3	See USEPA	372	**6**	**6**	**20**	**10**	**20**	**6**	**30**	**20**	**6**

Concentration above the SAC — **VALUE**
Concentration above PQL — **Bold**
** Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-05 or THQ=1)
# VOC data has only been tabulated for key NEPM compounds and compounds that were above the PQLs

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TABLE G1
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO ECOLOGICAL GILs SAC
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	ANZG 2018 Fresh Waters	SAMPLES									
			MW18	MW18 [LAB_DUP]	MW26	MW26 - [LAB_DUP]	MW29	MW121	MW122	WDUP101	WDUP101 - LAB_DUP]	WDUP102
Inorganic Compounds and Parameters												
pH	-	6.5 - 8.5	5.1	5.1	5.7	NA	6.1	4.5	5.5	NA	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4400**	**4400**	**3000**	NA	**780**	**1000**	**670**	NA	NA	NA
Turbidity (NTU)	-	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hardness (mg/L)	3	NSL	**380**	NA	**360**	**360**	**100**	**48**	**30**	NA	NA	NA
Metals and Metalloids												
Arsenic (As III)	1	24	<1	[NT]	<1	<1	<1	**1**	<1	<1	NA	<1
Cadmium	0.1	0.2	**0.2**	[NT]	<0.1	<0.1	<0.1	**0.1**	**0.2**	**0.2**	NA	**0.16**
Chromium (SAC for Cr III adopted)	1	3.3	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1.0
Copper	1	1.4	**7**	[NT]	<1	<1	<1	**22**	**2**	**2**	NA	**9**
Lead	1	3.4	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1
Total Mercury (inorganic)	0.05	0.06	<0.05	<0.05	<0.05	[NT]	<0.05	<0.05	<0.05	<0.05	NA	<0.05
Nickel	1	11	**100**	[NT]	**140**	**130**	**4**	**10**	**12**	**12**	NA	**130**
Zinc	1	8	**560**	[NT]	**42**	**40**	**8**	**38**	**51**	**50**	NA	**680**
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)												
Benzene	1	950	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
o-xylene	1	350	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
Total xylenes	2	NSL	<2	NA	<2	NA	<2	**1**	**1**	**2**	**1**	<2
Total Recoverable Hydrocarbons (TRH)												
TRH F1 (C_6-C_{10})	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
TRH F2 (>C_{10}-C_{16})	50	NSL	<50	[NT]	<50	NA	**64**	**66**	**82**	**85**	NA	<50
TRH F3 (>C_{16}-C_{34})	100	NSL	<100	<100	<100	NA	<100	<100	**180**	**180**	NA	<100
TRH F4 (>C_{34})	100	NSL	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100
Volatile Organic Compounds (VOCs), including chlorinated VOCs												
Dichlorodifluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	100	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	700	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	90	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chloroform	1	370	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	1900	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	270	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	240	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Benzene	1	950	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	900	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trichloroethene	1	330	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	6500	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	1100	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	70	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	55	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
Styrene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	400	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
o-xylene	1	350	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	30	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	**1**	**1**	<1	<1
1,3-dichlorobenzene	1	260	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	60	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-Isopropyl toluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	160	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	85	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1	3	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)												
Naphthalene	0.2	16	<0.1	<0.1	<0.1	NA	<0.1	**0.7**	<0.1	<0.1	NA	<0.1
Acenaphthylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Acenaphthene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluorene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Phenanthrene	0.1	0.6	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Anthracene	0.1	0.01	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluoranthene	0.1	1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Chrysene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	<0.2	<0.2	NA	<0.2	<0.2	<0.2	<0.2	NA	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
GIL >PQL — Red

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TABLE G2
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO HUMAN CONTACT GILs
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	Recreational (10 x NHMRC ADWG)	SAMPLES									
			MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	MW121	MW122	WDUP101	WDUP101 [LAB_DUP]	WDUP102
Inorganic Compounds and Parameters												
pH	-	6.5 - 8.5	5.1	5.1	5.7	NA	6.1	4.5	5.5	NA	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4400**	**4400**	**3000**	NA	**780**	**1000**	**670**	NA	NA	NA
Turbidity (NTU)	-	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hardness (mg/L)	3	NSL	**380**	NA	**360**	**360**	**100**	**48**	**30**	NA	NA	NA
Metals and Metalloids												
Arsenic (As III)	1	100	<1	[NT]	<1	<1	<1	**1**	<1	<1	NA	<1
Cadmium	0.1	20	**0.2**	[NT]	<0.1	<0.1	<0.1	**0.1**	**0.2**	**0.2**	NA	**0.16**
Chromium (total)	1	500	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1
Copper	1	20000	**7**	[NT]	<1	<1	<1	**22**	**2**	**2**	NA	**9**
Lead	1	100	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1
Total Mercury (inorganic)	0.05	10	<0.05	<0.05	<0.05	[NT]	<0.05	<0.05	<0.05	<0.05	NA	<0.05
Nickel	1	200	**100**	[NT]	**140**	**130**	**4**	**10**	**12**	**12**	NA	**130**
Zinc	1	30000	**560**	[NT]	**42**	**40**	**8**	**38**	**51**	**50**	NA	**680**
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)												
Benzene	1	10	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
o-xylene	1	NSL	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
Total xylenes	2	6000	<2	NA	<2	NA	<2	**1**	**1**	**2**	**1**	<2
Total Recoverable Hydrocarbons (TRH)												
TRH F1 (C6-C10)	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
TRH F2 (>C10-C16)	50	NSL	<50	[NT]	<50	NA	**64**	**66**	**82**	**85**	NA	<50
TRH F3 (>C16-C34)	100	NSL	<100	<100	<100	NA	<100	<100	**180**	**180**	NA	<100
TRH F4 (>C34)	100	NSL	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100
Volatile Organic Compounds (VOCs), including chlorinated VOCs												
Dichlorodifluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	3	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	300	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	600	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	600	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	2500	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chloroform	1		<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	30	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	30	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Benzene	1	10	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trichloroethene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	1000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	1000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	500	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	3000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
Styrene	1	300	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
o-xylene	1	NSL	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	**1**	**1**	<1	<1
1,3-dichlorobenzene	1	200	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	400	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	15000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	300	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	7	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)												
Naphthalene	0.2	NSL	<0.1	<0.1	<0.1	NA	<0.1	**0.7**	<0.1	<0.1	NA	<0.1
Acenaphthylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Acenaphthene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluorene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Phenanthrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluoranthene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Chrysene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	<0.2	<0.2	NA	<0.2	<0.2	<0.2	<0.2	NA	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**
GIL >PQL	Red

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TABLE G3
GROUNDWATER LABORATORY RESULTS COMPARED TO SITE SPECIFIC HSLs - RISK ASSESSMENT
All results in µg/L unless stated otherwise.

	PQL	NHMRC	WHO 2008	USEPA RSL	SAMPLES									
	Envirolab Services	ADWG 2011		Tapwater 2024	MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	MW121	MW122	WDUP101	WDUP101 [LAB_DUP]	WDUP102
Total Recoverable Hydrocarbons (TRH)														
C_6-C_9 Aliphatics (assessed using F1)	10	NSL	100	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
>C_9-C_{14} Aliphatics (assessed using F2)	50	NSL	100	NSL	<50	[NT]	<50	NA	**64**	**66**	**82**	**85**	NA	<50
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)														
Benzene	1	1	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	800	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Total xylenes	2	600	NSL	NSL	<2	NA	<2	NA	<2	**1**	**1**	**2**	**1**	<2
Polycyclic Aromatic Hydrocarbons (PAHs)														
Naphthalene	1	NSL	NSL	6.1	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Volatile Organic Compounds (VOCs), including chlorinated VOCs														
Dichlorodifluoromethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	0.3	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	30	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	60	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	60	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	250	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chloroform	1		NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2,2-dichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	3	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	3	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Benzene	1	1	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trichloroethene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	100	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	100	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	800	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	50	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	300	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	NSL	NSL	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
Styrene	1	30	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
o-xylene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
1,2,3-trichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	**1**	**1**	<1	<1
1,3-dichlorobenzene	1	20	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	40	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	1500	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	30	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	0.7	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
GIL >PQL — Red

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TABLE Q1
SOIL QA/QC SUMMARY

| | | | TRH C6 - C10 | TRH >C10-C16 | TRH >C16-C34 | TRH >C34-C40 | Benzene | Toluene | Ethylbenzene | m+p-Xylene | o-Xylene | Naphthalene | Acenaphthylene | Acenaph-thene | Fluorene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo(a)anthracene | Chrysene | Benzo(b,j+k)fluoranthene | Benzo(a)pyrene | Indeno(1,2,3-cd)pyrene | Dibenz(a,h)anthra-cene | Benzo(g,h,i)perylene | HCB | alpha- BHC | gamma- BHC | beta- BHC | Heptachlor | delta- BHC | Aldrin | Heptachlor Epoxide | Gamma- Chlordane | alpha- chlordane | Endosulfan I | pp- DDE | Dieldrin | Endrin | pp- DDD | Endosulfan II | pp- DDT | Endrin Aldehyde | Endosulfan Sulphate | Methoxychlor | Azinphos-methyl (Guthion) | Bromophos-ethyl | Chlorpyriphos | Chlorpyriphos-methyl | Diazinon | Dichlorvos | Dimethoate | Ethion | Fenitrothion | Malathion | Parathion | Ronnel | Total PCBS | Arsenic | Cadmium | Chromium | Copper | Lead | Mercury | Nickel | Zinc |
|---|---|---

TABLE Q2
GROUNDWATER QA/QC SUMMARY

		Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Trans-1,2-dichloroethene	1,1-dichloroethane	Cis-1,2-dichloroethene	Bromochloromethane	Chloroform	2,2-dichloropropane	1,2-dichloroethane	1,1,1-trichloroethane	1,1-dichloropropene	Cyclohexane	Carbon tetrachloride	Benzene	Dibromomethane	1,2-dichloropropane	Trichloroethene	Bromodichloromethane	trans-1,3-dichloropropene	cis-1,3-dichloropropene	1,1,2-trichloroethane	Toluene	1,3-dichloropropane	Dibromochloromethane	1,2-dibromoethane	Tetrachloroethene	1,1,1,2-tetrachloroethane	Chlorobenzene	Ethylbenzene	Bromoform	m+p-xylene	Styrene	1,1,2,2-tetrachloroethane	o-xylene	1,2,3-trichloropropane	Isopropylbenzene	Bromobenzene	n-propyl benzene	2-chlorotoluene	4-chlorotoluene	1,3,5-trimethyl benzene	Tert-butyl benzene	1,2,4-trimethyl benzene	1,3-dichlorobenzene	Sec-butyl benzene	1,4-dichlorobenzene	4-isopropyl toluene	1,2-dichlorobenzene	n-butyl benzene	1,2-dibromo-3-chloropropane	1,2,4-trichlorobenzene	Hexachlorobutadiene	1,2,3-trichlorobenzene
	PQL Envirolab SYD	*10*	*10*	*10*	*10*	*10*	*10*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
	PQL Envirolab VIC	*10*	*10*	*10*	*10*	*10*	*10*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
Intra	MW122	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
laboratory	WDUP101	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
duplicate	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	1.5	nc	nc	nc	nc	nc	nc	nc	nc	1	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	MW18	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
laboratory	WDUP102	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
duplicate	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB-W101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blank	15/10/2024																																																																			

		TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	m+p-xylene	o-Xylene	Naphthalene	Acenaphthylene	Acenaph-thene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b,j+k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenzo(a,h)anthra-cene	Benzo(g,h,i)perylene	Arsenic	Cadmium	Chromium VI	Copper	Lead	Mercury	Nickel	Zinc
	PQL Envirolab SYD	*10*	*50*	*100*	*100*	*1*	*1*	*1*	*2*	*1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*1*	*0.1*	*1*	*1*	*1*	*0.05*	*1*	*1*
	PQL Envirolab VIC	*10*	*50*	*100*	*100*	*1*	*1*	*1*	*2*	*1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*1*	*0.1*	*1*	*1*	*1*	*0.05*	*1*	*1*
Intra	MW122	<10	82	180	<100	<1	<1	<1	<2	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	0.2	<1	2	<1	<0.05	12	51
laboratory	WDUP101	<10	85	180	<100	<1	<1	<1	<2	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	0.2	<1	2	<1	<0.05	12	50
duplicate	MEAN	nc	83.5	180	nc	nc	nc	nc	nc	1.5	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.2	nc	2	nc	nc	12	50.5
	RPD %	nc	4%	0%	nc	nc	nc	nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	0%	nc	nc	0%	2%
Inter	MW18	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	0.2	<1	7	<1	<0.05	100	560
laboratory	WDUP102	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	0.16	<1.	9	<1.0	<0.05	130	680
duplicate	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.18	nc	8	nc	nc	115	620
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	22%	nc	25%	nc	nc	26%	19%
Field	TB-W101	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<1	<1	<1	<0.05	<1	<1
Blank	15/10/2024																																
Trip	TS-W101	-	-	-	-	120%	107%	117%	120%	117%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Spike	15/10/2024																																

Result outside of QA/QC acceptance criteria Value

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TABLE Q3
SOIL VAPOUR QA/QC SUMMARY
All results in ug/m3 unless stated otherwise.

	Intra-laboratory Duplicate		
	SV7	**SVDUP1**	**RPD%**
Total Recoverable Hydrocarbons (TRH)			
TRH F1	<200	<200	nc
TRH F2	<40	<40	nc
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)			
Benzene	**7**	**3**	80%
Toluene	**10**	160	176%
Ethylbenzene	**3**	<2.2	93%
Xylenes	**7**	<2.2	146%
Polycyclic Aromatic Hydrocarbons (PAHs)			
Naphthalene	<2.6	<2.6	nc
Volatile Organic Compounds (VOCs), including chlorinated VOCs #			
Propylene	**19**	**38**	67%
Dichlorodifluoromethane	<2.5	**4**	105%
Chloromethane	<1	**2**	120%
Ethanol	**30**	**95**	104%
Acetone	**20**	**20**	0%
Isopropyl Alcohol	**20**	**320**	176%
Methylene chloride(Dichloromethane)	<17	**30**	112%
Hexane	**4**	**3**	29%
Chloroform	**4**	<2.4	71%
Heptane	**3**	<2	100%
Trichloroethene	**10**	<2.7	152%
m-& p-Xylene	**5**	<4.3	80%
Styrene	**10**	**3**	108%
o-Xylene	**2**	<2.2	58%
1,2,4-Trimethylbenzene	**4**	<2.5	105%
1,4-Dichlorobenzene	**20**	**6**	108%

Exceedance of QA/QC criteria **Value**
Concentration above PQL **Bold**
VOC data has only been tabulated for compounds with detection above the PQLs

Shroud Leak Test	Isopropanol (Shroud) - From SV7	Isopropanol SV1 concentration	Isopropanol SV1 concentration (Lab-Duplicate)	Isopropanol SV2 concentration	Isopropanol SV3 concentration	Isopropanol SV4 concentration	Isopropanol SV5 concentration	Isopropanol SV6 concentration	Isopropanol SV7 concentration
Isopropanol (ug/m3)	430000	1000	1000	20	460	60	20	20	320

Result outside of QA/QC acceptance criteria **Value**

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PSI Laboratory Results Summary Tables

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC: Ambient Background Concentration
ACM: Asbestos Containing Material
ADWG: AustralianDrinking Water Guidelines
AF: Asbestos Fines
ANZG Australian and New Zealand Guidelines
B(a)P: Benzo(a)pyrene
CEC: Cation Exchange Capacity
CRC: Cooperative Research Centre
CT: Contaminant Threshold
EILs: Ecological Investigation Levels
ESLs: Ecological Screening Levels
FA: Fibrous Asbestos
FTS: Fluorotelomer Sulfonic Acid
GIL: Groundwater Investigation Levels
GSW: General Solid Waste
HILs: Health Investigation Levels
HSLs: Health Screening Levels
HSL-SSA: Health Screening Level-SiteSpecific Assessment
kg/L kilograms per litre
NA: Not Analysed
NC: Not Calculated
NEMP: National Environmental Management Plan
NEPM: National Environmental Protection Measure
NHMRC: National Health and Medical Research Council
NL: Not Limiting
NSL: No Set Limit
OCP: Organochlorine Pesticides
OPP: Organophosphorus Pesticides
PAHs: Polycyclic Aromatic Hydrocarbons
%w/w: weight per weight
ppm: Parts per million
PCBs: Polychlorinated Biphenyls
PCE: Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
PFAS: Per- and Polyfluoroalkyl Substances
PFHxS: Perfluorohexanesulfonic Acid
PFOA: Perfluorooctanoic Acid
PFOS: Perfluorooctanesulfonic Acid
PQL: Practical Quantitation Limit
RS: Rinsate Sample
RSL: Regional Screening Levels
RSW: Restricted Solid Waste
SAC: Site Assessment Criteria
SCC: Specific Contaminant Concentration
SSA: Site Specific Assessment
SSHSLs: Site Specific Health Screening Levels
TB: Trip Blank
TCA: 1,1,1 Trichloroethane (methyl chloroform)
TCE: Trichloroethylene (Trichloroethene)
TCLP: Toxicity Characteristics Leaching Procedure
TS: Trip Spike
TRH: Total Recoverable Hydrocarbons
USEPA United States Environmental Protection Agency
VOCC: Volatile Organic Chlorinated Compounds
WHO: World Health Organisation

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also refered to as the B(a)P Toxic Equivalence Quotient (TEQ).

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with high traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.
- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) -October 2016

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

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TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-D: 'Commercial/Industrial'

All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			3000	900	3600	240000	1500	730	6000	400000	4000	40	80	2000	2500	45	530	3600	50	2000	7	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH1	0.03-0.4	F: Silty Gravelly Sand	<4	<0.4	**15**	**37**	**15**	<0.1	**14**	**49**	**3.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<4	<0.4	**11**	**38**	**12**	<0.1	**9**	**38**	**2.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH1 - [LAB_TRIP]	0.03-0.4	Laboratory Triplicate	<4	<0.4	**10**	**96**	**13**	<0.1	**10**	**46**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH1	0.5-0.7	F:Silty Sand	**5**	<0.4	**20**	**8**	**17**	<0.1	**13**	**22**	**0.1**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH1	1.5-1.7	F: Silty Clay	**7**	<0.4	**21**	**20**	**24**	<0.1	**21**	**27**	**0.3**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH2	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**12**	**26**	**23**	<0.1	**12**	**39**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH2	0.5-0.95	F: Silty Sandy Clay	<4	<0.4	**11**	**19**	**12**	<0.1	**6**	**23**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH2	1.7-1.95	Silty Clay	**6**	<0.4	**23**	**2**	**14**	<0.1	**1**	**2**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH3	0.01-0.1	F: Silty Gravelly Sand	<4	<0.4	**13**	**74**	**4**	<0.1	**78**	**42**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	0.5-0.95	F: Silty Clay	**6**	<0.4	**17**	**5**	**18**	<0.1	**3**	**3**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH4	0.02-0.3	F:Silty Gravelly Sand	<4	<0.4	**11**	**63**	**3**	<0.1	**59**	**38**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH4	0.5-0.95	F: Silty Clay	**12**	<0.4	**25**	**4**	**20**	<0.1	**1**	**3**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH5	0.03-0.2	F: Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**86**	**39**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**11**	**71**	**3**	<0.1	**100**	**46**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH5	0.4-0.5	F: Silty Clay	**14**	<0.4	**18**	**22**	**17**	<0.1	**29**	**16**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH5	2.5-2.8	Silty Clay	**7**	<0.4	**9**	**5**	**19**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH5	3.3-3.45	Siltstone	<4	<0.4	**4**	**4**	**16**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH6	0.025-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**82**	**3**	<0.1	**82**	**44**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH6	0.5-0.95	F: Silty Clay	**8**	<0.4	**15**	**10**	**17**	<0.1	**9**	**6**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH7	0.05-0.1	F: Gravelly Sand	<4	<0.4	**10**	**73**	**2**	<0.1	**59**	**34**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH7	0.3-0.5	F: Silty Clay	**8**	<0.4	**21**	**6**	**16**	<0.1	**6**	**6**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH8	0.03-0.4	F: Silty Sand	**23**	<0.4	**16**	**39**	**25**	<0.1	**13**	**40**	**13**	**1.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	**15**	<0.4	**15**	**68**	**24**	<0.1	**11**	**41**	**12**	**1.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	**7**	<0.4	**15**	**28**	**27**	<0.1	**10**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH8	0.5-0.95	F: Gravelly Clay	**8**	<0.4	**17**	**15**	**19**	<0.1	**10**	**14**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**6**	<0.4	**19**	**17**	**22**	<0.1	**14**	**20**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH9	0.035-0.08	F: Gravelly Silty Sand	<4	<0.4	**15**	**20**	**47**	<0.1	**9**	**35**	**16**	**1.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
BH9	0.4-0.5	F: Gravelly Silty Sand	**5**	<0.4	**15**	**11**	**24**	<0.1	**6**	**39**	**3.2**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH9	1.2-1.3	F: Silty Clay	**5**	<0.4	**12**	**11**	**19**	<0.1	**6**	**15**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH10	0.5-0.95	F: Sandy Gravelly Clay	**9**	<0.4	**13**	**15**	**18**	<0.1	**4**	**17**	**21**	**2.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH10	1.5-1.7	F: Sandy Gravelly Clay	**9**	<0.4	**18**	**14**	**23**	<0.1	**6**	**26**	**0.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH11	0.03-0.3	F: Silty Gravelly Sand	<4	<0.4	**9**	**51**	**3**	<0.1	**45**	**29**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH11	0.5-0.7	F: Silty Clay	**9**	<0.4	**25**	**14**	**16**	<0.1	**15**	**13**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH11	0.7-0.95	Silty Clay	**9**	<0.4	**17**	**2**	**18**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH12	0.05-0.23	F: Gravelly Sand	<4	<0.4	**12**	**51**	**2**	<0.1	**57**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<4	<0.4	**12**	**73**	**3**	<0.1	**67**	**39**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH12	1.7-1.95	F: Silty Clay	**7**	<0.4	**27**	**15**	**20**	<0.1	**25**	**16**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH13	0.5-0.95	F: Silty Gravelly Clay	**6**	<0.4	**11**	**16**	**13**	<0.1	**12**	**10**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH13	1.5-1.7	F: Silty Gravelly Clay	<4	<0.4	**9**	**6**	**16**	<0.1	**2**	**3**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH14	0.02-0.12	F: Gravelly Silty Sand	<4	<0.4	**10**	**76**	**2**	<0.1	**61**	**41**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<4	<0.4	**9**	**53**	**2**	<0.1	**57**	**31**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH16	0.01-0.2	F: Sandy Gravel	**6**	<0.4	**10**	**65**	**5**	<0.1	**64**	**38**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH17	0.05-0.15	F: Sandy Gravel	<4	<0.4	**9**	**71**	**3**	<0.1	**48**	**37**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH18	0.01-0.15	F: Gravelly Silty Sand	<4	<0.4	**11**	**64**	**12**	<0.1	**63**	**84**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH19	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**64**	**3**	<0.1	**54**	**35**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH19	0.5-0.95	F: Silty Clay	**11**	<0.4	**9**	**15**	**17**	<0.1	**7**	**8**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH20	0.02-0.3	F: Silty Sand	<4	<0.4	**9**	**39**	**8**	<0.1	**45**	**29**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH20	0.5-0.95	F: Silty Clay	<4	<0.4	**5**	**10**	**12**	<0.1	**6**	**4**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH21	0.04-0.15	F: Silty Clay	<4	<0.4	**10**	**49**	**5**	<0.1	**48**	**30**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH21	0.7-0.95	F: Silty Clay	**4**	<0.4	**12**	**32**	**12**	<0.1	**36**	**21**	**0.66**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH21	2.1-2.5	Silty Clay	**8**	<0.4	**16**	**5**	**20**	<0.1	**2**	**4**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH22	0.1-0.15	F: Gravelly Sand	<4	<0.4	**11**	**75**	**3**	<0.1	**72**	**36**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH22	0.3-0.5	F: Silty Clay	**6**	<0.4	**17**	**12**	**20**	<0.1	**12**	**16**	**3.5**	**0.7**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH23	0.02-0.3	F: Silty Gravelly Sand	<4	<0.4	**13**	**69**	**4**	<0.1	**69**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH23	0.5-0.95	F: Sand	**12**	<0.4	**7**	**3**	**3**	<0.1	**4**	**8**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH24	0-0.1	F: Silty Sand	<4	<0.4	**14**	**14**	**16**	<0.1	**6**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH24	0.8-0.95	F: Silty Clay	**8**	<0.4	**18**	**5**	**21**	<0.1	**5**	**11**	**0.3**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH25	0.1-0.3	F: Silty Clay	**7**	<0.4	**13**	**5**	**19**	<0.1	**5**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH26	0.7-1	XW Siltstone	<4	<0.4	**7**	**51**	**14**	<0.1	**4**	**8**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH27	0.3-0.5	F: Gravelly Silty Sand	**5**	<0.4	**19**	**19**	**20**	<0.1	**13**	**35**	**0.2**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH27	0.8-0.95	F: Silty Clay	**10**	<0.4	**35**	**7**	**23**	<0.1	**2**	**3**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH28	0-0.1	F: Clayey Sand	**6**	<0.4	**11**	**14**	**38**	<0.1	**6**	**56**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH28	1.5-1.95	F: Silty Clay	**6**	<0.4	**18**	**19**	**39**	<0.1	**10**	**43**	**1.2**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH28	3-3.2	F: Silty Clay	**12**	<0.4	**33**	**28**	**47**	**0.2**	**14**	**65**	**4.5**	**0.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH29	0.5-0.95	F: Silty Clay	**8**	<0.4	**22**	**7**	**24**	<0.1	**4**	**25**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**35**	<0.4	**41**	**15**	**33**	<0.1	**20**	**60**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH29 - [LAB_TRIP]	0.5-0.95	Triplicate	**17**	<0.4	**31**	**9**	**25**	<0.1	**13**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH29	3-3.45	F: Silty Clay	**4**	<0.4	**16**	**14**	**51**	<0.1	**7**	**56**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	<4	**2**	**39**	**30**	**110**	<0.1	**30**	**99**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH30	0-0.1	F: Gravelly Sand	**6**	<0.4	**14**	**18**	**52**	<0.1	**6**	**55**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH31	0.03-0.1	F: Gravelly Sand	<4	<0.4	**9**	**58**	**5**	<0.1	**57**	**47**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH32	0.03-0.3	F: Gravelly Sand	<4	<0.4	**11**	**66**	**4**	<0.1	**76**	**43**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH33	0.04-0.14	F: Gravelly Silty Sand	<4	<0.4	**10**	**64**	**4**	<0.1	**74**	**40**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH34	0.03-0.2	F: Gravelly Sand	<4	<0.4	**12**	**68**	**4**	<0.1	**75**	**48**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH35	0-0.15	F: Silty Clay	**5**	<0.4	**12**	**19**	**52**	<0.1	**9**	**82**	**0.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
SDUP1	0.04-0.14	Duplicate of BH33	<4	<0.4	**10**	**64**	**4**	<0.1	**60**	**36**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP2	0-0.1	Duplicate of BH24	<4	<0.4	**12**	**13**	**17**	<0.1	**7**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP3	0.1-0.15	Duplicate of BH22	<4	<0.4	**12**	**50**	**3**	<0.1	**61**	**30**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP4	0.03-0.4	Duplicate of BH8	**6**	<0.4	**15**	**25**	**32**	<0.1	**10**	**43**	**10**	**1.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP6	0.03-0.2	Duplicate of BH5	<4	<0.4	**10**	**74**	**3**	<0.1	**100**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**10**	**69**	**3**	<0.1	**93**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP8	0.025-0.4	Duplicate of BH6	<4	<0.4	**9**	**56**	<1	<0.1	**79**	**38**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP8 (LAB_DUP)	0.025-0.4	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP9	0.5-0.95	Duplicate of BH2	<4	<0.4	**15**	**7**	**11**	<0.1	**8**	**18**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP10	0.05-0.23	Duplicate of BH12	<4	<0.4	**10**	**59**	**2**	<0.1	**69**	**39**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FCF1-BH2	0.5-1.5	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
FCF1-Surface	-	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
Total Number of Samples			84	84	84	84	84	84	84	84	82	82	53	53	53	53	53	53	53	53	53	60
Maximum Value			35	2	41	96	110	0.2	100	99	21	2.4	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
Asbestos detected **Detected**

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TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

					C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					**HSL-D: COMMERCIAL/INDUSTRIAL**							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH1	0.03-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH1	0.5-0.7	F:Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH1	1.5-1.7	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH2	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH2	0.5-0.95	F: Silty Sandy Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH2	1.7-1.95	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH3	0.01-0.1	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH3	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH4	0.02-0.3	F:Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH4	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH5	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH5	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.1
BH5	2.5-2.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.7
BH5	3.3-3.45	Siltstone	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH6	0.025-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH6	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH7	0.05-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH7	0.3-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.1
BH8	0.03-0.4	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH8	0.5-0.95	F: Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH9	0.035-0.08	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH9	0.4-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH9	1.2-1.3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH10	0.5-0.95	F: Sandy Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.8
BH10	1.5-1.7	F: Sandy Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH11	0.03-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH11	0.5-0.7	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH11	0.7-0.95	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH12	0.05-0.23	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH12	1.7-1.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH13	0.5-0.95	F: Silty Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH13	1.5-1.7	F: Silty Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH14	0.02-0.12	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH16	0.01-0.2	F: Sandy Gravel	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.4
BH17	0.05-0.15	F: Sandy Gravel	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.6
BH18	0.01-0.15	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
BH19	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH19	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH20	0.02-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH20	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH21	0.04-0.15	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH21	0.7-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.5
BH21	2.1-2.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0
BH22	0.1-0.15	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH22	0.3-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH23	0.02-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH23	0.5-0.95	F: Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH24	0-0.1	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.4
BH24	0.8-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH25	0.1-0.3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.1
BH26	0.7-1	XW Siltstone	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.5
BH27	0.3-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH27	0.8-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH28	0-0.1	F: Clayey Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH28	1.5-1.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH28	3-3.2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH29	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH29	3-3.45	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH30	0-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	**63**	<0.2	<0.5	<1	<1	<1	1.5
BH31	0.03-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH32	0.03-0.3	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH33	0.04-0.14	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH34	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH35	0-0.15	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.7
SDUP1	0.04-0.14	Duplicate of BH33	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP2	0-0.1	Duplicate of BH24	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	NA	<0.2	<0.5	<1	<1	<1	NA
SDUP3	0.1-0.15	Duplicate of BH22	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP4	0.03-0.4	Duplicate of BH8	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP6	0.03-0.2	Duplicate of BH5	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP8	0.025-0.4	Duplicate of BH6	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP9	0.5-0.95	Duplicate of BH2	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP10	0.05-0.23	Duplicate of BH12	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples					82	81	82	82	82	82	82	64
Maximum Value					<PQL	63	<PQL	<PQL	<PQL	<PQL	<PQL	4.5

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below

HSL SOIL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
BH1	0.03-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH1	0.5-0.7	F:Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH1	1.5-1.7	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH2	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH2	0.5-0.95	F: Silty Sandy Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH2	1.7-1.95	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH3	0.01-0.1	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH3	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH4	0.02-0.3	F:Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH4	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	2.5-2.8	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	3.3-3.45	Siltstone	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH6	0.025-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH6	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH7	0.05-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH7	0.3-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8	0.03-0.4	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8	0.5-0.95	F: Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH9	0.035-0.08	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH9	0.4-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH9	1.2-1.3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH10	0.5-0.95	F: Sandy Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH10	1.5-1.7	F: Sandy Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH11	0.03-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH11	0.5-0.7	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH11	0.7-0.95	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH12	0.05-0.23	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH12	1.7-1.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH13	0.5-0.95	F: Silty Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH13	1.5-1.7	F: Silty Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH14	0.02-0.12	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH16	0.01-0.2	F: Sandy Gravel	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH17	0.05-0.15	F: Sandy Gravel	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH18	0.01-0.15	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH19	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH19	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH20	0.02-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH20	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH21	0.04-0.15	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH21	0.7-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH21	2.1-2.5	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH22	0.1-0.15	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH22	0.3-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH23	0.02-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH23	0.5-0.95	F: Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH24	0-0.1	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH24	0.8-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH25	0.1-0.3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH26	0.7-1	XW Siltstone	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH27	0.3-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH27	0.8-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH28	0-0.1	F: Clayey Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH28	1.5-1.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH28	3-3.2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29	3-3.45	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH30	0-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH31	0.03-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH32	0.03-0.3	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH33	0.04-0.14	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH34	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH35	0-0.15	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP1	0.04-0.14	Duplicate of BH33	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP2	0-0.1	Duplicate of BH24	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NA	3	NL	NL	230	NL
SDUP3	0.1-0.15	Duplicate of BH22	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP4	0.03-0.4	Duplicate of BH8	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP6	0.03-0.2	Duplicate of BH5	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP8	0.025-0.4	Duplicate of BH6	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP9	0.5-0.95	Duplicate of BH2	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP10	0.05-0.23	Duplicate of BH12	0m to <1m	Sand	260	NL	3	NL	NL	230	NL

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TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category			**COMMERCIAL/INDUSTRIAL**			
Sample Reference	**Sample Depth**	**Soil Texture**				
BH1	0.03-0.4	Coarse	<25	<50	**190**	**240**
BH1 - [LAB_DUP]	0.03-0.4	Coarse	<25	<50	**160**	**240**
BH1	0.5-0.7	Coarse	<25	<50	<100	<100
BH1	1.5-1.7	Coarse	<25	<50	<100	<100
BH2	0.02-0.4	Coarse	<25	<50	**140**	**210**
BH2	0.5-0.95	Coarse	<25	<50	<100	<100
BH2	1.7-1.95	Coarse	<25	<50	<100	<100
BH3	0.01-0.1	Coarse	<25	<50	<100	<100
BH3	0.5-0.95	Coarse	<25	<50	<100	<100
BH4	0.02-0.3	Coarse	<25	<50	**170**	**510**
BH4	0.5-0.95	Coarse	<25	<50	<100	<100
BH5	0.03-0.2	Coarse	<25	<50	<100	<100
BH5 - [LAB_DUP]	0.03-0.2	Coarse	<25	<50	<100	<100
BH5	0.4-0.5	Coarse	<25	<50	<100	<100
BH5	2.5-2.8	Coarse	<25	<50	<100	<100
BH5	3.3-3.45	Coarse	<25	<50	<100	<100
BH6	0.025-0.4	Coarse	<25	<50	**110**	**360**
BH6	0.5-0.95	Coarse	<25	<50	<100	<100
BH7	0.05-0.1	Coarse	<25	<50	<100	<100
BH7	0.3-0.5	Coarse	<25	<50	<100	<100
BH8	0.03-0.4	Coarse	<25	<50	**320**	**300**
BH8 - [LAB_DUP]	0.03-0.4	Coarse	<25	<50	**270**	**290**
BH8	0.5-0.95	Coarse	<25	<50	<100	<100
BH8 - [LAB_DUP]	0.5-0.95	Coarse	<25	<50	<100	<100
BH9	0.035-0.08	Coarse	<25	<50	**310**	**280**
BH9	0.4-0.5	Coarse	<25	<50	<100	<100
BH9	1.2-1.3	Coarse	<25	<50	<100	<100
BH10	0.5-0.95	Coarse	<25	<50	<100	<100
BH10	1.5-1.7	Coarse	<25	<50	<100	<100
BH11	0.03-0.3	Coarse	<25	<50	**310**	**790**
BH11	0.5-0.7	Coarse	<25	<50	<100	<100
BH11	0.7-0.95	Coarse	<25	<50	<100	<100
BH12	0.05-0.23	Coarse	<25	<50	<100	<100
BH12 - [LAB_DUP]	0.05-0.23	Coarse	<25	<50	<100	<100
BH12	1.7-1.95	Coarse	<25	<50	<100	<100
BH13	0.5-0.95	Coarse	<25	<50	<100	<100
BH13	1.5-1.7	Coarse	<25	<50	<100	<100
BH14	0.02-0.12	Coarse	<25	<50	<100	<100
BH14 - [LAB_DUP]	0.02-0.12	Coarse	<25	<50	<100	<100
BH16	0.01-0.2	Coarse	<25	<50	<100	<100
BH17	0.05-0.15	Coarse	<25	<50	**310**	**480**
BH18	0.01-0.15	Coarse	<25	<50	<100	**210**
BH19	0.02-0.4	Coarse	<25	<50	**210**	**600**
BH19	0.5-0.95	Coarse	<25	<50	<100	<100
BH20	0.02-0.3	Coarse	<25	<50	<100	<100
BH20	0.5-0.95	Coarse	<25	<50	<100	<100
BH21	0.04-0.15	Coarse	<25	<50	<100	<100
BH21	0.7-0.95	Coarse	<25	<50	<100	<100
BH21	2.1-2.5	Coarse	<25	<50	<100	<100
BH22	0.1-0.15	Coarse	<25	<50	<100	<100
BH22	0.3-0.5	Coarse	<25	<50	<100	<100
BH23	0.02-0.3	Coarse	<25	<50	<100	<100
BH23	0.5-0.95	Coarse	<25	<50	**470**	<100
BH24	0-0.1	Coarse	<25	<50	**130**	**200**
BH24	0.8-0.95	Coarse	<25	<50	**220**	**280**
BH25	0.1-0.3	Coarse	<25	<50	<100	<100
BH26	0.7-1	Coarse	<25	<50	<100	<100
BH27	0.3-0.5	Coarse	<25	<50	<100	<100
BH27	0.8-0.95	Coarse	<25	<50	<100	<100
BH28	0-0.1	Coarse	<25	<50	<100	<100
BH28	1.5-1.95	Coarse	<25	<50	<100	<100
BH28	3-3.2	Coarse	<25	<50	<100	<100
BH29	0.5-0.95	Coarse	<25	<50	<100	<100
BH29 - [LAB_DUP]	0.5-0.95	Coarse	<25	<50	<100	<100
BH29	3-3.45	Coarse	<25	<50	<100	<100
BH29 - [LAB_DUP]	3-3.45	Coarse	<25	<50	<100	<100
BH30	0-0.1	Coarse	<25	**63**	**350**	**160**
BH31	0.03-0.1	Coarse	<25	<50	<100	**180**
BH32	0.03-0.3	Coarse	<25	<50	<100	<100
BH33	0.04-0.14	Coarse	<25	<50	<100	**220**
BH34	0.03-0.2	Coarse	<25	<50	<100	**110**
BH35	0-0.15	Coarse	<25	<50	<100	<100
SDUP1	0.04-0.14	Coarse	<25	<50	**100**	**240**
SDUP2	0-0.1	Coarse	<25	<50	<100	<100
SDUP2 - [LAB_DUP]	0-0.1	Coarse	<25	NA	NA	NA
SDUP3	0.1-0.15	Coarse	<25	<50	<100	**100**
SDUP4	0.03-0.4	Coarse	<25	<50	**180**	**160**
SDUP6	0.03-0.2	Coarse	<25	<50	<100	<100
SDUP6 - [LAB_DUP]	0.03-0.2	Coarse	<25	<50	<100	<100
SDUP8	0.025-0.4	Coarse	<25	<50	<100	**160**
SDUP9	0.5-0.95	Coarse	<25	<50	<100	<100
SDUP10	0.05-0.23	Coarse	<25	<50	<100	<100
Total Number of Samples			82	81	81	81
Maximum Value			<PQL	63	470	790

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Soil Texture**	C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
BH1	0.03-0.4	Coarse	700	1000	3500	10000
BH1 - [LAB_DUP]	0.03-0.4	Coarse	700	1000	3500	10000
BH1	0.5-0.7	Coarse	700	1000	3500	10000
BH1	1.5-1.7	Coarse	700	1000	3500	10000
BH2	0.02-0.4	Coarse	700	1000	3500	10000
BH2	0.5-0.95	Coarse	700	1000	3500	10000
BH2	1.7-1.95	Coarse	700	1000	3500	10000
BH3	0.01-0.1	Coarse	700	1000	3500	10000
BH3	0.5-0.95	Coarse	700	1000	3500	10000
BH4	0.02-0.3	Coarse	700	1000	3500	10000
BH4	0.5-0.95	Coarse	700	1000	3500	10000
BH5	0.03-0.2	Coarse	700	1000	3500	10000
BH5 - [LAB_DUP]	0.03-0.2	Coarse	700	1000	3500	10000
BH5	0.4-0.5	Coarse	700	1000	3500	10000
BH5	2.5-2.8	Coarse	700	1000	3500	10000
BH5	3.3-3.45	Coarse	700	1000	3500	10000
BH6	0.025-0.4	Coarse	700	1000	3500	10000
BH6	0.5-0.95	Coarse	700	1000	3500	10000
BH7	0.05-0.1	Coarse	700	1000	3500	10000
BH7	0.3-0.5	Coarse	700	1000	3500	10000
BH8	0.03-0.4	Coarse	700	1000	3500	10000
BH8 - [LAB_DUP]	0.03-0.4	Coarse	700	1000	3500	10000
BH8	0.5-0.95	Coarse	700	1000	3500	10000
BH8 - [LAB_DUP]	0.5-0.95	Coarse	700	1000	3500	10000
BH9	0.035-0.08	Coarse	700	1000	3500	10000
BH9	0.4-0.5	Coarse	700	1000	3500	10000
BH9	1.2-1.3	Coarse	700	1000	3500	10000
BH10	0.5-0.95	Coarse	700	1000	3500	10000
BH10	1.5-1.7	Coarse	700	1000	3500	10000
BH11	0.03-0.3	Coarse	700	1000	3500	10000
BH11	0.5-0.7	Coarse	700	1000	3500	10000
BH11	0.7-0.95	Coarse	700	1000	3500	10000
BH12	0.05-0.23	Coarse	700	1000	3500	10000
BH12 - [LAB_DUP]	0.05-0.23	Coarse	700	1000	3500	10000
BH12	1.7-1.95	Coarse	700	1000	3500	10000
BH13	0.5-0.95	Coarse	700	1000	3500	10000
BH13	1.5-1.7	Coarse	700	1000	3500	10000
BH14	0.02-0.12	Coarse	700	1000	3500	10000
BH14 - [LAB_DUP]	0.02-0.12	Coarse	700	1000	3500	10000
BH16	0.01-0.2	Coarse	700	1000	3500	10000
BH17	0.05-0.15	Coarse	700	1000	3500	10000
BH18	0.01-0.15	Coarse	700	1000	3500	10000
BH19	0.02-0.4	Coarse	700	1000	3500	10000
BH19	0.5-0.95	Coarse	700	1000	3500	10000
BH20	0.02-0.3	Coarse	700	1000	3500	10000
BH20	0.5-0.95	Coarse	700	1000	3500	10000
BH21	0.04-0.15	Coarse	700	1000	3500	10000
BH21	0.7-0.95	Coarse	700	1000	3500	10000
BH21	2.1-2.5	Coarse	700	1000	3500	10000
BH22	0.1-0.15	Coarse	700	1000	3500	10000
BH22	0.3-0.5	Coarse	700	1000	3500	10000
BH23	0.02-0.3	Coarse	700	1000	3500	10000
BH23	0.5-0.95	Coarse	700	1000	3500	10000
BH24	0-0.1	Coarse	700	1000	3500	10000
BH24	0.8-0.95	Coarse	700	1000	3500	10000
BH25	0.1-0.3	Coarse	700	1000	3500	10000
BH26	0.7-1	Coarse	700	1000	3500	10000
BH27	0.3-0.5	Coarse	700	1000	3500	10000
BH27	0.8-0.95	Coarse	700	1000	3500	10000
BH28	0-0.1	Coarse	700	1000	3500	10000
BH28	1.5-1.95	Coarse	700	1000	3500	10000
BH28	3-3.2	Coarse	700	1000	3500	10000
BH29	0.5-0.95	Coarse	700	1000	3500	10000
BH29 - [LAB_DUP]	0.5-0.95	Coarse	700	1000	3500	10000
BH29	3-3.45	Coarse	700	1000	3500	10000
BH29 - [LAB_DUP]	3-3.45	Coarse	700	1000	3500	10000
BH30	0-0.1	Coarse	700	1000	3500	10000
BH31	0.03-0.1	Coarse	700	1000	3500	10000
BH32	0.03-0.3	Coarse	700	1000	3500	10000
BH33	0.04-0.14	Coarse	700	1000	3500	10000
BH34	0.03-0.2	Coarse	700	1000	3500	10000
BH35	0-0.15	Coarse	700	1000	3500	10000
SDUP1	0.04-0.14	Coarse	700	1000	3500	10000
SDUP2	0-0.1	Coarse	700	1000	3500	10000
SDUP2 - [LAB_DUP]	0-0.1	Coarse	700	NA	NA	NA
SDUP3	0.1-0.15	Coarse	700	1000	3500	10000
SDUP4	0.03-0.4	Coarse	700	1000	3500	10000
SDUP6	0.03-0.2	Coarse	700	1000	3500	10000
SDUP6 - [LAB_DUP]	0.03-0.2	Coarse	700	1000	3500	10000
SDUP8	0.025-0.4	Coarse	700	1000	3500	10000
SDUP9	0.5-0.95	Coarse	700	1000	3500	10000
SDUP10	0.05-0.23	Coarse	700	1000	3500	10000

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TABLE S4
SOIL LABORATORY RESULTS COMPARED T0 DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C_6-C_{10}	>C_{10}-C_{16}	>C_{16}-C_{34}	>C_{34}-C_{40}	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 -Direct contact Criteria		26,000	20,000	27,000	38,000	430	99,000	27,000	81,000	11,000	
Site Use		**COMMERCIAL/INDUSTRIAL - DIRECT SOIL CONTACT**									
Sample Reference	**Sample Depth**										
BH1	0.03-0.4	<25	<50	**190**	**240**	<0.2	<0.5	<1	<1	<1	**0.2**
BH1 - [LAB_DUP]	0.03-0.4	<25	<50	**160**	**240**	<0.2	<0.5	<1	<1	<1	NA
BH1	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH1	1.5-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH2	0.02-0.4	<25	<50	**140**	**210**	<0.2	<0.5	<1	<1	<1	**1**
BH2	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH2	1.7-1.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH3	0.01-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
BH3	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH4	0.02-0.3	<25	<50	**170**	**510**	<0.2	<0.5	<1	<1	<1	**0.3**
BH4	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH5	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH5 - [LAB_DUP]	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH5	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.1**
BH5	2.5-2.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.7**
BH5	3.3-3.45	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH6	0.025-0.4	<25	<50	**110**	**360**	<0.2	<0.5	<1	<1	<1	**0.2**
BH6	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH7	0.05-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH7	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.1**
BH8	0.03-0.4	<25	<50	**320**	**300**	<0.2	<0.5	<1	<1	<1	**1**
BH8 - [LAB_DUP]	0.03-0.4	<25	<50	**270**	**290**	<0.2	<0.5	<1	<1	<1	NA
BH8	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.2**
BH8 - [LAB_DUP]	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH9	0.035-0.08	<25	<50	**310**	**280**	<0.2	<0.5	<1	<1	<1	**0.8**
BH9	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH9	1.2-1.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH10	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.8**
BH10	1.5-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH11	0.03-0.3	<25	<50	**310**	**790**	<0.2	<0.5	<1	<1	<1	**0.2**
BH11	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH11	0.7-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH12	0.05-0.23	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH12 - [LAB_DUP]	0.05-0.23	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH12	1.7-1.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH13	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH13	1.5-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH14	0.02-0.12	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH14 - [LAB_DUP]	0.02-0.12	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH16	0.01-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.4**
BH17	0.05-0.15	<25	<50	**310**	**480**	<0.2	<0.5	<1	<1	<1	**1.6**
BH18	0.01-0.15	<25	<50	<100	**210**	<0.2	<0.5	<1	<1	<1	**1.7**
BH19	0.02-0.4	<25	<50	**210**	**600**	<0.2	<0.5	<1	<1	<1	**0.1**
BH19	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH20	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH20	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH21	0.04-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH21	0.7-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.5**
BH21	2.1-2.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	0
BH22	0.1-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH22	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH23	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH23	0.5-0.95	<25	<50	**470**	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH24	0-0.1	<25	<50	**130**	**200**	<0.2	<0.5	<1	<1	<1	**2.4**
BH24	0.8-0.95	<25	<50	**220**	**280**	<0.2	<0.5	<1	<1	<1	**2.2**
BH25	0.1-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.1**
BH26	0.7-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.5**
BH27	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH27	0.8-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH28	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH28	1.5-1.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH28	3-3.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH29	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH29 - [LAB_DUP]	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH29	3-3.45	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH29 - [LAB_DUP]	3-3.45	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH30	0-0.1	<25	**63**	**350**	**160**	<0.2	<0.5	<1	<1	<1	**1.5**
BH31	0.03-0.1	<25	<50	<100	**180**	<0.2	<0.5	<1	<1	<1	**2.2**
BH32	0.03-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH33	0.04-0.14	<25	<50	<100	**220**	<0.2	<0.5	<1	<1	<1	**1.2**
BH34	0.03-0.2	<25	<50	<100	**110**	<0.2	<0.5	<1	<1	<1	**0.4**
BH35	0-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.7**
SDUP1	0.04-0.14	<25	<50	**100**	**240**	<0.2	<0.5	<1	<1	<1	NA
SDUP2	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP2 - [LAB_DUP]	0-0.1	<25	NA	NA	NA	<0.2	<0.5	<1	<1	<1	NA
SDUP3	0.1-0.15	<25	<50	<100	**100**	<0.2	<0.5	<1	<1	<1	NA
SDUP4	0.03-0.4	<25	<50	**180**	**160**	<0.2	<0.5	<1	<1	<1	NA
SDUP6	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP6 - [LAB_DUP]	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP8	0.025-0.4	<25	<50	<100	**160**	<0.2	<0.5	<1	<1	<1	NA
SDUP9	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP10	0.05-0.23	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples		82	81	81	81	82	82	82	82	82	64
Maximum Value		<PQL	63	470	790	<PQL	<PQL	<PQL	<PQL	<PQL	4.5

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**

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TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HIL-D:Commercial/Industrial

FIELD DATA															LABORATORY DATA										
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil) (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample reference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation %(w/w)	FA and AF Estimation %(w/w)
SAC			**No**					**0.05**			**0.001**			**0.001**											**0.05**	**0.001**
3/01/2024	BH1	0.03-0.4	NA	<10	5,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH1	0.03-0.4	970.35	Chrysotile asbestos detected: Amosite asbestos detected: Crocidolite asbestos detected: Organic fibres detected	No asbestos detected	0.1818	Chrysotile:Amosite:Crocidolite	–	0.1764	<0.01	0.0182
3/01/2024	BH1	0.4-1.0	NA	<10	9,360	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH1	0.5-0.7	735.15	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH1	1.0-1.7	NA	<10	4,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH1	1.5-1.7	668.77	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH2	0.02-0.5	NA	<10	6,050	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH2	0.02-0.4	913.27	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	Chrysotile:Amosite:Crocidolite	–	0.0285	<0.01	0.0031
3/01/2024	BH2	0.5-1.5	NA	<10	7,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH2	0.5-0.95	705.71	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH2	1.5-1.7	NA	<10	1,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH3	0.1-1.0	NA	<10	9,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH3	0.01-0.1	1052.51	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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3/01/2024	BH3	1.1-2.0	NA	<10	3,330	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH4	0.02-0.3	NA	<10	4,530	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH4	0.02-0.3	931.81	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH4	0.3-1.3	NA	<10	5,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH4	0.5-0.95	262.68	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH4	1.3-1.6	NA	<10	5,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH4	1.6-1.95								-	-
3/01/2024	BH5	0.03-0.23	NA	<10	3,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH5	0.03-0.2	865.95	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH5	0.23-0.5	NA	<10	2,160	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH5	0.4-0.5	785.19	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH5	1.0-2.0	NA	<10	2,650	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH6	0.025-0.4	NA	<10	3,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH6	0.025-0.4	1292.62	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH6	0.4-1.2	NA	10	10,020	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH6	0.5-0.95	693.15	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/01/2024	BH7	0.05-0.3	NA	<10	5,390	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH7	0.05-0.1	977.55	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/01/2024	BH7	0.3-1.2	NA	<10	1,060	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH7	0.3-0.5	338.48	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH8	0.03-0.4	NA	<10L	5,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH8	0.03-0.4	874.67	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	Chrysotile	0.0444	–	<0.01	<0.001
4/12/2023	BH8	0.4-1.4	NA	<10L	5,930	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH8	0.5-0.95	558.31	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH9	0.035-0.4	NA	<10L	3,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH9	0.035-0.08	885.83	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	Chrysotile	0.0117	–	<0.01	<0.001
4/12/2023	BH9	0.4-0.8	NA	<10L	3,560	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH9	0.4-0.5	650	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH9	0.8-1.7	NA	<10L	4,730	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH9	1.2-1.3	778.07	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH10	0.04-0.45	NA	<10L	6,650	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH10	0.45-1.45	NA	<10L	7,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH10	0.5-0.95	804.34	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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3/01/2024	BH11	0.03-0.3	NA	<10	2,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH11	0.03-0.3	1105.92	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH11	0.5-0.7	NA	<10	8,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH11	0.5-0.7	894.5	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/01/2024	BH12	0.05-0.5	NA	<10	3,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH12	0.05-0.23	680.52	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/01/2024	BH12	0.5-1.0	NA	<10	2,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/01/2024	BH12	1.0-1.4	NA	<10	2,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/01/2024	BH12	1.4-2.0	NA	<10	3,230	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH12	1.7-1.95	768.37	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH13	0.03-0.4	NA	<10L	3,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH13	0.3-1.3	NA	10L	9,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH13	0.5-0.95	777.49	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH13	1.3-2.2	NA	<10L	2,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH13	1.5-17	798.94	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
28/11/2023	BH14	0.02-0.3	NA	<10L	3,680	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH14	0.02-0.12	804.42	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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27/11/2023	BH17	0.05-0.4	NA	<10L	3,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH17	0.05-0.15	966.28	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
27/11/2023	BH18	0.01-0.2	NA	<10L	5,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH18	0.01-0.15	1217.86	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH19	0.02-0.4	NA	<10	4,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH19	0.02-0.4	1146.83	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH19	0.4-1.4	NA	<10	6,740	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH19	0.5-0.95	791.5	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH19	1.4-2.4	NA	<10	6,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH19	2.4-2.8	NA	<10	4,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH20	0.02-0.5	NA	10L	6,350	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH20	0.02-0.3	981.63	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH20	0.5-1.5	NA	10L	11,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH20	0.5-0.95	940.18	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH20	1.5-2.1	NA	<10L	6,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH21	0.04-0.5	NA	<10	2,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH21	0.04-0.15	895.02	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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3/01/2024	BH21	0.5-1.0	NA	<10	3,050	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH21	0.7-0.95	643.72	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH21	1.0-1.5	NA	<10	2,010	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH21	1.5-2.0	NA	<10	3,020	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH22	0.04-0.2	NA	<10L	3,470	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH22	0.1-0.15	1002.17	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH22	0.2-0.6	NA	<10L	5,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH22	0.3-0.5	851.65	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH23	0.02-0.3	NA	<10	3,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH23	0.02-0.3	1115.32	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/01/2024	BH23	0.3-1.0	NA	<10	4,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH23	0.5-0.95	741.5	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
30/11/2023	BH24	0-0.1	No	10L	13,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH24	0-0.1	662.82	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
30/11/2023	BH24	0.2-1.0	NA	<10L	5,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235-A	BH24	0.8-0.95	505.62	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH25	0.1-0.3	NA	<10L	3,270	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH25	0.1-0.3	769.11	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
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4/12/2023	BH27	0.14-0.5	NA	<10L	2,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH27	0.3-0.5	279.79	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH27	0.5-1.0	NA	<10L	3,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH27	0.8-0.95	647.17	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/12/2023	BH28	0-0.1	No	10L	10,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH28	0-0.1	634.94	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/12/2023	BH28	0.1-1.1	NA	<10L	2,550	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH28	1.1-2.1	NA	<10L	6,180	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH28	1.5-1.95	665.03	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/12/2023	BH28	2.1-3	NA	<10L	6,180	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH28	3-3.2	NA	<10L	3,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH29	0-0.1	No	<10L	8,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH29	0.1-1.0	NA	<10L	4,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH29	0.5-0.95	632.2	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/12/2023	BH29	1.0-2.0	NA	<10L	3,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH29	2.0-3.0	NA	<10L	4,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	339695-A	BH29	3-3.45	707	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/12/2023	BH30	0-0.1	No	10L	11,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH30	0-0.1	560.61	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/12/2023	BH31	0.03-0.1	NA	<10L	3,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH31	0.03-0.1	108.85	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/12/2023	BH32	0.03-0.3	NA	10L	4,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH32	0.03-0.3	1225.73	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
28/11/2023	BH33	0.04-0.2	NA	<10L	935	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH33	0.04-0.14	971.12	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/12/2023	BH34	0.03-0.2	NA	<10L	3,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH34	0.03-0.2	1012.25	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
5/01/2024	BH35	0-0.15	No	10	10,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH35	0-0.15	517.57	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001

Concentration above the SAC **VALUE**

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TABLE S6
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				COMMERCIAL/INDUSTRIAL																		
							AGED HEAVY METALS-EILs						EILs		ESLs							
				pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	13	28	163	5	122	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																			
BH1	0.03-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**15**	**37**	**15**	**14**	**49**	<1	<0.1	<25	<50	**190**	**240**	<0.2	<0.5	<1	<1	**0.3**
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	<4	**11**	**38**	**12**	**9**	**38**	<1	<0.1	<25	<50	**160**	**240**	<0.2	<0.5	<1	<1	**0.06**
BH1	0.5-0.7	F:Silty Sand	Coarse	NA	NA	NA	**5**	**20**	**8**	**17**	**13**	**22**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH1	1.5-1.7	F: Silty Clay	Fine	NA	NA	NA	**7**	**21**	**20**	**24**	**21**	**27**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.08**
BH2	0.02-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**12**	**26**	**23**	**12**	**39**	<1	<0.1	<25	<50	**140**	**210**	<0.2	<0.5	<1	<1	**0.1**
BH2	0.5-0.95	F: Silty Sandy Clay	Fine	NA	NA	NA	<4	**11**	**19**	**12**	**6**	**23**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.08**
BH2	1.7-1.95	Silty Clay	Fine	NA	NA	NA	**6**	**23**	**2**	**14**	**1**	**2**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH3	0.01-0.1	F: Silty Gravelly Sand	Coarse	**8.1**	**22**	NA	<4	**13**	**74**	**4**	**78**	**42**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH3	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	**6**	**17**	**5**	**18**	**3**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH4	0.02-0.3	F:Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**11**	**63**	**3**	**59**	**38**	<1	<0.1	<25	<50	**170**	**510**	<0.2	<0.5	<1	<1	<0.05
BH4	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	**12**	**25**	**4**	**20**	**1**	**3**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	0.03-0.2	F: Gravelly Sand	Coarse	**8**	**16**	NA	<4	**10**	**60**	**3**	**86**	**39**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	Coarse	**8**	**16**	NA	<4	**11**	**71**	**3**	**100**	**46**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**14**	**18**	**22**	**17**	**29**	**16**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	2.5-2.8	Silty Clay	Fine	NA	NA	NA	**7**	**9**	**5**	**19**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	3.3-3.45	Siltstone	Fine	NA	NA	NA	<4	**4**	**4**	**16**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH6	0.025-0.4	F: Silty Gravelly Sand	Fine	**8.1**	**22**	NA	<4	**10**	**82**	**3**	**82**	**44**	<1	<0.1	<25	<50	**110**	**360**	<0.2	<0.5	<1	<1	<0.05
BH6	0.5-0.95	F: Silty Clay	Coarse	NA	NA	NA	**8**	**15**	**10**	**17**	**9**	**6**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH7	0.05-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	<4	**10**	**73**	**2**	**59**	**34**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH7	0.3-0.5	F: Silty Clay	Coarse	NA	NA	NA	**8**	**21**	**6**	**16**	**6**	**6**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH8	0.03-0.4	F: Silty Sand	Coarse	NA	NA	NA	**23**	**16**	**39**	**25**	**13**	**40**	<1	<0.1	<25	<50	**320**	**300**	<0.2	<0.5	<1	<1	**1.1**
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	**15**	**15**	**68**	**24**	**11**	**41**	<1	<0.1	<25	<50	**270**	**290**	<0.2	<0.5	<1	<1	**0.98**
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	Coarse	NA	NA	NA	**7**	**15**	**28**	**27**	**10**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH8	0.5-0.95	F: Gravelly Clay	Fine	NA	NA	NA	**8**	**17**	**15**	**19**	**10**	**14**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	Fine	NA	NA	NA	**6**	**19**	**17**	**22**	**14**	**20**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH9	0.035-0.08	F: Gravelly Silty Sand	Coarse	NA	NA	NA	<4	**15**	**20**	**47**	**9**	**35**	<1	NA	<25	<50	**310**	**280**	<0.2	<0.5	<1	<1	**0.97**
BH9	0.4-0.5	F: Gravelly Silty Sand	Coarse	NA	NA	NA	**5**	**15**	**11**	**24**	**6**	**39**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
BH9	1.2-1.3	F: Silty Clay	Fine	NA	NA	NA	**5**	**12**	**11**	**19**	**6**	**15**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.05**
BH10	0.5-0.95	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	**9**	**13**	**15**	**18**	**4**	**17**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**1.6**
BH10	1.5-1.7	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	**9**	**18**	**14**	**23**	**6**	**26**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH11	0.03-0.3	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**9**	**51**	**3**	**45**	**29**	<1	<0.1	<25	<50	**310**	**790**	<0.2	<0.5	<1	<1	<0.05
BH11	0.5-0.7	F: Silty Clay	Coarse	NA	NA	NA	**9**	**25**	**14**	**16**	**15**	**13**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH11	0.7-0.95	Silty Clay	Coarse	NA	NA	NA	**9**	**17**	**2**	**18**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH12	0.05-0.23	F: Gravelly Sand	Coarse	NA	NA	NA	<4	**12**	**51**	**2**	**57**	**33**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	Coarse	**8**	**16**	NA	<4	**12**	**73**	**3**	**67**	**39**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH12	1.7-1.95	F: Silty Clay	Coarse	NA	NA	NA	**7**	**27**	**15**	**20**	**25**	**16**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH13	0.5-0.95	F: Silty Gravelly Clay	Coarse	NA	NA	NA	**6**	**11**	**16**	**13**	**12**	**10**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH13	1.5-1.7	F: Silty Gravelly Clay	Coarse	NA	NA	NA	<4	**9**	**6**	**16**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH14	0.02-0.12	F: Gravelly Silty Sand	Coarse	**8.2**	**20**	NA	<4	**10**	**76**	**2**	**61**	**41**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	Coarse	NA	NA	NA	<4	**9**	**53**	**2**	**57**	**31**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH16	0.01-0.2	F: Sandy Gravel	Coarse	**8.1**	**20**	NA	**6**	**10**	**65**	**5**	**64**	**38**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH17	0.05-0.15	F: Sandy Gravel	Coarse	NA	NA	NA	<4	**9**	**71**	**3**	**48**	**37**	<1	NA	<25	<50	**310**	**480**	<0.2	<0.5	<1	<1	<0.05
BH18	0.01-0.15	F: Gravelly Silty Sand	Coarse	**8.1**	**23**	NA	<4	**11**	**64**	**12**	**63**	**84**	<1	<0.1	<25	<50	<100	**210**	<0.2	<0.5	<1	<1	<0.05
BH19	0.02-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**10**	**64**	**3**	**54**	**35**	<1	<0.1	<25	<50	**210**	**600**	<0.2	<0.5	<1	<1	<0.05
BH19	0.5-0.95	F: Silty Clay	Coarse	NA	NA	NA	**11**	**9**	**15**	**17**	**7**	**8**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH20	0.02-0.3	F: Silty Sand	Coarse	NA	NA	NA	<4	**9**	**39**	**8**	**45**	**29**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH20	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	<4	**5**	**10**	**12**	**6**	**4**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH21	0.04-0.15	F: Silty Clay	Coarse	NA	NA	NA	<4	**10**	**49**	**5**	**48**	**30**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.09**
BH21	0.7-0.95	F: Silty Clay	Coarse	NA	NA	NA	**4**	**12**	**32**	**12**	**36**	**21**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH21	2.1-2.5	Silty Clay	Coarse	NA	NA	NA	**8**	**16**	**5**	**20**	**2**	**4**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH22	0.1-0.15	F: Gravelly Sand	Coarse	**7.9**	**13**	NA	<4	**11**	**75**	**3**	**72**	**36**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH22	0.3-0.5	F: Silty Clay	Fine	NA	NA	NA	**6**	**17**	**12**	**20**	**12**	**16**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.4**
BH23	0.02-0.3	F: Silty Gravelly Sand	Coarse	**8.1**	**22**	NA	<4	**13**	**69**	**4**	**69**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH23	0.5-0.95	F: Sand	Coarse	NA	NA	NA	**12**	**7**	**3**	**3**	**4**	**8**	<1	NA	<25	<50	**470**	<100	<0.2	<0.5	<1	<1	<0.05
BH24	0-0.1	F: Silty Sand	Coarse	NA	NA	NA	<4	**14**	**14**	**16**	**6**	**33**	<1	<0.1	<25	<50	**130**	**200**	<0.2	<0.5	<1	<1	<0.05
BH24	0.8-0.95	F: Silty Clay	Fine	NA	NA	NA	**8**	**18**	**5**	**21**	**5**	**11**	<1	<0.1	<25	<50	**220**	**280**	<0.2	<0.5	<1	<1	**0.1**
BH25	0.1-0.3	F: Silty Clay	Fine	NA	NA	NA	**7**	**13**	**5**	**19**	**5**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH26	0.7-1	XW Siltstone	Fine	NA	NA	NA	<4	**7**	**51**	**14**	**4**	**8**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH27	0.3-0.5	F: Gravelly Silty Sand	Coarse	NA	NA	NA	**5**	**19**	**19**	**20**	**13**	**35**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH27	0.8-0.95	F: Silty Clay	Fine	NA	NA	NA	**10**	**35**	**7**	**23**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH28	0-0.1	F: Clayey Sand	Coarse	NA	NA	NA	**6**	**11**	**14**	**38**	**6**	**56**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH28	1.5-1.95	F: Silty Clay	Fine	NA	NA	NA	**6**	**18**	**19**	**39**	**10**	**43**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH28	3-3.2	F: Silty Clay	Fine	NA	NA	NA	**12**	**33**	**28**	**47**	**14**	**65**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.4**
BH29	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	**8**	**22**	**7**	**24**	**4**	**25**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	Fine	NA	NA	NA	**35**	**41**	**15**	**33**	**20**	**60**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH29 - [LAB_TRIP]	0.5-0.95	Triplicate	Fine	NA	NA	NA	**17**	**31**	**9**	**25**	**13**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH29	3-3.45	F: Silty Clay	Fine	NA	NA	NA	**4**	**16**	**14**	**51**	**7**	**56**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	Fine	NA	NA	NA	<4	**39**	**30**	**110**	**30**	**99**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH30	0-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	**6**	**14**	**18**	**52**	**6**	**55**	<1	NA	<25	**63**	**350**	**160**	<0.2	<0.5	<1	<1	<0.05
BH31	0.03-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	<4	**9**	**58**	**5**	**57**	**47**	<1	NA	<25	<50	<100	**180**	<0.2	<0.5	<1	<1	<0.05
BH32	0.03-0.3	F: Gravelly Sand	Coarse	**8.2**	**22**	NA	<4	**11**	**66**	**4**	**76**	**43**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH33	0.04-0.14	F: Gravelly Silty Sand	Coarse	**8**	**22**	NA	<4	**10**	**64**	**4**	**74**	**40**	<1	<0.1	<25	<50	<100	**220**	<0.2	<0.5	<1	<1	<0.05
BH34	0.03-0.2	F: Gravelly Sand	Coarse	**7.8**	**14**	NA	<4	**12**	**68**	**4**	**75**	**48**	<1	NA	<25	<50	<100	**110**	<0.2	<0.5	<1	<1	<0.05
BH35	0-0.15	F: Silty Clay	Coarse	NA	NA	NA	**5**	**12**	**19**	**52**	**9**	**82**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
SDUP1	0.04-0.14	Duplicate of BH33	Coarse	NA	NA	NA	<4	**10**	**64**	**4**	**60**	**36**	<1	<0.1	<25	<50	**100**	**240**	<0.2	<0.5	<1	<1	<0.05
SDUP2	0-0.1	Duplicate of BH24	Coarse	NA	NA	NA	<4	**12**	**13**	**17**	**7**	**33**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1	NA	<25	NA	NA	NA	<0.2	<0.5	<1	<1	NA
SDUP3	0.1-0.15	Duplicate of BH22	Coarse	**7.9**	**13**	NA	<4	**12**	**50**	**3**	**61**	**30**	<1	NA	<25	<50	<100	**100**	<0.2	<0.5	<1	<1	<0.05
SDUP4	0.03-0.4	Duplicate of BH8	Coarse	NA	NA	NA	**6**	**15**	**25**	**32**	**10**	**43**	<1	NA	<25	<50	**180**	**160**	<0.2	<0.5	<1	<1	**0.99**
SDUP6	0.03-0.2	Duplicate of BH5	Coarse	**8**	**16**	NA	<4	**10**	**74**	**3**	**100**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	Coarse	**8**	**16**	NA	<4	**10**	**69**	**3**	**93**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP8	0.025-0.4	Duplicate of BH6	Coarse	**8.1**	**22**	NA	<4	**9**	**56**	<1	**79**	**38**	<1	<0.1	<25	<50	<100	**160**	<0.2	<0.5	<1	<1	<0.05
SDUP8 (LAB_DUP)	0.025-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05
SDUP9	0.5-0.95	Duplicate of BH2	Coarse	NA	NA	NA	<4	**15**	**7**	**11**	**8**	**18**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP10	0.05-0.23	Duplicate of BH12	Coarse	**8**	**16**	NA	<4	**10**	**59**	**2**	**69**	**39**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
Total Number of Samples				18	18	0	83	83	83	83	83	83	82	53	82	81	81	81	82	82	82	82	82
Maximum Value				8.2	23	NA	35	41	82	110	100	99	<PQL	<PQL	<PQL	63	470	790	<PQL	<PQL	<PQL	<PQL	1.6

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below

EIL AND ESL ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Sample Description	Soil Texture	pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
BH1	0.03-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH1	0.5-0.7	F:Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH1	1.5-1.7	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH2	0.02-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH2	0.5-0.95	F: Silty Sandy Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH2	1.7-1.95	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH3	0.01-0.1	F: Silty Gravelly Sand	Coarse	8.1	22	NA	160	320	350	2000	600	1600	370	640	215	170	1700	3300	75	135	165	180	72
BH3	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH4	0.02-0.3	F:Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH4	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH5	0.03-0.2	F: Gravelly Sand	Coarse	8	16	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	Coarse	8	16	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH5	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH5	2.5-2.8	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH5	3.3-3.45	Siltstone	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH6	0.025-0.4	F: Silty Gravelly Sand	Fine	8.1	22	NA	160	320	350	2000	600	1600	370	640	215	170	2500	6600	95	135	185	95	72
BH6	0.5-0.95	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH7	0.05-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH7	0.3-0.5	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH8	0.03-0.4	F: Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	--	--	--	--	--	--	--	--	--	--	--
BH8	0.5-0.95	F: Gravelly Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH9	0.035-0.08	F: Gravelly Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH9	0.4-0.5	F: Gravelly Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH9	1.2-1.3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH10	0.5-0.95	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH10	1.5-1.7	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH11	0.03-0.3	F: Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH11	0.5-0.7	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH11	0.7-0.95	Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH12	0.05-0.23	F: Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	Coarse	8	16	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH12	1.7-1.95	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH13	0.5-0.95	F: Silty Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH13	1.5-1.7	F: Silty Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH14	0.02-0.12	F: Gravelly Silty Sand	Coarse	8.2	20	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH16	0.01-0.2	F: Sandy Gravel	Coarse	8.1	20	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH17	0.

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		OC/OP PESTICIDES				Total	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled	PCBs	C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	**Sample Depth**	**Sample Description**																									
BH1	0.03-0.4	F: Silty Gravelly Sand	<4	<0.4	**15**	**37**	**15**	<0.1	**14**	**49**	**3.5**	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	Detected
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<4	<0.4	**11**	**38**	**12**	<0.1	**9**	**38**	**2.4**	**0.06**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	NA
BH1 - [LAB_TRIP]	0.03-0.4	Laboratory Triplicate	<4	<0.4	**10**	**96**	**13**	<0.1	**10**	**46**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH1	0.5-0.7	F:Silty Sand	**5**	<0.4	**20**	**8**	**17**	<0.1	**13**	**22**	**0.1**	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH1	1.5-1.7	F: Silty Clay	**7**	<0.4	**21**	**20**	**24**	<0.1	**21**	**27**	**0.3**	**0.08**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH2	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**12**	**26**	**23**	<0.1	**12**	**39**	**1.4**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**130**	**130**	<0.2	<0.5	<1	<1	Detected
BH2	0.5-0.95	F: Silty Sandy Clay	<4	<0.4	**11**	**19**	**12**	<0.1	**6**	**23**	**0.5**	**0.08**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH2	1.7-1.95	Silty Clay	**6**	<0.4	**23**	**2**	**14**	<0.1	**1**	**2**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH3	0.01-0.1	F: Silty Gravelly Sand	<4	<0.4	**13**	**74**	**4**	<0.1	**78**	**42**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH3	0.5-0.95	F: Silty Clay	**6**	<0.4	**17**	**5**	**18**	<0.1	**3**	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH4	0.02-0.3	F:Silty Gravelly Sand	<4	<0.4	**11**	**63**	**3**	<0.1	**59**	**38**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**300**	**300**	<0.2	<0.5	<1	<1	Not Detected
BH4	0.5-0.95	F: Silty Clay	**12**	<0.4	**25**	**4**	**20**	<0.1	**1**	**3**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH5	0.03-0.2	F: Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**86**	**39**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**11**	**71**	**3**	<0.1	**100**	**46**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH5	0.4-0.5	F: Silty Clay	**14**	<0.4	**18**	**22**	**17**	<0.1	**29**	**16**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH5	2.5-2.8	Silty Clay	**7**	<0.4	**9**	**5**	**19**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH5	3.3-3.45	Siltstone	<4	<0.4	**4**	**4**	**16**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH6	0.025-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**82**	**3**	<0.1	**82**	**44**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**200**	**200**	<0.2	<0.5	<1	<1	Not Detected
BH6	0.5-0.95	F: Silty Clay	**8**	<0.4	**15**	**10**	**17**	<0.1	**9**	**6**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH7	0.05-0.1	F: Gravelly Sand	<4	<0.4	**10**	**73**	**2**	<0.1	**59**	**34**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH7	0.3-0.5	F: Silty Clay	**8**	<0.4	**21**	**6**	**16**	<0.1	**6**	**6**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH8	0.03-0.4	F: Silty Sand	**23**	<0.4	**16**	**39**	**25**	<0.1	**13**	**40**	**13**	**1.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	**170**	**260**	**430**	<0.2	<0.5	<1	<1	Detected
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	**15**	<0.4	**15**	**68**	**24**	<0.1	**11**	**41**	**12**	**0.98**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	**140**	**230**	**370**	<0.2	<0.5	<1	<1	NA
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	**7**	<0.4	**15**	**28**	**27**	<0.1	**10**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH8	0.5-0.95	F: Gravelly Clay	**8**	<0.4	**17**	**15**	**19**	<0.1	**10**	**14**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**6**	<0.4	**19**	**17**	**22**	<0.1	**14**	**20**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH9	0.035-0.08	F: Gravelly Silty Sand	<4	<0.4	**15**	**20**	**47**	<0.1	**9**	**35**	**16**	**0.97**	NA	NA	NA	NA	NA	<25	<50	**160**	**240**	**400**	<0.2	<0.5	<1	<1	Detected
BH9	0.4-0.5	F: Gravelly Silty Sand	**5**	<0.4	**15**	**11**	**24**	<0.1	**6**	**39**	**3.2**	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH9	1.2-1.3	F: Silty Clay	**5**	<0.4	**12**	**11**	**19**	<0.1	**6**	**15**	**0.5**	**0.05**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH10	0.5-0.95	F: Sandy Gravelly Clay	**9**	<0.4	**13**	**15**	**18**	<0.1	**4**	**17**	**21**	**1.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH10	1.5-1.7	F: Sandy Gravelly Clay	**9**	<0.4	**18**	**14**	**23**	<0.1	**6**	**26**	**0.4**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH11	0.03-0.3	F: Silty Gravelly Sand	<4	<0.4	**9**	**51**	**3**	<0.1	**45**	**29**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**460**	**460**	<0.2	<0.5	<1	<1	Not Detected
BH11	0.5-0.7	F: Silty Clay	**9**	<0.4	**25**	**14**	**16**	<0.1	**15**	**13**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH11	0.7-0.95	Silty Clay	**9**	<0.4	**17**	**2**	**18**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH12	0.05-0.23	F: Gravelly Sand	<4	<0.4	**12**	**51**	**2**	<0.1	**57**	**33**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<4	<0.4	**12**	**73**	**3**	<0.1	**67**	**39**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH12	1.7-1.95	F: Silty Clay	**7**	<0.4	**27**	**15**	**20**	<0.1	**25**	**16**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH13	0.5-0.95	F: Silty Gravelly Clay	**6**	<0.4	**11**	**16**	**13**	<0.1	**12**	**10**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH13	1.5-1.7	F: Silty Gravelly Clay	<4	<0.4	**9**	**6**	**16**	<0.1	**2**	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH14	0.02-0.12	F: Gravelly Silty Sand	<4	<0.4	**10**	**76**	**2**	<0.1	**61**	**41**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<4	<0.4	**9**	**53**	**2**	<0.1	**57**	**31**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH16	0.01-0.2	F: Sandy Gravel	**6**	<0.4	**10**	**65**	**5**	<0.1	**64**	**38**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH17	0.05-0.15	F: Sandy Gravel	<4	<0.4	**9**	**71**	**3**	<0.1	**48**	**37**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	**370**	**370**	<0.2	<0.5	<1	<1	Not Detected
BH18	0.01-0.15	F: Gravelly Silty Sand	<4	<0.4	**11**	**64**	**12**	<0.1	**63**	**84**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**120**	**120**	<0.2	<0.5	<1	<1	Not Detected
BH19	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**64**	**3**	<0.1	**54**	**35**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**350**	**350**	<0.2	<0.5	<1	<1	Not Detected
BH19	0.5-0.95	F: Silty Clay	**11**	<0.4	**9**	**15**	**17**	<0.1	**7**	**8**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH20	0.02-0.3	F: Silty Sand	<4	<0.4	**9**	**39**	**8**	<0.1	**45**	**29**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH20	0.5-0.95	F: Silty Clay	<4	<0.4	**5**	**10**	**12**	<0.1	**6**	**4**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH21	0.04-0.15	F: Silty Clay	<4	<0.4	**10**	**49**	**5**	<0.1	**48**	**30**	**0.5**	**0.09**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH21	0.7-0.95	F: Silty Clay	**4**	<0.4	**12**	**32**	**12**	<0.1	**36**	**21**	**0.66**	**0.1**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH21	2.1-2.5	Silty Clay	**8**	<0.4	**16**	**5**	**20**	<0.1	**2**	**4**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH22	0.1-0.15	F: Gravelly Sand	<4	<0.4	**11**	**75**	**3**	<0.1	**72**	**36**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH22	0.3-0.5	F: Silty Clay	**6**	<0.4	**17**	**12**	**20**	<0.1	**12**	**16**	**3.5**	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH23	0.02-0.3	F: Silty Gravelly Sand	<4	<0.4	**13**	**69**	**4**	<0.1	**69**	**43**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH23	0.5-0.95	F: Sand	**12**	<0.4	**7**	**3**	**3**	<0.1	**4**	**8**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	**340**	**160**	**500**	<0.2	<0.5	<1	<1	Not Detected
BH24	0-0.1	F: Silty Sand	<4	<0.4	**14**	**14**	**16**	<0.1	**6**	**33**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**130**	**130**	<0.2	<0.5	<1	<1	Not Detected
BH24	0.8-0.95	F: Silty Clay	**8**	<0.4	**18**	**5**	**21**	<0.1	**5**	**11**	**0.3**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	**110**	**190**	**300**	<0.2	<0.5	<1	<1	Not Detected
BH25	0.1-0.3	F: Silty Clay	**7**	<0.4	**13**	**5**	**19**	<0.1	**5**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH26	0.7-1	XW Siltstone	<4	<0.4	**7**	**51**	**14**	<0.1	**4**	**8**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH27	0.3-0.5	F: Gravelly Silty Sand	**5**	<0.4	**19**	**19**	**20**	<0.1	**13**	**35**	**0.2**	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH27	0.8-0.95	F: Silty Clay	**10**	<0.4	**35**	**7**	**23**	<0.1	**2**	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH28	0-0.1	F: Clayey Sand	**6**	<0.4	**11**	**14**	**38**	<0.1	**6**	**56**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH28	1.5-1.95	F: Silty Clay	**6**	<0.4	**18**	**19**	**39**	<0.1	**10**	**43**	**1.2**	**0.2**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH28	3-3.2	F: Silty Clay	**12**	<0.4	**33**	**28**	**47**	**0.2**	**14**	**65**	**4.5**	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH29	0.5-0.95	F: Silty Clay	**8**	<0.4	**22**	**7**	**24**	<0.1	**4**	**25**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**35**	<0.4	**41**	**15**	**33**	<0.1	**20**	**60**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH29 - [LAB_TRIP]	0.5-0.95	Triplicate	**17**	<0.4	**31**	**9**	**25**	<0.1	**13**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH29	3-3.45	F: Silty Clay	**4**	<0.4	**16**	**14**	**51**	<0.1	**7**	**56**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	<4	**2**	**39**	**30**	**110**	<0.1	**30**	**99**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH30	0-0.1	F: Gravelly Sand	**6**	<0.4	**14**	**18**	**52**	<0.1	**6**	**55**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	**220**	**270**	**490**	<0.2	<0.5	<1	<1	Not Detected
BH31	0.03-0.1	F: Gravelly Sand	<4	<0.4	**9**	**58**	**5**	<0.1	**57**	**47**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH32	0.03-0.3	F: Gravelly Sand	<4	<0.4	**11**	**66**	**4**	<0.1	**76**	**43**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH33	0.04-0.14	F: Gravelly Silty Sand	<4	<0.4	**10**	**64**	**4**	<0.1	**74**	**40**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**140**	**140**	<0.2	<0.5	<1	<1	Not Detected
BH34	0.03-0.2	F: Gravelly Sand	<4	<0.4	**12**	**68**	**4**	<0.1	**75**	**48**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH35	0-0.15	F: Silty Clay	**5**	<0.4	**12**	**19**	**52**	<0.1	**9**	**82**	**0.4**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
SDUP1	0.04-0.14	Duplicate of BH33	<4	<0.4	**10**	**64**	**4**	<0.1	**60**	**36**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	NA
SDUP2	0-0.1	Duplicate of BH24	<4	<0.4	**12**	**13**	**17**	<0.1	**7**	**33**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<25	NA	NA	NA	NA	<0.2	<0.5	<1	<1	NA
SDUP3	0.1-0.15	Duplicate of BH22	<4	<0.4	**12**	**50**	**3**	<0.1	**61**	**30**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP4	0.03-0.4	Duplicate of BH8	**6**	<0.4	**15**	**25**	**32**	<0.1	**10**	**43**	**10**	**0.99**	NA	NA	NA	NA	NA	<25	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	NA
SDUP6	0.03-0.2	Duplicate of BH5	<4	<0.4	**10**	**74**	**3**	<0.1	**100**	**43**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**10**	**69**	**3**	<0.1	**93**	**43**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP8	0.025-0.4	Duplicate of BH6	<4	<0.4	**9**	**56**	<1	<0.1	**79**	**38**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP8 (LAB_DUP)	0.025-0.4	Duplicate of BH6	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP9	0.5-0.95	Duplicate of BH2	<4	<0.4	**15**	**7**	**11**	<0.1	**8**	**18**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP10	0.05-0.23	Duplicate of BH12	<4	<0.4	**10**	**59**	**2**	<0.1	**69**	**39**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
Total Number of Samples			84	84	84	84	84	84	84	84	82	82	53	53	53	53	53	82	81	81	81	81	82	82	82	82	58
Maximum Value			35	2	41	96	110	0.2	100	99	21	1.6	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	340	460	500	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the CT1 — **VALUE**
Concentration above SCC1 — **VALUE**
Concentration above the SCC2 — **VALUE**
Concentration above PQL — **Bold**
Asbestos detected — **Detected**

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TABLE S8
SOIL LABORATORY TCLP RESULTS
All data in mg/L unless stated otherwise

			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	B(a)P
PQL - Envirolab Services			0.05	0.01	0.01	0.01	0.03	0.0005	0.02	0.02	0.001
TCLP1 - General Solid Waste			5	1	5	NSL	5	0.2	2	NSL	0.04
TCLP2 - Restricted Solid Waste			20	4	20	NSL	20	0.8	8	NSL	0.16
TCLP3 - Hazardous Waste			>20	>4	>20	NSL	>20	>0.8	>8	NSL	>0.16
Sample Reference	**Sample Depth**	**Sample Description**									
BH1	0.03-0.4	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.01**	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<0.05	<0.01	<0.01	**0.01**	<0.03	<0.0005	<0.02	**0.03**	<0.0001
BH1	0.5-0.7	F:Silty Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.08**	<0.0001
BH1	1.5-1.7	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.02**	**0.03**	<0.0001
BH2	0.02-0.4	F: Silty Gravelly Sand	<0.05	<0.01	**0.02**	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH2	0.5-0.95	F: Silty Sandy Clay	<0.05	<0.01	<0.01	**0.02**	**0.08**	<0.0005	**0.03**	**0.2**	<0.0001
BH3	0.01-0.1	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.24**	**0.02**	<0.0001
BH3	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH4	0.02-0.3	F:Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH4	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH5	0.03-0.2	F: Gravelly Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.3**	**0.03**	<0.0001
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.3**	**0.03**	<0.0001
BH5	0.4-0.5	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.04**	**0.03**	<0.0001
BH6	0.025-0.4	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.04**	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH6	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH7	0.05-0.1	F: Gravelly Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH7	0.3-0.5	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH8	0.03-0.4	F: Silty Sand	<0.05	<0.01	**0.01**	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH8	0.5-0.95	F: Gravelly Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH8 [LAB_DUP]	0.5-0.95	Laboratory Duplicate	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH9	0.035-0.08	F: Gravelly Silty Sand	<0.05	<0.01	**0.02**	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH9 - [LAB_DUP]	0.035-0.08	Laboratory Duplicate	<0.05	<0.01	**0.02**	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH9	0.4-0.5	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.01**	<0.03	<0.0005	<0.02	**0.02**	<0.0001
BH9	1.2-1.3	F: Silty Clay	<0.05	<0.01	**0.02**	<0.01	<0.03	<0.0005	<0.02	**0.09**	<0.0001
BH10	0.5-0.95	F: Sandy Gravelly Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH10	1.5-1.7	F: Sandy Gravelly Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH11	0.03-0.3	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.08**	<0.02	<0.0001
BH11	0.5-0.7	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.02**	<0.02	<0.0001
BH12	0.05-0.23	F: Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH12	1.7-1.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.04**	<0.02	<0.0001
BH13	0.5-0.95	F: Silty Gravelly Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH13	1.5-17	F: Silty Gravelly Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH14	0.02-0.12	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.07**	**0.04**	<0.0001
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.03**	<0.02	NA
BH16	0.01-0.2	F: Sandy Gravel	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.08**	**0.03**	<0.0001
BH17	0.05-0.15	F: Sandy Gravel	<0.05	<0.01	<0.01	**0.04**	<0.03	<0.0005	**0.1**	**0.04**	<0.0001
BH18	0.01-0.15	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.1**	**0.04**	<0.0001
BH19	0.02-0.4	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.09**	<0.02	<0.0001
BH19	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.02**	<0.02	<0.0001
BH20	0.02-0.3	F: Silty Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH20	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.03**	<0.02	<0.0001
BH21	0.04-0.15	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.03**	<0.02	<0.0001
BH21	0.7-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH22	0.1-0.15	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.06**	NA	<0.0001
BH22	0.3-0.5	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH23	0.02-0.3	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.08**	<0.02	<0.0001
BH23	0.5-0.95	F: Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH23 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.0001
BH24	0-0.1	F: Silty Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH24	0.8-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH25	0.1-0.3	F: Silty Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH26	0.7-1	XW Siltstone	<0.05	<0.01	<0.01	**0.42**	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH27	0.3-0.5	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH27	0.8-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH28	0-0.1	F: Clayey Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH28	1.5-1.95	F: Silty Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH28	3-3.2	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH29	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH29	3-3.45	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH29 [LAB_DUP]	3-3.45	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.0001
BH30	0-0.1	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH31	0.03-0.1	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.03**	NA	<0.0001
BH32	0.03-0.3	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.04**	NA	<0.0001
BH33	0.04-0.14	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.08**	**0.03**	<0.0001
BH34	0.03-0.2	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.03**	NA	<0.0001
BH34 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.02**	NA	NA
BH35	0-0.15	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.1**	<0.0001
Total Number of samples			66	66	66	49	66	66	66	49	66
Maximum Value			<PQL	<PQL	0.02	0.42	0.08	<PQL	0.3	0.2	<PQL

General Solid Waste	**VALUE**
Restricted Solid Waste	**VALUE**
Hazardous Waste	**VALUE**
Concentration above PQL	**Bold**

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TABLE S9
SOIL LABORATORY ASLP RESULTS
All data in µg/L unless stated otherwise

			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	B(a)P
PQL - Envirolab Services			1	0.1	1	1	1	0.05	1	1	0.1
SAC			NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**									
BH1	0.03-0.4	F: Silty Gravelly Sand	<1	<0.1	**3**	**2**	<1	<0.05	<1	**3**	<0.1
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<1	<0.1	**3**	**2**	<1	<0.05	<1	**3**	<0.1
BH1	0.5-0.7	F:Silty Sand	**6**	<0.1	<1	**3**	**1**	<0.05	<1	**4**	<0.1
BH1	1.5-1.7	F: Silty Clay	**3**	<0.1	**5**	**4**	**5**	<0.05	**2**	**5**	<0.1
BH2	0.02-0.4	F: Silty Gravelly Sand	<1	<0.1	**5**	<1	<1	<0.05	<1	**3**	<0.1
BH2 - [LAB_DUP]	0.02-0.4	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.1
BH2	0.5-0.95	F: Silty Sandy Clay	**9**	<0.1	**2**	**4**	**7**	<0.05	**2**	**9**	<0.1
BH3	0.01-0.1	F: Silty Gravelly Sand	<1	<0.1	<1	**2**	<1	<0.05	**3**	**5**	<0.1
BH3	0.5-0.95	F: Silty Clay	<1	<0.1	**5**	**2**	**4**	<0.05	<1	**5**	<0.1
BH4	0.02-0.3	F:Silty Gravelly Sand	<1	<0.1	**3**	**4**	**2**	<0.05	**4**	**4**	<0.1
BH4	0.5-0.95	F: Silty Clay	**1**	<0.1	**5**	**1**	**3**	<0.05	<1	**5**	<0.1
BH5	0.03-0.2	F: Gravelly Sand	<1	<0.1	<1	**2**	<1	<0.05	**4**	**5**	<0.1
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<1	<0.1	<1	**2**	<1	<0.05	**4**	**4**	NA
BH5	0.4-0.5	F: Silty Clay	**3**	<0.1	**6**	**4**	**7**	<0.05	**3**	**5**	<0.1
BH6	0.025-0.4	F: Silty Gravelly Sand	<1	<0.1	<1	**3**	<1	<0.05	**4**	**4**	<0.1
BH6	0.5-0.95	F: Silty Clay	<1	<0.1	**4**	<1	**5**	<0.05	**1**	**4**	<0.1
BH7	0.05-0.1	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**3**	<0.1
BH7	0.3-0.5	F: Silty Clay	<1	<0.1	<1	<1	<1	<0.05	<1	**4**	<0.1
BH8	0.03-0.4	F: Silty Sand	<1	<0.1	**5**	**2**	<1	<0.05	<1	**1**	<0.1
BH8	0.5-0.95	F: Gravelly Clay	**7**	**0.2**	**25**	**13**	**24**	<0.05	**10**	**16**	<0.1
BH8 [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**8**	**0.2**	**33**	**15**	**30**	<0.05	**13**	**21**	<0.1
BH9	0.035-0.08	F: Gravelly Silty Sand	**2**	<0.1	**9**	**2**	<1	<0.05	<1	<1	<0.1
BH9 - [LAB_DUP]	0.035-0.08	Laboratory Duplicate	**2**	<0.1	**9**	**2**	<1	<0.05	<1	**2**	NA
BH9	0.4-0.5	F: Gravelly Silty Sand	**4**	<0.1	**4**	**7**	**7**	<0.05	**1**	<1	<0.1
BH9	1.2-1.3	F: Silty Clay	**6**	**0.2**	**20**	**19**	**39**	<0.05	**4**	**20**	<0.1
BH10	0.5-0.95	F: Sandy Gravelly Clay	**14**	**0.4**	**88**	**18**	**55**	<0.05	**15**	**31**	<0.1
BH10	1.5-1.7	F: Sandy Gravelly Clay	**3**	**0.1**	**6**	**3**	**4**	<0.05	**1**	**3**	<0.1
BH11	0.03-0.3	F: Silty Gravelly Sand	<1	<0.1	<1	**1**	<1	<0.05	<1	**4**	<0.1
BH11	0.5-0.7	F: Silty Clay	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH12	0.05-0.23	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	**1**	**4**	<0.1
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<1	<0.1	<1	**1**	<1	<0.05	**1**	**3**	<0.1
BH12	1.7-1.95	F: Silty Clay	<1	<0.1	**3**	**1**	**4**	<0.05	<1	**3**	<0.1
BH13	0.5-0.95	F: Silty Gravelly Clay	<1	<0.1	**3**	<1	**3**	<0.05	<1	**1**	<0.1
BH13	1.5-1.7	F: Silty Gravelly Clay	**3**	**0.1**	**12**	**2**	**11**	<0.05	**2**	**3**	<0.1
BH14	0.02-0.12	F: Gravelly Silty Sand	<1	<0.1	<1	**2**	<1	<0.05	**3**	**3**	<0.1
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<1	<0.1	<1	<1	<1	<0.05	**1**	**1**	NA
BH16	0.01-0.2	F: Sandy Gravel	<1	<0.1	<1	<1	<1	<0.05	<1	**1**	<0.1
BH17	0.05-0.15	F: Sandy Gravel	<1	<0.1	<1	<1	<1	<0.05	**1**	**2**	<0.1
BH18	0.01-0.15	F: Gravelly Silty Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH19	0.02-0.4	F: Silty Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**3**	<0.1
BH19	0.5-0.95	F: Silty Clay	<1	<0.1	**3**	<1	**2**	<0.05	<1	**5**	<0.1
BH20	0.02-0.3	F: Silty Sand	**1**	<0.1	**4**	**2**	**3**	<0.05	**3**	**21**	<0.1
BH20	0.5-0.95	F: Silty Clay	**3**	**0.2**	**25**	**8**	**16**	<0.05	**5**	**6**	<0.1
BH21	0.04-0.15	F: Silty Clay	<1	<0.1	**4**	**2**	**4**	<0.05	**1**	**4**	<0.1
BH21	0.7-0.95	F: Silty Clay	<1	<0.1	<1	<1	**1**	<0.05	<1	**3**	<0.1
BH22	0.1-0.15	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	**1**	**2**	<0.1
BH22	0.3-0.5	F: Silty Clay	**14**	**0.4**	**72**	**14**	**29**	<0.05	**12**	**22**	<0.1
BH23	0.02-0.3	F: Silty Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**4**	<0.1
BH23	0.5-0.95	F: Sand	**2**	<0.1	**1**	<1	<1	<0.05	**1**	**5**	<0.1
BH24	0-0.1	F: Silty Sand	<1	<0.1	**1**	**1**	<1	<0.05	<1	**4**	<0.1
BH24	0.8-0.95	F: Silty Clay	**9**	**0.2**	**26**	**7**	**27**	<0.05	**7**	**15**	<0.1
BH25	0.1-0.3	F: Silty Clay	**7**	**0.1**	**27**	**2**	**16**	<0.05	**3**	**6**	<0.1
BH26	0.7-1	XW Siltstone	**2**	<0.1	<1	**1**	**1**	<0.05	<1	<1	<0.1
BH27	0.3-0.5	F: Gravelly Silty Sand	**5**	**0.1**	**30**	**7**	**18**	<0.05	**5**	**21**	<0.1
BH27	0.8-0.95	F: Silty Clay	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH28	0-0.1	F: Clayey Sand	**5**	**0.1**	**17**	**8**	**13**	<0.05	**4**	**34**	<0.1
BH28	1.5-1.95	F: Silty Clay	**5**	**0.1**	**28**	**7**	**16**	<0.05	**7**	**23**	<0.1
BH28	3-3.2	F: Silty Clay	**5**	<0.1	**17**	**4**	**20**	<0.05	**3**	**9**	<0.1
BH29	0.5-0.95	F: Silty Clay	**11**	**0.2**	**47**	**8**	**22**	<0.05	**9**	**38**	<0.1
BH29	3-3.45	F: Silty Clay	**5**	**0.4**	**16**	**34**	**44**	<0.05	**4**	**65**	<0.1
BH29 [LAB_DUP]	3-3.45	Laboratory Duplicate	**6**	**0.4**	**21**	**31**	**38**	<0.05	**5**	**71**	<0.1
BH30	0-0.1	F: Gravelly Sand	**1**	**0.1**	**6**	**7**	**7**	<0.05	**2**	**32**	<0.1
BH31	0.03-0.1	F: Gravelly Sand	<1	<0.1	**3**	**3**	**2**	<0.05	**3**	**5**	<0.1
BH32	0.03-0.3	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH33	0.04-0.14	F: Gravelly Silty Sand	<1	<0.1	**1**	<1	**1**	<0.05	**1**	**2**	<0.1
BH34	0.03-0.2	F: Gravelly Sand	<1	<0.1	**2**	**2**	**1**	<0.05	**2**	**2**	<0.1
BH34 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	NA
BH35	0-0.15	F: Silty Clay	**1**	<0.1	**2**	**5**	**2**	<0.05	**1**	**13**	<0.1
Total Number of samples			67	67	67	67	67	67	67	67	64
Maximum Value			14	0.4	88	34	55	<PQL	15	71	<PQL

Concentration above PQL **Bold**

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TABLE S10a
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH1	BH1 - [LAB_DUP]	BH1	BH1	BH2	BH2	BH3	BH3	BH4	BH4	BH5	BH5 - [LAB_DUP]	BH5	BH6	BH6	BH7	BH7	BH8	BH8 - [LAB_DUP]	BH8	BH8 - [LAB_DUP]	BH9	BH9	BH9	BH10
	Envirolab	Industrial/	0.03-0.4	0.03-0.4	0.5-0.7	1.5-1.7	0.02-0.4	0.5-0.95	0.01-0.1	0.5-0.95	0.02-0.3	0.5-0.95	0.03-0.2	0.03-0.2	0.4-0.5	0.025-0.4	0.5-0.95	0.05-0.1	0.3-0.5	0.03-0.4	0.03-0.4	0.5-0.95	0.5-0.95	0.035-0.08	0.4-0.5	1.2-1.3	0.04-0.45
	Services	Commercial	F: Silty Gravelly Sand	Laboratory Duplicate	F:Silty Sand	F: Silty Clay	F: Silty Gravlley Sand	F: Silty Sandy Clay	F: Silty Gravelly Sand	F: Silty Clay	F:Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Sand	Laboratory Duplicate	F: Gravelly Clay	Laboratory Duplicate	F: Gravelly Silty Sand	F: Gravelly Silty Sand	F: Silty Clay	F: Silty Gravelly Sand
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**	**<0.1**	**<0.1**
Perfluoropentanesulfonic acid	0.1	NSL	**0.1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	**0.5**	**0.5**	<0.1	<0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	**5.1**	**4.8**	**0.5**	**0.2**	**7.8**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.3**	**0.8**	**2.3**	**1.0**	**1.4**	**0.8**
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	50,000	**0.2**	**0.2**	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.3**	**0.2**	**0.5**	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.9**	**0.9**	<0.2	<0.2	**0.6**	**0.5**	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	20,000	**5.6**	**5.3**	**0.5**	**0.2**	**8.3**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.4**	**0.9**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFOS & PFOA	0.1	NSL	**5.3**	**5**	**0.5**	**0.2**	**8.0**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.0**	**1.1**	**1.6**	**1.0**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFAS	0.1	NSL	**6.1**	**5.8**	**0.5**	**0.2**	**8.8**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.9**	**2.1**	**1.7**	**1.1**	**4.9**	**1.5**	**1.4**	**0.8**

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S10b
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH10	BH11	BH11	BH12	BH12 - [LAB_DUP]	BH12	BH13	BH13	BH14	BH14 - [LAB_DUP]	BH16	BH17	BH18	BH19	BH19	BH20	BH20	BH21	BH21	BH22	BH22	BH23	BH23	BH24	BH24
	Envirolab	Industrial/	1.5-1.7	0.03-0.3	0.5-0.7	0.05-0.23	0.05-0.23	1.7-1.95	0.5-0.95	1.5-1.7	0.02-0.12	0.02-0.12	0.01-0.2	0.05-0.15	0.01-0.15	0.02-0.4	0.5-0.95	0.02-0.3	0.5-0.95	0.04-0.15	0.7-0.95	0.1-0.15	0.3-0.5	0.02-0.3	0.5-0.95	0-0.1	0.8-0.95
	Services	Commercial	F: Sandy Gravelly Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Clay	F: Silty Gravelly Clay	F: Gravelly Silty Sand	Laboratory Duplicate	F: Sandy Gravel	F: Sandy Gravel	F: Gravelly Silty Sand	F: Silty Gravelly Sand	F: Silty Clay	F: Silty Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Gravelly Sand	F: Sand	F: Silty Sand	F: Silty Clay
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	50,000	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	20,000	**1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.3**	<0.1
Total Positive PFAS	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**1.2**	**3.5**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S10c
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Industrial/ Commercial	BH25 0.1-0.3 F: Silty Clay	BH26 0.7-1 XW Siltstone	BH27 0.3-0.5 F: Gravelly Silty Sand	BH27 0.8-0.95 F: Silty Clay	BH28 0-0.1 F: Clayey Sand	BH28 1.5-1.95 F: Silty Clay	BH28 3-3.2 F: Silty Clay	BH29 0.5-0.95 F: Silty Clay	BH29 - [LAB_DUP] 0.5-0.95 Laboratory Duplicate	BH29 3-3.45 F: Silty Clay	BH30 0-0.1 F: Gravelly Sand	BH31 0.03-0.1 F: Gravelly Sand	BH32 0.03-0.3 F: Gravelly Sand	BH33 0.04-0.14 F: Gravelly Silty Sand	BH34 0.03-0.2 F: Gravelly Sand	BH35 0-0.15 F: Silty Clay	SDUP1 0.04-0.14 Duplicate of BH33	SDUP2 0-0.1 Duplicate of BH24	SDUP3 0.1-0.15 Duplicate of BH22	SDUP4 0.03-0.4 Duplicate of BH8	SDUP6 0.03-0.2 Duplicate of BH5	SDUP6 - [LAB_DUP] 0.03-0.2 Laboratory Duplicate	SDUP8 0.025-0.4 Duplicate of BH6	SDUP9 0.5-0.95 Duplicate of BH2	SDUP10 0.05-0.23 Duplicate of BH12
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**	**<0.1**	**0.2**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	50,000	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	**0.2**	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.6**	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	20,000	<0.1	<0.1	**0.2**	<0.1	**0.8**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.5**	<0.1	<0.1	<0.1	<0.1	**1.9**	<0.1	**2.6**	<0.1	**1.0**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFAS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**1.1**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**2.1**	<0.1	<0.1	<0.1	<0.1	**2.4**	<0.1	**2.8**	<0.1	**1.6**	<0.1	<0.1	<0.1	**0.7**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S11a
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH1	BH1 - [LAB_DUP]	BH1	BH1	BH2	BH2	BH3	BH3	BH4	BH4	BH5	BH5 - [LAB_DUP]	BH5	BH6	BH6	BH7	BH7	BH8	BH8 - [LAB_DUP]	BH8	BH8 - [LAB_DUP]	BH9	BH9	BH9	BH10
	Envirolab	Indirect exposure	0.03-0.4	0.03-0.4	0.5-0.7	1.5-1.7	0.02-0.4	0.5-0.95	0.01-0.1	0.5-0.95	0.02-0.3	0.5-0.95	0.03-0.2	0.03-0.2	0.4-0.5	0.025-0.4	0.5-0.95	0.05-0.1	0.3-0.5	0.03-0.4	0.03-0.4	0.5-0.95	0.5-0.95	0.035-0.08	0.4-0.5	1.2-1.3	0.04-0.45
	Services	All land use	F: Silty Gravelly Sand	Laboratory Duplicate	F:Silty Sand	F: Silty Clay	F: Silty Gravlley Sand	F: Silty Sandy Clay	F: Silty Gravelly Sand	F: Silty Clay	F:Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Sand	Laboratory Duplicate	F: Gravelly Clay	Laboratory Duplicate	F: Gravelly Silty Sand	F: Gravelly Silty Sand	F: Silty Clay	F: Silty Gravelly Sand
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	**0.1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	**0.5**	**0.5**	<0.1	<0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	10	**5.1**	**4.8**	**0.5**	**0.2**	**7.8**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.3**	**0.8**	**2.3**	**1.0**	**1.4**	**0.8**
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.3**	**0.2**	**0.5**	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.9**	**0.9**	<0.2	<0.2	**0.6**	**0.5**	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	**5.6**	**5.3**	**0.5**	**0.2**	**8.3**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.4**	**0.9**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFOS & PFOA	0.1	NSL	**5.3**	**5**	**0.5**	**0.2**	**8.0**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.0**	**1.1**	**1.6**	**1.0**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFAS	0.1	NSL	**6.1**	**5.8**	**0.5**	**0.2**	**8.8**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.9**	**2.1**	**1.7**	**1.1**	**4.9**	**1.5**	**1.4**	**0.8**

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S11b
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH10	BH11	BH11	BH12	BH12 - [LAB_DUP]	BH12	BH13	BH13	BH14	BH14 - [LAB_DUP]	BH16	BH17	BH18	BH19	BH19	BH20	BH20	BH21	BH21	BH22	BH22	BH23	BH23	BH24	BH24
	Envirolab	Indirect exposure	1.5-1.7	0.03-0.3	0.5-0.7	0.05-0.23	0.05-0.23	1.7-1.95	0.5-0.95	1.5-1.7	0.02-0.12	0.02-0.12	0.01-0.2	0.05-0.15	0.01-0.15	0.02-0.4	0.5-0.95	0.02-0.3	0.5-0.95	0.04-0.15	0.7-0.95	0.1-0.15	0.3-0.5	0.02-0.3	0.5-0.95	0-0.1	0.8-0.95
	Services	All land use	F: Sandy Gravelly Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Clay	F: Silty Gravelly Clay	F: Gravelly Silty Sand	Laboratory Duplicate	F: Sandy Gravel	F: Sandy Gravel	F: Gravelly Silty Sand	F: Gravelly Silty Sand	F: Silty Clay	F: Silty Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Gravelly Sand	F: Sand	F: Silty Sand	F: Silty Clay
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	10	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	NSL	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.3**	<0.1
Total Positive PFAS	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**1.2**	**3.5**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S11c
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH25	BH26	BH27	BH27	BH28	BH28	BH28	BH29	BH29 - [LAB_DUP]	BH29	BH30	BH31	BH32	BH33	BH34	BH35	SDUP1	SDUP2	SDUP3	SDUP4	SDUP6	SDUP6 - [LAB_DUP]	SDUP8	SDUP9	SDUP10
	Envirolab	Indirect exposure	0.1-0.3	0.7-1	0.3-0.5	0.8-0.95	0-0.1	1.5-1.95	3-3.2	0.5-0.95	0.5-0.95	3-3.45	0-0.1	0.03-0.1	0.03-0.3	0.04-0.14	0.03-0.2	0-0.15	0.04-0.14	0-0.1	0.1-0.15	0.03-0.4	0.03-0.2	0.03-0.2	0.025-0.4	0.5-0.95	0.05-0.23
	Services	All land use	F: Silty Clay	XW Siltstone	F: Gravelly Silty Sand	F: Silty Clay	F: Clayey Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	Laboratory Duplicate	F: Silty Clay	F: Gravelly Sand	F: Gravelly Sand	F: Gravelly Sand	F: Gravelly Silty Sand	F: Gravelly Sand	F: Silty Clay	Duplicate of BH33	Duplicate of BH24	Duplicate of BH22	Duplicate of BH8	Duplicate of BH5	Laboratory Duplicate	Duplicate of BH6	Duplicate of BH2	Duplicate of BH12
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	10	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	**0.2**	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.6**	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.8**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.5**	<0.1	<0.1	<0.1	<0.1	**1.9**	<0.1	**2.6**	<0.1	**1.0**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFAS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**1.1**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**2.1**	<0.1	<0.1	<0.1	<0.1	**2.4**	<0.1	**2.8**	<0.1	**1.6**	<0.1	<0.1	<0.1	**0.7**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S12a
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL			BH1	BH1 - [LAB_DUP]	BH1	BH1	BH2	BH2	BH3	BH3	BH4	BH4	BH5	BH5 - [LAB_DUP]	BH5	BH6	BH6	BH7	BH7	BH8	BH8 - [LAB_DUP]	BH8	BH8 - [LAB_DUP]	BH9	BH9	BH9	BH10
	Envirolab Services	SCC1	SCC2	0.03-0.4 F: Silty Gravelly Sand	0.03-0.4 Laboratory Duplicate	0.5-0.7 F:Silty Sand	1.5-1.7 F: Silty Clay	0.02-0.4 F: Silty Gravley Sand	0.5-0.95 F: Silty Sandy Clay	0.01-0.1 F: Silty Gravelly Sand	0.5-0.95 F: Silty Clay	0.02-0.3 F:Silty Gravelly Sand	0.5-0.95 F: Silty Clay	0.03-0.2 F: Gravelly Sand	0.03-0.2 Laboratory Duplicate	0.4-0.5 F: Silty Clay	0.025-0.4 F: Silty Gravelly Sand	0.5-0.95 F: Silty Clay	0.05-0.1 F: Gravelly Sand	0.3-0.5 F: Silty Clay	0.03-0.4 F: Silty Sand	0.03-0.4 Laboratory Duplicate	0.5-0.95 F: Gravelly Clay	0.5-0.95 Laboratory Duplicate	0.035-0.08 F: Gravelly Silty Sand	0.4-0.5 F: Gravelly Silty Sand	1.2-1.3 F: Silty Clay	0.04-0.45 F: Silty Gravelly Sand
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	**0.1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	**0.5**	**0.5**	<0.1	<0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	**5.1**	**4.8**	**0.5**	**0.2**	**7.8**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.3**	**0.8**	**2.3**	**1.0**	**1.4**	**0.8**
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	**0.2**	**0.2**	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.3**	**0.2**	**0.5**	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.9**	**0.9**	<0.2	<0.2	**0.6**	**0.5**	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	**5.6**	**5.3**	**0.5**	**0.2**	**8.3**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.4**	**0.9**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFOS & PFOA	0.1	NSL	NSL	**5.3**	**5.0**	**0.5**	**0.2**	**8.0**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.0**	**1.1**	**1.6**	**1.0**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFAS	0.1	NSL	NSL	**6.1**	**5.8**	**0.5**	**0.2**	**8.8**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.9**	**2.1**	**1.7**	**1.1**	**4.9**	**1.5**	**1.4**	**0.8**

Positive PFAS Result	**bold**
Result above SCC1 Criteria	**Bold**
Result above SCC2 Criteria	**Bold**

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TABLE S12b
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL			BH10	BH11	BH11	BH12	BH12 - [LAB_DUP]	BH12	BH13	BH13	BH14	BH14 - [LAB_DUP]	BH16	BH17	BH18	BH19	BH19	BH20	BH20	BH21	BH21	BH22	BH22	BH23	BH23	BH24	BH24
	Envirolab	SCC1	SCC2	1.5-1.7	0.03-0.3	0.5-0.7	0.05-0.23	0.05-0.23	1.7-1.95	0.5-0.95	1.5-1.7	0.02-0.12	0.02-0.12	0.01-0.2	0.05-0.15	0.01-0.15	0.02-0.4	0.5-0.95	0.02-0.3	0.5-0.95	0.04-0.15	0.7-0.95	0.1-0.15	0.3-0.5	0.02-0.3	0.5-0.95	0-0.1	0.8-0.95
	Services			F: Sandy Gravelly Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Clay	F: Silty Gravelly Clay	F: Gravelly Silty Sand	Laboratory Duplicate	F: Sandy Gravel	F: Sandy Gravel	F: Gravelly Silty Sand	F: Silty Gravelly Sand	F: Silty Clay	F: Silty Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Gravelly Sand	F: Sand	F: Silty Sand	F: Silty Clay
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.3**	<0.1
Total Positive PFAS	0.1	NSL	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	**1.2**	**3.5**	<0.1

Postive PFAS Result **Bold**
Result above SCC1 Criteria **Bold**
Result above SCC2 Criteria **Bold**

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TABLE S12c
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL			BH25	BH26	BH27	BH27	BH28	BH28	BH28	BH29	BH29 - [LAB_DUP]	BH29	BH30	BH31	BH32	BH33	BH34	BH35	SDUP1	SDUP2	SDUP3	SDUP4	SDUP6	SDUP6 - [LAB_DUP]	SDUP8	SDUP9	SDUP10
	Envirolab	SCC1	SCC2	0.1-0.3	0.7-1	0.3-0.5	0.8-0.95	0-0.1	1.5-1.95	3-3.2	0.5-0.95	0.5-0.95	3-3.45	0-0.1	0.03-0.1	0.03-0.3	0.04-0.14	0.03-0.2	0-0.15	0.04-0.14	0-0.1	0.1-0.15	0.03-0.4	0.03-0.2	0.03-0.2	0.03-0.2	0.025-0.4	0.5-0.95	0.05-0.23
	Services			F: Silty Clay	XW Siltstone	F: Gravelly Silty Sand	F: Silty Clay	F: Clayey Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	Laboratory Duplicate	F: Silty Clay	F: Gravelly Sand	F: Gravelly Sand	F: Gravelly Sand	F: Gravelly Silty Sand	F: Gravelly Sand	F: Silty Clay	Duplicate of BH33	Duplicate of BH24	Duplicate of BH22	Duplicate of BH8	Duplicate of BH5	Laboratory Duplicate	Duplicate of BH6	Duplicate of BH2	Duplicate of BH12
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	**0.2**	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.6**	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	<0.1	<0.1	**0.2**	<0.1	**0.8**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.5**	<0.1	<0.1	<0.1	<0.1	**1.9**	<0.1	**2.6**	<0.1	**1.0**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFAS	0.1	NSL	NSL	<0.1	<0.1	**0.2**	<0.1	**1.1**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**2.1**	<0.1	<0.1	<0.1	<0.1	**2.4**	<0.1	**2.8**	<0.1	**1.6**	<0.1	<0.1	<0.1	**0.7**	<0.1

Positive PFAS Result	**Bold**
Result above SCC1 Criteria	**Bold**
Result above SCC2 Criteria	**Bold**

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TABLE S13a
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	BH1 0.03-0.4	BH1 - [LAB_DUP] 0.03-0.4	BH1 0.5-0.7	BH1 1.5-1.7	BH2 0.02-0.4	BH2 0.5-0.95	BH3 0.01-0.1	BH3 0.5-0.95	BH4 0.02-0.3	BH4 0.5-0.95	BH5 0.03-0.2	BH5 - [LAB_DUP] 0.03-0.2	BH5 0.4-0.5	BH6 0.025-0.4	BH6 0.5-0.95	BH7 0.05-0.1	BH7 0.3-0.5	BH8 0.03-0.4	BH9 0.035-0.08	BH9 - [LAB_DUP] 0.035-0.08	BH10 0.5-0.95	BH11 0.03-0.3	BH11 0.5-0.7	BH12 0.05-0.23	BH12 - [LAB_DUP] 0.05-0.23	BH12 1.7-1.95	BH13 0.5-0.95
PFAS Compound																														
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	**0.03**	**0.02**	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	**0.21**	**0.2**	**0.02**	<0.01	**0.4**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.09**	**0.08**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	**0.24**	**0.22**	**0.02**	<0.01	**0.42**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.11**	**0.1**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	**0.21**	**0.2**	**0.02**	<0.01	**0.41**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.12**	**0.11**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	**0.25**	**0.22**	**0.02**	<0.01	**0.44**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.2**	**0.18**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Positive PFAS Result **Bold**
Result above TCLP1 Criteria **Bold**
Result above TCLP2 Criteria **Bold**

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TABLE S13b
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	BH14 0.02-0.12	BH14 - [LAB_DUP] 0.02-0.12	BH16 0.01-0.2	BH17 0.05-0.15	BH18 0.01-0.15	BH19 0.02-0.4	BH19 0.5-0.95	BH20 0.02-0.3	BH21 0.04-0.15	BH21 0.7-0.95	BH22 0.1-0.15	BH23 0.02-0.3	BH23 0.5-0.95	BH24 0-0.1	BH24 0.8-0.95	BH25 0.1-0.3	BH26 0.7-1	BH27 0.3-0.5	BH28 0-0.1	BH28 1.5-1.95	BH29 0.5-0.95	BH29 3.3-3.45	BH30 0-0.1	BH31 0.03-0.1	BH32 0.03-0.3	BH33 0.04-0.14	BH34 0.03-0.2	BH34 - [LAB_DUP] 0.03-0.2	BH35 0-0.15
PFAS Compound																																
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Positive PFAS Result **Bold**
Result above TCLP1 Criteria **Bold**
Result above TCLP2 Criteria **Bold**

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TABLE S14a
SUMMARY OF PFAS CONCENTRATIONS IN ASLP LEACHATE
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	SAC	BH1 0.03-0.4	BH1 - [LAB_DUP] 0.03-0.4	BH1 0.5-0.7	BH1 1.5-1.7	BH2 0.02-0.4	BH2 0.5-0.95	BH3 0.01-0.1	BH3 0.5-0.95	BH4 0.02-0.3	BH4 0.5-0.95	BH5 0.03-0.2	BH5 - [LAB_DUP] 0.03-0.2	BH5 0.4-0.5	BH6 0.025-0.4	BH6 0.5-0.95	BH7 0.05-0.1	BH7 0.3-0.5	BH8 0.03-0.4	BH8 - [LAB_DUP] 0.03-0.4	BH9 0.035-0.08	BH10 0.5-0.95	BH11 0.03-0.3	BH11 0.5-0.7	BH12 0.05-0.23	BH12 - [LAB_DUP] 0.05-0.23	BH12 1.7-1.95	BH13 0.5-0.95
PFAS Compound																													
Perfluorobutanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	**0.02**	**0.02**	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	**0.21**	**0.17**	**0.02**	<0.01	**0.33**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.11**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.05**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	NSL	**0.23**	**0.19**	**0.02**	<0.01	**0.35**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.16**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	**0.21**	**0.17**	**0.02**	<0.01	**0.33**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.14**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	**0.24**	**0.19**	**0.02**	<0.01	**0.35**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.33**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Positive PFAS Result **Bold**

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TABLE S14b
SUMMARY OF PFAS CONCENTRATIONS IN ASLP LEACHATE
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	SAC	BH14 0.02-0.12	BH14 - [LAB_DUP] 0.02-0.12	BH16 0.01-0.2	BH17 0.05-0.15	BH18 0.01-0.15	BH19 0.02-0.4	BH19 0.5-0.95	BH20 0.02-0.3	BH21 0.04-0.15	BH21 0.7-0.95	BH22 0.1-0.15	BH23 0.02-0.3	BH23 0.5-0.95	BH24 0-0.1	BH24 0.8-0.95	BH25 0.1-0.3	BH26 0.7-1	BH27 0.3-0.5	BH28 0-0.1	BH28 1.5-1.95	BH29 0.5-0.95	BH29 - [LAB_DUP] 0.5-0.95	BH29 3.3-3.45	BH29 - [LAB_DUP] 3.3-3.45	BH30 0-0.1	BH31 0.03-0.1	BH32 0.03-0.3	BH33 0.04-0.14	BH34 0.03-0.2	BH35 0-0.15
PFAS Compound																																
Perfluorobutanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**
Perfluoropentanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	**0.02**

Positive PFAS Result **Bold**

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TABLE G1
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO ECOLOGICAL GILs SAC
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	ANZG 2018 Fresh Waters	SAMPLES						
			MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	WDUP1	WDUP2
Inorganic Compounds and Parameters									
pH	-	6.5 - 8.5	5.8	NA	5	NA	6.3	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4000**	NA	**2600**	NA	**1200**	NA	NA
Metals and Metalloids									
Arsenic (As III)	1	24	<1	<1	<1	NA	<1	<1	<1
Cadmium	0.1	0.2	<0.1	<0.1	**0.7**	NA	<0.1	**0.8**	<0.1
Chromium (SAC for Cr III adopted)	1	3.3	<1	<1	**1**	NA	<1	**1**	<1
Copper	1	1.4	**4**	**4**	**190**	NA	<1	**190**	**2**
Lead	1	3.4	<1	<1	**7**	NA	<1	**8**	<1
Total Mercury (inorganic)	0.05	0.06	<0.05	<0.05	<0.05	NA	<0.05	<0.05	<0.05
Nickel	1	11	**100**	**100**	**250**	NA	**92**	**250**	**110**
Zinc	1	8	**400**	**400**	**1100**	NA	**59**	**1100**	**440**
Total Recoverable Hydrocarbons (TRH)									
TRH F1	10	NSL	<10	NA	<10	<10	<10	<10	<10
TRH F2	50	NSL	<50	NA	<50	NA	<50	<50	<50
TRH F3	100	NSL	<100	NA	<100	NA	<100	<100	<100
TRH F4	100	NSL	<100	NA	<100	NA	<100	<100	<100
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)									
Benzene	1	950	<1	NA	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	<2	<2	<2	<2
o-xylene	1	350	<1	NA	<1	<1	<1	<1	<1
Total xylenes	2	NSL	<2	NA	<2	<2	<2	<2	<2
Volatile Organic Compounds (VOCs), including chlorinated VOCs									
Dichlorodifluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Vinyl Chloride	10	100	<10	NA	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	700	<1	NA	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1-dichloroethane	1	90	<1	NA	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Bromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Chloroform	1	370	<1	NA	5	5	10	5	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloroethane	1	1900	<1	NA	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	270	<1	NA	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Carbon tetrachloride	1	240	<1	NA	<1	<1	<1	<1	<1
Benzene	1	950	<1	NA	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloropropane	1	900	<1	NA	<1	<1	<1	<1	<1
Trichloroethene	1	330	<1	NA	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	**1**	**1**	<1	**1**	<1
trans-1,3-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	6500	<1	NA	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	<1	<1	<1	<1
1,3-dichloropropane	1	1100	<1	NA	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tetrachloroethene	1	70	<1	NA	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Chlorobenzene	1	55	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	<2	<2	<2	<2
Styrene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	400	<1	NA	<1	<1	<1	<1	<1
o-xylene	1	350	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Isopropylbenzene	1	30	<1	NA	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	260	<1	NA	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	60	<1	NA	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	160	<1	NA	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	85	<1	NA	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1	3	<1	NA	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	0.1	16	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluorene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Phenanthrene	0.1	0.6	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Anthracene	0.1	0.01	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluoranthene	0.1	1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Chrysene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	NA	<0.2	NA	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**
GIL >PQL	Red

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TABLE G2
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO HUMAN CONTACT GILs
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	Recreational (10 x NHMRC ADWG)	SAMPLES						
			MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	WDUP1	WDUP2
Inorganic Compounds and Parameters									
pH	-	6.5 - 8.5	5.8	NA	5	NA	6.3	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4000**	NA	**2600**	NA	**1200**	NA	NA
Metals and Metalloids									
Arsenic (As III)	1	100	<1	<1	<1	NA	<1	<1	<1
Cadmium	0.1	20	<0.1	<0.1	**0.7**	NA	<0.1	**0.8**	<0.1
Chromium (total)	1	500	<1	<1	**1**	NA	<1	**1**	<1
Copper	1	20000	**4**	**4**	**190**	NA	<1	**190**	**2**
Lead	1	100	<1	<1	**7**	NA	<1	**8**	<1
Total Mercury (inorganic)	0.05	10	<0.05	<0.05	<0.05	NA	<0.05	<0.05	<0.05
Nickel	1	200	**100**	**100**	**250**	NA	**92**	**250**	**110**
Zinc	1	30000	**400**	**400**	**1100**	NA	**59**	**1100**	**440**
Total Recoverable Hydrocarbons (TRH)									
TRH F1	10	NSL	<10	NA	<10	<10	<10	<10	<10
TRH F2	50	NSL	<50	NA	<50	NA	<50	<50	<50
TRH F3	100	NSL	<100	NA	<100	NA	<100	<100	<100
TRH F4	100	NSL	<100	NA	<100	NA	<100	<100	<100
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)									
Benzene	1	10	<1	NA	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	<2	<2	<2	<2
o-xylene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Total xylenes	2	6000	<2	NA	<2	<2	<2	<2	<2
Volatile Organic Compounds (VOCs), including chlorinated VOCs									
Dichlorodifluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Vinyl Chloride	10	3	<10	NA	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	300	<1	NA	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	600	<1	NA	<1	<1	<1	<1	<1
1,1-dichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	600	<1	NA	<1	<1	<1	<1	<1
Bromochloromethane	1	2500	<1	NA	<1	<1	<1	<1	<1
Chloroform	1		<1	NA	5	5	10	5	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloroethane	1	30	<1	NA	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Carbon tetrachloride	1	30	<1	NA	<1	<1	<1	<1	<1
Benzene	1	10	<1	NA	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Trichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	**1**	**1**	<1	**1**	<1
trans-1,3-dichloropropene	1	1000	<1	NA	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	1000	<1	NA	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	<1	<1	<1	<1
1,3-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tetrachloroethene	1	500	<1	NA	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Chlorobenzene	1	3000	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	<2	<2	<2	<2
Styrene	1	300	<1	NA	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
o-xylene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Isopropylbenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	200	<1	NA	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	400	<1	NA	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	15000	<1	NA	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	300	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		<1	NA	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	7	<1	NA	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluorene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Phenanthrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluoranthene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Chrysene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	NA	<0.2	NA	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**
GIL >PQL	Red

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TABLE G3
GROUNDWATER LABORATORY RESULTS COMPARED TO SITE SPECIFIC HSLs - RISK ASSESSMENT
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	NHMRC ADWG 2011	WHO 2008	USEPA RSL Tapwater 2023	SAMPLES					
					MW18	MW26	MW26 [LAB_DUP]	MW29	WDUP1	WDUP2
Total Recoverable Hydrocarbons (TRH)										
C_6-C_9 Aliphatics (assessed using F1)	10	-	100	-	<10	<10	<10	<10	<10	<10
>C_9-C_{14} Aliphatics (assessed using F2)	50	-	100	-	<50	<50	NA	<50	<50	<50
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)										
Benzene	1	1	-	-	<1	<1	<1	<1	<1	<1
Toluene	1	800	-	-	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	-	-	<1	<1	<1	<1	<1	<1
Total xylenes	2	600	-	-	<2	<2	<2	<2	<2	<2
Polycyclic Aromatic Hydrocarbons (PAHs)										
Naphthalene	1	-	-	6.1	<1	<1	<1	<1	<1	<1
Volatile Organic Compounds (VOCs), including chlorinated VOCs										
Dichlorodifluoromethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Chloromethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	0.3	-	-	<10	<10	<10	<10	<10	<10
Bromomethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Chloroethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	-	-	-	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	30	-	-	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	60	-	-	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	60	-	-	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	250	-	-	<1	<1	<1	<1	<1	<1
Chloroform	1		-	-	<1	**5**	**5**	**10**	**5**	<1
2,2-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	3	-	-	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	-	-	-	<1	<1	<1	<1	<1	<1
Cyclohexane	1	-	-	-	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	3	-	-	<1	<1	<1	<1	<1	<1
Benzene	1	1	-	-	<1	<1	<1	<1	<1	<1
Dibromomethane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
Trichloroethene	1	-	-	-	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	-	-	-	<1	**1**	**1**	<1	**1**	<1
trans-1,3-dichloropropene	1	100	-	-	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	100	-	-	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Toluene	1	800	-	-	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	50	-	-	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	300	-	-	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	-	-	<1	<1	<1	<1	<1	<1
Bromoform	1	-	-	-	<1	<1	<1	<1	<1	<1
m+p-xylene	2	-	-	-	<2	<2	<2	<2	<2	<2
Styrene	1	30	-	-	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
o-xylene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	-	-	-	<1	<1	<1	<1	<1	<1
Bromobenzene	1	-	-	-	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	-	-	-	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	20	-	-	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	40	-	-	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	1500	-	-	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	30	-	-	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		-	-	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	0.7	-	-	<1	<1	<1	<1	<1	<1

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**
GIL >PQL	Red

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TABLE G4
SUMMARY OF PFAS CONCENTRATIONS IN GROUNDWATER - ECOLOGY
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 99% Freshwater	SAMPLES				
			MW18	MW26	MW29	WDUP1	WDUP2
PFAS Compound							
Perfluorobutanesulfonic acid	0.0004	NSL	<0.0004	**0.0005**	<0.0004	**0.0005**	<0.0004
Perfluoropentanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorohexanesulfonic acid - PFHxS	0.0002	NSL	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluoroheptanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorooctanesulfonic acid PFOS	0.0002	0.00023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	0.002	NSL	<0.004	<0.004	<0.02	<0.004	<0.002
Perfluoropentanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexanoic acid	0.0004	NSL	**0.002**	**0.0009**	**0.0006**	**0.0009**	**0.002**
Perfluoroheptanoic acid	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Perfluorooctanoic acid PFOA	0.0002	19	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Perfluorononanoic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	0.005	NSL	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
6:2 FTS	0.0004	NSL	**0.0066**	**0.002**	**0.0006**	**0.001**	**0.0064**
8:2 FTS	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
10:2 FTS	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Total Positive PFHxS & PFOS	0.0002	NSL	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Total Positive PFOS & PFOA	0.0002	NSL	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Total Positive PFAS	0.0002	NSL	**0.0086**	**0.0035**	**0.002**	**0.003**	**0.0084**

Positive PFAS result	**Bold**
PFAS result above the SAC	**Bold**

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TABLE G5
SUMMARY OF PFAS CONCENTRATIONS IN GROUNDWATER - HUMAN HEALTH
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Recreational	SAMPLES				
			MW18	MW26	MW29	WDUP1	WDUP2
PFAS Compound							
Perfluorobutanesulfonic acid	0.0004	NSL	<0.0004	**0.0005**	<0.0004	**0.0005**	<0.0004
Perfluoropentanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorohexanesulfonic acid - PFHxS	0.0002	NSL	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluoroheptanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorooctanesulfonic acid PFOS	0.0002	NSL	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	0.002	NSL	<0.004	<0.004	<0.02	<0.004	<0.002
Perfluoropentanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexanoic acid	0.0004	NSL	**0.002**	**0.0009**	**0.0006**	**0.0009**	**0.002**
Perfluoroheptanoic acid	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Perfluorooctanoic acid PFOA	0.0002	10	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Perfluorononanoic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	0.005	NSL	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
6:2 FTS	0.0004	NSL	**0.0066**	**0.002**	**0.0006**	**0.001**	**0.0064**
8:2 FTS	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
10:2 FTS	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Total Positive PFHxS & PFOS	0.0002	2	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Total Positive PFOS & PFOA	0.0002	NSL	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Total Positive PFAS	0.0002	NSL	**0.0086**	**0.0035**	**0.002**	**0.003**	**0.0084**

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE Q1
SOIL QA/QC SUMMARY

| | | | | TRH C6 - C10 | TRH >C10-C16 | TRH >C16-C34 | TRH >C34-C40 | Benzene | Toluene | Ethylbenzene | m+p-xylene | o-Xylene | Naphthalene | Acenaphthylene | Acenaph-thene | Fluorene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo(a)anthracene | Chrysene | Benzo(b,j+k)fluoranthene | Benzo(a)pyrene | Indeno(1,2,3-c,d)pyrene | Dibenzo(a,h)anthra-cene | Benzo(g,h,i)perylene | HCB | alpha- BHC | gamma- BHC | beta- BHC | Heptachlor | delta- BHC | Aldrin | Heptachlor Epoxide | Gamma- Chlordane | alpha- chlordane | Endosulfan I | pp- DDE | Dieldrin | Endrin | pp- DDD | Endosulfan II | pp- DDT | Endrin Aldehyde | Endosulfan Sulphate | Methoxychlor | Azinphos-methyl (Guthion) | Bromophos-ethyl | Chlorpyriphos | Chlorpyriphos-methyl | Diazinon | Dichlorvos | Dimethoate | Ethion | Fenitrothion | Malathion | Parathion | Ronnel | Total PCBS | Arsenic | Cadmium | Chromium | Copper | Lead | Mercury | Nickel | Zinc |
|---|---|---

TABLE Q2
SUMMARY OF PFAS FIELD QA/QC IN SOIL
Units are µg/Kg unless stated otherwise.

			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecanesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfon amide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePerfluorooctanesulf-amid oacetic acid	EtPerfluorooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS
PQL Envirolab			*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.5*	*0.5*	*0.5*	*0.5*	*5*	*0.1*	*0.1*	*0.1*	*0.1*	*1*	*1*	*1*	*1*	*5*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*
PQL Envirolab VIC			*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.5*	*0.5*	*0.5*	*0.5*	*5*	*0.1*	*0.1*	*0.1*	*0.1*	*1*	*1*	*1*	*1*	*5*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*
Intra laboratory duplicate	BH33	0.04-0.14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP1	0.04-0.14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra laboratory duplicate	BH22	0.1-0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP3	0.1-0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra laboratory duplicate	BH5	0.03-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP6	0.03-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra laboratory duplicate	BH2	0.5-0.95	<0.1	<0.1	0.1	<0.1	0.3	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.5	0.3	0.5
	SDUP9	0.5-0.95	<0.1	<0.1	0.2	<0.1	0.4	<0.2	<0.2	<0.2	<0.1	<0.1	0.2	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.5	0.5	0.7
	MEAN		nc	nc	0.15	nc	0.35	nc	nc	nc	nc	nc	0.125	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.5	0.4	0.6
	RPD %		nc	nc	67%	nc	29%	nc	nc	nc	nc	nc	120%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	50%	33%
Inter laboratory duplicate	BH24	0-0.1	<0.1	<0.1	<0.1	<0.1	3	<0.2	<0.2	<0.2	<0.1	<0.1	0.3	0.2	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	3	3.3	3.5
	SDUP2	0-0.1	<0.1	<0.1	<0.1	<0.1	2.4	<0.2	<0.2	<0.2	<0.1	<0.1	0.2	0.2	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	2.4	2.6	2.8
	MEAN		nc	nc	nc	nc	2.7	nc	nc	nc	nc	nc	0.25	0.2	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	2.7	2.95	3.15
	RPD %		nc	nc	nc	nc	22%	nc	nc	nc	nc	nc	40%	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	22%	24%	22%
Inter laboratory duplicate	BH8	0.03-0.4	<0.1	<0.1	<0.1	<0.1	0.9	<0.2	<0.2	<0.2	<0.1	<0.1	0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	0.9	0.9	1	1.9
	SDUP4	0.03-0.4	<0.1	<0.1	<0.1	<0.1	0.9	<0.2	<0.2	<0.2	<0.1	<0.1	0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	0.6	0.9	1	1.6
	MEAN		nc	nc	nc	nc	0.9	nc	nc	nc	nc	nc	0.1	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.75	0.9	1	1.75
	RPD %		nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	40%	0%	0%	17%
Inter laboratory duplicate	BH6	0.025-0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP8	0.025-0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter laboratory duplicate	BH12	0.05-0.23	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP10	0.05-0.23	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field Blank	TB-S1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	27/11/2023																																	
Field Blank	TB-S2	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	4/12/2023																																	
Field Blank	TB-S3	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	3/01/2024																																	
Field Rinsate	FR-1-Auger	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001
	28/11/2023																																	
Field Rinsate	FR-2-SPT	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001
	4/12/2023																																	
Field Rinsate	FR-S3-SPT	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001
	3/01/2024																																	
Field Rinsate	FR-S4-SA	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001
	3/01/2024																																	

Result outside of QA/QC acceptance criteria Value

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TABLE Q3
GROUNDWATER QA/QC SUMMARY

| | | Dichlorodifluoromethane | Chloromethane | Vinyl Chloride | Bromomethane | Chloroethane | Trichlorofluoromethane | 1,1-Dichloroethene | Trans-1,2-dichloroethene | 1,1-dichloroethane | Cis-1,2-dichloroethene | Bromochloromethane | Chloroform | 2,2-dichloropropane | 1,2-dichloroethane | 1,1,1-trichloroethane | 1,1-dichloropropene | Cyclohexane | Carbon tetrachloride | Benzene | Dibromomethane | 1,2-dichloropropane | Trichloroethene | Bromodichloromethane | trans-1,3-dichloropropene | cis-1,3-dichloropropene | 1,1,2-trichloroethane | Toluene | 1,3-dichloropropane | Dibromochloromethane | 1,2-dibromoethane | Tetrachloroethene | 1,1,1,2-tetrachloroethane | Chlorobenzene | Ethylbenzene | Bromoform | m+p-xylene | Styrene | 1,1,2,2-tetrachloroethane | o-xylene | 1,2,3-trichloropropane | Isopropylbenzene | Bromobenzene | n-propyl benzene | 2-chlorotoluene | 4-chlorotoluene | 1,3,5-trimethyl benzene | Tert-butyl benzene | 1,2,4-trimethyl benzene | 1,3-dichlorobenzene | Sec-butyl benzene | 1,4-dichlorobenzene | 4-isopropyl toluene | 1,2-dichlorobenzene | n-butyl benzene | 1,2-dibromo-3-chloropropane | 1,2,4-trichlorobenzene | Hexachlorobutadiene | 1,2,3-trichlorobenzene |
|---|---|---

TABLE Q4
SUMMARY OF PFAS FIELD QA/QC IN GROUNDWATER
Units are µg/L unless stated otherwise.

		Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecanesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfon amide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePerfluorooctanesulf-amid oacetic acid	EtPerfluorooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS
PQL Envirolab		*0.0004*	*0.001*	*0.0002*	*0.001*	*0.0002*	*0.002*	*0.002*	*0.002*	*0.0004*	*0.0004*	*0.0002*	*0.001*	*0.002*	*0.002*	*0.005*	*0.01*	*0.05*	*0.001*	*0.0004*	*0.0004*	*0.002*	*0.01*	*0.05*	*0.1*	*0.05*	*0.5*	*0.002*	*0.002*	*0.0002*	*0.0002*	*0.0002*
PQL Envirolab VIC		*0.0004*	*0.001*	*0.0002*	*0.001*	*0.0002*	*0.002*	*0.002*	*0.002*	*0.0004*	*0.0004*	*0.0002*	*0.001*	*0.002*	*0.002*	*0.005*	*0.01*	*0.05*	*0.001*	*0.0004*	*0.0004*	*0.002*	*0.01*	*0.05*	*0.1*	*0.05*	*0.5*	*0.002*	*0.002*	*0.0002*	*0.0002*	*0.0002*
Intra laboratory duplicate	MW26	0.0005	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.004	<0.002	0.0009	<0.0004	0.0003	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.002	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	0.0003	0.0035
	WDUP1	0.0005	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.004	<0.002	0.0009	<0.0004	0.0003	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.001	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	0.0003	0.003
	MEAN	0.0005	nc	nc	nc	nc	nc	nc	nc	0.0009	nc	0.0003	nc	nc	nc	nc	nc	nc	nc	0.0015	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.0003	0.0033
	RPD %	0%	nc	nc	nc	nc	nc	nc	nc	0%	nc	0%	nc	nc	nc	nc	nc	nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	15%
Inter laboratory duplicate	MW18	<0.0004	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.004	<0.002	0.002	<0.0004	<0.0002	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.0066	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	<0.0002	0.0086
	WDUP2	<0.0004	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.002	<0.002	0.002	<0.0004	<0.0002	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.0064	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	<0.0002	0.0084
	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	0.002	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.0065	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.0085
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	3%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	2%
Field Blank	TB-W1 12/12/2023	-	-	<0.0002	-	<0.0002	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	<0.0004	<0.0004	-	-	-	-	-	-	-	-	<0.0002	<0.0002	<0.0002

Result outside of QA/QC acceptance criteria Value

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Appendix D: Borehole Logs

Additional Contamination Investigation Borehole Logs

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **BH101** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PENDULUM AUGER **R.L. Surface:** ≈ 63.2m

Date: 10/10/24 **Datum:** AHD

Plant Type: JKX **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■	■	■	■	■		0			FILL: Clayey sand, fine to medium grained, brown, trace of clay nodules.	D w<PL			GRASS COVER SCREEN: 10.10kg 0-0.1m, NO FCF
	■	■	■	■	■					FILL: Silty clay, low to medium plasticity, brown, trace of sand, slag and glass fragments.				SCREEN: 6.21kg (<10L) 0.1-1.0m, NO FCF
	■	■	■	■	■		1							SCREEN: 10.80kg 1.0-2.0m, NO FCF
	■	■	■	■	■		2							
	■	■	■	■	■					FILL: Silty clay, low to medium plasticity, brown, trace of sandstone, igneous and siltstone gravel, tile fragments, roots and root fibres.				SCREEN: 8.35kg (<10L) 2.5-3.0m, NO FCF
	■	■	■	■	■		3							
	■								CI-CH	Silty CLAY: medium to high plasticity, brown.	w<PL			RESIDUAL
										END OF BOREHOLE AT 3.8m				
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **BH102** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PENDULUM AUGER **R.L. Surface:** ≈ 63.7m

Date: 10/10/24 **Datum:** AHD

Plant Type: JKX **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0			FILL: Silty clay, medium to high plasticity, brown, trace of siltstone gravel, tile fragments and root fibres.	w<PL			GRASS COVER SCREEN: 10.10kg 0-0.1m, NO FCF
							1							SCREEN: 5.32kg (<10L) 0.1-1.0m, NO FCF
														SCREEN: 8.35kg (<10L) 1.0-2.0m, NO FCF
							2							
										FILL: SIlty clay, low to medium plasticity, brown, trace of brick and glass fragments, roots and root fibres.	w≈PL			SCREEN: 7.35kg (<10L) 2.5-3.0m, NO FCF
							3		CL-CI	Silty CLAY: medium to high plasticity, light brown.	w≈PL			RESIDUAL
										END OF BOREHOLE AT 3.6m				
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. BH103 1/1

SDUP103: 0-0.1m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PENDULUM AUGER **R.L. Surface:** ≈ 64.0m

Date: 10/10/24 **Datum:** AHD

Plant Type: JKX **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■		■		0			FILL: Silty clay, medium to high plasticity, brown, trace of root fibres.	w<PL			GRASS COVER
	■		■		■					FILL: SIlty clay, medium to high plasticity, brown, trace of siltstone and sandstone gravel, tile fragments and root fibres.				SCREEN: 10.88kg 0-0.1m, NO FCF
	■		■		■									SCREEN: 8.65kg (<10L) 0.1-1.0m, NO FCF
	■		■		■		1							SCREEN: 11.65kg 1.0-2.0m, NO FCF
	■		■		■									
	■		■		■		2							SCREEN: 7.23kg (<10L) 2.0-3.0m, NO FCF
	■		■		■									
	■		■		■		3		CI-CH	Silty CLAY: medium to high plasticity, light brown and red grey, trace of siltstone bands.	w<PL			RESIDUAL
										END OF BOREHOLE AT 3.5m				
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **BH104** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 65.5m

Date: 10/10/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			FILL: Silty sand, fine to medium grained, brown, trace of ironstone gravel and root fibres.	D			LEAF LITTER COVER
											w<PL			SCREEN: 10.15kg 0-0.1m, NO FCF
										FILL: SIlty clay, low to medium plasticity, orange brown, trace of siltstone gravel and root fibres.				INSUFFICIENT RETURN FOR BULK SCREEN
										END OF BOREHOLE AT 0.2m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH105** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 66.0m

Date: 10/10/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			FILL: Silty sand, fine to medium grained, brown.	D			GRASS COVER
										FILL: Silty clay, medium to high plasticity, grey mottled red and orange, trace of siltstone and sandstone gravel.	w<PL			SCREEN: 10.05kg 0-0.05m, NO FCF
										END OF BOREHOLE AT 0.15m				INSUFFICIENT RETURN FOR BULK SCREEN
							1							HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH106** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 66.2m

Date: 10/10/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			FILL: Silty clay, low to medium plasticity, brown, trace of siltstone, ironstone and sandstone gravel and root fibres.	w<PL			LEAF LITTER COVER SCREEN: 10.07kg 0-0.1m, NO FCF
										END OF BOREHOLE AT 0.2m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH107 1/1

SDUP104: 0.12-0.3m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■				■		0		-	CONCRETE: 120mm.t				
										FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel, trace of quartz gravel.	D			SCREEN: 4.35kg (<10L) 0.12-0.3m, NO FCF
									CL-CI		w<PL			RESIDUAL
										Silty CLAY: low to medium plasticity, brown.				HAND AUGER REFUSAL
							1			END OF BOREHOLE AT 0.35m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH108 1/1

SDUP105: 0.1-0.2m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■	■	■		■		0		-	ASPHALTIC CONCRETE: 30mm.t	D			SCREEN: 5.58kg 0.03-0.2m, NO FCF
										FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel, trace of metal fragments.				INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: SIlty sand, fine to medium grained, orange brown, with sandstone gravel, trace of clay nodules.				HAND AUGER REFUSAL
							1			END OF BOREHOLE AT 0.3m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH109** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■		■		0			CONCRETE: 150mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.42kg (<10L) 0.15-0.3m, NO FCF
	■		■						CI-CH	Silty CLAY: medium to high plasticity, red brown.	w<PL			RESIDUAL
										END OF BOREHOLE AT 0.8m				
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH110 1/1

SDUP106: 0.15-0.3m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 11/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			CONCRETE: 150mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.68kg 0.15-0.3m, NO FCF
										END OF BOREHOLE AT 0.3m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH111** 1/1

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Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			CONCRETE: 230mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.70kg (<10L) 0.23-0.3m, NO FCF
									CL-CI	Silty CLAY: low to medium plasticity, grey and red brown, trace of ironstone bands.	w≈PL			HAND AUGER REFUSAL
							1			END OF BOREHOLE AT 0.4m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH112** 1/1

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Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 8/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** L.R./

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			CONCRETE: 170mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel, trace of igneous and ironstone gravel, roots and root fibres.	D			INSUFFICIENT RETURN FOR BULK SCREEN
									CI-CH	Silty CLAY: medium to high plasticity, grey mottled red, with ironstone bands.	w<PL			RESIDUAL
							1			END OF BOREHOLE AT 0.6m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH113 1/1

SDUP102: 0.2-0.4m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■				0			CONCRETE: 200mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			INSUFFICIENT RETURN FOR BULK SCREEN
										END OF BOREHOLE AT 0.4m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH114** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			CONCRETE: 230mm.t				
	■								-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.45kg (<10L) 0.23-0.3m, NO FCF
											W≈PL			
										FILL: Silty clay, medium to high plasticity, grey mottled orange, trace of siltstone gravel.				INSUFFICIENT RETURN FOR BULK SAMPLE
							1			END OF BOREHOLE AT 0.5m				HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No.
BH115
1/1

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■				0			CONCRETE: 170mm.t				
	■								-	FILL: SIlty sand, fine to medium	D			INSUFFICIENT
									CI-CH	grained, light brown, with sandstone gravel.	w<PL			RETURN FOR BULK SCREEN
										Silty CLAY: medium to high plasticity, grey mottled red.				RESIDUAL
							1			END OF BOREHOLE AT 0.5m				HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH116** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			CONCRETE: 220mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel, trace of tile fragments, roots and root fibres.	D			SCREEN: 3.45kg (<10L) 0.2-0.4m, NO FCF
										END OF BOREHOLE AT 0.4m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH117** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			CONCRETE: 230mm.t				
	■		■						-	FILL: Silty sand, fine to medium grained, light brown, trace of igneous gravel and slag.	MD w≈PL			SCREEN: 1.85kg (<10L) 0.23-0.3m, NO FCF
										FILL: Silty clay, low to medium plasticity, grey, trace of siltstone gravel and sand.				INSUFFICIENT RETURN FOR BULK SCREEN
							1			END OF BOREHOLE AT 0.5m				HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH118** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 58.3m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■	■					0		-	ASPHALTIC CONCRETE: 20mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■								FILL: Silty clay, low to medium plasticity, brown and orange brown, trace of igneous and ironstone gravel, sand and root fibres.				
							1							
	■	■								FILL: Silty clay, low to medium plasticity, grey, trace of igneous gravel and root fibres.				ORGANIC ODOUR
	■	■							CL-CI		w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
							2			Silty CLAY: low to medium plasticity, light brown and red brown, trace of ironstone bands.				TARGET DEPTH REACHED
										END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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Log No. **BH119** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 58.1m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■	■					0		-	ASPHALTIC CONCRETE: 20mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■					1			FILL: Silty clay, medium to high plasticity, brown and orange brown, trace of igneous and siltstone gravel, ash and root fibres.				
	■	■								FILL: Silty clay, medium plasticity, grey, trace of igneous gravel and root fibres.				ORGANIC ODOUR
	■						2			FILL: Silty clay, low to medium plasticity, grey brown, trace of igneous gravel and root fibres.				INSUFFICIENT RETURN FOR BULK SCREEN
										END OF BOREHOLE AT 2.0m				INSUFFICIENT RETURN FOR BULK SCREEN
							3							TARGET DEPTH REACHED
							4							
							5							
							6							
							7							

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Log No. **BH120** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 57.9m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■	■					0		-	ASPHALTIC CONCRETE: 20mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	M			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■								FILL: Sand, fine to medium grained, orange brown, trace of shell fragments.	w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■					1			FILL: Silty clay, low to medium plasticity, grey and orange brown, trace of ironstone and igneous gravel, sand and ash.				
										FILL: Sand, fine to medium grained, orange brown.	M w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■					2			FILL: Silty clay, low to medium plasticity, dark brown and orange brown, trace of ironstone and igneous gravel.				INSUFFICIENT RETURN FOR BULK SCREEN
										END OF BOREHOLE AT 2.0m				TARGET DEPTH REACHED
							3							
							4							
							5							
							6							
							7							

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Log No. BH121 1/1

SDUP101: 0.01-0.15

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.7m

Date: 8/10/24 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION OF AUGERING	■	■	■		■		0		-	ASPHALTIC CONCRETE: 10mm.t	D			SCREEN: 4.13kg (<10L) 0.03-0.3m, NO FCF
									-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	XW			ASHFIELD SHALE
	■	■				N = 27 8,13,14	1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey and orange brown.				
										SILTSTONE: grey.	DW			HIGH RESISTANCE
							2			COMMENCE CORING AT 1.8m DEPTH				'TC' BIT REFUSAL
							3							
							4							
							5							GROUNDWATER MONITORING WELL INSTALLED TO 7.0m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 4.0m TO 7.0m. CASING 0m TO 4.0m. 2mm SAND FILTER PACK 2.5m TO 7.0m. BENTONITE SEAL 0.2m TO 2.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							6							
							7			END OF BOREHOLE AT 7.0m				

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Log No. **BH122** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.8m

Date: 8/10/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■		■		0		-	ASPHALTIC CONCRETE: 10mm.t	D			SCREEN: 1.78kg (<10L) 0.01-0.3m, NO FCF
									-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	XW			ASHFIELD SHALE
	■		■			N = 16 6,10, 6/100mm REFUSAL				Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey and orange brown, trace of ironstone gravel.				
	■						1			SILTSTONE: grey.	DW			
							2							
							3							
							4							GROUNDWATER MONITORING WELL INSTALLED TO 6.2m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 3.2m TO 6.2m. CASING 0m TO 3.2m. 2mm SAND FILTER PACK 2.1m TO 6.2m. BENTONITE SEAL 0.2m TO 2.0m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							5							
							6							
							7			END OF BOREHOLE AT 6.2m				

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Log No. **BH123** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 65.9m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■						0		-	ASPHALTIC CONCRETE: 10mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■							-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained, igneous gravel.	XW			ASHFIELD SHALE
										Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey and orange brown.				REFUSAL
							1			END OF BOREHOLE AT 0.7m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH1** **1/1**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 57.4m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	D			SCREEN: 5.80kg (<10L) 0.03-0.4m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	M			SCREEN: 9.36kg (<10L) 0.4-1.0m, NO FCF
							1			FILL: Silty sand, fine to medium grained, grey, trace of sandstone cobbles, igneous gravel and metal fragments.				
										FILL: Silty clay, low to medium plasticity, brown, trace of igneous and sandstone gravel, and ash.	w<PL			SCREEN: 4.95kg (<10L) 1.0-1.7m, NO FCF
						N = 14 4,4,10			CI-CH	Silty CLAY: medium to high plasticity, grey and orange brown, trace of ironstone gravel.	w<PL			RESIDUAL
							2			END OF BOREHOLE AT 1.95m				
							3							
							4							
							5							
							6							
							7							

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Log No. **BH2** **1/1**

SDUP9: 0.5-0.95

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 57.4m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 6.05kg (<10L) 0.02-0.5m, NO FCF
										FILL: Silty gravelly sand, light brown, fine to medium grained igneous gravel.				
						N = 18 13,9,9	1			FILL: Silty sandy clay, low plasticity, brown, fine to medium grained sand, trace of igneous and sandstone gravel, slag, metal fragments and ash.	w<PL			SCREEN: 7.45kg (<10L) 0.5-1.5m, FCF1
						N = 4 3,2,2								SCREEN: 1.45kg (<10L) 1.5-1.7m, NO FCF
							2		CI-CH	Silty CLAY: medium to high plasticity, yellow brown and orange brown, trace of ironstone gravel.	w≈PL			RESIDUAL
										END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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Log No. **BH3** **1/1**

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 56.3m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION						N = 4 1,2,2	0		-	ASPHALTIC CONCRETE: 10mm.t	M			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, brown, fine to medium grained igneous gravel, trace of ash.	w>PL			SCREEN: 4.45kg 0.1-1.1m, NO FCF
							1			FILL: Silty clay, medium to high plasticity, brown, trace of igneous and ironstone gravel, wood and ash.				SCREEN: 3.33kg 1.1-2.0m, NO FCF
						N = 4 1,2,2	2			END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH4** 1/1

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 58.1m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■	■	■		0		-	ASPHALTIC CONCRETE: 20mm.t	M			SCREEN: 4.53kg (<10L)
										FILL: Silty gravelly sand, fine to medium grained, brown, fine to medium grained igneous gravel.	w<PL			0.02-0.3m, NO FCF
	■		■	■	■	N = 12 6,5,7				FILL: Silty clay, medium to high plasticity, brown and orange brown, trace of igneous and ironstone gravel, and ash.				SCREEN: 5.45kg (<10L) 0.3-1.3m, NO FCF
							1							SCREEN: 5.10kg (<10L) 1.3-1.6m, NO FCF
	■		■	■		N = 13 8,6,7			CI-CH	Silty CLAY: medium to high plasticity, orange brown mottled red brown, trace of ironstone gravel.	w<PL			RESIDUAL
							2			END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. BH5

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING										-	ASPHALTIC CONCRETE: 30mm.t	D			APPEARS POORLY COMPACTED
											FILL: Gravelly sand, fine to coarse grained, dark grey and grey, fine to medium grained igneous and ironstone gravel, trace of clay nodules.	w>PL			SCREEN: 3.9kg (<10L) 0.03-0.23m, NO FCF
						N = 6 2,3,3	58				FILL: Silty clay, high plasticity, grey, brown and dark grey, with fine to medium grained igneous, ironstone and sandstone gravel, trace of fine to medium grained sand and ash.			200 210 220	SCREEN: 2.16kg (<10L) 0.23-0.5m, NO FCF
								1							INSUFFICIENT RETURN FOR BULK SCREEN
															SCREEN: 2.65kg (<10L) 1.0-2.0m, NO FCF
						N = 6 2,3,3	57							230 210 180	
								2		CH	Silty CLAY: high plasticity, light grey, orange brown and red brown, with fine to medium grained ironstone gravel.	w~PL	Hd		RESIDUAL
							56			-	Extremely Weathered siltstone: silty CLAY, low plasticity, light grey, grey and red brown, with fine to medium grained ironstone gravel.	XW	Hd		ASHFIELD SHALE
						N = 29 13,14,15		3						>600 >600	
							55				SILTSTONE: grey, dark grey and red brown, with occasional extremely weathered and iron indurated bands.	DW	VL		VERY LOW 'TC' BIT RESISTANCE
							54	4							
								5							
							53								
								6							
							52								VERY LOW TO LOW RESISTANCE

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ENVIRONMENTAL LOG

Log No.
BH5
2 / 4

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
							51			-	SILTSTONE: grey, dark grey and red brown, with occasional extremely weathered and iron indurated bands. *(continued)*	DW	VL - L		
								8			SILTSTONE: dark grey and grey, with occasional iron indurated bands.		L - M		LOW TO MODERATE RESISTANCE
							50						M		MODERATE RESISTANCE
								9			REFER TO CORED BOREHOLE LOG				
							49								
								10							
							48								
								11							
							47								
								12							
							46								
								13							
							45								

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CORED ENVIRONMENTAL LOG

Log No. **BH5** **3 / 4**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
		50			START CORING AT 8.56m						
80% RETURN					NO CORE 0.10m						
			9		SILTSTONE: dark grey and grey, bedded at 0-5°.	SW	M	0.30		(8.69m) J x 2, 90°, Ir, S, Fe Sn (8.78m) J, 30°, Ir, S, Fe Sn (8.92m) J, 90°, Ir, S, Fe Sn (9.07m) Be, 0°, P, S, Fe Vn (9.14m) J, 40°, C, S, Cn (9.26m) J, 90°, Ir, S, Fe Sn	
		49						0.60			
								0.60		(9.64m) J, 20°, C, S, Cn	
			10							(9.87m) J, 90°, Un, S, Fe Ct (10.04m) J, 20°, P, S, Cn (10.10m) J, 30°, Ir, S, Cn	
		48						0.50		(10.28m) J, 90°, C, S, Clay FILLED, 1 mm.t	
								0.60			
			11							(10.90m) J x 2, 10°, P, S, Clay FILLED, 2 mm.t	Ashfield Shale
		47						0.50		(11.40m) Be, 0°, P, S, Clay FILLED, 1 mm.t	
					LAMINITE: Siltstone, dark grey and grey, and Sandstone, fine grained, light grey, bedded at 0-10°.			0.90		(11.65m) J, 90°, C, S, Cn (11.87m) Be, 0°, P, S, Clay FILLED, 1 mm.t	
			12							(12.11m) XWS, 0°, 10 mm.t (12.25m) XWS, 0°, 25 mm.t	
		46						0.70		(12.39m) XWS, 0°, 10 mm.t (12.43m) XWS, 5°, 10 mm.t	
30% RETURN					SANDSTONE: fine to medium grained, light grey, with dark grey laminae and occasional siltstone bands, bedded at 0-15°.	FR	H	1.3		(12.63m) CS, 0°, 55 mm.t	
			13							(12.82m) J, 25°, Un, R, Cn (13.04m) Be, 0°, P, R, Cn (13.11m) Be, 0°, P, R, Clay FILLED, 1 mm.t	
		45						2.3			
								1.3			
								1.0			
			14							(14.25m) Be, 5°, P, S, Cn	Hawkesbury Sandstone
		44						2.5		(14.64m) Be, 15°, P, S, Cn	
								1.7			

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CORED ENVIRONMENTAL LOG

Log No. **BH5** **4 / 4**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$ VL 0.1 L 0.3 M 1 H 3 VH 10 EH	DEFECT DETAILS SPACING (mm) 600 200 60 20 DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
30% RETURN		43	16		SANDSTONE: fine to medium grained, light grey, with dark grey laminae and occasional siltstone bands, bedded at 0-15°. *(continued)*	FR	H	2.3 1.8 1.9 2.4 2.2		Hawkesbury Sandstone
		42								
			17		END OF ENVIRONMENTAL HOLE AT 16.98 m					
		41								
			18							
		40								
			19							
		39								
			20							
		38								
			21							
		37								

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ENVIRONMENTAL LOG

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Log No. BH6 **1/1**

SDUP8: 0.025-0.4

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 59.9m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 25mm.t	D			SCREEN: 3.75kg (<10L) 0.025-0.4m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	w<PL			SCREEN: 10.02kg 0.4-1.2m, NO FCF
						N = 17 5,9,8	1			FILL: Silty clay, low to medium plasticity, brown, trace of sandstone and ironstone gravel, sand and ash.				
									CI-CH	Silty CLAY: medium to high plasticity, grey and orange brown, trace of ironstone gravel.	w<PL			RESIDUAL
						N > 8 12,8/ 50mm REFUSAL	2		-	Extremely Weathered siltstone: silty gravelly CLAY, low to medium plasticity, grey, fine to medium grained siltstone gravel.	XW			ASHFIELD SHALE
										END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH7
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~61.1 m

Date: 5/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** J.F./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING							61			-	ASPHALTIC CONCRETE: 50mm.t				
											FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	M			SCREEN: 5.39kg (<10L) 0.05-0.3m, NO FCF
												w<PL			SCREEN: 1.06kg (<10L) 0.3-1.2m, NO FCF
						N = 28 4,11,17					FILL: Silty clay, high plasticity, light grey and red brown, trace of fine to medium grained ironstone gravel.			>600 >600 >600	
							60	1							
										-	Extremely Weathered siltstone: silty CLAY, high plasticity, grey, with iron indurated bands.	XW	Hd		ASHFIELD SHALE
						N > 16 8,16/ 100mm REFUSAL								>600 >600 >600	
											SILTSTONE: grey, with iron indurated bands.	DW	VL		VERY LOW 'TC' BIT RESISTANCE WITH MEDIUM BANDS
							59	2							
							58	3			as above, but with extremely weathered and iron indurated bands.		L		LOW RESISTANCE WITH VERY LOW AND MEDIUM BANDS
							57	4							
							56	5			SILTSTONE: dark grey, with iron indurated bands.		L - M		LOW TO MODERATE RESISTANCE WITH VERY LOW BANDS
											REFER TO CORED BOREHOLE LOG				
							55	6							

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CORED ENVIRONMENTAL LOG

Log No. BH7 **2 / 3**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~61.1 m

Date: 5/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
		56			START CORING AT 5.42m						
98% RETURN					NO CORE 0.46m						
		55	6		SILTSTONE: dark grey, with grey laminae and red brown bands, bedded at 0-10°.	HW	L - M	0.20		(5.90m) Be, 0°, P, S, Fe Vn (5.91m) Be, 0°, P, S, Fe Vn (5.96m) Be, 0°, P, S, Fe Vn (5.97m) Be, 0°, P, S, Fe Vn (6.00m) Be, 0°, P, S, Fe Vn (6.01m) Be, 0°, P, S, Fe Vn (6.03m) Be, 0°, P, S, Fe Ct (6.04m) Be, 0°, P, S, Fe Vn (6.11m) Be, 0°, P, S, Fe Vn (6.31m) Cr, 0°, 10 mm.t (6.38m) Be, 10°, P, S, Fe Vn (6.40m) Cr, 0°, 10 mm.t (6.42m) Be, 10°, Ir, S, Fe Vn (6.46m) Be, 0°, P, S, Fe Vn (6.47m) Be, 0°, P, S, Fe Vn (6.49m) Cr, 0°, 10 mm.t (6.52m) Cr, 0°, 10 mm.t (6.55m) Be, 5°, P, S, Fe Vn (6.55m) Be, 0°, P, S, Fe Vn (6.63m) J, 15°, P, S, Fe Vn (6.64m) Be, 0°, P, S, Fe Ct (6.73m) Cr, 0°, 70 mm.t (6.81m) Cr, 0°, 10 mm.t (6.85m) Be, 0°, P, S, Fe Vn (6.93m) Cr, 0°, 80 mm.t (7.00m) Be, 5°, P, S, Fe Ct (7.07m) Cr, 5°, 10 mm.t (7.10m) Be, 10°, P, S, Fe Vn (7.14m) Cr, 0°, 10 mm.t (7.34m) J, 65°, Un, S, Cn (7.51m) Cr, 0°, 90 mm.t (7.60m) Jh, 20°, P (7.61m) Be, 0°, P, S, Fe Vn (7.64m) Be, 5°, P, S, Fe Vn (7.68m) Be, 0°, P, S, Fe Vn (7.75m) Cr, 10°, 6 mm.t (7.81m) Cr, 0°, 6 mm.t (7.88m) Be, 0°, P, S, Fe Vn (7.90m) Be, 0°, P, S, Fe Vn (8.16m) Be, 10°, P, S, Fe Vn (8.19m) J, 25°, P, S, Cn (8.27m) J, 40°, P, S, Cn (8.31m) J, 35°, P, S, Fe Vn (8.36m) J, 40°, P, S, Fe Vn (8.43m) J, 75°, P, S, Fe Vn (8.48m) Cr, 0°, 70 mm.t (8.79m) J, 30°, Ir, S, Cn (9.40m) J, 60°, P, S, Cn (9.46m) Jh, 60°, P (9.52m) J, 70°, P, S, Cn (9.58m) J, 30°, P, S, Cn (9.69m) J, 60°, P, S, Cn (9.72m) J, 25°, P, S, Cn (9.82m) J, 20°, P, S, Cn (10.02m) J, 80°, P, S, Cn (10.16m) J x 2, 80°, P, S, Cn (10.26m) J, 80°, P, S, Cn (10.49m) J, 30°, P, S, Clay Vn (11.14m) J, 75°, P, S, Cn (11.30m) J, 75°, P, S, Cn (11.36m) CS, 0°, 15 mm.t (11.40m) Jh, 65°, P	Ashfield Shale
		54	7			MW	M	0.50			
		53	8		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°.	SW	M - H	0.40 2.0 1.1			
		52	9					1.0			
		51	10					0.70 1.0			
		50	11					2.3 0.60 1.2			

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CORED ENVIRONMENTAL LOG

Log No. BH7 3 / 3

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~61.1 m

Date: 5/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
98% RETURN		49			SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	SW	M - H	1.5			Ashfield Shale
								0.80		(12.71m) Be, 0°, P, S, Clay FILLED	
										(12.84m) XWS, 0°, 5 mm.t	
								1.4		(12.98m) Jh, 85°, P	
		48	13		LAMINITE: Siltstone, dark grey and grey, and Sandstone, fine to medium grained, light grey, bedded at 0-10°.			0.60		(13.24m) Be, 5°, P, R, Cb Vn	
								1.6			
		47	14					1.8			
								2.0		(14.66m) CS, 10°, 10 mm.t	
										(14.76m) Be, 5°, P, R, Clay Vn	
		46	15		SANDSTONE: fine to medium grained, grey, with dark grey laminae, bedded at 0-5°.			1.0		(15.06m) Be, 0°, P, S, Clay Vn	
										(15.29m) Be, 0°, P, R, Clay Vn	
										(15.44m) J, 65°, P, R, Cn	
					as above, but fine grained and dark grey.			2.1		(15.67m) Be, 5°, P, R, Clay Vn	
		45	16					0.60		(16.11m) Be, 0°, P, S, Clay Vn	
					SANDSTONE: fine to medium grained, grey, bedded at 0-5°.					(16.20m) Be, 0°, P, S, Clay Vn	
					END OF ENVIRONMENTAL HOLE AT 16.26 m						
		44	17								
		43	18								

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ENVIRONMENTAL LOG

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Log No. BH8 **1/1**

SDUP4: 0.03-0.4

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 61.9m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 5.50kg (<10L) 0.03-0.4m, NO FCF
										FILL: Silty sand, fine to medium grained, brown, trace of igneous gravel.	w≈PL			SCREEN: 5.93kg (<10L) 0.4-1.4m, NO FCF
						N = 13 7,5,8	1			FILL: Gravelly clay, low plasticity, brown, fine to medium grained, sub-angular igneous and ironstone gravel, trace of sand and ash.				
						N = 23 5,10,13	2		CI-CH	Silty CLAY: medium to high plasticity, yellow brown and orange brown, trace of ironstone gravel.	w<PL			RESIDUAL
							3		-	Extremely Weathered sandstone: silty CLAY, low to medium plasticity, orange brown.	XW			HAWKESBURY SANDSTONE
										SANDSTONE: orange brown.	DW			GROUNDWATER MONITORING WELL INSTALLED TO 5.6m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.6m TO 5.6m. CASING 0.03m TO 2.6m. 2mm SAND FILTER PACK 2.5m TO 5.6m. BENTONITE SEAL 2.0m TO 2.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							4							
							5							
							6			END OF BOREHOLE AT 6.0m				
							7							

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ENVIRONMENTAL LOG

Log No.
BH9
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING							62			-	ASPHALTIC CONCRETE: 35mm.t FILL: Gravelly silty sand, fine to coarse grained, grey brown, fine to medium grained igneous and ironstone gravel.	M			SCREEN: 3.0kg (<10L) 0.035-0.4m, NO FCF
						N=SPT 8/ 50mm REFUSAL					as above, but dark grey.				SCREEN: 3.56kg (<10L) 0.4-0.8m, NO FCF
							61	1			FILL: Silty clay, low plasticity, grey and brown, trace of fine grained igneous gravel and fine to medium grained sand.	w>PL			APPEARS POORLY COMPACTED POSSIBLY REWORKED NATURAL SCREEN: 4.73kg (<10L) 0.8-1.7m, NO FCF
						N = 8 2,3,5				CH	Silty CLAY: high plasticity, light grey mottled red brown, trace of fine to medium grained ironstone gravel, root fibres and ash.	w>PL	(St - VSt)	180 200 220	RESIDUAL
							60	2				w<PL	Hd		VERY LOW 'TC' BIT RESISTANCE WITH SOIL RESISTANCE
						N > 30 14,15,15/ 50mm REFUSAL	59	3						>600 >600 >600	
								4		-	Extremely Weathered siltstone: gravelly silty CLAY, medium plasticity, grey and red brown, with ironstone bands.	XW	Hd		ASHFIELD SHALE LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							58	5			SILTSTONE: dark grey, with extremely weathered bands and iron indurated bands.	DW	VL - L		MODERATE RESISTANCE BANDED WITH SOIL RESISTANCE
							57	6							LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							56								

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ENVIRONMENTAL LOG

Log No. BH9 2 / 4

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey, with extremely weathered bands and iron indurated bands.	DW	VL - L		MODERATE RESISTANCE
							55				REFER TO CORED BOREHOLE LOG				
								8							
							54								
								9							
							53								
								10							
							52								
								11							
							51								
								12							
							50								
								13							
							49								

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CORED ENVIRONMENTAL LOG

Log No. **BH9** **3 / 4**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 7.15m						
90% RETURN		55	8		SILTSTONE: dark grey, bedded at 0-5°.	SW	M	0.50		(7.18m) J, 65°, P, S, Clay FILLED (7.25m) Jh, 20 - 30°, St, S, Fe Vn, x 2 (7.29m) Jh, 10 - 20°, Un, S, Fe Vn (7.34m) J, 10°, P, S, Cn (7.41m) J, 20°, St, S, Cn, x 2 (7.45m) J, 40 - 60°, P, S, Cn, x 2 (7.51m) Be, 0°, P, S, Fe Ct, and Clay, FILLED (7.54m) J, 45°, P, S, Fe Ct, and Clay, FILLED x 2 (7.58m) Be, 0°, S, Fe Vn (7.60m) J, 15°, P, S, Clay FILLED (7.64m) Be, P, S, Clay FILLED (7.74m) Be, P, S, Clay FILLED (7.88m) XWS, 0°, 40 mm.t (7.91m) J, 45°, P, S, Fe Sn	Ashfield Shale
		54				FR		0.40			
								0.70			
										(8.41m) Be, 0°, P, S, Fe Sn (8.49m) J, 50°, P, S, Fe Sn	
										(8.61m) J, 30°, P, S, Cn (8.68m) J, 40°, P, S, Cn	
		53	9					0.90			
								1.0			
										(9.60m) J, 90°, P, S, Cn	
		52	10					0.90		(10.20m) J, 30 - 40°, P, S, Cn, x 2 (10.24m) J, 25°, P, S, Cn (10.28m) Ji, 30°, P, S, Cn (10.30m) J, 80°, P, S, Cn (10.31m) J, 15°, P, S, Cn (10.39m) J, 30°, P, S, Cn (10.49m) J, 20°, P, S, Cn (10.68m) J, 40°, P, S, Cn	
								0.60			
		51	11							(10.96m) J, 80°, P, S, Cn	
								0.70			
										(11.34m) J, 30°, P, S, Cn (11.40m) J, 55°, C, S, Cn	
										(11.58m) J, 90°, Ir, S, Cn	
								0.60			
		50	12							(12.00m) J, 90°, C, S, Cn	
								0.70			
								0.40			
		49	13					1.0			
								0.80			
								1.2			
					LAMINITE: as below.		H			(13.89m) Be, 0°, P, S, Clay FILLED, 6 mm.t	

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CORED ENVIRONMENTAL LOG

Log No.
BH9
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$ (VL -0.1, L -0.3, M -1, H -3, VH -10, EH)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
90% RETURN		48	15		LAMINITE: Siltstone, dark grey, and Sandstone, fine to medium grained, light grey, bedded at 0-5°.	FR	H	2.6, 1.2, 2.7, 1.6, 4.4, 1.5, 2.5		(13.99m) CS, 0°, 15 mm.t (14.07m) Be, 0°, P, S, Clay FILLED, 7 mm.t (14.15m) XWS, 0°, 7 mm.t	Ashfield Shale
		47									
		46	16								
		45	17		END OF ENVIRONMENTAL HOLE AT 16.48 m						
		44	18								
		43	19								
		42	20								

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ENVIRONMENTAL LOG

Log No. **BH10** **1/1**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 62.5m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 40mm.t	M			SCREEN: 6.65kg (<10L) 0.04-0.45m, NO FCF
						N = 16 4,9,7				FILL: Silty gravelly sand, fine to medium grained, brown, fine to medium grained, sub-angular igneous gravel.	w≈PL			SCREEN: 7.15kg (<10L) 0.45-1.45m, NO FCF
							1			FILL: Sandy clay, low plasticity, brown, fine to medium grained sand, trace of sandstone gravel, tile fragments and slag.				
						N = 24 3,8,16								INSUFFICIENT RETURN FOR BULK SCREEN
							2		-	Extremely Weathered sandstone: silty CLAY, low to medium plasticity, orange brown.	XW			HAWKESBURY SANDSTONE
										END OF BOREHOLE AT 2.5m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH11** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 62.6m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	D			SCREEN: 2.50kg (<10L)
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	w<PL			0.03-0.3m, NO FCF
						N = 12 5,5,7				FILL: Silty clay, low to medium plasticity, brown, trace of sandstone and ironstone gravel, and ash.	w<PL			SCREEN: 8.95kg (<10L) 0.3-0.7m, NO FCF
							1		CI-CH	Silty CLAY: medium to high plasticity, grey and orange brown, trace of ironstone gravel.				RESIDUAL
						N > 8 15,8/ 50mm REFUSAL			-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey, with distinctly weathered siltstone bands.	XW			ASHFIELD SHALE
							2			END OF BOREHOLE AT 1.7m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH12
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** J.F./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING										-	ASPHALTIC CONCRETE: 50mm.t FILL: Gravelly sand, fine to medium grained, dark grey and brown, fine to medium grained sandstone, ironstone and igneous gravel, trace of clay nodules.	M			APPEARS WELL COMPACTED SCREEN: 3.5kg (<10L) 0.05-0.5m, NO FCF SCREEN: 2.6kg (<10L) 0.5-1.0m, NO FCF SCREEN: 2.4kg (<10L) 1.0-1.4m, NO FCF
						N = 14 5,5,9	64	1							
						N = 11 5,4,7	63	2			FILL: Silty clay, high plasticity, orange brown and dark grey, trace of fine to medium grained igneous and ironstone gravel.	w>PL		340 320 300	SCREEN: 3.23kg (<10L) 1.4-2.0m, NO FCF INSUFFICIENT RETURN FOR BULK SCREEN
						N > 21 9,9,12/ 100mm REFUSAL	62	3		-	Extremely Weathered siltstone: silty CLAY, high plasticity, grey and red brown, with iron indurated bands.	XW	Hd	>600 >600 >600	ASHFIELD SHALE
							61	4			SILTSTONE: grey, with iron indurated bands.	DW	L		LOW 'TC' BIT RESISTANCE WITH MEDIUM BANDS
							60	5			as above, but dark grey, with extremely weathered bands.				LOW RESISTANCE WITH VERY LOW BANDS
							59	6							

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ENVIRONMENTAL LOG

Log No.
BH12
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** J.F./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey, with iron indurated and extremely weathered bands.	DW	L		
							57	8			SILTSTONE: dark grey, with iron indurated bands.				LOW RESISTANCE
							56	9							
							55	10					L - M		LOW TO MODERATE RESISTANCE
											REFER TO CORED BOREHOLE LOG				'TC' BIT REFUSAL
							54	11							
							53	12							
							52	13							

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CORED ENVIRONMENTAL LOG

Log No. **BH12** **3 / 4**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS SPACING (mm)	DEFECT DETAILS DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
					START CORING AT 10.32m						
98% RETURN		54	11		SILTSTONE: dark grey, with grey laminae, bedded at 0-5°.	SW	H	1.2 0.50		(10.73m) Be, 5°, P, S, Clay Ct (10.78m) Cr, 0°, 50 mm.t (10.85m) J, 85°, P, S, Fe Vn (10.93m) Cr, 0°, 90 mm.t	Ashfield Shale
						FR		1.3		(11.38m) J, 70°, P, S, Cn (11.39m) J, 60°, P, S, Cn	
		53	12					1.7		(11.74m) J, 60°, P, S, Cn	
								1.7		(12.12m) J, 40°, P, S, Cn (12.18m) J, 85°, P, S, Cn	
								2.1		(12.68m) J, 65°, P, S, Cn (12.81m) Cr, 0°, 10 mm.t (12.90m) J, 60°, P, S, Cn	
		52	13					2.0			
								2.3			
		51	14					1.8		(14.11m) J, 70°, P, S, Cn (14.20m) Be, 0°, P, S, Clay Ct	
								1.0		(14.51m) J, 25°, P, S, Clay Vn	
		50	15					1.3			
								0.90		(15.81m) CS, 0°, 50 mm.t (15.92m) Cr, 0°, 150 mm.t	
		49	16		LAMINITE: Siltstone, dark grey and grey, and Sandstone: fine to medium grained, light grey, bedded at 0-15°.	SW	M	0.90		(16.09m) J, 75°, P, R, Cn	
								1.1		(16.34m) Cr, 0°, 30 mm.t (16.50m) Cr, 10°, 15 mm.t (16.64m) Be, 15°, P, R, Clay Vn (16.64m) J, 90°, P, S, Cn (16.85m) Be, 10°, P, R, Clay Ct	

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CORED ENVIRONMENTAL LOG

Log No. **BH12** **4 / 4**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$ (VL -0.1, L -0.3, M -1, H -3, VH -10, EH)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness) Specific / General	Formation
					LAMINITE: Siltstone, dark grey and grey, and Sandstone: fine to medium grained, light grey, bedded at 0-15°.	SW	M	0.40			
					END OF ENVIRONMENTAL HOLE AT 17.20 m						
		47	18								
		46	19								
		45	20								
		44	21								
		43	22								
		42	23								

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ENVIRONMENTAL LOG

Log No. **BH13** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.6m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	ASS	ASB	PFAS	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION						N = 11 6,6,5	0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 3.95kg (<10L) 0.03-0.4m, NO FCF
										FILL: Silty sand, fine to medium grained, grey, trace of igneous gravel.	w≈PL			SCREEN: 9.9kg 0.3-1.3m, NO FCF
							1			FILL: Silty gravelly clay, low to medium plasticity, brown, fine to medium grained, sub-angular igneous gravel, trace of slag.				SCREEN: 2.75kg (<10L) 1.3-1.7m, NO FCF
						N = 19 3,9,10			-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, with distinctly weathered silstone bands, trace of ironstone bands.	XW			ASHFIELD SHALE
							2							
										END OF BOREHOLE AT 2.8m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH14
1 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.8 m

Date: 28/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING										-	ASPHALTIC CONCRETE: 18mm.t	D			SCREEN: 3.68kg (<10L) 0.02-0.3m, NO FCF
											FILL: Gravelly silty sand, fine to coarse grained, grey, fine to medium grained igneous gravel, trace of slag.				
										CL-CI		w>PL	VSt		RESIDUAL
						N = 9 3,3,6					Gravelly silty CLAY: low to medium plasticity, grey, light grey and red brown, fine to medium grained siltstone and ironstone gravel.			250 290 350	
							65	1							
										-	Extremely Weathered siltstone: gravelly silty CLAY, high plasticity, light grey and red brown, with very low to low strength siltstone bands and ironstone bands.	XW	Hd		ASHFIELD SHALE VERY LOW 'TC' BIT RESISTANCE
							64	2							
											LAMINITE: Sandstone, fine grained, light grey, with dark grey sandstone laminae.	DW	L		LOW TO MODERATE RESISTANCE BANDED WITH SOIL RESISTANCE
											REFER TO CORED BOREHOLE LOG				
							63	3							
							62	4							
							61	5							
							60	6							
							59								

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CORED ENVIRONMENTAL LOG

Log No. BH14 2 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.8 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 2.55m						
		63	3		NO CORE 0.36m						
		62	4		Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, light grey and grey, fine to medium grained siltstone and ironstone gravel.	XW	Hd				Ashfield Shale
		61	5		NO CORE 0.26m						
85% RETURN		60	6		SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°.	SW	L	0.40	20	(4.83-5.83m) Bex multiple, 0 - 5°, P, R, Fe Sn, ~50mm spacing (4.83-5.83m) XWS, 0 - 5°, 10-15mm.t (5.40-5.90m) J x 6, 20 - 55°, P, R, Fe Sn	Ashfield Shale
		59	7					0.60		(5.83-7.00m) XWSx multiple, 0 - 5°, 10-50mm.t	
		58	8					0.20 0.40		(7.12-7.52m) XWS x 4, 0 - 5°, 10-30mm.t (7.00-8.18m) Bex multiple, 0 - 5°, P, R, Cn, or Fe, Sn	
		57					M	1.2 0.80 0.80	60 20	(7.70m) J, 85°, P, R, Fe Sn (7.88-8.03m) XWS x 2, 3°, 5-10mm.t (8.16-8.37m) XWS x 2, 0°, 2-5mm.t	

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CORED ENVIRONMENTAL LOG

Log No. BH14 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.8 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Depth (m)	RL (m AHD)	CORE DESCRIPTION (Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components)	Weathering	Strength	Point Load Strength Index $I_s(50)$	Defect Spacing (mm)	Defect Description (Specific / General)
10	56	SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°. *(continued)*	SW	M	0.80	600 200 60 20	(9.00m) J, 85°, P, R, Fe Sn (9.03m) XWS, 5°, 5 mm.t (8.18-10.00m) Bex multiple, 0 - 5°, P, R, Fe Sn
					0.70		
							(9.47-10.00m) J x 5, 60 - 70°, P, R, Fe Sn
					0.50		(10.03m) Ji, 35°, P, R, Fe Sn (10.08-10.36m) Be x 8, 0 - 5°, P, R, Cn, or Fe, Sn
11	55			M - H	1.6		(10.56m) Be, 3°, P, R, Fe Sn (10.56-11.04m) J x 2, 75°, P, R, Fe Sn
12	54				1.6		(11.00-12.00m) J x 2, 75 - 85°, P, R, Cn (11.42-11.92m) Cr x 3, 10°, 20-60mm.t
						600 200 60 20	(12.24m) J, 60°, P, R, Cn (12.36m) Cr, 5°, 140 mm.t
13	53				1.0		(12.63m) J, 80°, P, R, Cn (12.90m) J, 80 - 90°, Un, R, Cn
							(13.49m) Cr, 13°, 20 mm.t
14	52				0.80		
		as above, but with grey, fine grained sandstone bands, bedded at 0-5°.			0.70		(14.10m) J, 80°, P, R, Cn (14.18m) J, 80°, P, R, Cn
					0.60		
15	51	END OF ENVIRONMENTAL HOLE AT 15.00 m					(14.75m) Be, 10°, Ir, R, Cn (15.00m) J, 35°, P, R, Cn
	50					600 200 60 20	

Water Loss\Level: 85% RETURN

Barrel Lift

Graphic Log

Point Load Strength Index scale: VL 0.1, L 0.3, M 1, H 3, VH 10, EH

Formation: Ashfield Shale

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ENVIRONMENTAL LOG

Log No. **BH16** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 66.2m

Date: 27/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■				0		-	ASPHALTIC CONCRETE: 10mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN ASHFIELD SHALE
	■		■						-	FILL: Sandy gravel, fine to medium grained, sub-angular igneous, brown, fine to medium grained sand.	XW			
	■		■				1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, brown, with distinctly weathered siltstone bands.				
	■		■							END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH17** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 68.5m

Date: 27/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■		■		0		-	ASPHALTIC CONCRETE: 50mm.t				SCREEN: 3.3kg (<10L)
										FILL: Sandy gravel, fine to medium grained, sub-angular igneous, brown,				0.05-0.4m, NO FCF
	■		■						-	fine to medium grained sand.	XW			ASHFIELD SHALE
	■		■				1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, brown, with distinctly weathered siltstone bands.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH18
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~68.0 m

Date: 27/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING										-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 5.4kg (<10L) 0.01-0.2m, NO FCF
										-	FILL: Gravelly silty sand, fine to coarse grained, grey, fine to medium grained igneous gravel, and slag.	XW	Hd		RESIDUAL
											Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, red brown, fine to medium grained siltstone and ironstone gravel.	DW	L - M		ASHFIELD SHALE MODERATE 'V' BIT RESISTANCE BANDED WITH LOW RESISTANCE
							67	1			SILTSTONE: grey, with ironstone bands and fine grained sandstone bands.				
											REFER TO CORED BOREHOLE LOG				GROUNWATER MONITORING WELL INSTALLED TO 13.1m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 1.1m TO 13.1m. CASING 0.1m TO 1.1m. 2mm SAND FILTER PACK 0.5m TO 13.1m. BENTONITE SEAL 0.1m TO 0.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							66	2							
							65	3							
							64	4							
							63	5							
							62	6							

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CORED ENVIRONMENTAL LOG

Log No. BH18 2 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~68.0 m

Date: 27/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$ (VL -0.1, L -0.3, M -1, H -3, VH -10, EH)	DEFECT DETAILS SPACING (mm) (600, 200, 60, 20) DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
					START CORING AT 1.15m					
					NO CORE 0.40m					
		66	2		Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, grey, fine to medium grained siltstone and ironstone gravel, with low to medium strength siltstone and ironstone bands.	XW	Hd	0.60 0.30 0.30		Ashfield Shale
		65	3		NO CORE 0.28m					
ON 30/11/23 85% RETURN ON 12/12/23		64	4		LAMINITE: Siltstone, grey, bedded with Sandstone, fine grained, bedded at 0-5°.	MW	L	0.30 0.30 0.50 0.20 0.30	(3.38m) J, 80°, Ir, Vr, Fe Sn (3.33-3.57m) Be x 10, 0°, P, Vr, Fe Sn (3.53m) J, 60°, P, Vr, Cn (3.57m) Be, 0°, C, R, Cn (3.61-3.66m) Be x 4, 0°, P, R, Cn (3.71m) Be x 3, 3°, P, Vr, Fe Sn (3.79-3.91m) Be x 3, 5°, P, R, Fe Sn (4.05m) J, 65°, P, Vr, Fe Sn (4.10m) Be x 3, 5°, P, R, Cn (4.18m) J, 85°, St, Vr, Fe Sn (4.20-4.45m) Be x 10, 3 - 5°, P, Vr, Fe Sn (4.52m) Be, 0°, C, Vr, XW FILLED, 3 mm.t (4.68-4.98m) Be x 5, P, Vr, Fe Sn (4.92-5.20m) XWS x 4, 0 - 3°, 3 mm.t (5.32m) XWS, 5°, 35 mm.t (5.41m) Be, 0°, P, Vr, Fe Sn (5.51m) Be, 0°, P, R, Fe Sn, & XW, FILLED 2mm.t (5.56m) Be, 0°, P, R, XW FILLED, 2 mm.t (5.62m) XWS, 2°, 7 mm.t (5.64m) J, 60°, St, Vr, XW FILLED, 5 mm.t (5.66m) Ji, 60°, St, Vr, Fe Sn (5.68m) Be x 2, 0°, P, R, Fe Sn (5.71-5.74m) Be x 3, 0°, P, Vr, Fe Sn (5.76m) Be x 5, 3°, P, Vr, Fe Sn (5.81m) Be, 0°, P, R, Fe Sn (5.88m) XWS, 3°, 10 mm.t (5.95m) J, 70°, P, R, Fe Sn (6.02m) Be, 5°, P, Vr, Fe Sn (6.05m) XWS, 10°, 5 mm.t (6.10m) XWS, 7°, 15 mm.t (6.18m) J, 20°, P, R, Fe Sn (6.22m) Be, 5°, P, R, Fe Sn (6.32m) J, 60°, P, Vr, Fe Sn (6.38m) Be, 15°, P, R, Cn (6.47m) J, 10°, P, R, Fe Sn (6.50m) Be, 10°, P, R, Fe Sn (6.67-6.70m) Be x 2, 20°, P, R, Fe Sn (6.78m) J, 60°, P, Vr, Fe Sn, & XW, FILLED 15mm.t (7.13m) Be, 0°, P, R, Fe Sn (7.20-7.30m) J x 2, 65°, P, R, Cn (6.80-7.82m) J x 6, 50 - 80°, P, R, Fe Sn (7.39m) Be, 10°, P, R, Fe Sn (7.40m) Be, 10°, Ir, Vr, Cn (7.61m) J, 40°, P, Vr, Cn	Ashfield Shale
		62	6		SILTSTONE: grey, with fine grained sandstone laminae, bedded at 0-10°.	SW	M	0.90 0.40 0.70		
		61	7				M - H	1.4		

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CORED ENVIRONMENTAL LOG

Log No. BH18 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~68.0 m

Date: 27/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	SPACING (mm)	DEFECT DETAILS DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
85% RETURN		59	9		SILTSTONE: grey, with fine grained sandstone laminae, bedded at 0-10°. *(continued)*	SW	M - H	1.1 1.0 2.1		(8.15m) J, 80°, P, R, Cn (8.30m) J, 70°, P, R, XW FILLED, 4 mm.t (8.44m) J, 80°, P, R, Cn (8.56m) J, 60°, P, R, Cn (8.66m) J, 60°, C, Vr, XW FILLED, 3 mm.t (8.73m) J, 60°, P, R, Cn (8.78m) J, 70°, P, R, Cn (8.96m) J, 70°, P, R, Cn (9.07m) J, 45°, P, Vr, Cn (9.19m) J, 80°, St, Vr, Cn	Ashfield Shale
					NO CORE 0.12m						
		58 57 56 55	10 11 12 13		SILTSTONE: grey, with fine grained sandstone laminae, bedded at 0-10°.	SW	M	0.80 0.70 1.8 0.90 0.80 0.50 0.70 0.90		(9.67m) J, 40°, P, R, Cn (9.77m) J, 75°, St, Vr, Cn (9.86-9.99m) J x 3, 45°, P, R, Cn (10.35m) J, 70°, P, R, Cn (10.86m) J, 50°, P, R, Cn (11.14m) J x 2, 75°, P, R, Cn (11.52m) J x 2, 60°, P, R, Cn (11.76m) Be, 0°, P, R, Sand FILLED, 1 mm.t (11.88m) J, 45°, C, R, Cn (11.97m) J, 80°, Ir, R, Cn (12.12m) J, 50°, P, R, Cn (12.70m) J, 10°, P, R, Cn (13.00m) J, 50°, P, R, Cn	Ashfield Shale
		54	14		END OF ENVIRONMENTAL HOLE AT 13.07 m						

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ENVIRONMENTAL LOG

Log No. BH19 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 64.6m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 4.90kg (<10L) 0.02-0.4m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	w<PL			SCREEN: 6.74kg (<10L) 0.4-1.4m, NO FCF
						N = 16 8,10,6	1			FILL: Silty clay, low to medium plasticity, brown and orange brown, trace of sandstone and igneous gravel, and ash.				
						N = 8 4,3,5	2							SCREEN: 6.30kg (<10L) 1.4-2.4m, NO FCF
														SCREEN: 4.10kg (<10L) 2.4-2.8m, NO FCF
						N > 11 7,11/ 50mm REFUSAL	3		-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, light brown and grey.	XW			ASHFIELD SHALE
										END OF BOREHOLE AT 3.5m				
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH20** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.4m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 20mm.t	M			SCREEN: 6.35kg 0.02-0.5m, NO FCF
										FILL: Silty sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel.				
						N = 14 6,7,7				FILL: Silty clay, low to medium plasticity, orange brown, trace of igneous and sandstone gravel.	w<PL			SCREEN: 11.40kg 0.5-1.5m, NO FCF
							1							
						N = 13 4,6,7								SCREEN: 6.75kg (<10L) 1.5-2.1m, NO FCF
							2		-	Extremely Weathered sandstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, trace of sand.	XW			HAWKESBURY SANDSTONE
										END OF BOREHOLE AT 2.8m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING										-	ASPHALTIC CONCRETE: 40mm.t FILL: Silty clay, low to medium plasticity, light grey, brown and red brown, with fine to medium grained sand and fine to medium grained igneous and ironstone gravel.	w<PL			APPEARS WELL COMPACTED SCREEN: 2.3kg (<10L) 0.04-0.5m, NO FCF TOO FRIABLE FOR HP TESTING SCREEN: 3.05kg (<10L) 0.5-1.0m, NO FCF SCREEN: 2.01kg (<10L) 1.0-1.5m, NO FCF TOO FRIABLE FOR HP TESTING SCREEN: 3.02kg (<10L) 1.5-2.0m, NO FCF
						N = 19 5,8,11	64	1							
						N = 11 5,5,6	63	2		CL-Cl	Silty CLAY: low to medium plasticity, light grey, orange brown and red brown, with fine to medium grained ironstone gravel.	w~PL	Hd		RESIDUAL
						N > 11 10,11/ 100mm REFUSAL	62	3		-	Extremely Weathered siltstone: silty CLAY, low plasticity, light grey and red brown, with fine to medium grained ironstone gravel.	XW	Hd	>600 >600	ASHFIELD SHALE
							61	4			SILTSTONE: grey, dark grey and red brown, with occasional extremely weathered and iron indurated bands.	DW	VL - L		VERY LOW TO LOW 'TC' BIT RESISTANCE
							60	5							
							59	6					L		LOW RESISTANCE

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ENVIRONMENTAL LOG

Log No. BH21 2 / 4

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey and grey.	DW	L - M		LOW TO MODERATE RESISTANCE
											REFER TO CORED BOREHOLE LOG				
							57	8							
							56	9							
							55	10							
							54	11							
							53	12							
							52	13							

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CORED ENVIRONMENTAL LOG

Log No. BH21 3 / 4

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 7.59m						
0% RETURN		57	8		SILTSTONE: dark grey, with red brown bands and grey laminae, bedded at 0-5°.	HW	L - M	0.40, 0.20		(7.64m) Be, 5°, P, S, Clay Vn; (7.69m) Cr, 0°, 15 mm.t; (7.74m) Cr, 5°, 25 mm.t; (7.79m) Be, 5°, P, S, Clay Ct; (7.84m) Cr, 5°, 30 mm.t; (7.87m) CS, 5°, 10 mm.t; (7.89m) J, 60°, P, S, Cn; (7.98m) J, 40°, Ir, S, Cn; (8.05m) XWS, 0°, 10 mm.t; (8.07m) Be, 0°, P, S, Fe Ct; (8.12m) Be, 0°, P, S, Clay Vn; (8.16m) Cr, 0°, 10 mm.t; (8.25m) J, 25°, P, S, Clay Ct; (8.39m) J, 70°, P, S, Clay Vn; (8.60m) Cr, 0°, 430 mm.t	
							VL - L	0.50			
98% RETURN		56	9		SILTSTONE: dark grey, with grey laminae, bedded at 0-5°.	FR	M	0.50, 0.80, 0.90		(8.88m) Cr, 5°, 25 mm.t; (9.32m) J, 40°, P, S, Cn; (9.49m) Cr, 0°, 10 mm.t; (9.56m) Cr, 0°, 5 mm.t	Ashfield Shale
		55	10				M - H	1.0	200 60 20	(10.17m) J, 30°, P, S, Cn	
		54	11					0.80, 1.6		(10.51m) J x 2, 90°, P, S, Cn; (10.62m) Cr, 0°, 15 mm.t; (10.65m) J, 25°, P, S, Cn; (10.82m) J, 40°, P, S, Cn; (10.89m) J, 30°, P, S, Clay FILLED; (10.98m) J, 25°, P, S, Cn; (11.15m) J, 10°, P, S, Cn; (11.28m) J x 2, 90°, P, S, Cn; (11.32m) Cr, 0°, 30 mm.t	
		53	12					1.1, 1.3		(12.48m) J, 25°, P, S, Cn; (12.55m) J, 55°, P, S, Cn	
		52	13					0.60, 1.0		(12.97m) Be, 0°, P, S, Clay Ct; (13.12m) Cr, 0°, 15 mm.t; (13.42m) J, 40°, P, S, Cn; (13.55m) Be, 5°, P, S, Clay Vn; (13.63m) J, 15°, P, S, Cn	
								0.70	600 200 60 20		

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CORED ENVIRONMENTAL LOG

Log No.
BH21
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness) Specific / General	Formation
98% RETURN		50	15		SILTSTONE: dark grey, with grey laminae, bedded at 0-5°. *(continued)*	FR	M - H	0.80		(14.41m) Be, 0°, P, S, Clay Ct	Ashfield Shale
										(14.70m) Be, 0°, P, S, Clay Ct	
								0.80			
								1.0			
								1.6		(15.66m) J, 25°, Ir, S, Cn	
								0.60		(15.92m) CS, 0°, 30 mm.t	
		49	16		LAMINITE: Siltstone, dark grey and grey, and Sandstone, fine to medium grained, light grey, bedded at 0-10°.					(16.12m) Be, 0°, P, R, Cn	
								0.70		(16.24m) CS, 0°, 30 mm.t	
								1.2		(16.72m) J, 30°, P, R, Cn	
										(16.90m) Be, 5°, P, R, Clay Ct	
		48	17					0.40		(17.22m) Cr, 0°, 3 mm.t	
								1.5			
										(17.80m) Be, 5°, P, R, Clay Ct	
		47	18					0.80		(17.84m) Jh, 70°, C	
										(18.09m) CS, 0°, 4 mm.t	
					END OF ENVIRONMENTAL HOLE AT 18.09 m						
		46	19								
		45	20								

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ENVIRONMENTAL LOG

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Log No. BH22 **1/1**

SDUP3: 0.1-0.15

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 64.2m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0		-	ASPHALTIC CONCRETE: 40mm.t	D			SCREEN: 3.47kg (<10L) 0.04-0.2m, NO FCF
										FILL: Gravelly sand, fine to coarse grained, grey brown, with fine to medium grained igneous gravel, trace of sandstone gravel, clay nodules, slag and glass fragments.	w<PL			SCREEN: 5.7kg (<10L) 0.2-0.6m, NO FCF
						N = 20 8,8,12			-		XW			ASHFIELD SHALE
							1			FILL: Silty clay, low plasticity, red brown, trace of igneous, ironstone and sandstone gravel, and clay nodules.				
										Extremely Weathered siltstone: silty CLAY, low to medium plasticity, light brown and grey, trace of ironstone bands.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH23 **1/1**

SDUP7: 0.02-0.3

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.6m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION						N = 10 5,5,5	0		-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 3.15kg (<10L) 0.02-0.3m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	D			SCREEN: 4.0kg (<10L) 0.3-1.0m, NO FCF
							1			FILL: Sand, fine to medium grained, yellow brown, trace of igneous gravel, metal and plastic fragments.				SCREEN: 11.30kg 1.0-1.4m, NO FCF
										END OF BOREHOLE AT 1.4m				TERMINATED DUE TO POSSIBLE SERVICE
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH24
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.7 m

Date: 30/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING						N = 9 3,4,5	65	1			FILL: Silty sand, fine to coarse grained, brown, with clay nodules, trace of fine grained ironstone, fine to medium grained sandstone gravel, slag, roots and root fibres.	M w~PL			GRASS COVER APPEARS WELL COMPACTED SCREEN: 13.15kg 0-0.1m, NO FCF
											FILL: Silty clay, medium plasticity, red brown, dark grey and light grey, trace of fine to medium grained ironstone, sandstone and siltstone gravel, ash and root fibres.				SCREEN: 5.5kg (<10L) 0.2-1.0m, NO FCF INSUFFICIENT RETURN FOR BULK SCREEN
						N > 25 8,13,12/ 100mm REFUSAL	64	2		CL-Cl	Gravelly silty CLAY: low to medium plasticity, light grey and red brown, fine to medium grained siltstone and ironstone gravel.	w<PL	Hd	>600 >600	RESIDUAL
							63	3							
							62	4							
							61	5		-	Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, grey, fine to medium grained siltstone and ironstone gravel.	XW	Hd		ASHFIELD SHALE VERY LOW 'TC' BIT RESISTANCE BANDED WITH SOIL RESISTANCE
							60	6							
							59				SILTSTONE: grey, with grey laminae and extremely weathered bands.	DW	VL - L		

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ENVIRONMENTAL LOG

Log No.
BH24
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.7 m

Date: 30/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
											SILTSTONE: grey, with grey laminae and extremely weathered bands.	DW	VL - L		
											REFER TO CORED BOREHOLE LOG				
							58	8							
							57	9							
							56	10							
							55	11							
							54	12							
							53	13							
							52								

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.7 m

Date: 30/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 7.09m			VL -0.1, L -0.3, M -1, H -3, VH -10, EH	600, 200, 60, 20		
		58			Extremely Weathered siltstone: gravelly silty CLAY or silty clayey GRAVEL, fine to coarse grained siltstone gravel, dark grey, low plasticity, with fine to medium grained ironstone gravel.	XW	Hd				
			8		SILTSTONE: dark grey, with brown and grey laminae, bedded at 0-10°.	SW	VL - L	0.30		(8.03m) Be, 5°, P, R, Cn (8.09-8.11m) Be x 2, 3°, P, R, Fe Sn (8.13m) XWS, 3°, 11 mm.t (8.12-8.21m) Be x 5, 0 - 5°, P, R, Fe Sn (8.23-8.30m) Be x 6, 0 - 10°, P, R, Fe Sn	
							L - M	0.20		(8.39m) Cr, 5°, 10 mm.t	
		57								(8.51m) J, 40°, Ir, Vr, Cn (8.60m) J x 2, 85°, St, Vr, Cn (8.71m) J, 25°, P, R, Cn	
			9							(8.86m) XWS, 20°, Cr, 150 mm.t (8.92m) J x 2, 50 - 85°, P, R, Cn	
						FR	M	0.90			
		56								(9.51m) J, 70°, P, R, Cn (9.58m) J, 70°, P, R, Cn (9.70m) Be, 10°, P, R, Cn (9.78m) J, 25°, P, R, Cn (9.86m) J, 30°, P, R, Cn	
			10					1.0			
								0.90			
		55						0.80		(10.64m) Ji, 70°, P, R, Cn	
			11					0.60		(11.22m) J, 55°, P, R, Cn (11.40m) J, 50°, P, R, Cn (11.45m) J, 25°, P, R, Cn (11.48m) J, 20°, P, R, Cn	
		54						0.60			
			12					0.80		(11.98m) J x 2, 50°, P, R, Cn (12.02m) J, 50°, P, R, Cn (12.10m) J, 25°, P, R, Cn	Ashfield Shale
					END OF ENVIRONMENTAL HOLE AT 12.22 m						
		53									
			13								
		52									

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ENVIRONMENTAL LOG

Log No. **BH25** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.5m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0			CONCRETE: 100mm.t				
									-	FILL: Silty clay, medium to high plasticity, brown, trace of igneous and ironstone gravel, sand and root fibres.	w>PL			SCREEN: 3.27kg (<10L) 0.1-0.3m, NO FCF
									CI-CH		w≈PL			
						N > 26 5,16, 10/50mm REFUSAL				Silty CLAY: medium to high plasticity, yellow brown mottled orange brown.				RESIDUAL
							1		-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, with distinctly weathered siltstone bands.	XW			HAWKESBURY SANDSTONE
										END OF BOREHOLE AT 1.3m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH26
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.4 m

Date: 30/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING							65				CONCRETE: 400mm.t				8mm DIA. REINFORCEMENT, 140mm TOP COVER
											CONCRETE: 280mm.t				NO REINFORCEMENT OBSERVED
								1		-	Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, light grey and orange brown, fine to medium grained siltstone and ironstone gravel.	XW	Hd		ASHFIELD SHALE AFFECTED BY WATER INTRODUCED DURING DIATUBE CORING VERY LOW 'TC' BIT RESISTANCE
							64								
								2							
							63								
											SILTSTONE: grey, with extremely weathered bands.	DW	VL - L		LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							62	3							
								4							
							61				REFER TO CORED BOREHOLE LOG				GROUNDWATER MONITORING WELL INSTALLED TO 14.2m CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.2m TO 14.2m. CASING 0.1m TO 2.2m. 2mm SAND FILTER PACK 1.5m TO 14.2m. BENTONITE SEAL 0.1m TO 1.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
								5							
							60								
								6							
							59								

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CORED ENVIRONMENTAL LOG

Log No. **BH26** **2 / 3**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.4 m

Date: 30/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS SPACING (mm)	DEFECT DETAILS DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
					START CORING AT 4.20m						
					NO CORE 0.15m						
		61	5		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°, with extremely weathered bands bedded at 0-10°.	MW	EL - VL			(4.30-5.42m) Be x multiple, 0 - 10°, P, R, Fe Sn (4.30-5.42m) XWS x multiple, 0 - 10°, 20-100mm.t	
		60			Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, dark grey, fine to medium grained siltstone gravel.	XW	Hd				
		59	6		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°.	SW	M	0.60		(6.08m) Be, 5°, P, R, Fe Sn (6.10m) J x 3, 15 - 20°, P, R, Fe Sn (6.12m) Be, 5°, P, R, Fe Sn (6.15m) Ji, 60°, P, R, Fe Sn (6.20m) J, 20°, P, R, Cn	
		58	7					0.80 0.80		(6.56m) J, 85°, St, R, Cn (6.67m) Be, 0°, P, Vr, Fe Sn (6.73m) XWS, 5°, 6 mm.t (6.75m) XWS, 5°, 5 mm.t (7.14m) J, 30°, P, R, Cn (7.17m) J, 75°, P, R, Cn (7.44m) J, 40°, P, R, Cn (7.49m) J, 45°, P, R, Cn	
85% RETURN		57	8			FR	M - H	0.90 1.8		(7.70m) Be, 8°, P, R, Cn (7.77m) J, 65°, P, R, Cn (7.83m) J, 25°, P, R, Cn (7.98m) J, 25°, P, R, Cn (8.02m) J, 30°, P, R, Cn (8.06m) Be, 5°, P, R, Cn	
		56	9					1.0 0.70 0.90		(8.49m) XWS, 10°, 6 mm.t (8.52m) J, 60°, P, R, Cn (8.56m) J, 65°, P, R, Cn (8.61m) J, 20°, C, R, Cn (8.73m) J, 30°, P, R, Cn (8.76m) J, 60°, P, R, Cn (8.81m) J, 25°, P, R, Cn (8.88m) J, 40°, P, R, Cn (9.03m) J, 25°, P, R, Cn (9.55m) J, 15°, P, R, Cn (9.67m) J, 20°, P, R, Cn (9.74m) J, 85°, C, R, Cn (9.80m) J, 20°, P, R, Cn (9.88m) J, 75°, P, R, Cn	
ON 5/12/23 ON 12/12/23		55	10					1.0 1.3		(10.38m) J, 45°, P, R, Cn	Ashfield Shale

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CORED ENVIRONMENTAL LOG

Log No. BH26 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.4 m

Date: 30/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION (Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components)	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness)	Formation
85% RETURN		54	12		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	FR	M - H	0.80		(11.30m) Be, 10°, P, R, Cn (11.35m) XWS, 0°, 15 mm.t	
		53	13		SANDSTONE: fine to medium grained, grey, bedded at 0-10°, with dark grey siltstone laminae, bedded at 0-10°, and siltstone bands.		M	0.50 0.90 0.90 0.40		(12.30m) Be, 15°, Un, R, Cn (12.48m) Be, 10°, P, R, Cn (12.60m) J, 70°, St, R, Cn (13.30m) Be x 2, 5°, P, R, Cn (13.39m) Be, 5°, P, R, Cn (13.40m) Be, 5°, P, R, Cn (13.44m) Be, 10°, Ir, R, Cn (13.48m) Be, 5°, P, R, Cn (13.52m) Be, 5°, P, R, Cn (13.58m) J, 80°, P, R, Cn (13.61m) XWS, 0°, 15 mm.t (13.70m) XWS, 0°, 10 mm.t (13.77m) Be, 10°, P, R, Cn (13.80m) Be, 10°, P, R, Cn (13.99m) XWS, 0°, 10 mm.t	Hawkesbury Sandstone
		52	14					0.80			
					SANDSTONE: fine to medium grained, light grey, with dark grey laminae, bedded at 0-10°.		M - H	1.4			
		51	15		END OF ENVIRONMENTAL HOLE AT 14.20 m						
		50	16								
		49	17								
		48									

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ENVIRONMENTAL LOG

Log No.
BH27
1 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~63.0 m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING											CONCRETE: 140mm.t				8mm DIA. REINFORCEMENT, 50mm TOP COVER
										-	FILL: Gravelly silty sand, fine to coarse grained, brown, fine to medium grained igneous gravel, trace of plastic fragments.	M			APPEARS WELL COMPACTED
						N = 14 4,5,9					FILL: Silty clay, medium plasticity, red brown and orange brown, trace of fine to medium grained sand, fine grained igneous and ironstone gravel, and root fibres.	w~PL		>600 >600 >600	SCREEN: 2.1kg (<10L) 0.14-0.5m, NO FCF
							62	1							SCREEN: 3.1kg (<10L) 0.5-1.0m, NO FCF
															INSUFFICIENT RETURN FOR BULK SCREEN
						N > 31 10,16,15/ 100mm REFUSAL				-	Extremely Weathered siltstone: silty CLAY, medium plasticity, light grey mottled red brown, with fine to medium grained siltstone and ironstone gravel, and root fibres.	XW	Hd	>600 >600 >600	ASHFIELD SHALE VERY LOW 'TC' BIT RESISTANCE
							61	2							
						N > 14 12,14/ 100mm REFUSAL	60	3							
							59	4			SILTSTONE: dark grey, with iron indurated bands and extremely weathered bands.	DW	EL - VL		LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							58	5					VL - L		
							57	6			SILTSTONE: dark grey, with grey laminae.		L - M		LOW TO MODERATE RESISTANCE BANDED WITH VERY LOW RESISTANCE

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REFER TO CORED BOREHOLE LOG

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CORED ENVIRONMENTAL LOG

Log No. **BH27** **2 / 3**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 4/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
85% RETURN		55	8		SILTSTONE: dark grey, with iron indurated bands of low to medium strength and extremely weathered bands, bedded at 0-10°, with grey laminae, undulating at 5-10°. START CORING AT 7.00m	MW	EL - VL	0.10		(7.15m) Jh, 35°, P, Vr, Fe Sn	
										(7.42m) Jh, 70°, P, Vr, Fe Sn	
										(7.00-8.00m) XWS x 6, 5°, 5-50mm.t	
										(7.00-8.00m) Be x multiple, 0 - 5°, P, R, Fe Sn	
										(7.54m) Jh, 70°, P, Vr, Fe Sn	
										(7.61m) J, 75°, P, R, Fe Sn	
										(7.67m) Jh, 35°, P, Vr, Fe Sn	
								0.50			
					SILTSTONE: dark grey, with grey laminae, bedded at 0-10°.	SW	L - M	0.20		(8.14m) Ji x 3, 40 - 50°, P, R, Fe Sn	
										(8.08-8.25m) Be x 3, 0 - 5°, P, R, Fe Sn	
										(8.30m) Be, 10°, P, R, Fe Sn	
										(8.35m) Be, 8°, P, R, Fe Sn	
										(8.40m) J, 40°, P, R, Fe Sn	
										(8.49m) Ji, 80°, P, R, Fe Sn	
								0.50		(8.55m) XWS, 5°, 28 mm.t	
										(8.56-8.67m) Be x 2, 5 - 10°, P, R, Fe Sn	
										(8.69-8.83m) Be x 2, 10°, P, R, Fe Sn	
		54	9			SW	M - H			(8.87m) J, 80°, P, R, Cn	
								1.3		(9.02m) Cr, 0°, 30 mm.t	
										(9.23m) J, 50°, P, R, Cn	
										(9.50m) J, 75°, P, R, Cn	
						FR		0.70			
		53	10					0.60			
										(10.50m) J, 70°, P, R, Cn	
		52	11					0.80			
								1.2			
								1.0			
		51	12							(12.05m) J, 80°, P, R, Cn	
								1.2		(12.50m) J, 70°, P, R, Cn	
										(12.56m) J, 40°, P, R, Cn	
								0.80			
		50	13							(13.08m) J, 70°, P, R, Cn	
								0.60		(13.33m) J, 30°, P, R, Cn	
								1.0			
										(13.88m) J, 80°, P, R, Cn	Ashfield Shale

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CORED ENVIRONMENTAL LOG

Log No. BH27 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 4/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS SPACING (mm)	DEFECT DETAILS DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
85% RETURN		48	15		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	FR	M - H			(14.05m) Cr, 5°, 110 mm.t (14.22m) J, 50°, P, R, Cn (14.37m) J, 80°, Un, R, Cn	
					LAMINITE: Siltstone, dark grey, with Sandstone, fine grained, light grey, with fine to medium grained sandstone bands, and siltstone lenses, bedded at 0-10°.			0.30 1.4 0.80		(14.83m) J, 40°, P, Vr, Cn	Hawkesbury Sandstone
		47	16				H	1.4 2.8 2.6		(15.38m) XWS, 5°, 10 mm.t (15.44m) Be, 0°, P, R, Cn (15.51m) Be, 5°, Un, R, Cn (15.54m) Be, 5°, P, R, Cn (15.86m) Be, 0°, P, R, Cn (15.91m) Be, 0°, P, R, Cn (15.92m) Be, 5°, P, R, Cn	
		46	17					2.7 1.0 1.1 1.5		(17.26m) J, 70°, P, Vr, Cn (17.38m) XWS, 0°, 16 mm.t (17.68m) J, 60°, P, R, Cn	
		45	18		END OF ENVIRONMENTAL HOLE AT 17.84 m						
		44	19								
		43	20								

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ENVIRONMENTAL LOG

Log No. **BH28** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 63.7m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0			FILL: Clayey sand, fine to medium grained, brown, trace of clay nodules.	M w<PL			GRASS COVER
						N = 12 5,5,7	1			FILL: Silty clay, low to medium plasticity, brown, trace of igneous and sandstone gravel, sand, glass fragments and ash.				SCREEN: 10.40kg 0-0.1m, NO FCF SCREEN: 2.55kg (<10L) 0.1-1.1m, NO FCF SCREEN: 6.18kg (<10L) 1.1-2.1m, NO FCF
						N = 18 6,9,9	2							SCREEN: 6.18kg (<10L) 2.1-3.0m, NO FCF
						N = 16 8,8,8	3		CI-CH	Silty CLAY: medium to high plasticity, yellow brown mottled orange brown.	w≈PL			SCREEN: 3.20kg (<10L) 3.0-3.2m, NO FCF RESIDUAL
							4			END OF BOREHOLE AT 4.0m				
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH29
1 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING											FILL: Silty clayey sand, fine to medium grained, grey brown, trace of clay nodules.	D w<PL			GRASS COVER SCREEN: 8.7kg (<10L) 0-0.1m, NO FCF
						N = 11 4,5,6	62	1			FILL: Silty clay, low plasticity, brown, grey and red brown, trace of fine grained siltstone and ironstone gravel, fine to medium grained sand, construction rubble, ash and root fibres.			500 >600	APPEARS WELL COMPACTED SCREEN: 4.0kg (<10L) 0.1-1.0m, NO FCF SCREEN: 3.7kg (<10L) 1.0-2.0m, NO FCF
						N = 18 3,8,10	61	2						>600 550	
						N = 12 2,6,6	60	3							SCREEN: 4.15kg (<10L) 2.0-3.0m, NO FCF INSUFFICIENT RETURN FOR BULK SCREEN
							59	4		-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, light grey and red brown, with ironstone bands, trace of fine grained siltstone.	XW	Hd		LOW 'TC' BIT RESISTANCE BANDED WITH SOIL RESISTANCE ASHFIELD SHALE
							58	5							
							57	6			SILTSTONE: dark grey, with grey laminae, extremely weathered bands and iron indurated bands.	DW	VL - L		LOW TO MODERATE RESISTANCE BANDED WITH SOIL RESISTANCE

ON 6/12/23

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ENVIRONMENTAL LOG

Log No. BH29 2 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey, with grey laminae, extremely weathered bands and iron indurated bands. *(continued)*	DW	VL - L		
													L		LOW TO MODERATE RESISTANCE
							55	8							
							54	9					L - M		MODERATE RESISTANCE
											REFER TO CORED BOREHOLE LOG				GROUNDWATER MONITORING WELL INSTALLED TO 19.0m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 5.5m TO 19.0m. CASING 0.1m TO 5.5m. 2mm SAND FILTER PACK 4.0m TO 19.0m. BENTONITE SEAL 0.1m TO 4.0m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							53	10							
							52	11							
							51	12							
							50	13							

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CORED ENVIRONMENTAL LOG

Log No.
BH29
3 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK330 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$ (VL -0.1, L -0.3, M -1, H -3, VH -10, EH)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 9.75m						
		53	10		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°.	FR	M - H	1.1		(9.80m) CS, 5°, 60 mm.t (9.92m) XWS, 3°, 20 mm.t	Ashfield Shale
										(10.10m) Be, 0°, C, R, Cn (10.17m) XWS, 0°, 30 mm.t (10.26m) Be, 0°, P, R, Fe Sn	
										(10.48m) XWS, 3°, 140 mm.t	
										(10.68m) Be, 5°, P, R, XW FILLED, 1 mm.t	
										(10.85m) Be, 3°, P, R, XW FILLED, 2 mm.t	
		52	11					1.6 2.4		(11.12m) XWS, 5°, 3 mm.t (11.14-11.30m) XWS x 5, 5°, 5-20mm.t	
								0.50			
										(11.35-11.82m) XWS x 4, 5°, 14-40mm.t	
								0.60			
										(11.91m) XWS, 0°, 45 mm.t	
		51	12							(12.09m) J, 75°, P, R, Cn	
								1.0		(12.38m) XWS, 3°, 60 mm.t	
	90% RETURN									(12.68-12.79m) J x 2, 30 - 35°, P, R, Cn	
		50	13					0.90		(12.98-13.03m) XWS, 0 - 5°, 15-30mm.t	
ON 12/12/23								1.1			
										(13.50m) Be, 0°, P, R, Cn (13.58m) XWS, 3°, 13 mm.t	
										(13.71m) J, 20°, Ir, Vr, Cn	
										(13.80m) J, 40°, P, R, Cn (13.80m) J, 20°, P, R, Cn	
		49	14					0.90			
								1.1			
										(14.42m) Be, 3°, P, R, Cn	
								0.70			
										(14.75m) J, 40°, P, R, Cn (14.83m) J, 25°, P, Vr, Cn (14.92m) XWS, 0°, 125 mm.t	
		48	15								
								0.70			
										(15.46m) XWS, 0°, 7 mm.t	
										(15.67m) XWS, 0°, 60 mm.t	
								0.80		(15.86m) J, 85°, P, R, Cn	

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CORED ENVIRONMENTAL LOG

Log No. BH29 4 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK330 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
90% RETURN		46	17		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	FR	M - H	1.0, 0.80, 1.1		(16.05m) Be, 0°, P, R, Cn	Ashfield Shale
		45	18		LAMINITE: Sandstone, fine to medium grained, light grey, interbedded with Siltstone, dark grey, bedded at 0-10°.		H	1.6, 2.0			Hawkesbury Sandstone
		44	19				H - VH	3.6, 3.6			
					END OF ENVIRONMENTAL HOLE AT 19.24 m						
		43	20								
		42	21								
		41	22								

POINT LOAD STRENGTH INDEX $I_s(50)$: VL -0.1, L -0.3, M -1, H -3, VH -10, EH

DEFECT DETAILS: SPACING (mm): 600, 200, 60, 20

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Log No. **BH30** **1/1**

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 59.0m

Date: 5/12/23 **Datum:** AHD

Plant Type: - **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■	■	■		0			FILL: Gravelly sand, fine to medium grained, light brown, fine to medium grained, sub-angular ironstone gravel, trace of clay nodules, roots and root fibres.	D			SCREEN: 11.7kg 0-0.1m, NO FCF
										END OF BOREHOLE AT 0.1m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH31** **1/1**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.3m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■	■	■		0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 3.75kg (<10L)
									-	FILL: Gravelly sand, fine to medium grained, dark grey, fine to medium grained, sub-angular igneous gravel.	XW			0.03-0.1m, NO FCF
	■		■							Extremely Weathered siltstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, with distinctly weathered siltstone bands, trace of ironstone bands.				ASHFIELD SHALE
	■			■			1			END OF BOREHOLE AT 1.2m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH32** **1/1**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.8m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 4.0kg (<10L)
									-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel.	XW			0.03-0.3m, NO FCF
										Extremely Weathered siltstone: silty gravelly CLAY, low to medium plasticity, grey and orange brown, trace of ironstone bands.				ASHFIELD SHALE
							1			as above, but grey.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH33
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~66.0 m

Date: 28/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING										-	ASPHALTIC CONCRETE: 18mm.t	D			SCREEN: 0.935kg (<10L) 0.04-0.2m, NO FCF
										-	FILL: Gravelly silty sand, fine to medium grained, grey, fine to medium grained igneous gravel, and slag.	XW	Hd		ASHFIELD SHALE
											Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, red brown and light grey, fine to medium grained siltstone and ironstone gravel.				VERY LOW 'V' BIT RESISTANCE
							65	1			as above, but grey.				
							64	2			Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, grey, with ironstone bands and very low to low strength siltstone bands.				LOW RESISTANCE
							63	3			SILTSTONE: grey, with extremely weathered bands and ironstone bands.	DW	VL - L		LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							62	4							
							61	5			REFER TO CORED BOREHOLE LOG				
							60	6							

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CORED ENVIRONMENTAL LOG

Log No. **BH33** **2 / 3**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~66.0 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 4.37m						
85% RETURN		61	5		SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°, with clay seams and extremely weathered and iron indurated bands.	SW	L / L - M	0.20, 0.40, 0.40		(4.40m) XWS, 3°, 30 mm.t (4.43m) CS, 3°, 25 mm.t (4.47m) XWS, 4°, 25 mm.t (4.51m) Be, 3°, P, Vr, XW FILLED, 2 mm.t (4.55m) Be, 5°, P, R, Cn (4.64m) Be x 2, 5°, P, Vr, Fe Sn (4.66m) CS, 5°, 30 mm.t (4.71m) CS, 5°, 10 mm.t (4.79-4.95m) Be x 3, 5°, P, Vr, Fe Sn (5.04-5.14m) Be x 2, 5°, P, Vr, Fe Sn (5.28-5.32m) Be x 2, 3°, P, R, Fe Sn (5.42m) Be, 3°, P, R, Fe Sn	Ashfield Shale
		60	6		SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°.	FR	M - H	1.5, 0.70, 1.2, 0.80		(5.62-5.90m) Be x 3, 5°, P, R, Fe Sn (5.94-6.10m) Be x 2, 3°, P, R, Fe Sn (6.36m) XWS, 3°, 1 mm.t (6.42m) J, 75°, St, R, Fe Sn (6.52m) Be, 3°, P, R, Fe Sn (6.53m) XWS, 0°, 8 mm.t (6.63-6.65m) Be x 2, 5°, P, R, Cn	
		59	7					1.2	60, 20	(7.07m) J, 85°, St, R, Cn (7.14-7.28m) Be x 2, 5°, P, R, Fe Sn (7.37m) J, 60°, P, R, Fe Sn (7.52m) Be, 5°, P, R, XW FILLED, 3 mm.t (7.56-7.60m) Be x 2, 5°, C, R, Cn	
		58	8					0.90, 1.1		(7.80m) XWS, 5°, 10 mm.t (8.17m) J, 20°, P, R, Cn (8.32m) Be, 15°, P, R, Siltstone gravel FILLED, 2 mm.t	
		57	9					1.2, 1.1		(9.04m) Ji, 35°, St, R, Cn (9.14m) Be, 0°, P, R, Clay Vn	
		56	10					0.70, 1.1		(9.95m) J, 70°, P, R, Cn	
								1.9, 0.90, 0.80	200, 60, 20	(10.15m) J, 25°, P, R, Cn (10.20m) J x 2, 40 - 45°, C, R, Cn (10.30m) Ji, 30°, P, Vr, Cn (10.32m) J, 25°, P, R, Cn (10.47m) J, 20°, P, R, Cn (10.52m) J, 30°, C, R, Cn (10.90m) Be, 5°, P, R, XW gravel FILLED, 1 mm.t	

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CORED ENVIRONMENTAL LOG

Log No. BH33 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~66.0 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$ (VL -0.1, L -0.3, M -1, H -3, VH -10, EH)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
85% RETURN					SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°. *(continued)*	FR	M - H	0.50		(11.10m) J, 80°, P, R, Cn (11.14m) Be, 5°, C, R, Cn (11.31m) Be, 5°, C, R, Cn (11.53m) Be, 7°, P, Vr, Cn (11.60m) J, 85°, P, Vr, Cn	
		54	12		LAMINITE: Sandstone, fine to medium grained, light grey, with Siltstone, dark grey, bedded at 0-10° and undulating at 10°.			0.40 1.3		(11.80m) Be, 5°, Un, R, Cn (11.82m) XWS, 7°, 20 mm.t	Ashfield Shale
		53	13					0.40 0.40 0.60		(12.52m) Be, 3°, P, R, Cn (12.66-12.98m) Be x 4, 3°, P, R, Cn (13.03-13.24m) Be x 4, 3 - 5°, P, R, Cn (13.30m) XWS, 5°, 7 mm.t (13.43m) J, 25°, P, R, Cn (13.52m) Be, 3°, P, R, Cn	
		52	14		END OF ENVIRONMENTAL HOLE AT 13.55 m						
		51	15								
		50	16								
		49	17								

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ENVIRONMENTAL LOG

Log No. **BH34** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.9m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 3.95kg (<10L) 0.03-0.2m, NO FCF
									CI-CH	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel.	w<PL			RESIDUAL
						N > 24 6,14, 10/50mm REFUSAL			-	Silty CLAY: medium to high plasticity, grey, trace of ironstone gravel.	XW			ASHFIELD SHALE
							1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH35** **1/1**

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 63.0m

Date: 5/1/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■				0			FILL: Silty clay, low to medium plasticity, dark brown, trace of fine to coarse grained sandstone gravel, and plastic fragments.	w<PL			GRASS COVER SCREEN: 10.3kg 0-0.15m, NO FCF
										END OF BOREHOLE AT 0.15m				
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Borehole Logs Explanation Notes

ENVIRONMENTAL LOGS EXPLANATION NOTES

INTRODUCTION

These notes have been provided to amplify the environmental report in regard to classification methods, field procedures and certain matters relating to the logging of soil and rock. Not all notes are necessarily relevant to all reports.

Where geotechnical borehole logs are utilised for environmental purpose, reference should also be made to the explanatory notes included in the geotechnical report. Environmental logs are not suitable for geotechnical purposes.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Environmental studies include gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726:2017 *'Geotechnical Site Investigations'*. In general, descriptions cover the following properties – soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geoenvironmental practice.

Soil types are described according to the predominating particle size and behaviour as set out in the attached soil classification table qualified by the grading of other particles present (eg. sandy clay) as set out below:

Soil Classification	Particle Size
Clay	< 0.002mm
Silt	0.002 to 0.075mm
Sand	0.075 to 2.36mm
Gravel	2.36 to 63mm
Cobbles	63 to 200mm
Boulders	> 200mm

Non-cohesive soils are classified on the basis of relative density, generally from the results of Standard Penetration Test (SPT) as below:

Relative Density	SPT 'N' Value (blows/300mm)
Very loose (VL)	< 4
Loose (L)	4 to 10
Medium dense (MD)	10 to 30
Dense (D)	30 to 50
Very Dense (VD)	> 50

Cohesive soils are classified on the basis of strength (consistency) either by use of a hand penetrometer, vane shear, laboratory testing and/or tactile engineering examination. The strength terms are defined as follows.

Classification	Unconfined Compressive Strength (kPa)	Indicative Undrained Shear Strength (kPa)
Very Soft (VS)	≤ 25	≤ 12
Soft (S)	> 25 and ≤ 50	> 12 and ≤ 25
Firm (F)	> 50 and ≤ 100	> 25 and ≤ 50
Stiff (St)	> 100 and ≤ 200	> 50 and ≤ 100
Very Stiff (VSt)	> 200 and ≤ 400	> 100 and ≤ 200
Hard (Hd)	> 400	> 200
Friable (Fr)	Strength not attainable – soil crumbles	

Rock types are classified by their geological names, together with descriptive terms regarding weathering, strength, defects, etc. Where relevant, further information regarding rock classification is given in the text of the report. In the Sydney Basin, 'shale' is used to describe fissile mudstone, with a weakness parallel to bedding. Rocks with alternating inter-laminations of different grain size (eg. siltstone/claystone and siltstone/fine grained sandstone) are referred to as 'laminite'.

INVESTIGATION METHODS

The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application. All methods except test pits, hand auger drilling and portable Dynamic Cone Penetrometers require the use of a mechanical rig which is commonly mounted on a truck chassis or track base.

Test Pits: These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils and 'weaker' bedrock if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for a large excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the

structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling: A borehole of 50mm to 100mm diameter is advanced by manually operated equipment. Refusal of the hand auger can occur on a variety of materials such as obstructions within any fill, tree roots, hard clay, gravel or ironstone, cobbles and boulders, and does not necessarily indicate rock level.

Continuous Spiral Flight Augers: The borehole is advanced using 75mm to 115mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling and insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the auger flights, but they can be very disturbed and layers may become mixed. Information from the auger sampling (as distinct from specific sampling by SPTs or undisturbed samples) is of limited reliability due to mixing or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table is of even lesser reliability than augering above the water table.

Rock Augering: Use can be made of a Tungsten Carbide (TC) bit for auger drilling into rock to indicate rock quality and continuity by variation in drilling resistance and from examination of recovered rock cuttings. This method of investigation is quick and relatively inexpensive but provides only an indication of the likely rock strength and predicted values may be in error by a strength order. Where rock strengths may have a significant impact on construction feasibility or costs, then further investigation by means of cored boreholes may be warranted.

Wash Boring: The borehole is usually advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be assessed from the cuttings, together with some information from "feel" and rate of penetration.

Mud Stabilised Drilling: Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilise the borehole. The term 'mud' encompasses a range of products ranging from bentonite to polymers. The mud tends to mask the cuttings and reliable identification is only possible from intermittent intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling: A continuous core sample is obtained using a diamond tipped core barrel. Provided full core recovery is achieved (which is not always possible in very low strength rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation. In rocks, NMLC or HQ triple tube core barrels, which give a core of about 50mm and 61mm diameter, respectively, is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as NO CORE. The location of NO CORE recovery is determined on site by the supervising engineer; where the location is uncertain, the loss is placed at the bottom of the drill run.

Standard Penetration Tests: Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289.6.3.1–2004 (R2016) *'Methods of Testing Soils for Engineering Purposes, Soil Strength and Consolidation Tests – Determination of the Penetration Resistance of a Soil – Standard Penetration Test (SPT)'*.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63.5kg hammer with a free fall of 760mm. It is normal for the tube to be driven in three successive 150mm increments and the 'N' value is taken as the number of blows for the last 300mm. In dense sands, very hard clays or weak rock, the full 450mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form:

- In the case where full penetration is obtained with successive blow counts for each 150mm of, say, 4, 6 and 7 blows, as

  N = 13
  4, 6, 7

- In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150mm and 30 blows for the next 40mm, as

  N > 30
  15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

A modification to the SPT is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid Cone Penetration Test (SCPT) are shown as 'N_c' on the borehole logs, together with the number of blows per 150mm penetration.

LOGS

The borehole or test pit logs presented herein are an interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment, but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The terms and symbols used in preparation of the logs are defined in the following pages.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than 'straight line' variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems:

- Although groundwater may be present, in low permeability soils it may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must be washed out of the hole or 'reverted' chemically if reliable water observations are to be made.

More reliable measurements can be made by installing standpipes which are read after the groundwater level has stabilised at intervals ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably assess the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse environmental characteristics or behaviour. If the volume and nature of fill is of importance to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing has not been undertaken to confirm the soil classification and rock strengths indicated on the environmental logs unless noted in the report.

SYMBOL LEGENDS

SOIL

FILL

TOPSOIL

CLAY (CL, CI, CH)

SILT (ML, MH)

SAND (SP, SW)

GRAVEL (GP, GW)

SANDY CLAY (CL, CI, CH)

SILTY CLAY (CL, CI, CH)

CLAYEY SAND (SC)

SILTY SAND (SM)

GRAVELLY CLAY (CL, CI, CH)

CLAYEY GRAVEL (GC)

SANDY SILT (ML, MH)

PEAT AND HIGHLY ORGANIC SOILS (Pt)

ROCK

CONGLOMERATE

SANDSTONE

SHALE/MUDSTONE

SILTSTONE

CLAYSTONE

COAL

LAMINITE

LIMESTONE

PHYLLITE, SCHIST

TUFF

GRANITE, GABBRO

DOLERITE, DIORITE

BASALT, ANDESITE

QUARTZITE

OTHER MATERIALS

BRICKS OR PAVERS

CONCRETE

ASPHALTIC CONCRETE

CLASSIFICATION OF COARSE AND FINE GRAINED SOILS

Major Divisions		Group Symbol	Typical Names	Field Classification of Sand and Gravel	Laboratory Classification	
Coarse grained soil (more than 65% of soil excluding oversize fraction is greater than 0.075mm)	GRAVEL (more than half of coarse fraction is larger than 2.36mm	GW	Gravel and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 4$ $1 < C_c < 3$
		GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		GM	Gravel-silt mixtures and gravel-sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	Fines behave as silt
		GC	Gravel-clay mixtures and gravel-sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	Fines behave as clay
	SAND (more than half of coarse fraction is smaller than 2.36mm)	SW	Sand and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 6$ $1 < C_c < 3$
		SP	Sand and gravel-sand mixtures, little or no fines	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		SM	Sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	N/A
		SC	Sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
ine grained soils (more than 35% of soil excluding oversize fraction is less than 0.075mm)	SILT and CLAY (low to medium plasticity)	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity	None to low	Slow to rapid	Low	Below A line
		CL, CI	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay	Medium to high	None to slow	Medium	Above A line
		OL	Organic silt	Low to medium	Slow	Low	Below A line
	SILT and CLAY (high plasticity)	MH	Inorganic silt	Low to medium	None to slow	Low to medium	Below A line
		CH	Inorganic clay of high plasticity	High to very high	None	High	Above A line
		OH	Organic clay of medium to high plasticity, organic silt	Medium to high	None to very slow	Low to medium	Below A line
	Highly organic soil	Pt	Peat, highly organic soil	–	–	–	–

Laboratory Classification Criteria

A well graded coarse grained soil is one for which the coefficient of uniformity $Cu > 4$ and the coefficient of curvature $1 < C_c < 3$. Otherwise, the soil is poorly graded. These coefficients are given by:

$$C_U = \frac{D_{60}}{D_{10}} \qquad and \qquad C_C = \frac{(D_{30})^2}{D_{10}\, D_{60}}$$

Where D_{10}, D_{30} and D_{60} are those grain sizes for which 10%, 30% and 60% of the soil grains, respectively, are smaller.

NOTES:

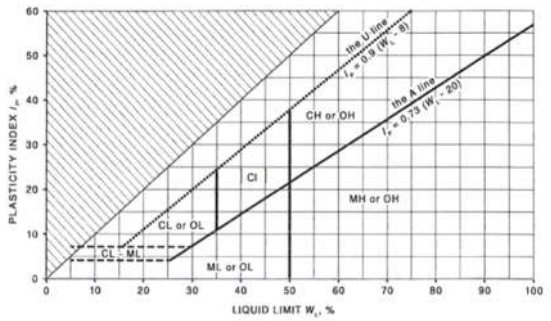
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

2 Where the grading is determined from laboratory tests, it is defined by coefficients of curvature (C_c) and uniformity (C_u) derived from the particle size distribution curve.

3 Clay soils with liquid limits > 35% and ≤ 50% may be classified as being of medium plasticity.

4 The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

Modified Casagrande Chart for Classifying Silts and Clays according to their Behaviour



LOG SYMBOLS

Log Column	Symbol	Definition
Groundwater Record		Standing water level. Time delay following completion of drilling/excavation may be shown.
		Extent of borehole/test pit collapse shortly after drilling/excavation.
		Groundwater seepage into borehole or test pit noted during drilling or excavation.
Samples	ES	Sample taken over depth indicated, for environmental analysis.
	U50	Undisturbed 50mm diameter tube sample taken over depth indicated.
	DB	Bulk disturbed sample taken over depth indicated.
	DS	Small disturbed bag sample taken over depth indicated.
	ASB	Soil sample taken over depth indicated, for asbestos analysis.
	ASS	Soil sample taken over depth indicated, for acid sulfate soil analysis.
	SAL	Soil sample taken over depth indicated, for salinity analysis.
	PFAS	Soil sample taken over depth indicated, for analysis of Per- and Polyfluoroalkyl Substances.
Field Tests	N = 17 4, 7, 10	Standard Penetration Test (SPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration. 'Refusal' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	N_c = 5 7 3R	Solid Cone Penetration Test (SCPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration for 60° solid cone driven by SPT hammer. 'R' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	VNS = 25	Vane shear reading in kPa of undrained shear strength.
	PID = 100	Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL	Moisture content estimated to be greater than plastic limit.
	$w \approx$ PL	Moisture content estimated to be approximately equal to plastic limit.
	w < PL	Moisture content estimated to be less than plastic limit.
	$w \approx$ LL	Moisture content estimated to be near liquid limit.
	w > LL	Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	D	DRY – runs freely through fingers.
	M	MOIST – does not run freely but no free water visible on soil surface.
	W	WET – free water visible on soil surface.
Strength (Consistency) Cohesive Soils	VS	VERY SOFT – unconfined compressive strength ≤ 25kPa.
	S	SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa.
	F	FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa.
	St	STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa.
	VSt	VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa.
	Hd	HARD – unconfined compressive strength > 400kPa.
	Fr	FRIABLE – strength not attainable, soil crumbles.
	( )	Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.
Density Index/ Relative Density (Cohesionless Soils)	VL	VERY LOOSE – Density Index (I_D) Range (%) ≤ 15 – SPT 'N' Value Range (Blows/300mm) 0 – 4
	L	LOOSE – > 15 and ≤ 35 – 4 – 10
	MD	MEDIUM DENSE – > 35 and ≤ 65 – 10 – 30
	D	DENSE – > 65 and ≤ 85 – 30 – 50
	VD	VERY DENSE – > 85 – > 50
	( )	Bracketed symbol indicates estimated density based on ease of drilling or other assessment.

Log Column	Symbol	Definition
Hand Penetrometer Readings	300 250	Measures reading in kPa of unconfined compressive strength. Numbers indicate individual test results on representative undisturbed material unless noted otherwise.
Remarks	'V' bit	Hardened steel 'V' shaped bit.
	'TC' bit	Twin pronged tungsten carbide bit.
	T_{60}	Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers.
	Soil Origin	The geological origin of the soil can generally be described as: RESIDUAL – soil formed directly from insitu weathering of the underlying rock. No visible structure or fabric of the parent rock. EXTREMELY WEATHERED – soil formed directly from insitu weathering of the underlying rock. Material is of soil strength but retains the structure and/or fabric of the parent rock. ALLUVIAL – soil deposited by creeks and rivers. ESTUARINE – soil deposited in coastal estuaries, including sediments caused by inflowing creeks and rivers, and tidal currents. MARINE – soil deposited in a marine environment. AEOLIAN – soil carried and deposited by wind. COLLUVIAL – soil and rock debris transported downslope by gravity, with or without the assistance of flowing water. Colluvium is usually a thick deposit formed from a landslide. The description 'slopewash' is used for thinner surficial deposits. LITTORAL – beach deposited soil.

Appendix E: Laboratory Reports & COC Documents

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CERTIFICATE OF ANALYSIS 363994

Client Details

Client	JK Environments
Attention	C Ridley
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E36466PR Macquarie Park**
Number of Samples	68 Soil, 2 Water
Date samples received	15/10/2024
Date completed instructions received	15/10/2024

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	22/10/2024
Date of Issue	15/11/2024
Reissue Details	This report replaces R00 created on 22/10/2024 due to: revised report with additional results (Sample #64 BTEX).

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Asbestos Approved By
Analysed by Asbestos Approved Analyst: Nyovan Moonean, Stuart Chen, Amanda Lee
Authorised by Asbestos Approved Signatory: Nyovan Moonean

Results Approved By
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Jack Wallis, Senior Chemist
Nyovan Moonean, Asbestos Approved Identifier/Counter
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in soil						
Our Reference		363994-31	363994-35	363994-41	363994-49	363994-55
Your Reference	UNITS	BH111	BH113	BH117	BH119	BH121
Depth		0.23-0.3	0.2-0.4	0.23-0.3	1.65-1.8	0.01-0.15
Date Sampled		10/10/2024	9/10/2024	9/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date Analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
Bromochloromethane	mg/kg	<1	<1	<1	<1	<1
Chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-Dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-Dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
Carbon Tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-Dichloropropane	mg/kg	<1	<1	<1	<1	<1
Trichloroethene	mg/kg	<1	<1	<1	<1	<1
Bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	mg/kg	<1	<1	<1	<1	<1
Dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-Dibromoethane	mg/kg	<1	<1	<1	<1	<1
Tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
Chlorobenzene	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		363994-31	363994-35	363994-41	363994-49	363994-55
Your Reference	UNITS	BH111	BH113	BH117	BH119	BH121
Depth		0.23-0.3	0.2-0.4	0.23-0.3	1.65-1.8	0.01-0.15
Date Sampled		10/10/2024	9/10/2024	9/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
Bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-Xylene	mg/kg	<2	<2	<2	<2	<2
Styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	mg/kg	<1	<1	<1	<1	<1
Isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
Bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-Propylbenzene	mg/kg	<1	<1	<1	<1	<1
2-Chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-Chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	mg/kg	<1	<1	<1	<1	<1
tert-Butylbenzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	mg/kg	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-Butylbenzene	mg/kg	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-Isopropyltoluene	mg/kg	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-Butylbenzene	mg/kg	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	100	100	101	98	98
Surrogate aaa-Trifluorotoluene	%	94	104	101	75	97
Surrogate Toluene-d_8	%	97	96	96	96	97
Surrogate 4-Bromofluorobenzene	%	98	101	99	101	99

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-6
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH101
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	3.6-3.8
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	108	106	105	106	105

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-7	363994-9	363994-10	363994-11	363994-12
Your Reference	UNITS	BH102	BH102	BH102	BH102	BH102
Depth		0-0.1	0.8-1	1.8-2	2.8-3	3.5-3.6
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	16/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	107	107	106	103	106

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-13	363994-14	363994-15	363994-16	363994-17
Your Reference	UNITS	BH103	BH103	BH103	BH103	BH103
Depth		0-0.1	0.4-0.5	0.8-1	1.8-2	2.8-3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	119	111	114	116	109

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-18	363994-19	363994-20	363994-21	363994-22
Your Reference	UNITS	BH103	BH104	BH104	BH105	BH105
Depth		3.1-3.2	0-0.1	0.1-0.2	0-0.05	0.1-0.15
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	113	113	114	105	109

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-23	363994-24	363994-25	363994-26	363994-27
Your Reference	UNITS	BH106	BH107	BH107	BH108	BH108
Depth		0-0.1	0.12-0.3	0.3-0.35	0.1-0.2	0.2-0.3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	11/10/2024	11/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	97	104	100	105	96

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-28	363994-29	363994-30	363994-31	363994-33
Your Reference	UNITS	BH109	BH109	BH110	BH111	BH112
Depth		0.15-0.3	0.6-0.8	0.15-0.3	0.23-0.3	0.2-0.3
Date Sampled		9/10/2024	9/10/2024	11/10/2024	10/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	99	101	104	94	97

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-35	363994-36	363994-38	363994-39	363994-40
Your Reference	UNITS	BH113	BH114	BH115	BH115	BH116
Depth		0.2-0.4	0.23-0.3	0.17-0.3	0.4-0.5	0.22-0.4
Date Sampled		9/10/2024	10/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	104	101	102	102	99

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-41	363994-42	363994-43	363994-44	363994-45
Your Reference	UNITS	BH117	BH117	BH118	BH118	BH118
Depth		0.23-0.3	0.4-0.5	0.02-0.2	0.6-0.8	1.6-1.7
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	101	100	104	100	98

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-46	363994-47	363994-48	363994-49	363994-50
Your Reference	UNITS	BH118	BH119	BH119	BH119	BH119
Depth		1.8-2	0.02-0.2	0.8-1	1.65-1.8	1.9-2
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	98	104	102	75	103

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-51	363994-52	363994-53	363994-55	363994-56
Your Reference	UNITS	BH120	BH120	BH120	BH121	BH121
Depth		0.02-0.2	0.5-0.7	1-1.2	0.01-0.15	0.7-0.9
Date Sampled		9/10/2024	9/10/2024	9/10/2024	8/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	92	84	89	97	93

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-57	363994-58	363994-59	363994-60	363994-62
Your Reference	UNITS	BH122	BH122	BH122	BH123	SDUP101
Depth		0.01-0.1	0.7-0.9	1-1.2	0.01-0.2	-
Date Sampled		8/10/2024	8/10/2024	8/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	89	95	103	106	100

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-63	363994-64	363994-65	363994-66	363994-67
Your Reference	UNITS	SDUP102	SDUP106	TB-S101	TB-S102	TS-S101
Depth		-	-	-	-	-
Date Sampled		9/10/2024	11/10/2024	8/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	[NA]	[NA]	[NA]
TRH C_6 - C_{10}	mg/kg	<25	<25	[NA]	[NA]	[NA]
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	[NA]	[NA]	[NA]
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	97%
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	98%
Ethylbenzene	mg/kg	<1	<1	<1	<1	98%
m+p-xylene	mg/kg	<2	<2	<2	<2	99%
o-Xylene	mg/kg	<1	<1	<1	<1	98%
Naphthalene	mg/kg	<1	<1	[NA]	[NA]	[NA]
Total +ve Xylenes	mg/kg	<1	<1	[NA]	[NA]	[NA]
Surrogate aaa-Trifluorotoluene	%	102	102	106	90	91

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		363994-68
Your Reference	UNITS	TS-S102
Depth		-
Date Sampled		9/10/2024
Type of sample		Soil
Date extracted	-	16/10/2024
Date analysed	-	17/10/2024
Benzene	mg/kg	113%
Toluene	mg/kg	113%
Ethylbenzene	mg/kg	114%
m+p-xylene	mg/kg	112%
o-Xylene	mg/kg	112%
Surrogate aaa-Trifluorotoluene	%	100

svTRH (C10-C40) in Soil						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-6
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH101
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	3.6-3.8
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	16/10/2024	16/10/2024	17/10/2024	17/10/2024
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	120	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	220	<50	<50	<50	<50
Surrogate o-Terphenyl	%	113	114	114	114	115

svTRH (C10-C40) in Soil						
Our Reference		363994-7	363994-9	363994-10	363994-11	363994-12
Your Reference	UNITS	BH102	BH102	BH102	BH102	BH102
Depth		0-0.1	0.8-1	1.8-2	2.8-3	3.5-3.6
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	%	113	113	114	113	113

svTRH (C10-C40) in Soil						
Our Reference		363994-13	363994-14	363994-15	363994-16	363994-17
Your Reference	UNITS	BH103	BH103	BH103	BH103	BH103
Depth		0-0.1	0.4-0.5	0.8-1	1.8-2	2.8-3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	%	112	113	113	112	112

svTRH (C10-C40) in Soil						
Our Reference		363994-18	363994-19	363994-20	363994-21	363994-22
Your Reference	UNITS	BH103	BH104	BH104	BH105	BH105
Depth		3.1-3.2	0-0.1	0.1-0.2	0-0.05	0.1-0.15
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	100	<50
Surrogate o-Terphenyl	%	112	114	114	115	113

svTRH (C10-C40) in Soil						
Our Reference		363994-23	363994-24	363994-25	363994-26	363994-27
Your Reference	UNITS	BH106	BH107	BH107	BH108	BH108
Depth		0-0.1	0.12-0.3	0.3-0.35	0.1-0.2	0.2-0.3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	11/10/2024	11/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	200	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	350	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	540	<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	440	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	260	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	700	<50	<50	<50	<50
Surrogate o-Terphenyl	%	118	115	112	115	112

svTRH (C10-C40) in Soil						
Our Reference		363994-28	363994-29	363994-30	363994-31	363994-33
Your Reference	UNITS	BH109	BH109	BH110	BH111	BH112
Depth		0.15-0.3	0.6-0.8	0.15-0.3	0.23-0.3	0.2-0.3
Date Sampled		9/10/2024	9/10/2024	11/10/2024	10/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	%	112	114	115	111	112

svTRH (C10-C40) in Soil						
Our Reference		363994-35	363994-36	363994-38	363994-39	363994-40
Your Reference	UNITS	BH113	BH114	BH115	BH115	BH116
Depth		0.2-0.4	0.23-0.3	0.17-0.3	0.4-0.5	0.22-0.4
Date Sampled		9/10/2024	10/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	160	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	180	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	330	<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	280	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	130	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	420	<50	<50	<50	<50
Surrogate o-Terphenyl	%	115	105	106	109	108

svTRH (C10-C40) in Soil						
Our Reference		363994-41	363994-42	363994-43	363994-44	363994-45
Your Reference	UNITS	BH117	BH117	BH118	BH118	BH118
Depth		0.23-0.3	0.4-0.5	0.02-0.2	0.6-0.8	1.6-1.7
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	120	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	300	100	110	150	<100
Total +ve TRH (C10-C36)	mg/kg	420	100	110	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	320	110	<100	160	<100
TRH >C_{34} -C_{40}	mg/kg	310	130	190	160	<100
Total +ve TRH (>C10-C40)	mg/kg	630	240	190	320	<50
Surrogate o-Terphenyl	%	114	113	115	114	108

svTRH (C10-C40) in Soil						
Our Reference		363994-46	363994-47	363994-48	363994-49	363994-50
Your Reference	UNITS	BH118	BH119	BH119	BH119	BH119
Depth		1.8-2	0.02-0.2	0.8-1	1.65-1.8	1.9-2
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	160	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	160	<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	140	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	260	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	400	<50	<50	<50
Surrogate o-Terphenyl	%	108	110	109	109	108

svTRH (C10-C40) in Soil						
Our Reference		363994-51	363994-52	363994-53	363994-55	363994-56
Your Reference	UNITS	BH120	BH120	BH120	BH121	BH121
Depth		0.02-0.2	0.5-0.7	1-1.2	0.01-0.15	0.7-0.9
Date Sampled		9/10/2024	9/10/2024	9/10/2024	8/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	130	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	130	<50	<50	<50	<50
Surrogate o-Terphenyl	%	109	106	108	107	107

svTRH (C10-C40) in Soil						
Our Reference		363994-57	363994-58	363994-59	363994-60	363994-62
Your Reference	UNITS	BH122	BH122	BH122	BH123	SDUP101
Depth		0.01-0.1	0.7-0.9	1-1.2	0.01-0.2	-
Date Sampled		8/10/2024	8/10/2024	8/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	250	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	250	<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	200	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	460	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	660	<50
Surrogate o-Terphenyl	%	106	106	109	112	108

svTRH (C10-C40) in Soil			
Our Reference		363994-63	363994-64
Your Reference	UNITS	SDUP102	SDUP106
Depth		-	-
Date Sampled		9/10/2024	11/10/2024
Type of sample		Soil	Soil
Date extracted	-	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	105	107

PAHs in Soil						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-6
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH101
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	3.6-3.8
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	16/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	134	138	132	133	118

PAHs in Soil						
Our Reference		363994-7	363994-9	363994-10	363994-11	363994-12
Your Reference	UNITS	BH102	BH102	BH102	BH102	BH102
Depth		0-0.1	0.8-1	1.8-2	2.8-3	3.5-3.6
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	16/10/2024	17/10/2024	16/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.1	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	0.53	<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	%	127	133	113	125	115

PAHs in Soil						
Our Reference		363994-13	363994-14	363994-15	363994-16	363994-17
Your Reference	UNITS	BH103	BH103	BH103	BH103	BH103
Depth		0-0.1	0.4-0.5	0.8-1	1.8-2	2.8-3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	16/10/2024	17/10/2024	16/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.07	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	0.07	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	127	130	112	124	116

PAHs in Soil						
Our Reference		363994-18	363994-19	363994-20	363994-21	363994-22
Your Reference	UNITS	BH103	BH104	BH104	BH105	BH105
Depth		3.1-3.2	0-0.1	0.1-0.2	0-0.05	0.1-0.15
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.07	<0.05	0.07
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	0.07	<0.05	0.07
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	%	111	126	131	129	128

PAHs in Soil						
Our Reference		363994-23	363994-24	363994-25	363994-26	363994-27
Your Reference	UNITS	BH106	BH107	BH107	BH108	BH108
Depth		0-0.1	0.12-0.3	0.3-0.35	0.1-0.2	0.2-0.3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	11/10/2024	11/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	16/10/2024	17/10/2024	16/10/2024
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	0.6	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.9	<0.1	<0.1	0.2
Pyrene	mg/kg	<0.1	0.8	<0.1	<0.1	0.2
Benzo(a)anthracene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	0.3	<0.1	<0.1	0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.5	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.3	<0.05	<0.05	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	<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	0.2	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	4.0	<0.05	<0.05	0.52
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	%	124	127	109	129	111

PAHs in Soil						
Our Reference		363994-28	363994-29	363994-30	363994-31	363994-33
Your Reference	UNITS	BH109	BH109	BH110	BH111	BH112
Depth		0.15-0.3	0.6-0.8	0.15-0.3	0.23-0.3	0.2-0.3
Date Sampled		9/10/2024	9/10/2024	11/10/2024	10/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	16/10/2024	17/10/2024	17/10/2024	17/10/2024
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	0.2	<0.1	0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	0.4	0.1	0.5
Pyrene	mg/kg	0.2	<0.1	0.4	0.1	0.4
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	0.2
Chrysene	mg/kg	0.1	<0.1	0.2	<0.1	0.2
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.4	<0.2	0.4
Benzo(a)pyrene	mg/kg	0.1	<0.05	0.3	0.09	0.2
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	0.2	<0.1	0.1
Total +ve PAH's	mg/kg	0.58	<0.05	2.4	0.3	2.4
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	%	126	100	128	129	124

PAHs in Soil						
Our Reference		363994-35	363994-36	363994-38	363994-39	363994-40
Your Reference	UNITS	BH113	BH114	BH115	BH115	BH116
Depth		0.2-0.4	0.23-0.3	0.17-0.3	0.4-0.5	0.22-0.4
Date Sampled		9/10/2024	10/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.3	<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	0.2	<0.1	0.2	1.7	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1
Fluoranthene	mg/kg	0.7	0.3	0.3	1.7	0.2
Pyrene	mg/kg	0.8	0.3	0.2	1.4	0.2
Benzo(a)anthracene	mg/kg	0.5	0.1	0.1	0.8	0.1
Chrysene	mg/kg	0.5	0.1	0.1	0.6	0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.9	0.2	0.2	0.8	0.3
Benzo(a)pyrene	mg/kg	0.59	0.2	0.2	0.59	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	0.4	<0.1	0.1	0.2	<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	0.5	0.1	0.1	0.3	0.1
Total +ve PAH's	mg/kg	5.2	1.3	1.5	8.9	1.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.9	<0.5	<0.5	0.8	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.9	<0.5	<0.5	0.8	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.9	<0.5	<0.5	0.9	<0.5
Surrogate p-Terphenyl-d14	%	131	122	123	123	129

PAHs in Soil						
Our Reference		363994-41	363994-42	363994-43	363994-44	363994-45
Your Reference	UNITS	BH117	BH117	BH118	BH118	BH118
Depth		0.23-0.3	0.4-0.5	0.02-0.2	0.6-0.8	1.6-1.7
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.3	0.4	<0.1	0.2	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.2	0.2	<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	0.2	0.2	<0.05	0.1	<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	0.3	0.2	<0.1	0.1	<0.1
Total +ve PAH's	mg/kg	1.8	1.7	<0.05	0.5	<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	%	136	126	117	115	122

PAHs in Soil						
Our Reference		363994-46	363994-47	363994-48	363994-49	363994-50
Your Reference	UNITS	BH118	BH119	BH119	BH119	BH119
Depth		1.8-2	0.02-0.2	0.8-1	1.65-1.8	1.9-2
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	120	121	116	120	114

PAHs in Soil						
Our Reference		363994-51	363994-52	363994-53	363994-55	363994-56
Your Reference	UNITS	BH120	BH120	BH120	BH121	BH121
Depth		0.02-0.2	0.5-0.7	1-1.2	0.01-0.15	0.7-0.9
Date Sampled		9/10/2024	9/10/2024	9/10/2024	8/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.08	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	0.08	<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	%	122	119	113	115	116

PAHs in Soil						
Our Reference		363994-57	363994-58	363994-59	363994-60	363994-62
Your Reference	UNITS	BH122	BH122	BH122	BH123	SDUP101
Depth		0.01-0.1	0.7-0.9	1-1.2	0.01-0.2	-
Date Sampled		8/10/2024	8/10/2024	8/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	16/10/2024	16/10/2024	17/10/2024	17/10/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	109	101	102	121	108

PAHs in Soil			
Our Reference		363994-63	363994-64
Your Reference	UNITS	SDUP102	SDUP106
Depth		-	-
Date Sampled		9/10/2024	11/10/2024
Type of sample		Soil	Soil
Date extracted	-	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	16/10/2024
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	0.2	0.2
Pyrene	mg/kg	0.2	0.2
Benzo(a)anthracene	mg/kg	0.2	0.1
Chrysene	mg/kg	0.2	0.2
Benzo(b,j+k)fluoranthene	mg/kg	0.3	0.2
Benzo(a)pyrene	mg/kg	0.2	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	0.1
Total +ve PAH's	mg/kg	1.4	1.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	111	113

Organochlorine Pesticides in soil						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-7
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH102
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	0-0.1
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	128	132	130	127	127

Organochlorine Pesticides in soil						
Our Reference		363994-9	363994-11	363994-13	363994-14	363994-16
Your Reference	UNITS	BH102	BH102	BH103	BH103	BH103
Depth		0.8-1	2.8-3	0-0.1	0.4-0.5	1.8-2
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	1.6
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	1.7
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	130	126	126	128	124

Organochlorine Pesticides in soil						
Our Reference		363994-19	363994-20	363994-21	363994-22	363994-23
Your Reference	UNITS	BH104	BH104	BH105	BH105	BH106
Depth		0-0.1	0.1-0.2	0-0.05	0.1-0.15	0-0.1
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	126	131	130	130	126

Organochlorine Pesticides in soil						
Our Reference		363994-24	363994-26	363994-28	363994-30	363994-31
Your Reference	UNITS	BH107	BH108	BH109	BH110	BH111
Depth		0.12-0.3	0.1-0.2	0.15-0.3	0.15-0.3	0.23-0.3
Date Sampled		10/10/2024	11/10/2024	9/10/2024	11/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	131	128	125	127	125

Organochlorine Pesticides in soil						
Our Reference		363994-33	363994-35	363994-36	363994-38	363994-40
Your Reference	UNITS	BH112	BH113	BH114	BH115	BH116
Depth		0.2-0.3	0.2-0.4	0.23-0.3	0.17-0.3	0.22-0.4
Date Sampled		8/10/2024	9/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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	0.3	<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	0.2	<0.1
gamma-Chlordane	mg/kg	0.2	<0.1	<0.1	0.9	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	117	122	120	119	125

Organochlorine Pesticides in soil						
Our Reference		363994-41	363994-43	363994-44	363994-47	363994-48
Your Reference	UNITS	BH117	BH118	BH118	BH119	BH119
Depth		0.23-0.3	0.02-0.2	0.6-0.8	0.02-0.2	0.8-1
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	130	118	118	122	111

Organochlorine Pesticides in soil						
Our Reference		363994-49	363994-51	363994-52	363994-53	363994-55
Your Reference	UNITS	BH119	BH120	BH120	BH120	BH121
Depth		1.65-1.8	0.02-0.2	0.5-0.7	1-1.2	0.01-0.15
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	118	104	105	113	115

Organochlorine Pesticides in soil					
Our Reference		363994-57	363994-60	363994-62	363994-63
Your Reference	UNITS	BH122	BH123	SDUP101	SDUP102
Depth		0.01-0.1	0.01-0.2	-	-
Date Sampled		8/10/2024	9/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	112	124	104	113

Organophosphorus Pesticides in Soil						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-7
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH102
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	0-0.1
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	128	132	130	127	127

Organophosphorus Pesticides in Soil						
Our Reference		363994-9	363994-11	363994-13	363994-14	363994-16
Your Reference	UNITS	BH102	BH102	BH103	BH103	BH103
Depth		0.8-1	2.8-3	0-0.1	0.4-0.5	1.8-2
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	130	126	126	128	124

Organophosphorus Pesticides in Soil						
Our Reference		363994-19	363994-20	363994-21	363994-22	363994-23
Your Reference	UNITS	BH104	BH104	BH105	BH105	BH106
Depth		0-0.1	0.1-0.2	0-0.05	0.1-0.15	0-0.1
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	126	131	130	130	126

Organophosphorus Pesticides in Soil						
Our Reference		363994-24	363994-26	363994-28	363994-30	363994-31
Your Reference	UNITS	BH107	BH108	BH109	BH110	BH111
Depth		0.12-0.3	0.1-0.2	0.15-0.3	0.15-0.3	0.23-0.3
Date Sampled		10/10/2024	11/10/2024	9/10/2024	11/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	131	128	125	127	125

Organophosphorus Pesticides in Soil						
Our Reference		363994-33	363994-35	363994-36	363994-38	363994-40
Your Reference	UNITS	BH112	BH113	BH114	BH115	BH116
Depth		0.2-0.3	0.2-0.4	0.23-0.3	0.17-0.3	0.22-0.4
Date Sampled		8/10/2024	9/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	117	122	120	119	125

Organophosphorus Pesticides in Soil						
Our Reference		363994-41	363994-43	363994-44	363994-47	363994-48
Your Reference	UNITS	BH117	BH118	BH118	BH119	BH119
Depth		0.23-0.3	0.02-0.2	0.6-0.8	0.02-0.2	0.8-1
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	130	118	118	122	111

Organophosphorus Pesticides in Soil						
Our Reference		363994-49	363994-51	363994-52	363994-53	363994-55
Your Reference	UNITS	BH119	BH120	BH120	BH120	BH121
Depth		1.65-1.8	0.02-0.2	0.5-0.7	1-1.2	0.01-0.15
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	118	104	105	113	115

Organophosphorus Pesticides in Soil					
Our Reference		363994-57	363994-60	363994-62	363994-63
Your Reference	UNITS	BH122	BH123	SDUP101	SDUP102
Depth		0.01-0.1	0.01-0.2	-	-
Date Sampled		8/10/2024	9/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	112	124	104	113

PCBs in Soil						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-7
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH102
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	0-0.1
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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 2-Fluorobiphenyl	%	130	125	120	113	120

PCBs in Soil						
Our Reference		363994-9	363994-11	363994-13	363994-14	363994-16
Your Reference	UNITS	BH102	BH102	BH103	BH103	BH103
Depth		0.8-1	2.8-3	0-0.1	0.4-0.5	1.8-2
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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 2-Fluorobiphenyl	%	121	118	120	121	117

PCBs in Soil						
Our Reference		363994-19	363994-20	363994-21	363994-22	363994-23
Your Reference	UNITS	BH104	BH104	BH105	BH105	BH106
Depth		0-0.1	0.1-0.2	0-0.05	0.1-0.15	0-0.1
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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 2-Fluorobiphenyl	%	120	123	126	120	123

PCBs in Soil						
Our Reference		363994-24	363994-26	363994-28	363994-30	363994-31
Your Reference	UNITS	BH107	BH108	BH109	BH110	BH111
Depth		0.12-0.3	0.1-0.2	0.15-0.3	0.15-0.3	0.23-0.3
Date Sampled		10/10/2024	11/10/2024	9/10/2024	11/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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 2-Fluorobiphenyl	%	122	123	119	120	120

PCBs in Soil						
Our Reference		363994-33	363994-35	363994-36	363994-38	363994-40
Your Reference	UNITS	BH112	BH113	BH114	BH115	BH116
Depth		0.2-0.3	0.2-0.4	0.23-0.3	0.17-0.3	0.22-0.4
Date Sampled		8/10/2024	9/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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 2-Fluorobiphenyl	%	114	120	115	114	117

PCBs in Soil						
Our Reference		363994-41	363994-43	363994-44	363994-47	363994-48
Your Reference	UNITS	BH117	BH118	BH118	BH119	BH119
Depth		0.23-0.3	0.02-0.2	0.6-0.8	0.02-0.2	0.8-1
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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 2-Fluorobiphenyl	%	127	114	115	118	120

PCBs in Soil						
Our Reference		363994-49	363994-51	363994-52	363994-53	363994-55
Your Reference	UNITS	BH119	BH120	BH120	BH120	BH121
Depth		1.65-1.8	0.02-0.2	0.5-0.7	1-1.2	0.01-0.15
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
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 2-Fluorobiphenyl	%	127	115	115	115	120

PCBs in Soil					
Our Reference		363994-57	363994-60	363994-62	363994-63
Your Reference	UNITS	BH122	BH123	SDUP101	SDUP102
Depth		0.01-0.1	0.01-0.2	-	-
Date Sampled		8/10/2024	9/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	113	115	119	114

Acid Extractable metals in soil						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-6
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH101
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	3.6-3.8
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	8	11	9	10	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	14	21	19	26	21
Copper	mg/kg	13	8	8	31	3
Lead	mg/kg	30	21	23	47	20
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	7	4	12	<1
Zinc	mg/kg	29	120	15	73	3

Acid Extractable metals in soil						
Our Reference		363994-7	363994-9	363994-10	363994-11	363994-12
Your Reference	UNITS	BH102	BH102	BH102	BH102	BH102
Depth		0-0.1	0.8-1	1.8-2	2.8-3	3.5-3.6
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	10	21	9	9	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	20	22	25	24
Copper	mg/kg	17	15	22	29	5
Lead	mg/kg	52	23	40	63	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	12	25	15	11	1
Zinc	mg/kg	52	46	47	87	5

Acid Extractable metals in soil						
Our Reference		363994-13	363994-14	363994-15	363994-16	363994-17
Your Reference	UNITS	BH103	BH103	BH103	BH103	BH103
Depth		0-0.1	0.4-0.5	0.8-1	1.8-2	2.8-3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	11	9	9	10	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	24	19	24	20
Copper	mg/kg	13	9	11	21	14
Lead	mg/kg	33	28	35	77	24
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	9	10	6	15	3
Zinc	mg/kg	40	35	42	190	19

Acid Extractable metals in soil						
Our Reference		363994-18	363994-19	363994-20	363994-21	363994-22
Your Reference	UNITS	BH103	BH104	BH104	BH105	BH105
Depth		3.1-3.2	0-0.1	0.1-0.2	0-0.05	0.1-0.15
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	10	10	6	4	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	9	11	8	12
Copper	mg/kg	9	14	15	12	15
Lead	mg/kg	22	22	19	40	22
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	2	8	4	9
Zinc	mg/kg	15	16	24	33	12

Acid Extractable metals in soil						
Our Reference		363994-23	363994-24	363994-25	363994-26	363994-27
Your Reference	UNITS	BH106	BH107	BH107	BH108	BH108
Depth		0-0.1	0.12-0.3	0.3-0.35	0.1-0.2	0.2-0.3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	11/10/2024	11/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	5	<4	7	<4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	12	20	10	19
Copper	mg/kg	19	57	33	120	14
Lead	mg/kg	29	9	11	5	33
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	11	54	39	72	18
Zinc	mg/kg	48	53	35	43	32

Acid Extractable metals in soil						
Our Reference		363994-28	363994-29	363994-30	363994-31	363994-33
Your Reference	UNITS	BH109	BH109	BH110	BH111	BH112
Depth		0.15-0.3	0.6-0.8	0.15-0.3	0.23-0.3	0.2-0.3
Date Sampled		9/10/2024	9/10/2024	11/10/2024	10/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	<4	6	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	14	11	6	13
Copper	mg/kg	7	2	12	13	13
Lead	mg/kg	32	22	43	32	34
Mercury	mg/kg	0.1	<0.1	0.1	<0.1	0.1
Nickel	mg/kg	5	1	8	4	9
Zinc	mg/kg	21	5	32	22	23

Acid Extractable metals in soil						
Our Reference		363994-35	363994-36	363994-38	363994-39	363994-40
Your Reference	UNITS	BH113	BH114	BH115	BH115	BH116
Depth		0.2-0.4	0.23-0.3	0.17-0.3	0.4-0.5	0.22-0.4
Date Sampled		9/10/2024	10/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	<4	<4	<4	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	14	7	11	24	12
Copper	mg/kg	47	39	58	6	7
Lead	mg/kg	44	37	37	26	46
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	0.1
Nickel	mg/kg	13	7	18	10	6
Zinc	mg/kg	31	28	31	6	32

Acid Extractable metals in soil						
Our Reference		363994-41	363994-42	363994-43	363994-44	363994-45
Your Reference	UNITS	BH117	BH117	BH118	BH118	BH118
Depth		0.23-0.3	0.4-0.5	0.02-0.2	0.6-0.8	1.6-1.7
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	5	6	<4	8	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	14	11	10	23	32
Copper	mg/kg	39	20	60	22	6
Lead	mg/kg	16	16	3	55	27
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	36	20	88	36	3
Zinc	mg/kg	21	11	39	43	5

Acid Extractable metals in soil						
Our Reference		363994-46	363994-47	363994-48	363994-49	363994-50
Your Reference	UNITS	BH118	BH119	BH119	BH119	BH119
Depth		1.8-2	0.02-0.2	0.8-1	1.65-1.8	1.9-2
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	11	<4	7	7	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	37	8	15	33	31
Copper	mg/kg	11	44	8	4	4
Lead	mg/kg	20	2	19	24	25
Mercury	mg/kg	<0.1	0.5	<0.1	<0.1	<0.1
Nickel	mg/kg	2	57	2	3	4
Zinc	mg/kg	7	32	3	9	5

Acid Extractable metals in soil						
Our Reference		363994-51	363994-52	363994-53	363994-55	363994-56
Your Reference	UNITS	BH120	BH120	BH120	BH121	BH121
Depth		0.02-0.2	0.5-0.7	1-1.2	0.01-0.15	0.7-0.9
Date Sampled		9/10/2024	9/10/2024	9/10/2024	8/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	<4	8	6	<4	25
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	5	22	12	7
Copper	mg/kg	66	2	21	60	4
Lead	mg/kg	3	2	21	5	20
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	86	1	24	61	<1
Zinc	mg/kg	44	7	12	37	<1

Acid Extractable metals in soil						
Our Reference		363994-57	363994-58	363994-59	363994-60	363994-62
Your Reference	UNITS	BH122	BH122	BH122	BH123	SDUP101
Depth		0.01-0.1	0.7-0.9	1-1.2	0.01-0.2	-
Date Sampled		8/10/2024	8/10/2024	8/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	<4	<4	6	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	4	4	6	10
Copper	mg/kg	66	8	11	46	44
Lead	mg/kg	4	19	10	3	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	65	<1	<1	45	47
Zinc	mg/kg	40	<1	<1	31	36

Acid Extractable metals in soil					
Our Reference		363994-63	363994-64	363994-71	363994-72
Your Reference	UNITS	SDUP102	SDUP106	BH106 - [TRIPLICATE]	BH113 - [TRIPLICATE]
Depth		-	-	0-0.1	0.2-0.4
Date Sampled		9/10/2024	11/10/2024	10/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic	mg/kg	<4	<4	6	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	29	10	11	14
Copper	mg/kg	17	8	17	51
Lead	mg/kg	44	47	30	50
Mercury	mg/kg	0.1	0.1	<0.1	0.1
Nickel	mg/kg	18	6	6	12
Zinc	mg/kg	28	32	48	30

Moisture						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-6
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH101
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	3.6-3.8
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	14	17	16	17	22

Moisture						
Our Reference		363994-7	363994-9	363994-10	363994-11	363994-12
Your Reference	UNITS	BH102	BH102	BH102	BH102	BH102
Depth		0-0.1	0.8-1	1.8-2	2.8-3	3.5-3.6
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	18	14	16	19	19

Moisture						
Our Reference		363994-13	363994-14	363994-15	363994-16	363994-17
Your Reference	UNITS	BH103	BH103	BH103	BH103	BH103
Depth		0-0.1	0.4-0.5	0.8-1	1.8-2	2.8-3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	13	17	14	15	14

Moisture						
Our Reference		363994-18	363994-19	363994-20	363994-21	363994-22
Your Reference	UNITS	BH103	BH104	BH104	BH105	BH105
Depth		3.1-3.2	0-0.1	0.1-0.2	0-0.05	0.1-0.15
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	11	6.1	9.0	4.2	11

Moisture						
Our Reference		363994-23	363994-24	363994-25	363994-26	363994-27
Your Reference	UNITS	BH106	BH107	BH107	BH108	BH108
Depth		0-0.1	0.12-0.3	0.3-0.35	0.1-0.2	0.2-0.3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	11/10/2024	11/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	20	7.8	8.7	4.2	13

Moisture						
Our Reference		363994-28	363994-29	363994-30	363994-31	363994-33
Your Reference	UNITS	BH109	BH109	BH110	BH111	BH112
Depth		0.15-0.3	0.6-0.8	0.15-0.3	0.23-0.3	0.2-0.3
Date Sampled		9/10/2024	9/10/2024	11/10/2024	10/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	9.1	17	5.6	10	12

Moisture						
Our Reference		363994-35	363994-36	363994-38	363994-39	363994-40
Your Reference	UNITS	BH113	BH114	BH115	BH115	BH116
Depth		0.2-0.4	0.23-0.3	0.17-0.3	0.4-0.5	0.22-0.4
Date Sampled		9/10/2024	10/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	9.6	8.1	11	14	7.2

Moisture						
Our Reference		363994-41	363994-42	363994-43	363994-44	363994-45
Your Reference	UNITS	BH117	BH117	BH118	BH118	BH118
Depth		0.23-0.3	0.4-0.5	0.02-0.2	0.6-0.8	1.6-1.7
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	21	12	5.9	19	26

Moisture						
Our Reference		363994-46	363994-47	363994-48	363994-49	363994-50
Your Reference	UNITS	BH118	BH119	BH119	BH119	BH119
Depth		1.8-2	0.02-0.2	0.8-1	1.65-1.8	1.9-2
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	19	5.8	20	26	24

Moisture						
Our Reference		363994-51	363994-52	363994-53	363994-55	363994-56
Your Reference	UNITS	BH120	BH120	BH120	BH121	BH121
Depth		0.02-0.2	0.5-0.7	1-1.2	0.01-0.15	0.7-0.9
Date Sampled		9/10/2024	9/10/2024	9/10/2024	8/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	5.2	6.5	22	12	9.5

Moisture						
Our Reference		363994-57	363994-58	363994-59	363994-60	363994-62
Your Reference	UNITS	BH122	BH122	BH122	BH123	SDUP101
Depth		0.01-0.1	0.7-0.9	1-1.2	0.01-0.2	-
Date Sampled		8/10/2024	8/10/2024	8/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Moisture	%	8.2	12	9.2	1.7	7.3

Moisture			
Our Reference		363994-63	363994-64
Your Reference	UNITS	SDUP102	SDUP106
Depth		-	-
Date Sampled		9/10/2024	11/10/2024
Type of sample		Soil	Soil
Date prepared	-	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024
Moisture	%	8.6	4.7

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-1	363994-2	363994-4	363994-5	363994-7
Your Reference	UNITS	BH101	BH101	BH101	BH101	BH102
Depth		0-0.1	0.4-0.5	1.8-2	2.8-3	0-0.1
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	579.65	645.76	652.96	546.46	531.42
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-9	363994-10	363994-11	363994-13	363994-14
Your Reference	UNITS	BH102	BH102	BH102	BH103	BH103
Depth		0.8-1	1.8-2	2.8-3	0-0.1	0.4-0.5
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	724.16	670.87	565.93	706.46	727.15
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	Chrysotile asbestos detected Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	0.5825	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	See Above	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	0.4218	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	0.0583	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	YES	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-15	363994-16	363994-17	363994-19	363994-20
Your Reference	UNITS	BH103	BH103	BH103	BH104	BH104
Depth		0.8-1	1.8-2	2.8-3	0-0.1	0.1-0.2
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	10/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	660.13	676.7	748.13	827.3	775.17
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown fine-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	1.3432	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	See Above	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	0.9090	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	0.1343	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	YES	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-21	363994-22	363994-23	363994-26	363994-27
Your Reference	UNITS	BH105	BH105	BH106	BH108	BH108
Depth		0-0.05	0.1-0.15	0-0.1	0.1-0.2	0.2-0.3
Date Sampled		10/10/2024	10/10/2024	10/10/2024	11/10/2024	11/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	724.46	785.46	489.95	714.81	113.45
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Grey coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-28	363994-30	363994-31	363994-33	363994-35
Your Reference	UNITS	BH109	BH110	BH111	BH112	BH113
Depth		0.15-0.3	0.15-0.3	0.23-0.3	0.2-0.3	0.2-0.4
Date Sampled		9/10/2024	11/10/2024	10/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	828.34	788.01	972.7	547.62	714.98
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-36	363994-38	363994-40	363994-41	363994-42
Your Reference	UNITS	BH114	BH115	BH116	BH117	BH117
Depth		0.23-0.3	0.17-0.3	0.22-0.4	0.23-0.3	0.4-0.5
Date Sampled		10/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	798.98	539.87	844.74	663.62	638.93
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-43	363994-44	363994-45	363994-47	363994-48
Your Reference	UNITS	BH118	BH118	BH118	BH119	BH119
Depth		0.02-0.2	0.6-0.8	1.6-1.7	0.02-0.2	0.8-1
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	262.13	231.8	152.43	235.21	210.97
Sample Description	-	Grey coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Grey coarse-grained soil & rocks	Brown clayey soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001						
Our Reference		363994-49	363994-50	363994-51	363994-52	363994-53
Your Reference	UNITS	BH119	BH119	BH120	BH120	BH120
Depth		1.65-1.8	1.9-2	0.02-0.2	0.5-0.7	1-1.2
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Sample mass tested	g	77.75	65.14	124.59	199.96	172.72
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Grey coarse-grained soil & rocks	Brown sandy soil	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM - ASB-001			
Our Reference		363994-55	363994-57
Your Reference	UNITS	BH121	BH122
Depth		0.01-0.15	0.01-0.1
Date Sampled		8/10/2024	8/10/2024
Type of sample		Soil	Soil
Date analysed	-	21/10/2024	21/10/2024
Sample mass tested	g	827.33	802.17
Sample Description	-	Grey coarse-grained soil & rocks	Grey coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–
FA and AF Estimation*	g	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001
Asbestos comments	-	Nil	Nil

vTRH(C6-C10)/BTEXN in Water			
Our Reference		363994-69	363994-70
Your Reference	UNITS	FR-SPT-101	FR-HA-102
Depth		-	-
Date Sampled		8/10/2024	11/10/2024
Type of sample		Water	Water
Date extracted	-	16/10/2024	16/10/2024
Date analysed	-	17/10/2024	17/10/2024
TRH C_6 - C_9	µg/L	<10	<10
TRH C_6 - C_{10}	µg/L	<10	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10
Benzene	µg/L	<1	<1
Toluene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
o-xylene	µg/L	<1	<1
Naphthalene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	98	97
Surrogate Toluene-d8	%	100	100
Surrogate 4-Bromofluorobenzene	%	99	100

svTRH (C10-C40) in Water			
Our Reference		363994-69	363994-70
Your Reference	UNITS	FR-SPT-101	FR-HA-102
Depth		-	-
Date Sampled		8/10/2024	11/10/2024
Type of sample		Water	Water
Date extracted	-	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	16/10/2024
TRH C_{10} - C_{14}	µg/L	<50	<50
TRH C_{15} - C_{28}	µg/L	270	260
TRH C_{29} - C_{36}	µg/L	<100	<100
Total +ve TRH (C10-C36)	µg/L	270	260
TRH >C_{10} - C_{16}	µg/L	220	220
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	220	220
TRH >C_{16} - C_{34}	µg/L	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100
Total +ve TRH (>C10-C40)	µg/L	220	220
Surrogate o-Terphenyl	%	74	72

PAHs in Water			
Our Reference		363994-69	363994-70
Your Reference	UNITS	FR-SPT-101	FR-HA-102
Depth		-	-
Date Sampled		8/10/2024	11/10/2024
Type of sample		Water	Water
Date extracted	-	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	16/10/2024
Naphthalene	µg/L	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	75	69

Metals in Waters - Acid extractable			
Our Reference		363994-69	363994-70
Your Reference	UNITS	FR-SPT-101	FR-HA-102
Depth		-	-
Date Sampled		8/10/2024	11/10/2024
Type of sample		Water	Water
Date prepared	-	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	16/10/2024
Arsenic - Total	mg/L	<0.05	<0.05
Cadmium - Total	mg/L	<0.01	<0.01
Chromium - Total	mg/L	<0.01	<0.01
Copper - Total	mg/L	<0.01	<0.01
Lead - Total	mg/L	<0.03	<0.03
Mercury - Total	mg/L	<0.0005	<0.0005
Nickel - Total	mg/L	<0.02	<0.02
Zinc - Total	mg/L	<0.02	0.1

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	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 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE#1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF relative to the sample mass tested) NOTE#2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
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.

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. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
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.
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: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-49
Date Extracted	-			16/10/2024	35	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date Analysed	-			17/10/2024	35	17/10/2024	17/10/2024		16/10/2024	17/10/2024
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
trans-1,2-Dichloroethene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,1-Dichloroethane	mg/kg	1	Org-023	<1	35	<1	<1	0	102	96
cis-1,2-Dichloroethene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Bromochloromethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Chloroform	mg/kg	1	Org-023	<1	35	<1	<1	0	108	105
2,2-Dichloropropane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,2-Dichloroethane	mg/kg	1	Org-023	<1	35	<1	<1	0	98	92
1,1,1-Trichloroethane	mg/kg	1	Org-023	<1	35	<1	<1	0	97	92
1,1-Dichloropropene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Carbon Tetrachloride	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	35	<0.2	<0.2	0	94	99
Dibromomethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,2-Dichloropropane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Trichloroethene	mg/kg	1	Org-023	<1	35	<1	<1	0	96	77
Bromodichloromethane	mg/kg	1	Org-023	<1	35	<1	<1	0	97	86
trans-1,3-Dichloropropene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
cis-1,3-Dichloropropene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,1,2-Trichloroethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	35	<0.5	<0.5	0	95	87
1,3-Dichloropropane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Dibromochloromethane	mg/kg	1	Org-023	<1	35	<1	<1	0	92	76
1,2-Dibromoethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Tetrachloroethene	mg/kg	1	Org-023	<1	35	<1	<1	0	99	88
1,1,1,2-Tetrachloroethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Chlorobenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	91	101
Bromoform	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
m+p-Xylene	mg/kg	2	Org-023	<2	35	<2	<2	0	101	102
Styrene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,1,2,2-Tetrachloroethane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-49
o-Xylene	mg/kg	1	Org-023	<1	35	<1	<1	0	100	99
1,2,3-Trichloropropane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Isopropylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Bromobenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
n-Propylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
2-Chlorotoluene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
4-Chlorotoluene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,3,5-Trimethylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
tert-Butylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,2,4-Trimethylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
sec-Butylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
4-Isopropyltoluene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
n-Butylbenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,2-Dibromo-3-chloropropane	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	1	Org-023	<1	35	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	35	100	101	1	101	102
Surrogate aaa-Trifluorotoluene	%		Org-023	91	35	104	98	6	94	87
Surrogate Toluene-d_8	%		Org-023	95	35	96	95	1	93	100
Surrogate 4-Bromofluorobenzene	%		Org-023	100	35	101	100	1	101	97

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date Extracted	-			[NT]	55	16/10/2024	16/10/2024		16/10/2024	[NT]
Date Analysed	-			[NT]	55	17/10/2024	17/10/2024		17/10/2024	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
trans-1,2-Dichloroethene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,1-Dichloroethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	91	[NT]
cis-1,2-Dichloroethene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Bromochloromethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Chloroform	mg/kg	1	Org-023	[NT]	55	<1	<1	0	100	[NT]
2,2-Dichloropropane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-Dichloroethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	88	[NT]
1,1,1-Trichloroethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	88	[NT]
1,1-Dichloropropene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Carbon Tetrachloride	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	55	<0.2	<0.2	0	92	[NT]
Dibromomethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-Dichloropropane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Trichloroethene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	72	[NT]
Bromodichloromethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	82	[NT]
trans-1,3-Dichloropropene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
cis-1,3-Dichloropropene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,1,2-Trichloroethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	55	<0.5	<0.5	0	82	[NT]
1,3-Dichloropropane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Dibromochloromethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	73	[NT]
1,2-Dibromoethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Tetrachloroethene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	82	[NT]
1,1,1,2-Tetrachloroethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Chlorobenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	94	[NT]
Bromoform	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
m+p-Xylene	mg/kg	2	Org-023	[NT]	55	<2	<2	0	97	[NT]
Styrene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,1,2,2-Tetrachloroethane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	93	[NT]
1,2,3-Trichloropropane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Isopropylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Bromobenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
n-Propylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
2-Chlorotoluene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
4-Chlorotoluene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,3,5-Trimethylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
tert-Butylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,2,4-Trimethylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
sec-Butylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
4-Isopropyltoluene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
n-Butylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,2-Dibromo-3-chloropropane	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	[NT]	55	98	101	3	104	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	55	97	91	6	84	[NT]
Surrogate Toluene-d_8	%		Org-023	[NT]	55	97	98	1	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	[NT]	55	99	98	1	98	[NT]

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date Extracted	-			[NT]	[NT]	[NT]	[NT]	[NT]	16/10/2024	[NT]
Date Analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	17/10/2024	[NT]
1,1-Dichloroethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	103	[NT]
Chloroform	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	112	[NT]
1,2-Dichloroethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]
1,1,1-Trichloroethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	98	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	106	[NT]
Trichloroethene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	82	[NT]
Bromodichloromethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	92	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	93	[NT]
Dibromochloromethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	83	[NT]
Tetrachloroethene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	93	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	107	[NT]
m+p-Xylene	mg/kg	2	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	109	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	106	[NT]
Surrogate Dibromofluoromethane	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	102	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	94	[NT]
Surrogate Toluene-d_8	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-2
Date extracted	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	96	110
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	96	110
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	94	107
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	95	109
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	91	104
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	101	114
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	100	114
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	91	1	108	106	2	94	103

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	363994-24
Date extracted	-			[NT]	13	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	13	17/10/2024	17/10/2024		17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	13	<25	<25	0	92	113
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	13	<25	<25	0	92	113
Benzene	mg/kg	0.2	Org-023	[NT]	13	<0.2	<0.2	0	92	113
Toluene	mg/kg	0.5	Org-023	[NT]	13	<0.5	<0.5	0	82	100
Ethylbenzene	mg/kg	1	Org-023	[NT]	13	<1	<1	0	94	116
m+p-xylene	mg/kg	2	Org-023	[NT]	13	<2	<2	0	97	117
o-Xylene	mg/kg	1	Org-023	[NT]	13	<1	<1	0	93	114
Naphthalene	mg/kg	1	Org-023	[NT]	13	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	13	119	114	4	84	99

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	363994-49
Date extracted	-			[NT]	23	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	23	17/10/2024	17/10/2024		17/10/2024	17/10/2024
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	23	<25	<25	0	105	98
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	23	<25	<25	0	105	98
Benzene	mg/kg	0.2	Org-023	[NT]	23	<0.2	<0.2	0	106	99
Toluene	mg/kg	0.5	Org-023	[NT]	23	<0.5	<0.5	0	93	87
Ethylbenzene	mg/kg	1	Org-023	[NT]	23	<1	<1	0	107	101
m+p-xylene	mg/kg	2	Org-023	[NT]	23	<2	<2	0	109	102
o-Xylene	mg/kg	1	Org-023	[NT]	23	<1	<1	0	106	99
Naphthalene	mg/kg	1	Org-023	[NT]	23	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	23	97	98	1	94	87

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]	35	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	35	17/10/2024	17/10/2024		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	35	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	35	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	35	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	35	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	35	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	35	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	35	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	35	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	35	104	98	6	[NT]	[NT]

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]	48	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	48	17/10/2024	17/10/2024		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	48	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	48	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	48	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	48	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	48	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	48	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	48	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	48	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	48	102	104	2	[NT]	[NT]

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]	55	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	55	17/10/2024	17/10/2024		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	55	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	55	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	55	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	55	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	55	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	55	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	55	97	91	6	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-2
Date extracted	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			17/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	99	92
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	120	18	97	92
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	200	67	100	109
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	99	92
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	120	190	45	97	92
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	100	210	71	100	109
Surrogate o-Terphenyl	%		Org-020	119	1	113	116	3	98	94

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	363994-24
Date extracted	-			[NT]	13	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	13	17/10/2024	17/10/2024		17/10/2024	17/10/2024
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	13	<50	<50	0	101	83
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	13	<100	<100	0	98	76
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	13	<100	<100	0	129	93
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	13	<50	<50	0	101	83
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	13	<100	100	0	98	76
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	13	<100	<100	0	129	93
Surrogate o-Terphenyl	%		Org-020	[NT]	13	112	112	0	99	95

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	363994-49
Date extracted	-			[NT]	23	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	23	17/10/2024	17/10/2024		17/10/2024	17/10/2024
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	23	<50	<50	0	114	107
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	23	200	230	14	95	88
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	23	350	420	18	114	90
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	23	<50	<50	0	114	107
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	23	440	520	17	95	88
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	23	260	320	21	114	90
Surrogate o-Terphenyl	%		Org-020	[NT]	23	118	118	0	100	95

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	35	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	35	17/10/2024	17/10/2024		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	35	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	35	160	<100	46	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	35	180	<100	57	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	35	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	35	280	<100	95	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	35	130	<100	26	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	35	115	111	4	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	48	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	48	17/10/2024	17/10/2024		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	48	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	48	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	48	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	48	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	48	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	48	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	48	109	110	1	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	55	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	55	17/10/2024	17/10/2024		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	55	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	55	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	55	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	55	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	55	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	55	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	55	107	107	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-2
Date extracted	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	102
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	106	108
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	104
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	112
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	<0.1	<0.1	0	108	116
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	104	110
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	100	102
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	<0.05	<0.05	0	102	104
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	128	1	134	133	1	109	115

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	363994-24
Date extracted	-			[NT]	13	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	13	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	96	98
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	86	102
Fluorene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	98	100
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	98	#
Anthracene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	102	#
Pyrene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	100	#
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	114	85
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	13	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	13	<0.05	<0.05	0	100	89
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	13	127	127	0	95	107

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	363994-49
Date extracted	-			[NT]	23	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	23	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	102	98
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	116	88
Fluorene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	104	100
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	112	106
Anthracene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	112	109
Pyrene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	108	105
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	102	118
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	23	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	23	<0.05	<0.05	0	100	106
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	23	124	124	0	113	105

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	35	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	35	17/10/2024	17/10/2024		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	35	0.2	0.3	40	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	35	0.7	0.9	25	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	35	0.8	0.9	12	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	35	0.5	0.8	46	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	35	0.5	0.6	18	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	35	0.9	0.9	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	35	0.59	0.62	5	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	35	0.4	0.4	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	35	0.1	0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	35	0.5	0.5	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	35	131	131	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	48	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	48	17/10/2024	17/10/2024		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	48	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	48	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	48	116	117	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	55	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	55	17/10/2024	17/10/2024		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	0.3	100	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	0.2	67	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	0.2	67	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	55	<0.2	0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	55	<0.05	0.1	67	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	0.2	67	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	55	115	117	2	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-2
Date extracted	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	114
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	100	114
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	76	114
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	92	96
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	118	128
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	108	116
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	120	119
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	82	126
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	106	122
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	72	116
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 4-Chloro-3-NBTF	%		Org-022/025	130	1	128	130	2	113	113

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	363994-24
Date extracted	-			[NT]	13	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	13	17/10/2024	17/10/2024		17/10/2024	17/10/2024
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	104	108
HCB	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	98	100
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	80	84
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	108	90
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	110	120
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	100	110
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	108	118
Endrin	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	96	96
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	112	110
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	96	80
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	13	126	128	2	102	108

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	363994-49
Date extracted	-			[NT]	23	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	23	17/10/2024	17/10/2024		17/10/2024	17/10/2024
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	112	106
HCB	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	110	100
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	114	80
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	92	112
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	120	120
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	108	106
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	124	114
Endrin	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	114	96
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	116	120
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	112	100
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	23	126	126	0	113	115

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	35	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	35	17/10/2024	17/10/2024		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	35	122	126	3	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	48	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	48	17/10/2024	17/10/2024		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	48	111	111	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	55	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	55	17/10/2024	17/10/2024		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	55	115	110	4	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-2
Date extracted	-			19/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			21/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	106	118
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	96	108
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	110	138
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	100	128
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	100	110
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	104	124
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	110	126
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 4-Chloro-3-NBTF	%		Org-022/025	130	1	128	130	2	113	113

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	363994-24
Date extracted	-			[NT]	13	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	13	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	112	100
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	90	98
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	96	118
Malathion	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	100	106
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	94	#
Fenthion	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	94	112
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	110	114
Phosalone	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	13	126	128	2	102	108

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	363994-49
Date extracted	-			[NT]	23	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	23	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	112	114
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	100	94
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	104	102
Malathion	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	112	106
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	104	100
Fenthion	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	98	94
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	102	120
Phosalone	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	23	126	126	0	113	115

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	24	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	24	17/10/2024	17/10/2024		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	24	0.1	0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	24	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	24	131	70	61	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	35	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	35	17/10/2024	17/10/2024		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	35	122	126	3	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	48	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	48	17/10/2024	17/10/2024		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	48	111	111	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	55	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	55	17/10/2024	17/10/2024		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	55	115	110	4	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-2
Date extracted	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	128	120
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	122	1	130	126	3	107	110

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	363994-24
Date extracted	-			[NT]	13	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	13	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Aroclor 1016	mg/kg	0.1	Org-021/022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	[NT]	13	<0.1	<0.1	0	122	120
Aroclor 1260	mg/kg	0.1	Org-021/022/025	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	[NT]	13	120	122	2	106	103

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	363994-49
Date extracted	-			[NT]	23	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	23	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Aroclor 1016	mg/kg	0.1	Org-021/022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	[NT]	23	<0.1	<0.1	0	131	120
Aroclor 1260	mg/kg	0.1	Org-021/022/025	[NT]	23	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	[NT]	23	123	118	4	109	110

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	35	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	35	17/10/2024	17/10/2024		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	[NT]	35	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	[NT]	35	120	119	1	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	48	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	48	17/10/2024	17/10/2024		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	[NT]	48	120	124	3	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	55	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	55	17/10/2024	17/10/2024		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	[NT]	55	120	115	4	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	363994-2
Date prepared	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Arsenic	mg/kg	4	Metals-020	<4	1	8	8	0	113	99
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	102	93
Chromium	mg/kg	1	Metals-020	<1	1	14	16	13	103	97
Copper	mg/kg	1	Metals-020	<1	1	13	10	26	99	98
Lead	mg/kg	1	Metals-020	<1	1	30	32	6	106	99
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	119	107
Nickel	mg/kg	1	Metals-020	<1	1	5	5	0	106	95
Zinc	mg/kg	1	Metals-020	<1	1	29	31	7	105	#

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	363994-24
Date prepared	-			[NT]	13	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	13	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Arsenic	mg/kg	4	Metals-020	[NT]	13	11	9	20	114	102
Cadmium	mg/kg	0.4	Metals-020	[NT]	13	<0.4	<0.4	0	103	83
Chromium	mg/kg	1	Metals-020	[NT]	13	21	16	27	104	93
Copper	mg/kg	1	Metals-020	[NT]	13	13	14	7	102	102
Lead	mg/kg	1	Metals-020	[NT]	13	33	32	3	107	88
Mercury	mg/kg	0.1	Metals-021	[NT]	13	<0.1	<0.1	0	112	117
Nickel	mg/kg	1	Metals-020	[NT]	13	9	9	0	107	81
Zinc	mg/kg	1	Metals-020	[NT]	13	40	42	5	105	71

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	363994-49
Date prepared	-			[NT]	23	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			[NT]	23	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Arsenic	mg/kg	4	Metals-020	[NT]	23	5	5	0	109	95
Cadmium	mg/kg	0.4	Metals-020	[NT]	23	<0.4	<0.4	0	98	91
Chromium	mg/kg	1	Metals-020	[NT]	23	11	11	0	100	89
Copper	mg/kg	1	Metals-020	[NT]	23	19	16	17	98	100
Lead	mg/kg	1	Metals-020	[NT]	23	29	30	3	102	95
Mercury	mg/kg	0.1	Metals-021	[NT]	23	<0.1	<0.1	0	119	119
Nickel	mg/kg	1	Metals-020	[NT]	23	11	6	59	102	96
Zinc	mg/kg	1	Metals-020	[NT]	23	48	47	2	100	95

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	35	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	35	17/10/2024	17/10/2024		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	35	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	35	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	35	14	17	19	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	35	47	21	76	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	35	44	48	9	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	35	<0.1	0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	35	13	12	8	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	35	31	30	3	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	48	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	48	17/10/2024	17/10/2024		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	48	7	8	13	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	48	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	48	15	16	6	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	48	8	10	22	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	48	19	22	15	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	48	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	48	2	2	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	48	3	3	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	55	16/10/2024	16/10/2024		[NT]	[NT]
Date analysed	-			[NT]	55	17/10/2024	17/10/2024		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	55	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	55	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	55	12	17	34	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	55	60	66	10	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	55	5	5	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	55	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	55	61	66	8	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	55	37	40	8	[NT]	[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	-			16/10/2024	[NT]	[NT]	[NT]	[NT]	16/10/2024	[NT]
Date analysed	-			17/10/2024	[NT]	[NT]	[NT]	[NT]	17/10/2024	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	92	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	93	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	98	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate Toluene-d8	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	101	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	363994-70
Date extracted	-			16/10/2024	69	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			16/10/2024	69	16/10/2024	16/10/2024		16/10/2024	16/10/2024
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	69	<50	<50	0	117	119
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	69	270	290	7	116	114
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	69	<100	<100	0	114	108
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	69	220	270	20	117	119
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	69	<100	<100	0	116	114
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	69	<100	<100	0	114	108
Surrogate o-Terphenyl	%		Org-020	96	69	74	89	18	110	121

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	363994-70
Date extracted	-			16/10/2024	69	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Date analysed	-			16/10/2024	69	16/10/2024	16/10/2024		16/10/2024	16/10/2024
Naphthalene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	75	81
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	75	73
Fluorene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	73	85
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	82	72
Anthracene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	78	70
Pyrene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	76	70
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	61	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	69	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	71	73
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	69	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	77	69	75	79	5	85	70

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			16/10/2024	[NT]	[NT]	[NT]	[NT]	16/10/2024	[NT]
Date analysed	-			16/10/2024	[NT]	[NT]	[NT]	[NT]	16/10/2024	[NT]
Arsenic - Total	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	104	[NT]
Cadmium - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	99	[NT]
Chromium - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Copper - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	94	[NT]
Lead - Total	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	100	[NT]
Mercury - Total	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	111	[NT]
Nickel - Total	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	100	[NT]
Zinc - Total	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	101	[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.

Report Comments

PAHs in Soil - # Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 363994-24ms have caused interference.
OP's in Soil - # Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 363994-24ms have caused interference.

Acid Extractable Metals in Soil:
- The laboratory RPD acceptance criteria has been exceeded for 363994-23 for Ni. Therefore a triplicate result has been issued as laboratory sample number 363994-71.
- The laboratory RPD acceptance criteria has been exceeded for 363994-35 for Cu. Therefore a triplicate result has been issued as laboratory sample number 363994-72.
- # Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Factual description of asbestos identified in the soil samples: NEPM
Sample 363994-9; Chrysotile asbestos identified in 0.5273g of fibrous matted material
Sample 363994-16; Chrysotile, Amosite & Crocidolite asbestos identified in 1.1362g of fibrous matted material

Note: All samples analysed as received. However, samples 363994-27,43-45,47-53 are below the minimum recommended 500mL sample volume as per National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013.

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SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	C Ridley

Sample Login Details

Your reference	E36466PR Macquarie Park
Envirolab Reference	363994
Date Sample Received	15/10/2024
Date Instructions Received	15/10/2024
Date Results Expected to be Reported	22/10/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	68 Soil, 2 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

No bag received for #60

Please direct any queries to:

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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	Asbestos ID - soils NEPM - ASB-001	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	On Hold
BH101-0-0.1		✓	✓	✓	✓	✓	✓	✓	✓					
BH101-0.4-0.5		✓	✓	✓	✓	✓	✓	✓	✓					
BH101-0.8-1														✓
BH101-1.8-2		✓	✓	✓	✓	✓	✓	✓	✓					
BH101-2.8-3		✓	✓	✓	✓	✓	✓	✓	✓					
BH101-3.6-3.8		✓	✓	✓				✓						
BH102-0-0.1		✓	✓	✓	✓	✓	✓	✓	✓					
BH102-0.4-0.5														✓
BH102-0.8-1		✓	✓	✓	✓	✓	✓	✓	✓					
BH102-1.8-2		✓	✓	✓				✓	✓					
BH102-2.8-3		✓	✓	✓	✓	✓	✓	✓	✓					
BH102-3.5-3.6		✓	✓	✓				✓						
BH103-0-0.1		✓	✓	✓	✓	✓	✓	✓	✓					
BH103-0.4-0.5		✓	✓	✓	✓	✓	✓	✓	✓					
BH103-0.8-1		✓	✓	✓				✓	✓					
BH103-1.8-2		✓	✓	✓	✓	✓	✓	✓	✓					
BH103-2.8-3		✓	✓	✓				✓	✓					
BH103-3.1-3.2		✓	✓	✓				✓						
BH104-0-0.1		✓	✓	✓	✓	✓	✓	✓	✓					
BH104-0.1-0.2		✓	✓	✓	✓	✓	✓	✓	✓					
BH105-0-0.05		✓	✓	✓	✓	✓	✓	✓	✓					
BH105-0.1-0.15		✓	✓	✓	✓	✓	✓	✓	✓					
BH106-0-0.1		✓	✓	✓	✓	✓	✓	✓	✓					
BH107-0.12-0.3		✓	✓	✓	✓	✓	✓	✓						
BH107-0.3-0.35		✓	✓	✓				✓						
BH108-0.1-0.2		✓	✓	✓	✓	✓	✓	✓	✓					
BH108-0.2-0.3		✓	✓	✓				✓	✓					
BH109-0.15-0.3		✓	✓	✓	✓	✓	✓	✓	✓					
BH109-0.6-0.8		✓	✓	✓				✓						
BH110-0.15-0.3		✓	✓	✓	✓	✓	✓	✓	✓					
BH111-0.23-0.3	✓	✓	✓	✓	✓	✓	✓	✓	✓					
BH111-0.3-0.4														✓

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

Sample ID	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	Asbestos ID - soils NEPM - ASB-001	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	On Hold
BH112-0.2-0.3		✓	✓	✓	✓	✓	✓	✓	✓					
BH112-0.4-0.6														✓
BH113-0.2-0.4	✓	✓	✓	✓	✓	✓	✓	✓	✓					
BH114-0.23-0.3		✓	✓	✓	✓	✓	✓	✓	✓					
BH114-0.4-0.5														✓
BH115-0.17-0.3		✓	✓	✓	✓	✓	✓	✓	✓					
BH115-0.4-0.5		✓	✓	✓				✓						
BH116-0.22-0.4		✓	✓	✓	✓	✓	✓	✓	✓					
BH117-0.23-0.3	✓	✓	✓	✓	✓	✓	✓	✓	✓					
BH117-0.4-0.5		✓	✓	✓				✓	✓					
BH118-0.02-0.2		✓	✓	✓	✓	✓	✓	✓	✓					
BH118-0.6-0.8		✓	✓	✓	✓	✓	✓	✓	✓					
BH118-1.6-1.7		✓	✓	✓				✓	✓					
BH118-1.8-2		✓	✓	✓				✓						
BH119-0.02-0.2		✓	✓	✓	✓	✓	✓	✓	✓					
BH119-0.8-1		✓	✓	✓	✓	✓	✓	✓	✓					
BH119-1.65-1.8	✓	✓	✓	✓	✓	✓	✓	✓	✓					
BH119-1.9-2		✓	✓	✓				✓	✓					
BH120-0.02-0.2		✓	✓	✓	✓	✓	✓	✓	✓					
BH120-0.5-0.7		✓	✓	✓	✓	✓	✓	✓	✓					
BH120-1-1.2		✓	✓	✓	✓	✓	✓	✓	✓					
BH120-1.8-2														✓
BH121-0.01-0.15	✓	✓	✓	✓	✓	✓	✓	✓	✓					
BH121-0.7-0.9		✓	✓	✓				✓						
BH122-0.01-0.1		✓	✓	✓	✓	✓	✓	✓	✓					
BH122-0.7-0.9		✓	✓	✓				✓						
BH122-1-1.2		✓	✓	✓				✓						
BH123-0.01-0.2		✓	✓	✓	✓	✓	✓	✓						
BH123-0.4-0.6														✓
SDUP101		✓	✓	✓	✓	✓	✓	✓						
SDUP102		✓	✓	✓	✓	✓	✓	✓						
SDUP106			✓	✓				✓						

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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	Asbestos ID - soils NEPM - ASB-001	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	On Hold
TB-S101		✓												
TB-S102		✓												
TS-S101		✓												
TS-S102		✓												
FR-SPT-101										✓	✓	✓	✓	
FR-HA-102										✓	✓	✓	✓	

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.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD	JKE Job Number: E36466PR	JKEnvironments
12 ASHLEY STREET		REAR OF 115 WICKS ROAD
CHATSWOOD NSW 2067	Date Results Required: STANDARD	MACQUARIE PARK, NSW 2113
P: (02) 99106200		P: 02-9888 5000 F: 02-9888 5001
F: (02) 99106201	Page: 1 of 3	Attention: Craig Ridley
Attention: Aileen		CRidley@jkenvironments.com.au

Location:	Macquarie Park	Sample Preserved in Esky on Ice
Sampler:	JTL	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 6	Cmobo 3aNEPM	Combo 3	Asbestos (detection)	VOCs	Combo 3 (Total Metals)	BTEX				
10/10/2024	1	BH101	0-0.1	G, A	1.5	F: clayey sand	X											
10/10/2024	2	BH101	0.4-0.5	G, A	0.8	F: silty clay	X											
10/10/2024	3	BH101	0.8-1	G, A	0.7	F: silty clay												
10/10/2024	4	BH101	1.8-2	G, A	1.4	F: silty clay	X											
10/10/2024	5	BH101	2.8-3	G, A	1.1	F: silty clay	X											
10/10/2024	6	BH101	3.6-3.8	G, A	1.1	Silty Clay				X								
10/10/2024	7	BH102	0-0.1	G, A	1.1	F: silty clay	X											
10/10/2024	8	BH102	0.4-0.5	G, A	1.1	F: silty clay												
10/10/2024	9	BH102	0.8-1	G, A	1	F: silty clay	X											
10/10/2024	10	BH102	1.8-2	G, A	1.1	F: silty clay			X									
10/10/2024	11	BH102	2.8-3	G, A	0.7	F: silty clay	X											
10/10/2024	12	BH102	3.5-3.6	G, A	1	Silty Clay				X								
10/10/2024	13	BH103	0-0.1	G, A	0.8	F: silty clay	X											
10/10/2024	14	BH103	0.4-0.5	G, A	0.7	F: silty clay	X											
10/10/2024	15	BH103	0.8-1	G, A	0.9	F: silty clay			X									
10/10/2024	16	BH103	1.8-2	G, A	1.3	F: silty clay	X											
10/10/2024	17	BH103	2.8-3	G, A	1	F: silty clay			X									
10/10/2024	18	BH103	3.1-3.2	G, A	1.2	Silty Clay				X								
10/10/2024	19	BH104	0-0.1	G, A	0.4	F: silty sand	X											
10/10/2024	20	BH104	0.1-0.2	G, A	0.5	F: silty clay	X											
10/10/2024	21	BH105	0-0.05	G, A	0.6	F: silty sand	X											
10/10/2024	22	BH105	0.1-0.15	G, A	0.7	F: silty clay	X											
10/10/2024	23	BH106	0-0.1	G, A	0.6	F: silty clay	X											
10/10/2024	24	BH107	0.12-0.3	G	0	F: silty gravelly sand		X										
10/10/2024	25	BH107	0.3-0.35	G, A	0.7	Silty Clay				X								

ENVIROLAB GROUP

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

Job No: 363994
Date Received: 15/10/24
Time Received: 1700
Received By: KWu
Temp: Cool/Ambient
Cooling: Ice/icepack
Security: Intact/Broken/None

Remarks (comments/detection limits required):

** Please send SDUP103, SDUP104 and SDUP105 to VIC for inter-lab **

Sample Containers:
G - 250mg Glass Jar # - 1 x HNO3 Wash PVC, 2 x BTEX Vials, 2 x Amber Glass Bottles, 1x PVC
A - Ziplock Asbestos Bag, V - Vial

Relinquished By:	Date:	Time:	Received By:	Date:
CR	15/10/2024	12:15	KWu	15/10/24

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD	JKE Job Number: E36466PR	JKEnvironments
12 ASHLEY STREET		REAR OF 115 WICKS ROAD
CHATSWOOD NSW 2067		MACQUARIE PARK, NSW 2113
P: (02) 99106200	Date Results Required: STANDARD	P: 02-9888 5000 F: 02-9888 5001
F: (02) 99106201		Attention: Craig Ridley
Attention: Aileen	Page: 2 of 3	CRidley@jkenvironments.com.au

Location:	Macquarie Park	Sample Preserved in Esky on Ice
Sampler:	JTL	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 6	Cmobo 3aNEPM	Combo 3	Asbestos (detection)	VOCs	Combo 3 (Total Metals)	BTEX				
11/10/2024	26	BH108	0.1-0.2	G, A	1	F: Gravelly sand	X											
11/10/2024	27	BH108	0.2-0.3	G, A	1.1	F: Silty sand			X									
9/10/2024	28	BH109	0.15-0.3	G, A	0.8	F: silty sand	X											
9/10/2024	29	BH109	0.6-0.8	G, A	1.3	Silty Clay				X								
11/10/2024	30	BH110	0.15-0.3	G, A	0.9	F: Silty sand	X											
10/10/2024	31	BH111	0.23-0.3	G, A	2.2	F: silty sand	X					X						
10/10/2024	32	BH111	0.3-0.4	G	0.1	Silty Clay												
8/10/2024	33	BH112	0.2-0.3	G, A	0.4	F: silty sand	X											
8/10/2024	34	BH112	0.4-0.6	G	0	Silty Clay												
9/10/2024	35	BH113	0.2-0.4	G, A	1.7	F: silty sand	X					X						
10/10/2024	36	BH114	0.23-0.3	G, A	0.4	F: silty sand	X											
10/10/2024	37	BH114	0.4-0.5	G, A	0.6	Silty Clay												
9/10/2024	38	BH115	0.17-0.3	G, A	1.5	F: silty sand	X											
9/10/2024	39	BH115	0.4-0.5	G, A	1.6	Silty Clay				X								
9/10/2024	40	BH116	0.22-0.4	G, A	1	F: silty sand	X											
9/10/2024	41	BH117	0.23-0.3	G, A	1	F: silty sand	X					X						
9/10/2024	42	BH117	0.4-0.5	G, A	1.5	F: Silty clay			X									
9/10/2024	43	BH118	0.02-0.2	G, A	1.7	F: silty gravelly sand	X											
9/10/2024	44	BH118	0.6-0.8	G, A	1.4	F: silty clay	X											
9/10/2024	45	BH118	1.6-1.7	G, A	1.5	F: silty clay			X									
9/10/2024	46	BH118	1.8-2	G, A	1.3	Silty Clay				X								
9/10/2024	47	BH119	0.02-0.2	G, A	1.1	F: silty gravelly sand	X											
9/10/2024	48	BH119	0.8-1	G, A	0.9	F: silty clay	X											
9/10/2024	49	BH119	1.65-1.8	G, A	1.2	F: silty clay	X					X						
9/10/2024	50	BH119	1.9-2	G, A	0.8	F: silty clay			X									

Remarks (comments/detection limits required):

** Please send SDUP103, SDUP104 and SDUP105 to VIC for Inter-lab **

Sample Containers:
G - 250mg Glass Jar # - 1 x HNO3 Wash PVC, 2 x BTEX Vials, 2 x Amber Glass Bottles, 1x PVC
A - Ziplock Asbestos Bag, V - Vial

Relinquished By:	Date:	Time:	Received By:	Date:
CR	15/10/24	12:15	KWn	15/10/24

363994
15/10/24
KWn

SAMPLE AND CHAIN OF CUSTODY FORM

TO: ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E36466PR Date Results Required: STANDARD Page: 3 of 3	**FROM:** JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley CRidley@jkenvironments.com.au

Location: Macquarie Park
Sampler: JTL
Sample Preserved in Esky on Ice
Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 6	Cmobo 3aNEPM	Combo 3	Asbestos (detection)	VOCs	Combo 3 (Total Metals)	BTEX				
9/10/2024	51	BH120	0.02-0.2	G, A	1.5	F: silty gravelly sand	X											
9/10/2024	52	BH120	0.5-0.7	G, A	1.4	F: sand	X											
9/10/2024	53	BH120	1-1.2	G, A	0.8	F: silty clay	X											
9/10/2024	54	BH120	1.8-2	G, A	0.1	F: silty clay												
8/10/2024	55	BH121	0.01-0.15	G	0.7	F: gravelly sand	X					X						
8/10/2024	56	BH121	0.7-0.9	G, A	0.9	XW Siltstone: Silty Clay				X								
8/10/2024	57	BH122	0.01-0.1	G, A	0.7	F: gravelly sand	X											
8/10/2024	58	BH122	0.7-0.9	G, A	0.6	XW Siltstone: Silty Clay				X								
8/10/2024	59	BH122	1-1.2	G	0.3	SILTSTONE				X								
9/10/2024	60	BH123	0.01-0.2	G	0.2	F: gravelly sand	X											
9/10/2024	61	BH123	0.4-0.6	G, A	0.6	XW Siltstone: Silty Clay												
8/10/2024	62	SDUP101	-	G	-	Duplicate		X										
9/10/2024	63	SDUP102	-	G	-	Duplicate		X										
10/10/2024	**	SDUP103	-	G	-	Duplicate		X										
10/10/2024	**	SDUP104	-	G	-	Duplicate		X										
11/10/2024	**	SDUP105	-	G	-	Duplicate				X								
11/10/2024	64	SDUP106	-	G	-	Duplicate				X								
8/10/2024	65	TB-S101	-	G	-	Trip Blank								X				
9/10/2024	66	TB-S102	-	G	-	Trip Blank								X				
8/10/2024	67	TS-S101	-	V	-	Trip Spike								X				
9/10/2024	68	TS-S102	-	V	-	Trip Spike								X				
8/10/2024	69	FR-SPT-101	-	#	-	Rinsate							X					
11/10/2024	70	FR-HA-102	-	#	-	Rinsate							X					

Remarks (comments/detection limits required):
** Please send SDUP103, SDUP104 and SDUP105 to VIC for Inter-lab **

Sample Containers:
G - 250mg Glass Jar # - 1 x HNO3 Wash PVC, 2 x BTEX Vials, 2 x Amber Glass Bottles, 1x PVC
A - Ziplock Asbestos Bag, V - Vial

Relinquished By:	Date:	Time:	Received By:	Date:
CR	15/10/2024	12:15	KWn	15/10/24

363994
15/10/24
KWn

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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 363994-A

Client Details

Client	JK Environments
Attention	C Ridley
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E36466PR Macquarie Park**
Number of Samples	Additional analysis
Date samples received	15/10/2024
Date completed instructions received	23/10/2024

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	30/10/2024
Date of Issue	30/10/2024

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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
Giovanni Agosti, Group Technical Manager
Nancy Zhang, Laboratory Manager, Sydney
Tabitha Roberts, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		363994-A-32	363994-A-34	363994-A-37	363994-A-54	363994-A-61
Your Reference	UNITS	BH111	BH112	BH114	BH120	BH123
Depth		0.3-0.4	0.4-0.6	0.4-0.5	1.8-2	0.4-0.6
Date Sampled		10/10/2024	8/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/10/2024	24/10/2024	24/10/2024	24/10/2024	24/10/2024
Date analysed	-	28/10/2024	28/10/2024	28/10/2024	28/10/2024	28/10/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	105	104	109	109	99

svTRH (C10-C40) in Soil						
Our Reference		363994-A-32	363994-A-34	363994-A-37	363994-A-54	363994-A-61
Your Reference	UNITS	BH111	BH112	BH114	BH120	BH123
Depth		0.3-0.4	0.4-0.6	0.4-0.5	1.8-2	0.4-0.6
Date Sampled		10/10/2024	8/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/10/2024	24/10/2024	24/10/2024	24/10/2024	24/10/2024
Date analysed	-	26/10/2024	26/10/2024	26/10/2024	26/10/2024	26/10/2024
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	%	83	82	82	81	81

PAHs in Soil						
Our Reference		363994-A-32	363994-A-34	363994-A-37	363994-A-54	363994-A-61
Your Reference	UNITS	BH111	BH112	BH114	BH120	BH123
Depth		0.3-0.4	0.4-0.6	0.4-0.5	1.8-2	0.4-0.6
Date Sampled		10/10/2024	8/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/10/2024	24/10/2024	24/10/2024	25/10/2024	24/10/2024
Date analysed	-	28/10/2024	25/10/2024	28/10/2024	28/10/2024	28/10/2024
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	0.2	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.4	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	0.5	<0.1	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.3	<0.1	0.1	<0.1	<0.1
Chrysene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.4	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.2	<0.05	0.06	<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	0.2	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	2.5	<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	%	104	91	102	100	96

Organochlorine Pesticides in soil				
Our Reference	UNITS	363994-A-25	363994-A-34	363994-A-39
Your Reference		BH107	BH112	BH115
Depth		0.3-0.35	0.4-0.6	0.4-0.5
Date Sampled		10/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil
Date extracted	-	24/10/2024	24/10/2024	24/10/2024
Date analysed	-	25/10/2024	25/10/2024	25/10/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	90	98	98

Organophosphorus Pesticides in Soil				
Our Reference		363994-A-25	363994-A-34	363994-A-39
Your Reference	UNITS	BH107	BH112	BH115
Depth		0.3-0.35	0.4-0.6	0.4-0.5
Date Sampled		10/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil
Date extracted	-	24/10/2024	24/10/2024	24/10/2024
Date analysed	-	25/10/2024	25/10/2024	25/10/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	90	98	98

PCBs in Soil				
Our Reference		363994-A-25	363994-A-34	363994-A-39
Your Reference	UNITS	BH107	BH112	BH115
Depth		0.3-0.35	0.4-0.6	0.4-0.5
Date Sampled		10/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil
Date extracted	-	24/10/2024	24/10/2024	24/10/2024
Date analysed	-	25/10/2024	25/10/2024	25/10/2024
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 2-Fluorobiphenyl	%	84	86	84

Acid Extractable metals in soil						
Our Reference		363994-A-32	363994-A-34	363994-A-37	363994-A-54	363994-A-61
Your Reference	UNITS	BH111	BH112	BH114	BH120	BH123
Depth		0.3-0.4	0.4-0.6	0.4-0.5	1.8-2	0.4-0.6
Date Sampled		10/10/2024	8/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/10/2024	24/10/2024	24/10/2024	24/10/2024	24/10/2024
Date analysed	-	24/10/2024	24/10/2024	24/10/2024	24/10/2024	24/10/2024
Arsenic	mg/kg	<4	12	5	12	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	13	11	37	8
Copper	mg/kg	7	4	13	3	15
Lead	mg/kg	19	17	22	20	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	<1	3	2	<1
Zinc	mg/kg	15	3	10	2	<1

Moisture						
Our Reference		363994-A-32	363994-A-34	363994-A-37	363994-A-54	363994-A-61
Your Reference	UNITS	BH111	BH112	BH114	BH120	BH123
Depth		0.3-0.4	0.4-0.6	0.4-0.5	1.8-2	0.4-0.6
Date Sampled		10/10/2024	8/10/2024	10/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/10/2024	24/10/2024	24/10/2024	24/10/2024	24/10/2024
Date analysed	-	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
Moisture	%	13	17	12	12	10

Misc Inorg - Soil						
Our Reference		363994-A-1	363994-A-2	363994-A-5	363994-A-20	363994-A-26
Your Reference	UNITS	BH101	BH101	BH101	BH104	BH108
Depth		0-0.1	0.4-0.5	2.8-3	0.1-0.2	0.1-0.2
Date Sampled		10/10/2024	10/10/2024	10/10/2024	10/10/2024	11/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
Date analysed	-	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
pH 1:5 soil:water	pH Units	5.0	4.8	6.0	5.1	[NA]
pH 1:5 soil:$CaCl_2$	pH Units	[NA]	[NA]	[NA]	[NA]	7.1
Electrical Conductivity 1:5 soil:water	µS/cm	55	33	86	36	[NA]

Misc Inorg - Soil						
Our Reference		363994-A-28	363994-A-40	363994-A-42	363994-A-43	363994-A-44
Your Reference	UNITS	BH109	BH116	BH117	BH118	BH118
Depth		0.15-0.3	0.22-0.4	0.4-0.5	0.02-0.2	0.6-0.8
Date Sampled		9/10/2024	9/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/10/2024	25/10/2024	25/10/2024	25/10/2024	30/10/2024
Date analysed	-	25/10/2024	25/10/2024	25/10/2024	25/10/2024	30/10/2024
pH 1:5 soil:water	pH Units	8.8	9.6	8.3	[NA]	6.4
pH 1:5 soil:$CaCl_2$	pH Units	[NA]	[NA]	[NA]	7.9	[NA]
Electrical Conductivity 1:5 soil:water	µS/cm	89	100	180	[NA]	81

Misc Inorg - Soil						
Our Reference		363994-A-45	363994-A-47	363994-A-51	363994-A-55	363994-A-57
Your Reference	UNITS	BH118	BH119	BH120	BH121	BH122
Depth		1.6-1.7	0.02-0.2	0.02-0.2	0.01-0.15	0.01-0.1
Date Sampled		9/10/2024	9/10/2024	9/10/2024	8/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
Date analysed	-	25/10/2024	25/10/2024	25/10/2024	25/10/2024	25/10/2024
pH 1:5 soil:water	pH Units	5.5	[NA]	[NA]	[NA]	[NA]
pH 1:5 soil:$CaCl_2$	pH Units	[NA]	7.2	7.6	7.7	7.9
Electrical Conductivity 1:5 soil:water	µS/cm	98	[NA]	[NA]	[NA]	[NA]

Misc Inorg - Soil		
Our Reference		363994-A-60
Your Reference	UNITS	BH123
Depth		0.01-0.2
Date Sampled		9/10/2024
Type of sample		Soil
Date prepared	-	25/10/2024
Date analysed	-	25/10/2024
pH 1:5 soil:water	pH Units	8.9
Electrical Conductivity 1:5 soil:water	µS/cm	140

CEC						
Our Reference		363994-A-26	363994-A-43	363994-A-47	363994-A-51	363994-A-55
Your Reference	UNITS	BH108	BH118	BH119	BH120	BH121
Depth		0.1-0.2	0.02-0.2	0.02-0.2	0.02-0.2	0.01-0.15
Date Sampled		11/10/2024	9/10/2024	9/10/2024	9/10/2024	8/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
Date analysed	-	29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
Exchangeable Ca	meq/100g	23	22	5.7	21	7.2
Exchangeable K	meq/100g	0.4	0.4	0.1	0.3	0.2
Exchangeable Mg	meq/100g	1.7	3.3	0.7	2.1	0.8
Exchangeable Na	meq/100g	0.4	0.2	<0.1	0.1	0.4
Cation Exchange Capacity	meq/100g	26	26	6.6	24	8.5

CEC		
Our Reference		363994-A-57
Your Reference	UNITS	BH122
Depth		0.01-0.1
Date Sampled		8/10/2024
Type of sample		Soil
Date prepared	-	29/10/2024
Date analysed	-	29/10/2024
Exchangeable Ca	meq/100g	25
Exchangeable K	meq/100g	0.3
Exchangeable Mg	meq/100g	1.5
Exchangeable Na	meq/100g	0.5
Cation Exchange Capacity	meq/100g	27

Metals from Leaching Fluid pH 2.9 or 5						
Our Reference		363994-A-24	363994-A-26	363994-A-43	363994-A-47	363994-A-51
Your Reference	UNITS	BH107	BH108	BH118	BH119	BH120
Depth		0.12-0.3	0.1-0.2	0.02-0.2	0.02-0.2	0.02-0.2
Date Sampled		10/10/2024	11/10/2024	9/10/2024	9/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/10/2024	28/10/2024	28/10/2024	28/10/2024	28/10/2024
Date analysed	-	28/10/2024	28/10/2024	28/10/2024	28/10/2024	28/10/2024
pH of soil for fluid# determ.	pH units	7.9	8.8	8.9	9.0	9.1
pH of soil TCLP (after HCl)	pH units	1.5	1.5	1.5	1.4	1.4
Extraction fluid used		1	1	1	1	1
pH of final Leachate	pH units	5.7	5.3	5.2	5.1	5.2
Nickel	mg/L	0.05	0.20	0.1	0.2	0.1

Metals from Leaching Fluid pH 2.9 or 5				
Our Reference		363994-A-55	363994-A-57	363994-A-60
Your Reference	UNITS	BH121	BH122	BH123
Depth		0.01-0.15	0.01-0.1	0.01-0.2
Date Sampled		8/10/2024	8/10/2024	9/10/2024
Type of sample		Soil	Soil	Soil
Date extracted	-	28/10/2024	28/10/2024	28/10/2024
Date analysed	-	28/10/2024	28/10/2024	28/10/2024
pH of soil for fluid# determ.	pH units	9.3	9.3	9.2
pH of soil TCLP (after HCl)	pH units	1.4	1.5	1.4
Extraction fluid used		1	1	1
pH of final Leachate	pH units	5.2	5.3	5.2
Nickel	mg/L	0.06	0.06	0.04

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439. Please note that the mass used may be scaled down from default based on sample mass available. Samples are stored at 2-6oC before and after leachate preparation.
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-020	Determination of various metals by ICP-AES following buffer determination as per USEPA 1311 and hence AS 4439.3. Extraction Fluid 1 refers to the pH 5.0 buffer and Extraction Fluid 2 is the pH 2.9 buffer.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.

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

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Date analysed	-			28/10/2024	34	28/10/2024	28/10/2024		28/10/2024	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	34	<25	<25	0	127	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	34	<25	<25	0	127	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	34	<0.2	<0.2	0	130	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	34	<0.5	<0.5	0	126	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	34	<1	<1	0	129	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	34	<2	<2	0	126	[NT]
o-Xylene	mg/kg	1	Org-023	<1	34	<1	<1	0	126	[NT]
Naphthalene	mg/kg	1	Org-023	<1	34	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	110	34	104	104	0	114	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Date analysed	-			26/10/2024	34	26/10/2024	26/10/2024		26/10/2024	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	34	<50	<50	0	96	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	34	<100	<100	0	94	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	34	<100	<100	0	100	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	34	<50	<50	0	96	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	34	<100	<100	0	94	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	34	<100	<100	0	100	[NT]
Surrogate o-Terphenyl	%		Org-020	87	34	82	82	0	117	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Date analysed	-			25/10/2024	34	25/10/2024	25/10/2024		25/10/2024	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	76	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	80	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	80	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	74	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	76	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	80	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	94	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	34	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	34	<0.05	<0.05	0	68	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	99	34	91	101	10	139	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Date analysed	-			25/10/2024	34	25/10/2024	25/10/2024		25/10/2024	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	84	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	80	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	72	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	84	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	86	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	76	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	80	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	84	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	82	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	74	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	84	34	98	94	4	131	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Date analysed	-			25/10/2024	34	25/10/2024	25/10/2024		25/10/2024	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	76	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	74	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	76	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	84	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	74	[NT]
Fenthion	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	76	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	70	[NT]
Phosalone	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	84	34	98	94	4	131	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Date analysed	-			25/10/2024	34	25/10/2024	25/10/2024		25/10/2024	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	34	<0.1	<0.1	0	79	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	34	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	87	34	86	91	6	133	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Date analysed	-			24/10/2024	34	24/10/2024	24/10/2024		24/10/2024	[NT]
Arsenic	mg/kg	4	Metals-020	<4	34	12	11	9	112	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	34	<0.4	<0.4	0	101	[NT]
Chromium	mg/kg	1	Metals-020	<1	34	13	16	21	106	[NT]
Copper	mg/kg	1	Metals-020	<1	34	4	3	29	109	[NT]
Lead	mg/kg	1	Metals-020	<1	34	17	21	21	105	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	34	<0.1	<0.1	0	111	[NT]
Nickel	mg/kg	1	Metals-020	<1	34	<1	<1	0	108	[NT]
Zinc	mg/kg	1	Metals-020	<1	34	3	2	40	104	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			25/10/2024	1	25/10/2024	25/10/2024		25/10/2024	[NT]
Date analysed	-			25/10/2024	1	25/10/2024	25/10/2024		25/10/2024	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	1	5.0	4.8	4	99	[NT]
pH 1:5 soil:$CaCl_2$	pH Units		Inorg-001	[NT]	47	7.2	7.7	7	99	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	1	55	57	4	98	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	47	25/10/2024	25/10/2024		[NT]	[NT]
Date analysed	-			[NT]	47	25/10/2024	25/10/2024		[NT]	[NT]

QUALITY CONTROL: CEC					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			29/10/2024	[NT]	[NT]	[NT]	[NT]	29/10/2024	[NT]
Date analysed	-			29/10/2024	[NT]	[NT]	[NT]	[NT]	29/10/2024	[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]	111	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: Metals from Leaching Fluid pH 2.9 or 5						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			28/10/2024	24	28/10/2024	28/10/2024		28/10/2024	[NT]
Date analysed	-			28/10/2024	24	28/10/2024	28/10/2024		28/10/2024	[NT]
Nickel	mg/L	0.02	Metals-020	<0.02	24	0.05	0.05	0	104	[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.

Report Comments

Samples received in good order: Holding time exceedance

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SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	C Ridley

Sample Login Details

Your reference	E36466PR Macquarie Park
Envirolab Reference	363994-A
Date Sample Received	15/10/2024
Date Instructions Received	23/10/2024
Date Results Expected to be Reported	30/10/2024

Sample Condition

Samples received in appropriate condition for analysis	Holding time exceedance
No. of Samples Provided	Additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

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

Please direct any queries to:

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

Analysis Underway, details on the following page:

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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	Misc Inorg - Soil	CEC	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Nickel	On Hold
BH101-0-0.1								✓							
BH101-0.4-0.5								✓							
BH101-0.8-1															✓
BH101-1.8-2															✓
BH101-2.8-3								✓							
BH101-3.6-3.8															✓
BH102-0-0.1															✓
BH102-0.4-0.5															✓
BH102-0.8-1															✓
BH102-1.8-2															✓
BH102-2.8-3															✓
BH102-3.5-3.6															✓
BH103-0-0.1															✓
BH103-0.4-0.5															✓
BH103-0.8-1															✓
BH103-1.8-2															✓
BH103-2.8-3															✓
BH103-3.1-3.2															✓
BH104-0-0.1															✓
BH104-0.1-0.2								✓							

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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	Misc Inorg - Soil	CEC	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Nickel	On Hold
BH105-0-0.05															✓
BH105-0.1-0.15															✓
BH106-0-0.1															✓
BH107-0.12-0.3										✓	✓	✓	✓	✓	
BH107-0.3-0.35				✓	✓	✓									
BH108-0.1-0.2								✓	✓	✓	✓	✓	✓	✓	
BH108-0.2-0.3															✓
BH109-0.15-0.3								✓							
BH109-0.6-0.8															✓
BH110-0.15-0.3															✓
BH111-0.23-0.3															✓
BH111-0.3-0.4	✓	✓	✓				✓								
BH112-0.2-0.3															✓
BH112-0.4-0.6	✓	✓	✓	✓	✓	✓	✓								
BH113-0.2-0.4															✓
BH114-0.23-0.3															✓
BH114-0.4-0.5	✓	✓	✓				✓								
BH115-0.17-0.3															✓
BH115-0.4-0.5				✓	✓	✓									
BH116-0.22-0.4								✓							

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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	Misc Inorg - Soil	CEC	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Nickel	On Hold
BH117-0.23-0.3															✓
BH117-0.4-0.5								✓							
BH118-0.02-0.2								✓	✓	✓	✓	✓	✓	✓	
BH118-0.6-0.8								✓							
BH118-1.6-1.7								✓							
BH118-1.8-2															✓
BH119-0.02-0.2								✓	✓	✓	✓	✓	✓	✓	
BH119-0.8-1															✓
BH119-1.65-1.8															✓
BH119-1.9-2															✓
BH120-0.02-0.2								✓	✓	✓	✓	✓	✓	✓	
BH120-0.5-0.7															✓
BH120-1-1.2															✓
BH120-1.8-2	✓	✓	✓				✓								
BH121-0.01-0.15								✓	✓	✓	✓	✓	✓	✓	
BH121-0.7-0.9															✓
BH122-0.01-0.1								✓	✓	✓	✓	✓	✓	✓	
BH122-0.7-0.9															✓
BH122-1-1.2															✓
BH123-0.01-0.2								✓		✓	✓	✓	✓	✓	

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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	Misc Inorg - Soil	CEC	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Nickel	On Hold
BH123-0.4-0.6	✓	✓	✓				✓								
SDUP101															✓
SDUP102															✓
SDUP106															✓
TB-S101															✓
TB-S102															✓
TS-S101															✓
TS-S102															✓
FR-SPT-101															✓
FR-HA-102															✓
BH106 - [TRIPLICATE]-0-0.1															✓
BH113 - [TRIPLICATE]-0.2-0.4															✓

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.

Anna Bui

From: Craig Ridley <CRidley@jkenvironments.com.au>
Sent: Wednesday, 23 October 2024 5:00 PM
To: Greta Petzold
Cc: Login; Envirolab Sydney Sample Receipt
Subject: RE: Results for Registration 363994 E36466PR Macquarie Park

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

Hi Greta,

Can we please arrange the following additional analysis for this job, on standard turnaround.

	Sample ID	Test Required
1	BH101 (0-0.1)	pH/EC
2	BH101 (0.4-0.5)	pH/EC
5	BH101 (2.8-3.0)	pH/EC
20	BH104 (0.1-0.2)	pH/EC
24	BH107 (0.12-0.3)	TCLP Nickel
25	BH107 (0.3-0.35)	OCP/OPP/PCB
26	BH108 (0.1-0.2)	TCLP Nickel, pH ($CaCl_2$), CEC
28	BH109 (0.15-0.3)	pH/EC
32	BH111 (0.3-0.4)	Combination 3
34	BH112 (0.4-0.6)	Combination 6
37	BH114 (0.4-0.5)	Combination 3
39	BH115 (0.4-0.5)	OCP/OPP/PCB
40	BH116 (0.22-0.4)	pH/EC
42	BH117 (0.4-0.5)	pH/EC
43	BH118 (0.02-0.2)	TCLP Nickel, pH ($CaCl_2$), CEC
44	BH118 (0.6-0.8)	pH/EC
45	BH118 (1.6-1.7)	pH/EC
47	BH119 (0.02-0.2)	TCLP Nickel, pH ($CaCl_2$), CEC
51	BH120 (0.02-0.2)	TCLP Nickel, pH ($CaCl_2$), CEC
54	BH120 (1.8-2.0)	Combination 3
55	BH121 (0.01-0.15)	TCLP Nickel, pH ($CaCl_2$), CEC
57	BH122 (0.01-0.1)	TCLP Nickel, pH ($CaCl_2$), CEC
60	BH123 (0.01-0.2)	TCLP Nickel, pH, EC
61	BH123 (0.4-0.6)	Combination 3

Please let me know if there are any issues.

EW REF: 363994-A
TAT: STANDARD
DUE: 30/10/24
AR

Regards
Craig Ridley
Associate | Environmental Scientist

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CERTIFICATE OF ANALYSIS 364096

Client Details

Client	JK Environments
Attention	C Ridley
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E36466PR, Macquarie Park**
Number of Samples	8 Water
Date samples received	16/10/2024
Date completed instructions received	16/10/2024

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	23/10/2024
Date of Issue	23/10/2024

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

Results Approved By
Giovanni Agosti, Group Technical Manager
Nick Sarlamis, Assistant Operation Manager
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in water						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Date Extracted	-	18/10/2024	18/10/2024	18/10/2024	18/10/2024	18/10/2024
Date Analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
Dichlorodifluoromethane	µg/L	<10	<10	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Benzene	µg/L	<1	<1	<1	<1	<1
Dibromomethane	µg/L	<1	<1	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
1,3-dichloropropane	µg/L	<1	<1	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1

VOCs in water						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Bromoform	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
Styrene	µg/L	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
o-xylene	µg/L	<1	<1	<1	1	1
1,2,3-trichloropropane	µg/L	<1	<1	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1	<1	1
1,3-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	101	100	101	101	102
Surrogate Toluene-d8	%	97	97	97	98	97
Surrogate 4-Bromofluorobenzene	%	99	97	98	99	98

VOCs in water		
Our Reference		364096-6
Your Reference	UNITS	WDUP101
Date Sampled		15/10/2024
Type of sample		Water
Date Extracted	-	18/10/2024
Date Analysed	-	21/10/2024
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1

VOCs in water		
Our Reference		364096-6
Your Reference	UNITS	WDUP101
Date Sampled		15/10/2024
Type of sample		Water
Bromoform	µg/L	<1
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	2
1,2,3-trichloropropane	µg/L	<1
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	101
Surrogate Toluene-d8	%	97
Surrogate 4-Bromofluorobenzene	%	100

vTRH(C6-C10)/BTEXN in Water						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	18/10/2024	18/10/2024	18/10/2024	18/10/2024	18/10/2024
Date analysed	-	21/10/2024	21/10/2024	21/10/2024	21/10/2024	21/10/2024
TRH C_6 - C_9	µg/L	<10	<10	<10	<10	<10
TRH C_6 - C_{10}	µg/L	<10	<10	<10	<10	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	1	1
Naphthalene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	101	100	101	101	102
Surrogate Toluene-d8	%	97	97	97	98	97
Surrogate 4-Bromofluorobenzene	%	99	97	98	99	98

vTRH(C6-C10)/BTEXN in Water				
Our Reference		364096-6	364096-7	364096-8
Your Reference	UNITS	WDUP101	TB-W101	TS-W101
Date Sampled		15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water
Date extracted	-	18/10/2024	18/10/2024	18/10/2024
Date analysed	-	21/10/2024	21/10/2024	21/10/2024
TRH C_6 - C_9	µg/L	<10	<10	[NA]
TRH C_6 - C_{10}	µg/L	<10	<10	[NA]
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	[NA]
Benzene	µg/L	<1	<1	120%
Toluene	µg/L	<1	<1	107%
Ethylbenzene	µg/L	<1	<1	117%
m+p-xylene	µg/L	<2	<2	120%
o-xylene	µg/L	2	<1	117%
Naphthalene	µg/L	<1	<1	[NA]
Surrogate Dibromofluoromethane	%	101	100	102
Surrogate Toluene-d8	%	97	97	100
Surrogate 4-Bromofluorobenzene	%	100	98	92

svTRH (C10-C40) in Water						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Date analysed	-	18/10/2024	18/10/2024	18/10/2024	18/10/2024	18/10/2024
TRH C_{10} - C_{14}	µg/L	<50	<50	68	63	59
TRH C_{15} - C_{28}	µg/L	<100	<100	<100	<100	200
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	70	60	250
TRH >C_{10} - C_{16}	µg/L	<50	<50	64	66	82
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	64	66	82
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	<100	180
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	60	70	260
Surrogate o-Terphenyl	%	80	92	85	91	95

svTRH (C10-C40) in Water			
Our Reference		364096-6	364096-7
Your Reference	UNITS	WDUP101	TB-W101
Date Sampled		15/10/2024	15/10/2024
Type of sample		Water	Water
Date extracted	-	17/10/2024	17/10/2024
Date analysed	-	18/10/2024	18/10/2024
TRH C_{10} - C_{14}	µg/L	61	<50
TRH C_{15} - C_{28}	µg/L	200	<100
TRH C_{29} - C_{36}	µg/L	<100	<100
Total +ve TRH (C10-C36)	µg/L	260	<50
TRH >C_{10} - C_{16}	µg/L	85	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	85	<50
TRH >C_{16} - C_{34}	µg/L	180	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100
Total +ve TRH (>C10-C40)	µg/L	270	<50
Surrogate o-Terphenyl	%	93	95

PAHs in Water						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Date analysed	-	18/10/2024	18/10/2024	18/10/2024	18/10/2024	18/10/2024
Naphthalene	µg/L	<0.1	<0.1	<0.1	0.7	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1	<0.1	0.71	<0.1
Surrogate p-Terphenyl-d14	%	84	90	87	87	86

PAHs in Water			
Our Reference		364096-6	364096-7
Your Reference	UNITS	WDUP101	TB-W101
Date Sampled		15/10/2024	15/10/2024
Type of sample		Water	Water
Date extracted	-	17/10/2024	17/10/2024
Date analysed	-	18/10/2024	18/10/2024
Naphthalene	µg/L	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	89	91

HM in water - dissolved						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Arsenic-Dissolved	µg/L	<1	<1	<1	1	<1
Cadmium-Dissolved	µg/L	0.2	<0.1	<0.1	0.1	0.2
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Copper-Dissolved	µg/L	7	<1	<1	22	2
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	100	140	4	10	12
Zinc-Dissolved	µg/L	560	42	8	38	51

HM in water - dissolved		
Our Reference		364096-6
Your Reference	UNITS	WDUP101
Date Sampled		15/10/2024
Type of sample		Water
Date prepared	-	17/10/2024
Date analysed	-	17/10/2024
Arsenic-Dissolved	µg/L	<1
Cadmium-Dissolved	µg/L	0.2
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	2
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	12
Zinc-Dissolved	µg/L	50

HM in water - total		
Our Reference		364096-7
Your Reference	UNITS	TB-W101
Date Sampled		15/10/2024
Type of sample		Water
Date prepared	-	17/10/2024
Date analysed	-	17/10/2024
Arsenic-Total	µg/L	<1
Cadmium-Total	µg/L	<0.1
Chromium-Total	µg/L	<1
Copper-Total	µg/L	<1
Lead-Total	µg/L	<1
Mercury-Total	µg/L	<0.05
Nickel-Total	µg/L	<1
Zinc-Total	µg/L	<1

Miscellaneous Inorganics						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
Date analysed	-	16/10/2024	16/10/2024	16/10/2024	16/10/2024	16/10/2024
pH	pH Units	5.1	5.7	6.1	4.5	5.5
Electrical Conductivity	µS/cm	4,400	3,000	780	1,000	670

Cations in water Dissolved						
Our Reference		364096-1	364096-2	364096-3	364096-4	364096-5
Your Reference	UNITS	MW18	MW26	MW29	MW121	MW122
Date Sampled		15/10/2024	15/10/2024	15/10/2024	15/10/2024	15/10/2024
Type of sample		Water	Water	Water	Water	Water
Date digested	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Date analysed	-	17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Calcium - Dissolved	mg/L	7.6	26	14	2	4
Magnesium - Dissolved	mg/L	88	72	16	10	5
Hardness (calc) equivalent $CaCO_3$	mg/L	380	360	100	48	30

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Salt forms (e.g. FeO, PbO, ZnO) are determined stoichiometrically from the base metal concentration.
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-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.
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. 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.

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
Date Extracted	-			18/10/2024	6	18/10/2024	22/10/2024		18/10/2024	[NT]
Date Analysed	-			21/10/2024	6	21/10/2024	23/10/2024		21/10/2024	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	6	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	90	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	6	<1	<1	0	93	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	97	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	91	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	6	<1	<1	0	96	[NT]
Dibromomethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	88	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	6	<1	<1	0	88	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	6	<1	<1	0	92	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	6	<1	<1	0	84	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	6	<1	<1	0	93	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	6	<1	<1	0	102	[NT]
Bromoform	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	6	<2	<2	0	104	[NT]
Styrene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
o-xylene	µg/L	1	Org-023	<1	6	2	1	67	102	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	6	1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	6	101	101	0	98	[NT]
Surrogate Toluene-d8	%		Org-023	98	6	97	100	3	101	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	99	6	100	98	2	95	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
Date extracted	-			18/10/2024	6	18/10/2024	22/10/2024		18/10/2024	[NT]
Date analysed	-			21/10/2024	6	21/10/2024	23/10/2024		21/10/2024	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	6	<10	<10	0	100	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	6	<10	10	0	100	[NT]
Benzene	µg/L	1	Org-023	<1	6	<1	<1	0	96	[NT]
Toluene	µg/L	1	Org-023	<1	6	<1	<1	0	92	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	6	<1	<1	0	102	[NT]
m+p-xylene	µg/L	2	Org-023	<2	6	<2	<2	0	104	[NT]
o-xylene	µg/L	1	Org-023	<1	6	2	1	67	102	[NT]
Naphthalene	µg/L	1	Org-023	<1	6	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	6	101	101	0	98	[NT]
Surrogate Toluene-d8	%		Org-023	98	6	97	100	3	101	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	99	6	100	98	2	95	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	364096-2
Date extracted	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Date analysed	-			18/10/2024	1	18/10/2024	18/10/2024		18/10/2024	18/10/2024
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	1	<50	<50	0	118	120
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	1	<100	<100	0	112	114
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	1	<100	<100	0	114	112
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	1	<50	<50	0	118	120
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	1	<100	<100	0	112	114
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	1	<100	<100	0	114	112
Surrogate o-Terphenyl	%		Org-020	91	1	80	86	7	81	85

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	364096-2
Date extracted	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Date analysed	-			18/10/2024	1	18/10/2024	18/10/2024		18/10/2024	18/10/2024
Naphthalene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	86	84
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	71	70
Fluorene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	81	79
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	72	75
Anthracene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	75	77
Pyrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	72	75
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	94
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	74	71
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	90	1	84	86	2	87	85

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	364096-2
Date prepared	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Date analysed	-			17/10/2024	1	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	<1	[NT]		93	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	0.2	[NT]		99	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	[NT]		83	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	7	[NT]		86	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	[NT]		103	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	116	85
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	100	[NT]		86	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	560	[NT]		88	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	364096-3
Date prepared	-			[NT]	2	17/10/2024	17/10/2024		[NT]	17/10/2024
Date analysed	-			[NT]	2	17/10/2024	17/10/2024		[NT]	17/10/2024
Arsenic-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	<1	0	[NT]	80
Cadmium-Dissolved	µg/L	0.1	Metals-022	[NT]	2	<0.1	<0.1	0	[NT]	87
Chromium-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	<1	0	[NT]	70
Copper-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	<1	0	[NT]	74
Lead-Dissolved	µg/L	1	Metals-022	[NT]	2	<1	<1	0	[NT]	83
Mercury-Dissolved	µg/L	0.05	Metals-021	[NT]	2	<0.05	[NT]		[NT]	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	[NT]	2	140	130	7	[NT]	72
Zinc-Dissolved	µg/L	1	Metals-022	[NT]	2	42	40	5	[NT]	77

QUALITY CONTROL: HM in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date prepared	-			17/10/2024	[NT]	[NT]	[NT]	[NT]	17/10/2024	[NT]
Date analysed	-			17/10/2024	[NT]	[NT]	[NT]	[NT]	17/10/2024	[NT]
Arsenic-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Cadmium-Total	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Chromium-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Copper-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Lead-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Mercury-Total	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	117	[NT]
Nickel-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Zinc-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	85	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	[NT]
Date analysed	-			16/10/2024	1	16/10/2024	16/10/2024		16/10/2024	[NT]
pH	pH Units		Inorg-001	[NT]	1	5.1	5.1	0	99	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	<1	1	4400	4400	0	100	[NT]

QUALITY CONTROL: Cations in water Dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	364096-3
Date digested	-			17/10/2024	2	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Date analysed	-			17/10/2024	2	17/10/2024	17/10/2024		17/10/2024	17/10/2024
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	2	26	26	0	95	98
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	2	72	71	1	97	102
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	2	360	360	0	[NT]	[NT]

Result Definitions

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

Quality Control Definitions

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

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.

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	JK Environments
Attention	C Ridley

Sample Login Details

Your reference	E36466PR, Macquarie Park
Envirolab Reference	364096
Date Sample Received	16/10/2024
Date Instructions Received	16/10/2024
Date Results Expected to be Reported	23/10/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	8 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14
Cooling Method	Ice Pack
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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Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	HM in water - dissolved	HM in water - total	pH	Electrical Conductivity	Cations in water Dissolved
MW18	✓	✓	✓	✓	✓		✓	✓	✓
MW26	✓	✓	✓	✓	✓		✓	✓	✓
MW29	✓	✓	✓	✓	✓		✓	✓	✓
MW121	✓	✓	✓	✓	✓		✓	✓	✓
MW122	✓	✓	✓	✓	✓		✓	✓	✓
WDUP101	✓	✓	✓	✓	✓				
TB-W101		✓	✓	✓		✓			
TS-W101		✓							

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.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD	JKE Job Number: E36466PR	JKEnvironments
12 ASHLEY STREET		REAR OF 115 WICKS ROAD
CHATSWOOD NSW 2067		MACQUARIE PARK, NSW 2113
P: (02) 99106200	Date Results Required: STANDARD	P: 02-9888 5000 F: 02-9888 5001
F: (02) 99106201		Attention: Craig Ridley
Attention: Aileen	Page: 1 of 1	Cridley@jkenvironments.com.au

Location:	Macquarie Park	Sample Preserved in Esky on Ice
Sampler:	JTL	Tests Required

Date Sampled	Lab Ref:	Sample Number	Sample Containers	PID	Sample Description	Combo 2	Combo 3 (Dissolved)	Combo 3 (total)	VOCs	pH / EC	8 Metals	PAHs	TRH/BTEX	BTEX	Hardness		
15/10/2024	1	MW18	G x2, V x2, H, PVC	0	Groundwater		X		X	X					X		
15/10/2024	2	MW26	G x2, V x2, H, PVC	0.1	Groundwater		X		X	X					X		
15/10/2024	3	MW29	G x2, V x2, H, PVC	0.1	Groundwater		X		X	X					X		
15/10/2024	4	MW121	G x2, V x2, H, PVC	0.1	Groundwater		X		X	X					X		
15/10/2024	5	MW122	G x2, V x2, H, PVC	6.2	Groundwater		X		X	X					X		
15/10/2024	6	WDUP101	G x2, V x2, H, PVC	-	Duplicate		X		X								
15/10/2024	510 ** 7	WDUP102	G x2, V x2, H, PVC	-	Duplicate		X		X								
15/10/2024	7	TB-W101	G x2, V x2, H, PVC	-	Blank			X									
15/10/2024	8	TS-W101	V	-	Spike									X			

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

Job No: 364096
Date Received: 16/10/24
Time Received: 1510
Received By: JN
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Remarks (comments/detection limits required):

** PLEASE SEND WDUP102 TO VIC FOR INTER-LAB ANALYSIS **

Sample Containers:
G - 100mL Amber Glass Bottle
V - BTEX Vial H - HNO3 Wash PVC
PVC - HDPE Plastic Bottles

Relinquished By:	Date:	Time:	Received By:	Date:
	16/10/2024	12:55		16/10/24

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CERTIFICATE OF ANALYSIS 364385

Client Details

Client	JK Environments
Attention	C Ridley
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**Additional Contamination Investigation**
Number of Samples	air
Date samples received	21/10/2024
Date completed instructions received	21/10/2024

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	28/10/2024
Date of Issue	11/11/2024
Reissue Details	This report replaces R00 created on 28/10/2024 due to: revised report with additional results.

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Results Approved By
Amanda Chui, LC/Air Toxics Supervisor
Steven Luong, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

TO15 in Canisters/Bags						
Our Reference		364385-1	364385-2	364385-3	364385-4	364385-5
Your Reference	UNITS	SV1	SV2	SV3	SV4	SV5
Date Sampled		17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air	Air	Air
Air Kit Security No.		3285	2271	3283	2471	3520
Vacuum before Shipment	Hg"	-30	-30	-30	-30	-30
Vacuum before Analysis	Hg"	-0.14	-4	-5	-7	-6
Date prepared	-	23/10/2024	23/10/2024	23/10/2024	23/10/2024	23/10/2024
Date analysed	-	23/10/2024	23/10/2024	23/10/2024	23/10/2024	23/10/2024
Propylene	ppbv	3	0.8	1	810	<0.5
Dichlorodifluoromethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Chloromethane	ppbv	0.7	<0.5	<0.5	16	<0.5
1,2-Dichlorotetrafluoroethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Vinyl chloride	ppbv	<0.5	<0.5	<0.5	3	<0.5
1,3-Butadiene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Bromomethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Chloroethane	ppbv	<0.5	<0.5	<0.5	170	<0.5
Ethanol	ppbv	20	40	510	700	170
Acrolein	ppbv	<5	<5	<5	<10	<5
Trichlorofluoromethane (Freon 11)	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Acetone	ppbv	20	64	170	5,200	30
Isopropyl Alcohol	ppbv	410	8	40	190	20
1,1-Dichloroethene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,1,2-Trichlorotrifluoroethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Methylene chloride (Dichloromethane)	ppbv	<5	<5	<5	<10	<5
Carbon Disulfide	ppbv	<5	<5	<5	<10	<5
trans-1,2-dichloroethene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
MTBE	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,1- Dichloroethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Vinyl Acetate	ppbv	<0.5	<0.5	<0.5	<1	<0.5
MEK	ppbv	<5	<5	5	74	<5
Hexane	ppbv	0.8	<0.5	3	48	<0.5
cis-1,2-Dichloroethene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Ethyl Acetate	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Chloroform	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Tetrahydrofuran	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,1,1-Trichloroethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,2-Dichloroethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Benzene	ppbv	1	0.8	0.8	250	<0.5
Carbon tetrachloride	ppbv	<0.5	<0.5	<0.5	<1	<0.5

TO15 in Canisters/Bags						
Our Reference		364385-1	364385-2	364385-3	364385-4	364385-5
Your Reference	UNITS	SV1	SV2	SV3	SV4	SV5
Date Sampled		17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air	Air	Air
Air Kit Security No.		3285	2271	3283	2471	3520
Cyclohexane	ppbv	<0.5	<0.5	<0.5	9.0	<0.5
Heptane	ppbv	<0.5	0.7	<0.5	88	<0.5
Trichloroethene	ppbv	<0.5	<0.5	<0.5	1	<0.5
1,2-Dichloropropane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,4-Dioxane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Bromodichloromethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Methyl Methacrylate	ppbv	<0.5	<0.5	<0.5	<1	<0.5
MIBK	ppbv	<5	<5	<5	<10	<5
cis-1,3-Dichloropropene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
trans-1,3-Dichloropropene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Toluene	ppbv	3	3	17	9.7	0.9
1,1,2-Trichloroethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Methyl Butyl Ketone	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Dibromochloromethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Tetrachloroethene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,2-Dibromoethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Chlorobenzene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Ethylbenzene	ppbv	<0.5	1	0.6	1	2
m-& p-Xylene	ppbv	<1	4	3	2	18
Styrene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
o-Xylene	ppbv	<0.5	2	2	<1	11
Bromoform	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,1,2,2-Tetrachloroethane	ppbv	<0.5	<0.5	<0.5	<1	<0.5
4-ethyl toluene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,3,5-Trimethylbenzene	ppbv	<0.5	0.6	0.7	<1	<0.5
1,2,4-Trimethylbenzene	ppbv	<0.5	2	2	1	<0.5
1,3-Dichlorobenzene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Benzyl chloride	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,4-Dichlorobenzene	ppbv	0.9	3	2	3	1
1,2-Dichlorobenzene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
1,2,4-Trichlorobenzene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Naphthalene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Hexachloro- 1,3-butadiene	ppbv	<0.5	<0.5	<0.5	<1	<0.5
Surrogate-Bromochloromethane	% rec	103	102	104	108	107
Surrogate -1,4-Difluorobenzene	% rec	105	100	102	110	108
Surrogate-Chlorobenzene-D5	% rec	103	99	101	114	104

TO15 in Canisters/Bags				
Our Reference		364385-6	364385-7	364385-8
Your Reference	UNITS	SV6	SV7	SVDUP1
Date Sampled		17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air
Air Kit Security No.		2272	2265	2530
Vacuum before Shipment	Hg"	-30	-30	-30
Vacuum before Analysis	Hg"	-6	-5	-7
Date prepared	-	23/10/2024	23/10/2024	23/10/2024
Date analysed	-	23/10/2024	23/10/2024	23/10/2024
Propylene	ppbv	<0.5	11	22
Dichlorodifluoromethane	ppbv	<0.5	<0.5	0.8
Chloromethane	ppbv	<0.5	<0.5	0.9
1,2-Dichlorotetrafluoroethane	ppbv	<0.5	<0.5	<0.5
Vinyl chloride	ppbv	<0.5	<0.5	<0.5
1,3-Butadiene	ppbv	<0.5	<0.5	<0.5
Bromomethane	ppbv	<0.5	<0.5	<0.5
Chloroethane	ppbv	<0.5	<0.5	<0.5
Ethanol	ppbv	20	20	50
Acrolein	ppbv	<5	<5	<5
Trichlorofluoromethane (Freon 11)	ppbv	<0.5	<0.5	<0.5
Acetone	ppbv	20	9	7
Isopropyl Alcohol	ppbv	6	6	130
1,1-Dichloroethene	ppbv	<0.5	<0.5	<0.5
1,1,2-Trichlorotrifluoroethane	ppbv	<0.5	<0.5	<0.5
Methylene chloride (Dichloromethane)	ppbv	<5	<5	8
Carbon Disulfide	ppbv	5	<5	<5
trans-1,2-dichloroethene	ppbv	<0.5	<0.5	<0.5
MTBE	ppbv	<0.5	<0.5	<0.5
1,1- Dichloroethane	ppbv	<0.5	<0.5	<0.5
Vinyl Acetate	ppbv	<0.5	<0.5	<0.5
MEK	ppbv	8	<5	<5
Hexane	ppbv	0.9	1	0.8
cis-1,2-Dichloroethene	ppbv	<0.5	<0.5	<0.5
Ethyl Acetate	ppbv	<0.5	<0.5	<0.5
Chloroform	ppbv	3	0.8	<0.5
Tetrahydrofuran	ppbv	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ppbv	<0.5	<0.5	<0.5
1,2-Dichloroethane	ppbv	<0.5	<0.5	<0.5
Benzene	ppbv	2	2	0.8
Carbon tetrachloride	ppbv	<0.5	<0.5	<0.5

TO15 in Canisters/Bags				
Our Reference		364385-6	364385-7	364385-8
Your Reference	UNITS	SV6	SV7	SVDUP1
Date Sampled		17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air
Air Kit Security No.		2272	2265	2530
Cyclohexane	ppbv	<0.5	<0.5	<0.5
Heptane	ppbv	0.6	0.6	<0.5
Trichloroethene	ppbv	<0.5	2	<0.5
1,2-Dichloropropane	ppbv	<0.5	<0.5	<0.5
1,4-Dioxane	ppbv	<0.5	<0.5	<0.5
Bromodichloromethane	ppbv	<0.5	<0.5	<0.5
Methyl Methacrylate	ppbv	<0.5	<0.5	<0.5
MIBK	ppbv	<5	<5	<5
cis-1,3-Dichloropropene	ppbv	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	ppbv	<0.5	<0.5	<0.5
Toluene	ppbv	4	4	43
1,1,2-Trichloroethane	ppbv	<0.5	<0.5	<0.5
Methyl Butyl Ketone	ppbv	<0.5	<0.5	<0.5
Dibromochloromethane	ppbv	<0.5	<0.5	<0.5
Tetrachloroethene	ppbv	<0.5	<0.5	<0.5
1,2-Dibromoethane	ppbv	<0.5	<0.5	<0.5
Chlorobenzene	ppbv	<0.5	<0.5	<0.5
Ethylbenzene	ppbv	0.7	0.7	<0.5
m-& p-Xylene	ppbv	2	1	<1
Styrene	ppbv	1	3	0.8
o-Xylene	ppbv	0.8	0.5	<0.5
Bromoform	ppbv	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	ppbv	<0.5	<0.5	<0.5
4-ethyl toluene	ppbv	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	ppbv	0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	ppbv	1	0.8	<0.5
1,3-Dichlorobenzene	ppbv	<0.5	<0.5	<0.5
Benzyl chloride	ppbv	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	ppbv	5	3	0.9
1,2-Dichlorobenzene	ppbv	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	ppbv	<0.5	<0.5	<0.5
Naphthalene	ppbv	<0.5	<0.5	<0.5
Hexachloro- 1,3-butadiene	ppbv	<0.5	<0.5	<0.5
Surrogate-Bromochloromethane	% rec	112	112	107
Surrogate -1,4-Difluorobenzene	% rec	120	119	111
Surrogate-Chlorobenzene-D5	% rec	119	115	107

TO15 in Canisters µg/m3						
Our Reference		364385-1	364385-2	364385-3	364385-4	364385-5
Your Reference	UNITS	SV1	SV2	SV3	SV4	SV5
Date Sampled		17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air	Air	Air
Air Kit Security No.		3285	2271	3283	2471	3520
Vacuum before Shipment	Hg"	-30	-30	-30	-30	-30
Vacuum before Analysis	Hg"	-0.14	-4	-5	-7	-6
Date prepared	-	23/10/2024	23/10/2024	23/10/2024	23/10/2024	23/10/2024
Date analysed	-	23/10/2024	23/10/2024	23/10/2024	23/10/2024	23/10/2024
Propylene	µg/m³	4	1	2	1,400	<0.9
Dichlorodifluoromethane	µg/m³	<2.5	<2.5	<2.5	<5	<2.5
Chloromethane	µg/m³	1	<1	<1	32	<1
1,2-Dichlorotetrafluoroethane	µg/m³	<2.5	<2.5	<2.5	<5	<2.5
Vinyl chloride	µg/m³	<1.3	<1.3	<1.3	7	<1.3
1,3-Butadiene	µg/m³	<1.1	<1.1	<1.1	<2	<1.1
Bromomethane	µg/m³	<1.9	<1.9	<1.9	<4	<1.9
Chloroethane	µg/m³	<1.3	<1.3	<1.3	440	<1.3
Ethanol	µg/m³	40	70	970	1,300	330
Acrolein	µg/m³	<11	<11	<11	<20	<11
Trichlorofluoromethane (Freon 11)	µg/m³	<2.8	<2.8	<2.8	<6	<2.8
Acetone	µg/m³	40	150	410	12,000	70
Isopropyl Alcohol	µg/m³	1,000	20	100	460	60
1,1-Dichloroethene	µg/m³	<2	<2	<2	<4	<2
1,1,2-Trichlorotrifluoroethane	µg/m³	<3.8	<3.8	<3.8	<8	<3.8
Methylene chloride (Dichloromethane)	µg/m³	<17	<17	<17	<30	<17
Carbon Disulfide	µg/m³	<16	<16	<16	<30	<16
trans-1,2-dichloroethene	µg/m³	<2	<2	<2	<4	<2
MTBE	µg/m³	<1.8	<1.8	<1.8	<4	<1.8
1,1- Dichloroethane	µg/m³	<2	<2	<2	<4	<2
Vinyl Acetate	µg/m³	<1.8	<1.8	<1.8	<4	<1.8
MEK	µg/m³	<15	<15	15	220	<15
Hexane	µg/m³	3	<1.8	10	170	<1.8
cis-1,2-Dichloroethene	µg/m³	<2	<2	<2	<4	<2
Ethyl Acetate	µg/m³	<1.8	<1.8	<1.8	<4	<1.8
Chloroform	µg/m³	<2.4	<2.4	<2.4	<5	<2.4
Tetrahydrofuran	µg/m³	<1.5	<1.5	<1.5	<3	<1.5
1,1,1-Trichloroethane	µg/m³	<2.7	<2.7	<2.7	<5	<2.7
1,2-Dichloroethane	µg/m³	<2	<2	<2	<4	<2
Benzene	µg/m³	3	3	2	790	<1.6
Carbon tetrachloride	µg/m³	<3.1	<3.1	<3.1	<6	<3.1

TO15 in Canisters µg/m3						
Our Reference		364385-1	364385-2	364385-3	364385-4	364385-5
Your Reference	UNITS	SV1	SV2	SV3	SV4	SV5
Date Sampled		17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air	Air	Air
Air Kit Security No.		3285	2271	3283	2471	3520
Cyclohexane	µg/m³	<1.7	<1.7	<1.7	31	<1.7
Heptane	µg/m³	<2	3	<2	360	<2
Trichloroethene	µg/m³	<2.7	<2.7	<2.7	6	<2.7
1,2-Dichloropropane	µg/m³	<2.3	<2.3	<2.3	<5	<2.3
1,4-Dioxane	µg/m³	<1.8	<1.8	<1.8	<4	<1.8
Bromodichloromethane	µg/m³	<3.4	<3.4	<3.4	<7	<3.4
Methyl Methacrylate	µg/m³	<2	<2	<2	<4	<2
MIBK	µg/m³	<20	<20	<20	<40	<20
cis-1,3-Dichloropropene	µg/m³	<2.3	<2.3	<2.3	<5	<2.3
trans-1,3-Dichloropropene	µg/m³	<2.3	<2.3	<2.3	<5	<2.3
Toluene	µg/m³	10	10	65	37	3
1,1,2-Trichloroethane	µg/m³	<2.7	<2.7	<2.7	<5	<2.7
Methyl Butyl Ketone	µg/m³	<2	<2	<2	<4	<2
Dibromochloromethane	µg/m³	<1.6	<1.6	<1.6	<3	<1.6
Tetrachloroethene	µg/m³	<3.4	<3.4	<3.4	<7	<3.4
1,2-Dibromoethane	µg/m³	<3.8	<3.8	<3.8	<8	<3.8
Chlorobenzene	µg/m³	<2.3	<2.3	<2.3	<5	<2.3
Ethylbenzene	µg/m³	<2.2	4	2	4	9
m-& p-Xylene	µg/m³	<4.3	20	10	8	77
Styrene	µg/m³	<2.1	<2.1	<2.1	<4	<2.1
o-Xylene	µg/m³	<2.2	9	8	<4	46
Bromoform	µg/m³	<5.2	<5.2	<5.2	<10	<5.2
1,1,2,2-Tetrachloroethane	µg/m³	<3.4	<3.4	<3.4	<7	<3.4
4-ethyl toluene	µg/m³	<2.5	<2.5	<2.5	<5	<2.5
1,3,5-Trimethylbenzene	µg/m³	<2.5	3	3	<5	<2.5
1,2,4-Trimethylbenzene	µg/m³	<2.5	8	10	5	<2.5
1,3-Dichlorobenzene	µg/m³	<3	<3	<3	<6	<3
Benzyl chloride	µg/m³	<2.6	<2.6	<2.6	<5	<2.6
1,4-Dichlorobenzene	µg/m³	6	20	10	20	6
1,2-Dichlorobenzene	µg/m³	<3	<3	<3	<6	<3
1,2,4-Trichlorobenzene	µg/m³	<3.7	<3.7	<3.7	<7	<3.7
Naphthalene	µg/m³	<2.6	<2.6	<2.6	<5	<2.6
Hexachloro- 1,3-butadiene	µg/m³	<5.3	<5.3	<5.3	<10	<5.3
Surrogate-Bromochloromethane	% rec	103	102	104	108	107
Surrogate -1,4-Difluorobenzene	% rec	105	100	102	110	108
Surrogate-Chlorobenzene-D5	% rec	103	99	101	114	104

TO15 in Canisters µg/m3				
Our Reference		364385-6	364385-7	364385-8
Your Reference	UNITS	SV6	SV7	SVDUP1
Date Sampled		17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air
Air Kit Security No.		2272	2265	2530
Vacuum before Shipment	Hg"	-30	-30	-30
Vacuum before Analysis	Hg"	-6	-5	-7
Date prepared	-	23/10/2024	23/10/2024	23/10/2024
Date analysed	-	23/10/2024	23/10/2024	23/10/2024
Propylene	µg/m³	<0.9	19	38
Dichlorodifluoromethane	µg/m³	<2.5	<2.5	4
Chloromethane	µg/m³	<1	<1	2
1,2-Dichlorotetrafluoroethane	µg/m³	<2.5	<2.5	<2.5
Vinyl chloride	µg/m³	<1.3	<1.3	<1.3
1,3-Butadiene	µg/m³	<1.1	<1.1	<1.1
Bromomethane	µg/m³	<1.9	<1.9	<1.9
Chloroethane	µg/m³	<1.3	<1.3	<1.3
Ethanol	µg/m³	40	30	95
Acrolein	µg/m³	<11	<11	<11
Trichlorofluoromethane (Freon 11)	µg/m³	<2.8	<2.8	<2.8
Acetone	µg/m³	60	20	20
Isopropyl Alcohol	µg/m³	20	20	320
1,1-Dichloroethene	µg/m³	<2	<2	<2
1,1,2-Trichlorotrifluoroethane	µg/m³	<3.8	<3.8	<3.8
Methylene chloride (Dichloromethane)	µg/m³	<17	<17	30
Carbon Disulfide	µg/m³	20	<16	<16
trans-1,2-dichloroethene	µg/m³	<2	<2	<2
MTBE	µg/m³	<1.8	<1.8	<1.8
1,1- Dichloroethane	µg/m³	<2	<2	<2
Vinyl Acetate	µg/m³	<1.8	<1.8	<1.8
MEK	µg/m³	23	<15	<15
Hexane	µg/m³	3	4	3
cis-1,2-Dichloroethene	µg/m³	<2	<2	<2
Ethyl Acetate	µg/m³	<1.8	<1.8	<1.8
Chloroform	µg/m³	20	4	<2.4
Tetrahydrofuran	µg/m³	<1.5	<1.5	<1.5
1,1,1-Trichloroethane	µg/m³	<2.7	<2.7	<2.7
1,2-Dichloroethane	µg/m³	<2	<2	<2
Benzene	µg/m³	6	7	3
Carbon tetrachloride	µg/m³	<3.1	<3.1	<3.1

TO15 in Canisters µg/m3				
Our Reference		364385-6	364385-7	364385-8
Your Reference	UNITS	SV6	SV7	SVDUP1
Date Sampled		17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air
Air Kit Security No.		2272	2265	2530
Cyclohexane	µg/m³	<1.7	<1.7	<1.7
Heptane	µg/m³	3	3	<2
Trichloroethene	µg/m³	<2.7	10	<2.7
1,2-Dichloropropane	µg/m³	<2.3	<2.3	<2.3
1,4-Dioxane	µg/m³	<1.8	<1.8	<1.8
Bromodichloromethane	µg/m³	<3.4	<3.4	<3.4
Methyl Methacrylate	µg/m³	<2	<2	<2
MIBK	µg/m³	<20	<20	<20
cis-1,3-Dichloropropene	µg/m³	<2.3	<2.3	<2.3
trans-1,3-Dichloropropene	µg/m³	<2.3	<2.3	<2.3
Toluene	µg/m³	20	10	160
1,1,2-Trichloroethane	µg/m³	<2.7	<2.7	<2.7
Methyl Butyl Ketone	µg/m³	<2	<2	<2
Dibromochloromethane	µg/m³	<1.6	<1.6	<1.6
Tetrachloroethene	µg/m³	<3.4	<3.4	<3.4
1,2-Dibromoethane	µg/m³	<3.8	<3.8	<3.8
Chlorobenzene	µg/m³	<2.3	<2.3	<2.3
Ethylbenzene	µg/m³	3	3	<2.2
m-& p-Xylene	µg/m³	8	5	<4.3
Styrene	µg/m³	5	10	3
o-Xylene	µg/m³	3	2	<2.2
Bromoform	µg/m³	<5.2	<5.2	<5.2
1,1,2,2-Tetrachloroethane	µg/m³	<3.4	<3.4	<3.4
4-ethyl toluene	µg/m³	<2.5	<2.5	<2.5
1,3,5-Trimethylbenzene	µg/m³	3	<2.5	<2.5
1,2,4-Trimethylbenzene	µg/m³	6	4	<2.5
1,3-Dichlorobenzene	µg/m³	<3	<3	<3
Benzyl chloride	µg/m³	<2.6	<2.6	<2.6
1,4-Dichlorobenzene	µg/m³	30	20	6
1,2-Dichlorobenzene	µg/m³	<3	<3	<3
1,2,4-Trichlorobenzene	µg/m³	<3.7	<3.7	<3.7
Naphthalene	µg/m³	<2.6	<2.6	<2.6
Hexachloro- 1,3-butadiene	µg/m³	<5.3	<5.3	<5.3
Surrogate-Bromochloromethane	% rec	112	112	107
Surrogate -1,4-Difluorobenzene	% rec	120	119	111
Surrogate-Chlorobenzene-D5	% rec	119	115	107

TPH Air/ Air Phase Hydrocarbon						
Our Reference		364385-1	364385-2	364385-3	364385-4	364385-5
Your Reference	UNITS	SV1	SV2	SV3	SV4	SV5
Date Sampled		17/10/2024	17/10/2024	17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air	Air	Air
Air Kit Security No.		3285	2271	3283	2471	3520
Date prepared	-	23/10/2024	23/10/2024	23/10/2024	23/10/2024	23/10/2024
Date analysed	-	23/10/2024	23/10/2024	23/10/2024	23/10/2024	23/10/2024
TPH C_5 - C_8 Aliphatic	µg/m^3	430	<200	300	12,000	<200
TPH C_9 - C_{12} Aliphatic	µg/m^3	<50	<50	<50	2,800	<50
TPH C_9 - C_{10} Aromatic	µg/m^3	<100	<100	<100	<200	<100
TPH C_6 - C_{10} - BTEX (F1)	µg/m^3	<200	<200	<200	<400	<200
TPH >C_{10} - C_{12} - Naphthalene (F2)	µg/m^3	<40	<40	<40	2,800	<40

TPH Air/ Air Phase Hydrocarbon				
Our Reference		364385-6	364385-7	364385-8
Your Reference	UNITS	SV6	SV7	SVDUP1
Date Sampled		17/10/2024	17/10/2024	17/10/2024
Type of sample		Air	Air	Air
Air Kit Security No.		2272	2265	2530
Date prepared	-	23/10/2024	23/10/2024	23/10/2024
Date analysed	-	23/10/2024	23/10/2024	23/10/2024
TPH C_5 - C_8 Aliphatic	µg/m^3	<200	<200	280
TPH C_9 - C_{12} Aliphatic	µg/m^3	95	<50	<50
TPH C_9 - C_{10} Aromatic	µg/m^3	<100	<100	<100
TPH C_6 - C_{10} - BTEX (F1)	µg/m^3	<200	<200	<200
TPH >C_{10} - C_{12} - Naphthalene (F2)	µg/m^3	60	<40	<40

IPA in Carbon Tubes & Badges		
Our Reference		364385-9
Your Reference	UNITS	Shroud
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909144150
Date Extracted	-	24/10/2024
Date Analysed	-	28/10/2024
Tube Sampling rate	mL/min	50
Sampling Time	mins	1
Volume sampled	m^3	0.000050
Isopropyl Alcohol*	µg	20
Isopropyl Alcohol*	$µg/m^3$	430,000
Surrogate Toluene-d8	%	98
Surrogate 4-Bromofluorobenzene	%	84

VOC in Carbon tubes & Badges		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
Date Extracted	-	24/10/2024
Date Analysed	-	25/10/2024
Dichlorodifluoromethane	µg	<5
Chloromethane	µg	<5
Vinyl Chloride	µg	<10
Chloroethane	µg	<5
Trichlorofluoromethane	µg	<5
Acetonitrile	µg	<5
Acetone	µg	<20
Diethyl ether	µg	<20
1,1-Dichloroethene	µg	<5
Acrylonitrile	µg	<5
1,1,2-Trichlorotrifluoroethane	µg	<10
Methylene Chloride (DCM)	µg	<20
Methyl tert-butyl ethene (MtBE)	µg	<5
Trans 1,2-Dichloroethene	µg	<5
Propionitrile	µg	<10
1,1-Dichloroethane	µg	<5
3-Methylpentane	µg	<5
Methyl Ethyl Ketone (MEK)	µg	<10
Chloroprene	µg	<10
Hexane	µg	<20
Ethylacetate	µg	<5
Cis 1,2-Dichloroethene	µg	<5
Methyl acrylate	µg	<5
2,2-Dichloropropane	µg	<5
Bromochloromethane	µg	<5
Chloroform	µg	<5
Methylcyclopentane	µg	<5
1,1,1-Trichloroethane	µg	<5
1-Chlorobutane	µg	<5
1,2-Dichloroethane	µg	<5
1,1-Dichloropropene	µg	<5
Benzene	µg	<2
Carbon Tetrachloride	µg	<5

VOC in Carbon tubes & Badges		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
Cyclohexane	µg	<5
3-Methylhexane	µg	<5
Ethyl acrylate	µg	<5
Heptane	µg	<5
Trichloroethene	µg	<5
1,2-Dichloropropane	µg	<5
Methyl methacrylate	µg	<5
Dibromomethane	µg	<5
1,4-Dioxane	µg	<5
Bromodichloromethane	µg	<5
Epichlorohydrin	µg	<5
Methylcyclohexane	µg	<5
Methyl Isobutyl Ketone (MIBK)	µg	<5
cis-1,3-Dichloropropene	µg	<5
trans-1,3-Dichloropropene	µg	<5
Toluene	µg	<5
Ethyl methacrylate	µg	<5
1,1,2-Trichloroethane	µg	<5
Methyl Isopropyl Ketone (MIPK)	µg	<5
1,3-Dichloropropane	µg	<5
Octane	µg	<5
n-Butyl acrylate	µg	<10
Dibromochloromethane	µg	<5
Tetrachloroethene	µg	<5
1,2-Dibromoethane	µg	<5
Chlorobenzene	µg	<5
1,1,1,2-Tetrachloroethane	µg	<5
Ethylbenzene	µg	<5
m+p-Xylene	µg	<10
n-Butyl acetate	µg	<5
Nonane	µg	<5
Styrene	µg	<5
o-Xylene	µg	<5
Cyclohexanone	µg	<5
Cis-1,4-Dichlorobutene	µg	<10
Bromoform	µg	<5

VOC in Carbon tubes & Badges		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
1,1,2,2-Tetrachloroethane	µg	<5
trans-1,4-Dichlorobutene	µg	<10
1,2,3-Trichloropropane	µg	<5
Isopropylbenzene	µg	<5
Bromobenzene	µg	<5
n-Propylbenzene	µg	<5
Diisobutyl Ketone (DIBK)	µg	<5
2-Chlorotoluene	µg	<5
4-Chlorotoluene	µg	<5
1,3,5-Trimethylbenzene	µg	<5
a-Methylstyrene	µg	<5
Decane	µg	<5
tert-Butylbenzene	µg	<5
1,2,4-Trimethylbenzene	µg	<5
sec-Butylbenzene	µg	<5
1,3-Dichlorobenzene	µg	<5
Benzyl chloride	µg	<5
1,4-Dichlorobenzene	µg	<5
4-Isopropyl toluene	µg	<5
1,2-Dichlorobenzene	µg	<5
n-Butylbenzene	µg	<5
Nitrobenzene	µg	<10
1,2-Dibromo-3-chloropropane	µg	<5
Dodecane	µg	<5
1,2,4-Trichlorobenzene	µg	<5
Naphthalene	µg	<10
Hexachlorobutadiene	µg	<5
1,2,3-Trichlorobenzene	µg	<5
Surrogate Toluene-d8	%	92
Surrogate 4-Bromofluorobenzene	%	84

VOC in Carbon tubes*		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
Volume sampled	m^3	0.00050
Dichlorodifluoromethane	$\mu g/m^3$	<10000
Chloromethane	$\mu g/m^3$	<10000
Vinyl Chloride	$\mu g/m^3$	<20000
Chloroethane	$\mu g/m^3$	<10000
Trichlorofluoromethane	$\mu g/m^3$	<10000
Acetonitrile	$\mu g/m^3$	<10000
Acetone	$\mu g/m^3$	<40000
Diethyl ether	$\mu g/m^3$	<40000
1,1-Dichloroethene	$\mu g/m^3$	<10000
Acrylonitrile	$\mu g/m^3$	<10000
1,1,2-Trichlorotrifluoroethane	$\mu g/m^3$	<20000
Methylene Chloride (DCM)	$\mu g/m^3$	<40000
Methyl tert-butyl ethene (MtBE)	$\mu g/m^3$	<10000
Trans-1,2-Dichloroethene	$\mu g/m^3$	<10000
Propionitrile	$\mu g/m^3$	<20000
1,1-Dichloroethane	$\mu g/m^3$	<10000
3-Methylpentane	$\mu g/m^3$	<10000
Methyl Ethyl Ketone (MEK)	$\mu g/m^3$	<20000
Chloroprene	$\mu g/m^3$	<20000
Hexane	$\mu g/m^3$	<40000
Ethylacetate	$\mu g/m^3$	<10000
Cis-1,2-Dichloroethene	$\mu g/m^3$	<10000
Methyl acrylate	$\mu g/m^3$	<10000
2,2-Dichloropropane	$\mu g/m^3$	<10000
Bromochloromethane	$\mu g/m^3$	<10000
Chloroform	$\mu g/m^3$	<10000
Methylcyclopentane	$\mu g/m^3$	<10000
1,1,1-Trichloroethane	$\mu g/m^3$	<10000
1-Chlorobutane	$\mu g/m^3$	<10000
1,2-Dichloroethane	$\mu g/m^3$	<10000
1,1-Dichloropropene	$\mu g/m^3$	<10000
Benzene	$\mu g/m^3$	<4000
Carbon Tetrachloride	$\mu g/m^3$	<10000
Cyclohexane	$\mu g/m^3$	<10000

VOC in Carbon tubes*		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
3-Methylhexane	µg/m³	<10000
Ethyl acrylate	µg/m³	<10000
Heptane	µg/m³	<10000
Trichloroethene	µg/m³	<10000
1,2-Dichloropropane	µg/m³	<10000
Methyl methacrylate	µg/m³	<10000
Dibromomethane	µg/m³	<10000
1,4-Dioxane	µg/m³	<10000
Bromodichloromethane	µg/m³	<10000
Epichlorohydrin	µg/m³	<10000
Methylcyclohexane	µg/m³	<10000
Methyl Isobutyl Ketone (MIBK)	µg/m³	<10000
Cis-1,3-Dichloropropene	µg/m³	<10000
Trans-1,3-Dichloropropene	µg/m³	<10000
Toluene	µg/m³	<10000
Ethyl methacrylate	µg/m³	<10000
1,1,2-Trichloroethane	µg/m³	<10000
MIPK (3-Methyl-2-butanone)	µg/m³	<10000
1,3-Dichloropropane	µg/m³	<10000
Octane	µg/m³	<10000
n-Butyl acrylate	µg/m³	<20000
Dibromochloromethane	µg/m³	<10000
n-Butyl acetate	µg/m³	<10000
Tetrachloroethene	µg/m³	<10000
1,2-Dibromoethane	µg/m³	<10000
Chlorobenzene	µg/m³	<10000
1,1,1,2-Tetrachloroethane	µg/m³	<10000
Ethylbenzene	µg/m³	<10000
m+p-Xylene	µg/m³	<20000
Nonane	µg/m³	<10000
Styrene	µg/m³	<10000
o-Xylene	µg/m³	<10000
Cyclohexanone	µg/m³	<10000
Cis-1,4-Dichlorobutene	µg/m³	<20000
Bromoform	µg/m³	<10000
1,1,2,2-Tetrachloroethane	µg/m³	<10000

VOC in Carbon tubes*		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
Trans-1,4-Dichlorobutene	µg/m³	<20000
1,2,3-Trichloropropane	µg/m³	<10000
Isopropylbenzene	µg/m³	<10000
Bromobenzene	µg/m³	<10000
n-Propylbenzene	µg/m³	<10000
Diisobutyl Ketone (DIBK)	µg/m³	<10000
2-Chlorotoluene	µg/m³	<10000
4-Chlorotoluene	µg/m³	<10000
1,3,5-Trimethylbenzene	µg/m³	<10000
a-Methylstyrene	µg/m³	<10000
Decane	µg/m³	<10000
tert-Butylbenzene	µg/m³	<10000
1,2,4-Trimethylbenzene	µg/m³	<10000
sec-Butylbenzene	µg/m³	<10000
1,3-Dichlorobenzene	µg/m³	<10000
Benzyl chloride	µg/m³	<10000
4-Isopropyl toluene	µg/m³	<10000
1,4-Dichlorobenzene	µg/m³	<10000
1,2-Dichlorobenzene	µg/m³	<10000
n-Butylbenzene	µg/m³	<10000
Nitrobenzene	µg/m³	<20000
1,2-Dibromo-3-chloropropane	µg/m³	<10000
Dodecane	µg/m³	<10000
1,2,4-Trichlorobenzene	µg/m³	<10000
Naphthalene	µg/m³	<20000
Hexachlorobutadiene	µg/m³	<10000
1,2,3-Trichlorobenzene	µg/m³	<10000

Total VOCs (C6-C9) as n-Heptane*		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
Date Extracted	-	24/10/2024
Date Analysed	-	25/10/2024
TVOC's (C6-C9) as heptane*	µg	<50
Surrogate Toluene-d8	%	92
Surrogate 4-Bromofluorobenzene	%	84

Total VOCs (C6-C9) as n-Heptane*		
Our Reference		364385-10
Your Reference	UNITS	SV1
Date Sampled		17/10/2024
Type of sample		Carbon Tube
Air Kit Security No.		0909143938
Volume sampled	m^3	0.00050
TVOC's (C6-C9) as heptane*	$\mu g/m^3$	<100000

Method ID	Methodology Summary
AT-005	Measurement of Air-Phase Petroleum Hydrocarbons and Ozone Precursors by GC-MS.
ORG-022	Determination of volatile organic compounds in charcoal tubes/badges/sorbents using CS2 extraction, determined by GC/GC-MS. Desorption efficiencies are not applied to results. Note where µg/m3 or mg/m3 results are supplied for SKC badges, the factors used are for 575-002, if 575-002 data is unavailable for an analyte then use 575-001 then 575-003 (exposure time must be supplied). Otherwise a sampling rate may be used for a similar analyte on request. Analytes such as (where applicable) Iodomethane, Chloroprene, Nitrobenzene, Naphthalene and 1, 2, 3 / 1, 2, 4 Trichlorobenzenes are considered to be semi-quant analyses using CS2 desorption from charcoal tubes. The latter three compounds are better served by XAD-2 collection and analysis. Note - air volume measurements are not covered by Envirolab's NATA accreditation.
TO15	USEPA TO15 - Analysis of VOC's in air using USEPA TO15 and in house method AT-002. Note, longer term stability of some oxygenated compounds is questionable where significant humidity is present.
USEPA 18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography using USEPA m18.

QUALITY CONTROL: TO15 in Canisters/Bags						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Vacuum before Shipment	Hg"			[NT]	1	-30	-30	0	[NT]	[NT]
Vacuum before Analysis	Hg"			[NT]	1	-0.14	-0.14	0	[NT]	[NT]
Date prepared	-			23/10/2024	1	23/10/2024	23/10/2024		23/10/2024	[NT]
Date analysed	-			23/10/2024	1	23/10/2024	23/10/2024		23/10/2024	[NT]
Propylene	ppbv	0.5	TO15	<0.5	1	3	2	40	121	[NT]
Dichlorodifluoromethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Chloromethane	ppbv	0.5	TO15	<0.5	1	0.7	0.8	13	[NT]	[NT]
1,2-Dichlorotetrafluoroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Vinyl chloride	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,3-Butadiene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Bromomethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Chloroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Ethanol	ppbv	5	TO15	<5	1	20	20	0	[NT]	[NT]
Acrolein	ppbv	5	TO15	<5	1	<5	<5	0	[NT]	[NT]
Trichlorofluoromethane (Freon 11)	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Acetone	ppbv	5	TO15	<5	1	20	20	0	[NT]	[NT]
Isopropyl Alcohol	ppbv	5	TO15	<5	1	410	410	0	[NT]	[NT]
1,1-Dichloroethene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,1,2-Trichlorotrifluoroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Methylene chloride (Dichloromethane)	ppbv	5	TO15	<5	1	<5	<5	0	[NT]	[NT]
Carbon Disulfide	ppbv	5	TO15	<5	1	<5	<5	0	[NT]	[NT]
trans-1,2-dichloroethene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
MTBE	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,1- Dichloroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Vinyl Acetate	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
MEK	ppbv	5	TO15	<5	1	<5	<5	0	[NT]	[NT]
Hexane	ppbv	0.5	TO15	<0.5	1	0.8	0.8	0	103	[NT]
cis-1,2-Dichloroethene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Ethyl Acetate	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Chloroform	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Tetrahydrofuran	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,1,1-Trichloroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,2-Dichloroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Benzene	ppbv	0.5	TO15	<0.5	1	1	1	0	105	[NT]
Carbon tetrachloride	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Cyclohexane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	83	[NT]
Heptane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	103	[NT]

QUALITY CONTROL: TO15 in Canisters/Bags						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Trichloroethene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,2-Dichloropropane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,4-Dioxane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Bromodichloromethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Methyl Methacrylate	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
MIBK	ppbv	5	TO15	<5	1	<5	<5	0	[NT]	[NT]
cis-1,3-Dichloropropene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
trans-1,3-Dichloropropene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Toluene	ppbv	0.5	TO15	<0.5	1	3	3	0	106	[NT]
1,1,2-Trichloroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Methyl Butyl Ketone	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Dibromochloromethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Tetrachloroethene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,2-Dibromoethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Chlorobenzene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	106	[NT]
m-& p-Xylene	ppbv	1	TO15	<1	1	<1	<1	0	107	[NT]
Styrene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	114	[NT]
o-Xylene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	107	[NT]
Bromoform	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,1,2,2-Tetrachloroethane	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
4-ethyl toluene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	121	[NT]
1,3,5-Trimethylbenzene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	113	[NT]
1,2,4-Trimethylbenzene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	118	[NT]
1,3-Dichlorobenzene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Benzyl chloride	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,4-Dichlorobenzene	ppbv	0.5	TO15	<0.5	1	0.9	0.9	0	[NT]	[NT]
1,2-Dichlorobenzene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,2,4-Trichlorobenzene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Naphthalene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Hexachloro- 1,3-butadiene	ppbv	0.5	TO15	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Surrogate-Bromochloromethane	% rec		TO15	103	1	103	102	1	105	[NT]
Surrogate -1,4-Difluorobenzene	% rec		TO15	101	1	105	103	2	105	[NT]
Surrogate-Chlorobenzene-D5	% rec		TO15	100	1	103	101	2	105	[NT]

QUALITY CONTROL: TO15 in Canisters µg/m3						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Vacuum before Shipment	Hg"			[NT]	1	-30	-30	0	[NT]	[NT]
Vacuum before Analysis	Hg"			[NT]	1	-0.14	-0.14	0	[NT]	[NT]
Date prepared	-			23/10/2024	1	23/10/2024	23/10/2024		[NT]	[NT]
Date analysed	-			23/10/2024	1	23/10/2024	23/10/2024		[NT]	[NT]
Propylene	µg/m³	0.9	TO15	<0.9	1	4	4	0	[NT]	[NT]
Dichlorodifluoromethane	µg/m³	2.5	TO15	<2.5	1	<2.5	<2.5	0	[NT]	[NT]
Chloromethane	µg/m³	1.0	TO15	<1.0	1	1	2	67	[NT]	[NT]
1,2-Dichlorotetrafluoroethane	µg/m³	2.5	TO15	<2.5	1	<2.5	<2.5	0	[NT]	[NT]
Vinyl chloride	µg/m³	1.3	TO15	<1.3	1	<1.3	<1.3	0	[NT]	[NT]
1,3-Butadiene	µg/m³	1.1	TO15	<1.1	1	<1.1	<1.1	0	[NT]	[NT]
Bromomethane	µg/m³	1.9	TO15	<1.9	1	<1.9	<1.9	0	[NT]	[NT]
Chloroethane	µg/m³	1.3	TO15	<1.3	1	<1.3	<1.3	0	[NT]	[NT]
Ethanol	µg/m³	9	TO15	<9	1	40	40	0	[NT]	[NT]
Acrolein	µg/m³	11	TO15	<11	1	<11	<11	0	[NT]	[NT]
Trichlorofluoromethane (Freon 11)	µg/m³	2.8	TO15	<2.8	1	<2.8	<2.8	0	[NT]	[NT]
Acetone	µg/m³	11.9	TO15	<11.9	1	40	40	0	[NT]	[NT]
Isopropyl Alcohol	µg/m³	12	TO15	<12	1	1000	1000	0	[NT]	[NT]
1,1-Dichloroethene	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]
1,1,2-Trichlorotrifluoroethane	µg/m³	3.8	TO15	<3.8	1	<3.8	<3.8	0	[NT]	[NT]
Methylene chloride (Dichloromethane)	µg/m³	17	USEPA 18	<17	1	<17	<17	0	[NT]	[NT]
Carbon Disulfide	µg/m³	16	TO15	<16	1	<16	<16	0	[NT]	[NT]
trans-1,2-dichloroethene	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]
MTBE	µg/m³	1.8	TO15	<1.8	1	<1.8	<1.8	0	[NT]	[NT]
1,1- Dichloroethane	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]
Vinyl Acetate	µg/m³	1.8	TO15	<1.8	1	<1.8	<1.8	0	[NT]	[NT]
MEK	µg/m³	15	TO15	<15	1	<15	<15	0	[NT]	[NT]
Hexane	µg/m³	1.8	TO15	<1.8	1	3	3	0	[NT]	[NT]
cis-1,2-Dichloroethene	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]
Ethyl Acetate	µg/m³	1.8	TO15	<1.8	1	<1.8	<1.8	0	[NT]	[NT]
Chloroform	µg/m³	2.4	TO15	<2.4	1	<2.4	<2.4	0	[NT]	[NT]
Tetrahydrofuran	µg/m³	1.5	TO15	<1.5	1	<1.5	<1.5	0	[NT]	[NT]
1,1,1-Trichloroethane	µg/m³	2.7	TO15	<2.7	1	<2.7	<2.7	0	[NT]	[NT]
1,2-Dichloroethane	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]
Benzene	µg/m³	1.6	TO15	<1.6	1	3	3	0	[NT]	[NT]
Carbon tetrachloride	µg/m³	3.1	TO15	<3.1	1	<3.1	<3.1	0	[NT]	[NT]
Cyclohexane	µg/m³	1.7	TO15	<1.7	1	<1.7	<1.7	0	[NT]	[NT]
Heptane	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]

QUALITY CONTROL: TO15 in Canisters µg/m3						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Trichloroethene	µg/m³	2.7	TO15	<2.7	1	<2.7	<2.7	0	[NT]	[NT]
1,2-Dichloropropane	µg/m³	2.3	TO15	<2.3	1	<2.3	<2.3	0	[NT]	[NT]
1,4-Dioxane	µg/m³	1.8	TO15	<1.8	1	<1.8	<1.8	0	[NT]	[NT]
Bromodichloromethane	µg/m³	3.4	TO15	<3.4	1	<3.4	<3.4	0	[NT]	[NT]
Methyl Methacrylate	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]
MIBK	µg/m³	20	TO15	<20	1	<20	<20	0	[NT]	[NT]
cis-1,3-Dichloropropene	µg/m³	2.3	TO15	<2.3	1	<2.3	<2.3	0	[NT]	[NT]
trans-1,3-Dichloropropene	µg/m³	2.3	TO15	<2.3	1	<2.3	<2.3	0	[NT]	[NT]
Toluene	µg/m³	1.9	TO15	<1.9	1	10	10	0	[NT]	[NT]
1,1,2-Trichloroethane	µg/m³	2.7	TO15	<2.7	1	<2.7	<2.7	0	[NT]	[NT]
Methyl Butyl Ketone	µg/m³	2.0	TO15	<2.0	1	<2	<2	0	[NT]	[NT]
Dibromochloromethane	µg/m³	1.6	TO15	<1.6	1	<1.6	<1.6	0	[NT]	[NT]
Tetrachloroethene	µg/m³	3.4	TO15	<3.4	1	<3.4	<3.4	0	[NT]	[NT]
1,2-Dibromoethane	µg/m³	3.8	TO15	<3.8	1	<3.8	<3.8	0	[NT]	[NT]
Chlorobenzene	µg/m³	2.3	TO15	<2.3	1	<2.3	<2.3	0	[NT]	[NT]
Ethylbenzene	µg/m³	2.2	TO15	<2.2	1	<2.2	<2.2	0	[NT]	[NT]
m-& p-Xylene	µg/m³	4.3	TO15	<4.3	1	<4.3	<4.3	0	[NT]	[NT]
Styrene	µg/m³	2.1	TO15	<2.1	1	<2.1	<2.1	0	[NT]	[NT]
o-Xylene	µg/m³	2.2	TO15	<2.2	1	<2.2	<2.2	0	[NT]	[NT]
Bromoform	µg/m³	5.2	TO15	<5.2	1	<5.2	<5.2	0	[NT]	[NT]
1,1,2,2-Tetrachloroethane	µg/m³	3.4	TO15	<3.4	1	<3.4	<3.4	0	[NT]	[NT]
4-ethyl toluene	µg/m³	2.5	TO15	<2.5	1	<2.5	<2.5	0	[NT]	[NT]
1,3,5-Trimethylbenzene	µg/m³	2.5	TO15	<2.5	1	<2.5	<2.5	0	[NT]	[NT]
1,2,4-Trimethylbenzene	µg/m³	2.5	TO15	<2.5	1	<2.5	<2.5	0	[NT]	[NT]
1,3-Dichlorobenzene	µg/m³	3.0	TO15	<3.0	1	<3	<3.0	0	[NT]	[NT]
Benzyl chloride	µg/m³	2.6	TO15	<2.6	1	<2.6	<2.6	0	[NT]	[NT]
1,4-Dichlorobenzene	µg/m³	3.0	TO15	<3.0	1	6	6	0	[NT]	[NT]
1,2-Dichlorobenzene	µg/m³	3.0	TO15	<3.0	1	<3	<3	0	[NT]	[NT]
1,2,4-Trichlorobenzene	µg/m³	3.7	TO15	<3.7	1	<3.7	<3.7	0	[NT]	[NT]
Naphthalene	µg/m³	2.6	TO15	<2.6	1	<2.6	<2.6	0	[NT]	[NT]
Hexachloro- 1,3-butadiene	µg/m³	5.3	TO15	<5.3	1	<5.3	<5.3	0	[NT]	[NT]
Surrogate-Bromochloromethane	% rec		TO15	103	1	103	102	1	[NT]	[NT]
Surrogate -1,4-Difluorobenzene	% rec		TO15	101	1	105	103	2	[NT]	[NT]
Surrogate-Chlorobenzene-D5	% rec		TO15	100	1	103	101	2	[NT]	[NT]

QUALITY CONTROL: TPH Air/ Air Phase Hydrocarbon						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/10/2024	1	23/10/2024	23/10/2024		23/10/2024	[NT]
Date analysed	-			23/10/2024	1	23/10/2024	23/10/2024		23/10/2024	[NT]
TPH C_5 - C_8 Aliphatic	µg/m^3	200	AT-005	<200	1	430	440	2	108	[NT]
TPH C_9 - C_{12} Aliphatic	µg/m^3	50	AT-005	<50	1	<50	<50	0	[NT]	[NT]
TPH C_9 - C_{10} Aromatic	µg/m^3	100	AT-005	<100	1	<100	<100	0	98	[NT]
TPH C_6 - C_{10} - BTEX (F1)	µg/m^3	200	TO15	<200	1	<200	<200	0	97	[NT]
TPH >C_{10} - C_{12} - Naphthalene (F2)	µg/m^3	40	TO15	<40	1	<40	<40	0	105	[NT]

QUALITY CONTROL: IPA in Carbon Tubes & Badges						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date Extracted	-			24/10/2024	[NT]	[NT]	[NT]	[NT]	24/10/2024	[NT]
Date Analysed	-			28/10/2024	[NT]	[NT]	[NT]	[NT]	28/10/2024	[NT]
Isopropyl Alcohol*	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	132	[NT]
Surrogate Toluene-d8	%		ORG-022	108	[NT]	[NT]	[NT]	[NT]	94	[NT]
Surrogate 4-Bromofluorobenzene	%		ORG-022	107	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: VOC in Carbon tubes & Badges					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date Extracted	-			24/10/2024	[NT]	[NT]	[NT]	[NT]	24/10/2024	[NT]
Date Analysed	-			25/10/2024	[NT]	[NT]	[NT]	[NT]	25/10/2024	[NT]
Dichlorodifluoromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	119	[NT]
Chloromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	106	[NT]
Vinyl Chloride	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	101	[NT]
Chloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	86	[NT]
Trichlorofluoromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
Acetonitrile	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	134	[NT]
Acetone	µg	20	ORG-022	<20	[NT]	[NT]	[NT]	[NT]	117	[NT]
Diethyl ether	µg	20	ORG-022	<20	[NT]	[NT]	[NT]	[NT]	129	[NT]
1,1-Dichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	121	[NT]
Acrylonitrile	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	129	[NT]
1,1,2-Trichlorotrifluoroethane	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	129	[NT]
Methylene Chloride (DCM)	µg	20	ORG-022	<20	[NT]	[NT]	[NT]	[NT]	124	[NT]
Methyl tert-butyl ethene (MtBE)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	118	[NT]
Trans 1,2-Dichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	122	[NT]
Propionitrile	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	119	[NT]
1,1-Dichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	120	[NT]
3-Methylpentane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	117	[NT]
Methyl Ethyl Ketone (MEK)	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	118	[NT]
Chloroprene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	114	[NT]
Hexane	µg	20	ORG-022	<20	[NT]	[NT]	[NT]	[NT]	112	[NT]
Ethylacetate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	124	[NT]
Cis 1,2-Dichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	118	[NT]
Methyl acrylate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	117	[NT]
2,2-Dichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	113	[NT]
Bromochloromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	114	[NT]
Chloroform	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	114	[NT]
Methylcyclopentane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	109	[NT]
1,1,1-Trichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
1-Chlorobutane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
1,2-Dichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	109	[NT]
1,1-Dichloropropene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Benzene	µg	2	ORG-022	<2	[NT]	[NT]	[NT]	[NT]	104	[NT]
Carbon Tetrachloride	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
Cyclohexane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
3-Methylhexane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	102	[NT]
Ethyl acrylate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: VOC in Carbon tubes & Badges					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Heptane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	100	[NT]
Trichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
1,2-Dichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Methyl methacrylate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	80	[NT]
Dibromomethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	100	[NT]
1,4-Dioxane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Bromodichloromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
Epichlorohydrin	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Methylcyclohexane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	97	[NT]
Methyl Isobutyl Ketone (MIBK)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
cis-1,3-Dichloropropene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
trans-1,3-Dichloropropene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	97	[NT]
Toluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Ethyl methacrylate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
1,1,2-Trichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
Methyl Isopropyl Ketone (MIPK)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
1,3-Dichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	98	[NT]
Octane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
n-Butyl acrylate	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	102	[NT]
Dibromochloromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Tetrachloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
1,2-Dibromoethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Chlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
1,1,1,2-Tetrachloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Ethylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	102	[NT]
m+p-Xylene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	103	[NT]
n-Butyl acetate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Nonane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Styrene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	102	[NT]
o-Xylene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Cyclohexanone	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	106	[NT]
Cis-1,4-Dichlorobutene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	106	[NT]
Bromoform	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
1,1,2,2-Tetrachloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
trans-1,4-Dichlorobutene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	107	[NT]
1,2,3-Trichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
Isopropylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Bromobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: VOC in Carbon tubes & Badges					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
n-Propylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Diisobutyl Ketone (DIBK)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
2-Chlorotoluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
4-Chlorotoluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	106	[NT]
1,3,5-Trimethylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	106	[NT]
a-Methylstyrene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
Decane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	109	[NT]
tert-Butylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	109	[NT]
1,2,4-Trimethylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	106	[NT]
sec-Butylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
1,3-Dichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
Benzyl chloride	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
1,4-Dichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
4-Isopropyl toluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	102	[NT]
1,2-Dichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
n-Butylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Nitrobenzene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	105	[NT]
1,2-Dibromo-3-chloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
Dodecane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
1,2,4-Trichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
Naphthalene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	105	[NT]
Hexachlorobutadiene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	110	[NT]
1,2,3-Trichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate Toluene-d8	%		ORG-022	107	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate 4-Bromofluorobenzene	%		ORG-022	108	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: Total VOCs (C6-C9) as n-Heptane*					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	
Date Extracted	-			24/10/2024	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Date Analysed	-			28/10/2024	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Toluene-d8	%		ORG-022	92	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Bromofluorobenzene	%		ORG-022	84	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

Result Definitions

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

Quality Control Definitions

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

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

TO15/TPH
PQL has been raised due to the high level of analytes present in sample #4.

Envirolab Services Pty Ltd
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SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	C Ridley

Sample Login Details

Your reference	Additional Contamination Investigation
Envirolab Reference	364385
Date Sample Received	21/10/2024
Date Instructions Received	21/10/2024
Date Results Expected to be Reported	28/10/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	air
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	n/a
Cooling Method	Not applicable
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	TO15 in Canisters/Bags	TO15 in Canisters µg/m3	TPH Air/ Air Phase Hydrocarbon	IPA in Carbon Tubes & Badges	VOC in Carbon tubes & Badges	On Hold
SV1	✓	✓	✓			
SV2	✓	✓	✓			
SV3	✓	✓	✓			
SV4	✓	✓	✓			
SV5	✓	✓	✓			
SV6	✓	✓	✓			
SV7	✓	✓	✓			
SVDUP1	✓	✓	✓			
Shroud				✓		
SV1					✓	
SV2						✓
SV3						✓
SV4						✓
SV5						✓
SV6						✓
SV7						✓
SVDUP1						✓

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.

CHAIN OF CUSTODY - CANISTERS / BAGS / TD TUBES

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Darwin Office - Envirolab Services
Unit 20/119 Reichardt Road, Winnellie, NT 0820

Client: JK Environments	Client Project Name / Number / Site etc. (i.e. report title): Additional Contamination Investigation
Contact Person: Craig Ridley	
Project Mgr: Craig Ridley	PO No.: E36466PR Macquarie Park
Sampler: Harley Wang	Envirolab Quote No. :
Address: 115 Wicks Road, Macquarie Park NSW	Date results required: Standard *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 9888 5000 Mob: 0468 678 416	Additional report format: esdat / equis /
Email: cridley@jkenvironments.com.au	Lab Comments:

Sample Information											Tests Required								Carbon Tube ID
Envirolab Sample ID	Client Sample ID (Field Location)	Canister #	Soil Gas Train / Mass Flow Controller #	Leak Test Passed (Y/N)	PID Reading (ppmv)	Date of Collection	Collection Time		Canister Vacuum (Hg")		Flow Rate (Bags/TD Tubes only)	TO-15 (Cans)	TRH (F1 and F2)	IPA					
							Time On	Time Off	Initial	Final									
1	10 SV1	3285	1874	Y	0.1	17/10/2024	11:40am	11:54am	-29Hg"	-5Hg"	50mL/min	X	X						0909143938 10
2	11 SV2	2271	612	Y	0.1	17/10/2024	1:27pm	12:45pm	-30Hg"	-6Hg"	50mL/min	X	X						0909143819 11
3	12 SV3	3283	369	Y	1.3	17/10/2024	4:34pm	4:54pm	-30Hg"	-6Hg"	50mL/min	X	X						0909143822 12
4	13 SV4	2471	1878	Y	5.1	17/10/2024	3:33pm	3:50pm	-29Hg"	-6Hg"	50mL/min	X	X						1919143937 13
5	14 SV5	3520	1873	Y	0.6	17/10/2024	5:15pm	5:31pm	-29Hg"	-6Hg"	50mL/min	X	X						0909143377 14
6	15 SV6	2272	611	Y	1	17/10/2024	2:34pm	2:53pm	-30Hg"	-6Hg"	50mL/min	X	X						0909144158 15
7	16 SV7	2265	616	Y	0	17/10/2024	1:40pm	2:04pm	-30Hg"	-6Hg"	50mL/min	X	X						0909143823 16
8	1 SVDUP1	2530	1863	Y	NA	17/10/2024	1:40pm	2:01pm	-28Hg"	-6Hg"	50mL/min	X	X						0909143376 ~~17~~ 17
9	Shroud	-	-	-	-	17/10/2024	2:16pm	2:17pm	-	-	-			X					0909144159
	KC 21/10																		KC 21/10

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

Job No: 364385
Date Received: 21/10/24
Time Received: 13:30
Received By: SK
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

*General Gases - Please tick one:

- ☐ 1) Methane, Oxygen, Carbon dioxide, Carbon monoxide, Nitrogen
- ☐ 2) Methane, Oxygen, Carbon dioxide, Carbon monoxide, Helium, Hydrogen
- ☐ 3) Specify analytes (NB: If both Nitrogen and Helium/Hydrogen are require, please contact the laboratory

Relinquished by (Company):	Received by (Company): Envirolab Services Sydney	Lab Use Only:
Print Name: Harley Wang	Print Name: SONNY XUE	Job Number: 364385
Date & Time: 21/10/2024 at 11:00am	Date & Time: 21/10/24 ~~13:30~~ 13:30	Security seal: Intact / Broken / None
Signature: HW	Signature: SX	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
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melbourne@envirolab.com.au
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Certificate of Analysis MFJ0388

Client Details

Client	JK Environments
Contact	Craig Ridley
Address	115 Wicks Road, Macquarie Park, NSW, 2113

Sample Details

Your Reference	E36466PR
Number of Samples	3 Soil
Date Samples Received	17/10/2024
Date Instructions Received	17/10/2024

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 soils and on an as received basis for other matrices.

Report Details

Date Results Requested by	23/10/2024
Date of Issue	23/10/2024

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

Authorisation Details

Results Approved By	Tara White, Metals Supervisor Tianna Milburn, Senior Chemist
Laboratory Manager	Pamela Adams

Certificate of Analysis MFJ0388

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
MFJ0388-01	SDUP103	Soil	10/10/2024	17/10/2024
MFJ0388-02	SDUP104	Soil	10/10/2024	17/10/2024
MFJ0388-03	SDUP105	Soil	11/10/2024	17/10/2024

Volatile TRH and BTEX (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02	MFJ0388-03
Your Reference			SDUP103	SDUP104	SDUP105
Date Sampled			10/10/2024	10/10/2024	11/10/2024
TRH C6-C9	mg/kg	25	<25	<25	<25
TRH C6-C10	mg/kg	25	<25	<25	<25
TRH C6-C10 less BTEX (F1)	mg/kg	25	<25	<25	<25
Methyl tert butyl ether (MTBE)	mg/kg	0.50	<0.50	<0.50	<0.50
Benzene	mg/kg	0.20	<0.20	<0.20	<0.20
Toluene	mg/kg	0.50	<0.50	<0.50	<0.50
Ethylbenzene	mg/kg	1.0	<1.0	<1.0	<1.0
meta+para Xylene	mg/kg	2.0	<2.0	<2.0	<2.0
ortho-Xylene	mg/kg	1.0	<1.0	<1.0	<1.0
Total Xylene	mg/kg	3.0	<3.0	<3.0	<3.0
Naphthalene (value used in F2 calc)	mg/kg	1.0	<1.0	<1.0	<1.0
Surrogate aaa-Trifluorotoluene	%		*81.0*	*79.6*	*79.7*

Semi-volatile TRH (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02	MFJ0388-03
Your Reference			SDUP103	SDUP104	SDUP105
Date Sampled			10/10/2024	10/10/2024	11/10/2024
TRH C10-C14	mg/kg	50	<50	<50	<50
TRH C15-C28	mg/kg	100	<100	<100	<100
TRH C29-C36	mg/kg	100	<100	<100	<100
Total +ve TRH C10-C36	mg/kg	50	<50	<50	<50
TRH >C10-C16	mg/kg	50	<50	<50	<50
TRH >C10-C16 less Naphthalene F2	mg/kg	50	<50	<50	<50
TRH >C16-C34 (F3)	mg/kg	100	<100	<100	<100
TRH >C34-C40 (F4)	mg/kg	100	<100	<100	<100
Total +ve TRH >C10-C40	mg/kg	50	<50	<50	<50
Surrogate o-Terphenyl	%		*86.3*	*85.0*	*85.6*

Polycyclic Aromatic Hydrocarbons (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02	MFJ0388-03
Your Reference			SDUP103	SDUP104	SDUP105
Date Sampled			10/10/2024	10/10/2024	11/10/2024
Naphthalene	mg/kg	0.10	<0.10	<0.10	<0.10
Acenaphthylene	mg/kg	0.10	<0.10	<0.10	<0.10
Acenaphthene	mg/kg	0.10	<0.10	<0.10	<0.10
Fluorene	mg/kg	0.10	<0.10	<0.10	<0.10
Phenanthrene	mg/kg	0.10	<0.10	<0.10	<0.10
Anthracene	mg/kg	0.10	<0.10	<0.10	<0.10
Fluoranthene	mg/kg	0.10	<0.10	<0.10	<0.10
Pyrene	mg/kg	0.10	<0.10	<0.10	<0.10
Benzo(a)anthracene	mg/kg	0.10	<0.10	<0.10	<0.10
Chrysene	mg/kg	0.10	<0.10	<0.10	<0.10
Benzo(b,j,k)fluoranthene	mg/kg	0.20	<0.20	<0.20	<0.20
Benzo(a)pyrene	mg/kg	0.050	<0.050	0.070	<0.050
Indeno(1,2,3-c,d)pyrene	mg/kg	0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	mg/kg	0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	mg/kg	0.10	<0.10	<0.10	<0.10
Total +ve PAH	mg/kg	0.050	<0.050	0.070	<0.050
Benzo(a)pyrene TEQ calc zero	mg/kg	0.50	<0.50	<0.50	<0.50
Benzo(a)pyrene TEQ calc Half	mg/kg	0.50	<0.50	<0.50	<0.50
Benzo(a)pyrene TEQ calc PQL	mg/kg	0.50	<0.50	<0.50	<0.50
Surrogate p-Terphenyl-D14	%		*115*	*114*	*110*

Organochlorine Pesticides (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02
Your Reference			SDUP103	SDUP104
Date Sampled			10/10/2024	10/10/2024
alpha-BHC	mg/kg	0.10	<0.10	<0.10
Hexachlorobenzene	mg/kg	0.10	<0.10	<0.10
beta-BHC	mg/kg	0.10	<0.10	<0.10
gamma-BHC	mg/kg	0.10	<0.10	<0.10
delta-BHC	mg/kg	0.10	<0.10	<0.10
Heptachlor	mg/kg	0.10	<0.10	<0.10
Aldrin	mg/kg	0.10	<0.10	<0.10
Heptachlor epoxide	mg/kg	0.10	<0.10	<0.10
trans-Chlordane	mg/kg	0.10	<0.10	<0.10
cis-Chlordane	mg/kg	0.10	<0.10	<0.10
Endosulfan I	mg/kg	0.10	<0.10	<0.10
4,4'-DDE	mg/kg	0.10	<0.10	<0.10
Dieldrin	mg/kg	0.10	<0.10	<0.10
Endrin	mg/kg	0.10	<0.10	<0.10
4,4'-DDD	mg/kg	0.10	<0.10	<0.10
Endosulfan II	mg/kg	0.10	<0.10	<0.10
Endrin aldehyde	mg/kg	0.10	<0.10	<0.10
4,4'-DDT	mg/kg	0.10	<0.10	<0.10
Endosulfan sulfate	mg/kg	0.10	<0.10	<0.10
Endrin ketone	mg/kg	0.10	<0.10	<0.10
Methoxychlor	mg/kg	0.10	<0.10	<0.10
Mirex	mg/kg	0.10	<0.10	<0.10
Total +ve DDT+DDD+DDE	mg/kg	0.10	<0.10	<0.10
Total +ve Aldrin + Dieldrin	mg/kg	0.10	<0.10	<0.10
Total +ve OCP	mg/kg	0.10	<0.10	<0.10
Surrogate 4-chloro-3-nitrobenzotrifluoride	%		*64.6*	*62.7*

Organophosphorus Pesticides (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02
Your Reference			SDUP103	SDUP104
Date Sampled			10/10/2024	10/10/2024
Dichlorvos	mg/kg	0.10	<0.10	<0.10
Dimethoate	mg/kg	0.10	<0.10	<0.10
Diazinon	mg/kg	0.10	<0.10	<0.10
Chlorpyrifos-methyl	mg/kg	0.10	<0.10	<0.10
Ronnel	mg/kg	0.10	<0.10	<0.10
Fenitrothion	mg/kg	0.10	<0.10	<0.10
Malathion	mg/kg	0.10	<0.10	<0.10
Chlorpyrifos	mg/kg	0.10	<0.10	<0.10
Parathion	mg/kg	0.10	<0.10	<0.10
Bromophos-ethyl	mg/kg	0.10	<0.10	<0.10
Ethion	mg/kg	0.10	<0.10	<0.10
Coumaphos	mg/kg	0.10	<0.10	<0.10
Disulfoton	mg/kg	0.10	<0.10	<0.10
Fenamiphos	mg/kg	0.10	<0.10	<0.10
Fenthion	mg/kg	0.10	<0.10	<0.10
Methidathion	mg/kg	0.10	<0.10	<0.10
Mevinphos	mg/kg	0.10	<0.10	<0.10
Parathion-methyl	mg/kg	0.10	<0.10	<0.10
Phorate	mg/kg	0.10	<0.10	<0.10
Phosalone	mg/kg	0.10	<0.10	<0.10
Azinphos-methyl	mg/kg	0.10	<0.10	<0.10
Surrogate 4-chloro-3-nitrobenzotrifluoride	%		*64.6*	*62.7*

Polychlorinated Biphenyls (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02
Your Reference			SDUP103	SDUP104
Date Sampled			10/10/2024	10/10/2024
Aroclor 1016	mg/kg	0.10	<0.10	<0.10
Aroclor 1221	mg/kg	0.10	<0.10	<0.10
Aroclor 1232	mg/kg	0.10	<0.10	<0.10
Aroclor 1242	mg/kg	0.10	<0.10	<0.10
Aroclor 1248	mg/kg	0.10	<0.10	<0.10
Aroclor 1254	mg/kg	0.10	<0.10	<0.10
Aroclor 1260	mg/kg	0.10	<0.10	<0.10
Total +ve PCB (1016-1260)	mg/kg	0.10	<0.10	<0.10
Surrogate 2-Fluorobiphenyl	%		*99.6*	*93.9*

Acid Extractable Metals (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02	MFJ0388-03
Your Reference			SDUP103	SDUP104	SDUP105
Date Sampled			10/10/2024	10/10/2024	11/10/2024
Arsenic	mg/kg	4.0	11	<4.0	<4.0
Cadmium	mg/kg	0.40	<0.40	<0.40	<0.40
Chromium	mg/kg	1.0	20	13	11
Copper	mg/kg	1.0	17	62	130
Mercury	mg/kg	0.10	<0.10	<0.10	<0.10
Nickel	mg/kg	1.0	11	62	79
Lead	mg/kg	1.0	41	13	5.1
Zinc	mg/kg	1.0	61	51	39

Inorganics - Moisture (Soil)

Envirolab ID	Units	PQL	MFJ0388-01	MFJ0388-02	MFJ0388-03
Your Reference			SDUP103	SDUP104	SDUP105
Date Sampled			10/10/2024	10/10/2024	11/10/2024
Moisture	%	0.10	15	5.9	5.5

Method Summary

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-OES.
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. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
ORG-021/022/025_PCB	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS.
ORG-022	Determination of semi-volatile organic compounds (SVOCs) by GC-MS. Water samples are extracted by LLE and soils using DCM/Acetone/Methanol.
ORG-022_OC	Determination of semi-volatile organic compounds (SVOCs) by GC-MS. Water samples are extracted by LLE and soils using DCM/Acetone/Methanol.
ORG-022_PAH	Determination of semi-volatile organic compounds (SVOCs) by GC-MS. Water samples are extracted by LLE and solids using DCM/Acetone/Methanol. For PAHs:- Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. 1. 'TEQ 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. 'TEQ 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. 'TEQ 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, for Total +ve calculations, the PQL is reflective of the lowest individual PQL and therefore, for example, "Total +ve PAHs" is simply a sum of the positive individual PAHs.
ORG-023_F1_TOT	Determination of volatile organic compounds (VOCs) by P&T-GC-MS. Water samples are analysed directly by purge and trap GC-MS. Solids are extracted with Methanol, diluted and analysed 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 therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

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.

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.

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.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

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.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

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 QAQC tables for details (available on request); <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; 60-140% for organics (+/-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 typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

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. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

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 or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

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

Air volume measurements are not covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary MFJ0388

Client Details

Client	JK Environments
Your Reference	E36466PR
Date Issued	23/10/2024

Recommended Holding Time Compliance

No recommended holding time exceedances

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	Yes	No Outliers
LCS	Yes	No Outliers
Duplicates	No	Duplicate Outliers Exist - See detailed list below
Matrix Spike	Yes	No Outliers
Surrogates / Extracted Internal Standards	Yes	No Outliers
QC Frequency	Yes	No Outliers

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary MFJ0388

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
vTRH&MBTEXN | Soil	1-2	10/10/2024	18/10/2024	22/10/2024	Yes
	3	11/10/2024	18/10/2024	22/10/2024	Yes
sTRH | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
	3	11/10/2024	18/10/2024	21/10/2024	Yes
PAH | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
	3	11/10/2024	18/10/2024	21/10/2024	Yes
OCP | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
OPP (21 list) | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
PCB | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
Metals | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
	3	11/10/2024	18/10/2024	21/10/2024	Yes
Metals-Hg | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
	3	11/10/2024	18/10/2024	21/10/2024	Yes
Moisture | Soil	1-2	10/10/2024	18/10/2024	21/10/2024	Yes
	3	11/10/2024	18/10/2024	21/10/2024	Yes

Outliers: Duplicates

ORG-022_PAH|Polycyclic Aromatic Hydrocarbons (Soil)| Batch BFJ3579

Sample ID	Duplicate ID	Analyte	% Limits	RPD
BFJ3579-DUP3#	DUP3	Naphthalene	50.00	52.1[1]

Quality Control MFJ0388

ORG-023_F1_TOT|Volatile TRH and BTEX (Soil) | Batch BFJ3577

Analyte	Units	PQL	Blank	DUP1 BFJ3577-DUP1# Samp | QC | RPD %	DUP2 BFJ3577-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ3577-MS1#
TRH C6-C9	mg/kg	25	<25	<25 | <25 | [NA]	41.3 | 35.3 | [NA]	103	103
TRH C6-C10	mg/kg	25	<25	<25 | <25 | [NA]	185 | 173 | 6.36	103	103
TRH C6-C10 less BTEX (F1)	mg/kg	25	<25	<25 | <25 | [NA]	137 | 135 | 1.25	[NA]	[NA]
Methyl tert butyl ether (MTBE)	mg/kg	0.50	<0.50	<0.50 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	[NA]	[NA]
Benzene	mg/kg	0.20	<0.20	<0.20 | <0.20 | [NA]	<0.20 | <0.20 | [NA]	93.7	97.6
Toluene	mg/kg	0.50	<0.50	<0.50 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	98.3	101
Ethylbenzene	mg/kg	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	102	105
meta+para Xylene	mg/kg	2.0	<2.0	<2.0 | <2.0 | [NA]	26.7 | 21.1 | [NA]	109	112
ortho-Xylene	mg/kg	1.0	<1.0	<1.0 | <1.0 | [NA]	20.1 | 16.2 | [NA]	104	107
Total Xylene	mg/kg	3.0	<3.0	<3.0 | <3.0 | [NA]	46.9 | 37.3 | [NA]	[NA]	[NA]
Naphthalene (value used in F2 calc)	mg/kg	1.0	<1.0	<1.0 | <1.0 | [NA]	8.38 | 8.97 | 6.77	[NA]	[NA]
Surrogate aaa-Trifluorotoluene	*%*		*83.2*	*77.2 | 81.0*	*79.9 | 78.6*	*81.2*	*80.6*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

ORG-020|Semi-volatile TRH (Soil) | Batch BFJ3579

Analyte	Units	PQL	Blank	DUP1 BFJ3579-DUP1# Samp | QC | RPD %	DUP2 BFJ3579-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ3579-MS1#
TRH C10-C14	mg/kg	50	<50	<50 | <50 | [NA]		105	108
TRH C15-C28	mg/kg	100	<100	<100 | <100 | [NA]		77.3	75.5
TRH C29-C36	mg/kg	100	<100	<100 | <100 | [NA]		96.6	93.6
TRH >C10-C16	mg/kg	50	<50	<50 | <50 | [NA]		82.3	83.4
TRH >C16-C34 (F3)	mg/kg	100	<100	<100 | <100 | [NA]		79.3	76.8
TRH >C34-C40 (F4)	mg/kg	100	<100	<100 | <100 | [NA]		89.2	88.6
Surrogate o-Terphenyl	*%*		*93.3*	*91.1 | 90.6*		*101*	*96.8*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

Quality Control MFJ0388

ORG-022_PAH | Polycyclic Aromatic Hydrocarbons (Soil) | Batch BFJ3579

Analyte	Units	PQL	Blank	DUP1 BFJ3579-DUP1# Samp | QC | RPD %	DUP2 BFJ3579-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ3579-MS2#
Naphthalene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		83.4	84.0
Acenaphthylene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Acenaphthene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		89.5	91.7
Fluorene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		87.7	92.9
Phenanthrene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		90.6	93.1
Anthracene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Fluoranthene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		83.9	94.3
Pyrene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		85.8	96.7
Benzo(a)anthracene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Chrysene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		93.8	95.6
Benzo(b,j,k)fluoranthene	mg/kg	0.20	<0.20	<0.20 | <0.20 | [NA]		[NA]	[NA]
Benzo(a)pyrene	mg/kg	0.050	<0.050	<0.050 | <0.050 | [NA]		83.4	90.6
Indeno(1,2,3-c,d)pyrene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Dibenzo(a,h)anthracene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Benzo(g,h,i)perylene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Surrogate p-Terphenyl-D14	*%*		*102*	*105 / 113*		*98.9*	*108*

Analyte	Units	PQL	Blank	DUP3 BFJ3579-DUP3# Samp | QC | RPD %	DUP4 BFJ3579-DUP4# Samp | QC | RPD %	LCS %
Naphthalene	mg/kg	0.1		9.93 | 5.83 | 52.1 [1]		[NA]
Acenaphthylene	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Acenaphthene	mg/kg	0.1		0.128 | <0.10 | [NA]		[NA]
Fluorene	mg/kg	0.1		0.127 | <0.10 | [NA]		[NA]
Phenanthrene	mg/kg	0.1		0.527 | 0.357 | [NA]		[NA]
Anthracene	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Fluoranthene	mg/kg	0.1		0.345 | 0.229 | [NA]		[NA]
Pyrene	mg/kg	0.1		0.287 | 0.189 | [NA]		[NA]
Benzo(a)anthracene	mg/kg	0.1		0.115 | <0.10 | [NA]		[NA]
Chrysene	mg/kg	0.1		0.173 | 0.110 | [NA]		[NA]
Benzo(b,j,k)fluoranthene	mg/kg	0.2		0.218 | <0.20 | [NA]		[NA]
Benzo(a)pyrene	mg/kg	0.05		0.0650 | <0.050 | [NA]		[NA]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Dibenzo(a,h)anthracene	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Benzo(g,h,i)perylene	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Surrogate p-Terphenyl-D14	*%*			*102 / 98.7*		*[NA]*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

Quality Control MFJ0388

ORG-022_OC|Organochlorine Pesticides (Soil) | Batch BFJ3579

Analyte	Units	PQL	Blank	DUP1 BFJ3579-DUP1# Samp | QC | RPD %	DUP2 BFJ3579-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ3579-MS2#
alpha-BHC	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		82.4	81.7
Hexachlorobenzene	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
beta-BHC	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		79.1	84.3
gamma-BHC	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
delta-BHC	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Heptachlor	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		70.2	87.5
Aldrin	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		90.2	95.1
Heptachlor epoxide	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		77.0	90.1
trans-Chlordane	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
cis-Chlordane	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Endosulfan I	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
4,4'-DDE	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		81.2	91.6
Dieldrin	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		75.5	88.0
Endrin	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		63.1	74.8
4,4'-DDD	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		89.3	107
Endosulfan II	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Endrin aldehyde	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
4,4'-DDT	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Endosulfan sulfate	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		61.6	77.8
Endrin ketone	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Methoxychlor	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Mirex	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Surrogate 4-chloro-3-nitrobenzotrifluoride	*%*		*60.7*	*62.5 | 62.3*		*62.3*	*63.4*

Analyte	Units	PQL	Blank	DUP3 BFJ3579-DUP3# Samp | QC | RPD %	DUP4 BFJ3579-DUP4# Samp | QC | RPD %	LCS %
alpha-BHC	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Hexachlorobenzene	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
beta-BHC	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
gamma-BHC	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
delta-BHC	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Heptachlor	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Aldrin	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Heptachlor epoxide	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
trans-Chlordane	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
cis-Chlordane	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Endosulfan I	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
4,4'-DDE	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Dieldrin	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Endrin	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
4,4'-DDD	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Endosulfan II	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Endrin aldehyde	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
4,4'-DDT	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Endosulfan sulfate	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Endrin ketone	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Methoxychlor	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Mirex	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Surrogate 4-chloro-3-nitrobenzotrifluoride	*%*			*66.4 | 65.3*		*[NA]*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

Quality Control MFJ0388

ORG-022|Organophosphorus Pesticides (Soil) | Batch BFJ3579

Analyte	Units	PQL	Blank	DUP1 BFJ3579-DUP1# Samp | QC | RPD %	DUP2 BFJ3579-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ3579-MS2#
Dichlorvos	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		69.0	64.1
Dimethoate	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Diazinon	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Chlorpyrifos-methyl	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		70.8	82.2
Ronnel	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		74.1	84.5
Fenitrothion	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		66.3	88.1
Malathion	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		65.2	85.4
Chlorpyrifos	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		69.9	82.1
Parathion	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		78.6	102
Bromophos-ethyl	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Ethion	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		60.8	75.4
Coumaphos	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Disulfoton	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Fenamiphos	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Fenthion	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Methidathion	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Mevinphos	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Parathion-methyl	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Phorate	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Phosalone	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Azinphos-methyl	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Surrogate 4-chloro-3-nitrobenzotrifluoride	*%*		*60.7*	*62.5 | 62.3*		*62.3*	*63.4*

Analyte	Units	PQL	Blank	DUP3 BFJ3579-DUP3# Samp | QC | RPD %	DUP4 BFJ3579-DUP4# Samp | QC | RPD %	LCS %
Dichlorvos	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Dimethoate	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Diazinon	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Chlorpyrifos-methyl	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Ronnel	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Fenitrothion	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Malathion	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Chlorpyrifos	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Parathion	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Bromophos-ethyl	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Ethion	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Coumaphos	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Disulfoton	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Fenamiphos	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Fenthion	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Methidathion	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Mevinphos	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Parathion-methyl	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Phorate	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Phosalone	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Azinphos-methyl	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Surrogate 4-chloro-3-nitrobenzotrifluoride	*%*			*66.4 | 65.3*		*[NA]*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

Quality Control MFJ0388

ORG-021/022/025_PCB | Polychlorinated Biphenyls (Soil) | Batch BFJ3579

Analyte	Units	PQL	Blank	DUP1 BFJ3579-DUP1# Samp | QC | RPD %	DUP2 BFJ3579-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ3579-MS2#
Aroclor 1016	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Aroclor 1221	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Aroclor 1232	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Aroclor 1242	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Aroclor 1248	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Aroclor 1254	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
Aroclor 1260	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		[NA]	[NA]
PCB C103	mg/kg			0.00 | 0.00 | [NA]		124	135
Surrogate 2-Fluorobiphenyl	*%*		*99.5*	*95.2 | 95.4*		*99.5*	*94.6*

Analyte	Units	PQL	Blank	DUP3 BFJ3579-DUP3# Samp | QC | RPD %	DUP4 BFJ3579-DUP4# Samp | QC | RPD %	LCS %
Aroclor 1016	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Aroclor 1221	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Aroclor 1232	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Aroclor 1242	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Aroclor 1248	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Aroclor 1254	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Aroclor 1260	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
PCB C103	mg/kg			0.00 | 0.00 | [NA]		[NA]
Surrogate 2-Fluorobiphenyl	*%*			*100 | 99.5*		*[NA]*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

METALS-020 | Acid Extractable Metals (Soil) | Batch BFJ3575

Analyte	Units	PQL	Blank	DUP1 BFJ3575-DUP1# Samp | QC | RPD %	DUP2 BFJ3575-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ3575-MS1#
Arsenic	mg/kg	4.0	<4.0	<4.0 | <4.0 | [NA]		126	122
Cadmium	mg/kg	0.40	<0.40	<0.40 | <0.40 | [NA]		123	116
Chromium	mg/kg	1.0	<1.0	2.83 | 2.81 | [NA]		127	119
Copper	mg/kg	1.0	<1.0	1.76 | 1.77 | [NA]		119	111
Lead	mg/kg	1.0	<1.0	4.97 | 6.23 | 22.5		128	117
Mercury	mg/kg	0.10	<0.10	<0.10 | <0.10 | [NA]		107	109
Nickel	mg/kg	1.0	<1.0	<1.0 | <1.0 | [NA]		128	115
Zinc	mg/kg	1.0	<1.0	34.9 | 37.8 | 7.87		128	109

Analyte	Units	PQL	Blank	DUP3 BFJ3575-DUP3# Samp | QC | RPD %	DUP4 BFJ3575-DUP4# Samp | QC | RPD %	LCS %
Arsenic	mg/kg	4		4.28 | 4.02 | [NA]		[NA]
Cadmium	mg/kg	0.4		<0.40 | <0.40 | [NA]		[NA]
Chromium	mg/kg	1		39.0 | 36.5 | 6.82		[NA]
Copper	mg/kg	1		13.9 | 13.5 | 2.79		[NA]
Lead	mg/kg	1		22.4 | 22.9 | 2.46		[NA]
Mercury	mg/kg	0.1		<0.10 | <0.10 | [NA]		[NA]
Nickel	mg/kg	1		26.7 | 24.8 | 7.44		[NA]
Zinc	mg/kg	1		36.2 | 34.0 | 6.31		[NA]

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

INORG-008 | Inorganics - Moisture (Soil) | Batch BFJ3572

Analyte	Units	PQL	Blank	DUP1 BFJ3572-DUP1# Samp | QC | RPD %	LCS %
Moisture	%	0.1		12.2 | 11.8 | 3.32	[NA]

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

Quality Control MFJ0388

QC Comments

Identifier	Description
[1]	The laboratory duplicate RPD acceptance criteria has been exceeded. Results are accepted due to the inhomogeneous nature of the sample.

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Sample Receipt Advice MFJ0388

Client Details

Client	JK Environments
Attention	Craig Ridley

Sample Login Details

Your Reference	E36466PR
Envirolab Reference	MFJ0388
Date Sample Received	17/10/2024
Date Instructions Received	17/10/2024
Date Final Results Expected	23/10/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
Number of Samples	3 Soil
Turnaround Time	4 Days
Temperatures / Cooling Methods	21.4°C Ice Pack

Additional Info

Sample storage - waters are routinely disposed at approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Where no sampling date has been supplied for some or all samples, the date of sample receipt has been used as the associated sampling date. The sampling dates are used to assess compliance to recommended Technical Holding Times.

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).

Please direct any queries to:

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Chris De Luca

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Analysis underway, details on the following page

Sample Receipt Advice MFJ0388

Analysis Grid

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

	Combination 3	Combination 6	Moisture
MFJ0388-01 Soil | 10/10/2024 SDUP103		•	•
MFJ0388-02 Soil | 10/10/2024 SDUP104		•	•
MFJ0388-03 Soil | 11/10/2024 SDUP105	•		•

Suite Details

Suite Name	Suite Analyses
Combination 3 |Soil	vTRH&MBTEXN, sTRH, PAH, As, Cd, Cr, Cu, Hg, Ni, Pb, Zn
Combination 6 |Soil	vTRH&MBTEXN, sTRH, PAH, OCP, OPP (21 list), PCB, As, Cd, Cr, Cu, Hg, Ni, Pb, Zn

SAMPLE AND CHAIN OF CUSTODY FORM

TO:
ENVIROLAB SERVICES PTY LTD
12 ASHLEY STREET
CHATSWOOD NSW 2067
P: (02) 99106200
F: (02) 99106201

Attention: Aileen

JKE Job Number: E36466PR

Date Results Required: STANDARD

Page: 3 of 3

FROM:
JKEnvironments
REAR OF 115 WICKS ROAD
MACQUARIE PARK, NSW 2113
P: 02-9888 5000 F: 02-9888 5001
Attention: Craig Ridley
CRidley@jkenvironments.com.au

Location: Macquarie Park
Sampler: JTL

Sample Preserved in Esky on Ice

Tests Required

	Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 6	Cmobo 3aNEPM	Combo 3	Asbestos (detection)	VOCs	Combo 3 (Total Metals)	BTEX					
	9/10/2024	51	BH120	0.02-0.2	G, A	1.5	F: silty gravelly sand	X												
	9/10/2024	52	BH120	0.5-0.7	G, A	1.4	F: sand	X												
	9/10/2024	53	BH120	1-1.2	G, A	0.8	F: silty clay	X												
	9/10/2024	54	BH120	1.8-2	G ,A	0.1	F: silty clay													
	8/10/2024	55	BH121	0.01-0.15	G	0.7	F: gravelly sand	X					X							
	8/10/2024	56	BH121	0.7-0.9	G, A	0.9	XW Siltstone: Silty Clay				X									
	8/10/2024	57	BH122	0.01-0.1	G, A	0.7	F: gravelly sand	X												
	8/10/2024	58	BH122	0.7-0.9	G, A	0.6	XW Siltstone: Silty Clay				X									
	8/10/2024	59	BH122	1-1.2	G	0.3	SILTSTONE				X									
	9/10/2024	60	BH123	0.01-0.2	G	0.2	F: gravelly sand	X												
	9/10/2024	61	BH123	0.4-0.6	G, A	0.6	XW Siltstone: Silty Clay													
	8/10/2024	62	SDUP101	-	G	-	Duplicate		X											
	9/10/2024	63	SDUP102	-	G	-	Duplicate		X											
1	10/10/2024	**	SDUP103	-	G	-	Duplicate		X											
2	10/10/2024	**	SDUP104	-	G	-	Duplicate		X											
3	11/10/2024	**	SDUP105	-	G	-	Duplicate				X									
	11/10/2024	64	SDUP106	-	G	-	Duplicate				X									
	8/10/2024	65	TB-S101	-	G	-	Trip Blank								X					
	9/10/2024	66	TB-S102	-	G	-	Trip Blank								X					
	8/10/2024	67	TS-S101	-	V	-	Trip Spike								X					
	9/10/2024	68	TS-S102	-	V	-	Trip Spike								X					
	8/10/2024	69	FR-SPT-101	-	#	-	Rinsate							X						
	11/10/2024	70	FR-HA-102	-	#	-	Rinsate							X						

Remarks (comments/detection limits required):
** Please send SDUP103, SDUP104 and SDUP105 to VIC for Inter-lab **

Sample Containers:
G - 250mg Glass Jar # - 1 x HNO3 Wash PVC, 2 x BTEX Vials, 2 x Amber Glass Bottles, 1x PVC
A - Ziplock Asbestos Bag, V - Vial

Relinquished By:	Date:	Time:	Received By:	Date:
CR	15/10/2024	12:15	KWn	15/10/24

Relinquished by: Christine Ho 16/10/24 1100.
ELS SYD.

ENVIROLAB
Envirolab Services
25 Research Drive
Croydon South VIC 3136
Ph: (03) 9763 2500

Job No: MFJ0388

Date Received: 17/10/24
Time Received: 1:05
Received By: JJ
Temp: Cool/Ambient 21.4
Cooling: Ice/Icepack
Security: Intact/Broken/None

363994
15/10/24
KWn

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph +61 3 9763 2500
melbourne@envirolab.com.au
www.envirolab.com.au

Certificate of Analysis MFJ0410

Client Details

Client	JK Environments
Contact	Craig Ridley
Address	115 Wicks Road, Macquarie Park, NSW, 2113

Sample Details

Your Reference	E36466PR
Number of Samples	1 Water
Date Samples Received	18/10/2024
Date Instructions Received	18/10/2024

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 soils and on an as received basis for other matrices.

Report Details

Date Results Requested by	24/10/2024
Date of Issue	23/10/2024

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Authorisation Details

Results Approved By	Steven Luong, Senior Chemist Tara White, Metals Supervisor
Laboratory Manager	Pamela Adams

Certificate of Analysis MFJ0410

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
MFJ0410-01	WDUP102	Water	15/10/2024	18/10/2024

Volatile Organic Compounds - Fumigants (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
2,2-Dichloropropane	µg/L	1.0	<1.0
1,2-Dichloropropane	µg/L	1.0	<1.0
cis-1,3-Dichloropropene	µg/L	1.0	<1.0
trans-1,3-Dichloropropene	µg/L	1.0	<1.0
1,2-Dibromoethane	µg/L	1.0	<1.0

Volatile Organic Compounds - MAH (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
Benzene	µg/L	1.0	<1.0
Toluene	µg/L	1.0	<1.0
Ethylbenzene	µg/L	1.0	<1.0
meta+para Xylene	µg/L	2.0	<2.0
Styrene	µg/L	1.0	<1.0
ortho-Xylene	µg/L	1.0	<1.0
Isopropylbenzene	µg/L	1.0	<1.0
n-Propylbenzene	µg/L	1.0	<1.0
1,3,5-Trimethylbenzene	µg/L	1.0	<1.0
tert-Butylbenzene	µg/L	1.0	<1.0
1,2,4-Trimethylbenzene	µg/L	1.0	<1.0
sec-Butylbenzene	µg/L	1.0	<1.0
4-Isopropyltoluene	µg/L	1.0	<1.0
n-Butyl benzene	µg/L	1.0	<1.0

Volatile Organic Compounds - Halogenated Aliphatics (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
Dichlorodifluoromethane (Freon-12)	µg/L	10	<10
Chloromethane	µg/L	10	<10
Vinyl chloride	µg/L	10	<10
Bromomethane	µg/L	10	<10
Chloroethane	µg/L	10	<10
Trichlorofluoromethane (Freon-11)	µg/L	10	<10
1,1-Dichloroethene	µg/L	1.0	<1.0
trans-1,2-Dichloroethene	µg/L	1.0	<1.0
1,1-Dichloroethane	µg/L	1.0	<1.0
cis-1,2-Dichloroethene	µg/L	1.0	<1.0
Bromochloromethane	µg/L	1.0	<1.0
Chloroform	µg/L	1.0	<1.0
1,1,1-Trichloroethane	µg/L	1.0	<1.0
1,1-Dichloropropene	µg/L	1.0	<1.0
Carbon Tetrachloride	µg/L	1.0	<1.0
1,2-Dichloroethane	µg/L	1.0	<1.0
Trichloroethene	µg/L	1.0	<1.0
Dibromomethane	µg/L	1.0	<1.0
Bromodichloromethane	µg/L	1.0	<1.0
1,1,2-Trichloroethane	µg/L	1.0	<1.0
1,3-Dichloropropane	µg/L	1.0	<1.0
Tetrachloroethene	µg/L	1.0	<1.0
Dibromochloromethane	µg/L	1.0	<1.0
1,1,1,2-Tetrachloroethane	µg/L	1.0	<1.0
Bromoform	µg/L	1.0	<1.0
1,1,2,2-Tetrachloroethane	µg/L	1.0	<1.0
1,2,3-Trichloropropane	µg/L	1.0	<1.0
1,2-Dibromo-3-chloropropane	µg/L	1.0	<1.0
Hexachlorobutadiene	µg/L	1.0	<1.0

Volatile Organic Compounds - Halogenated Aromatics (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
Chlorobenzene	µg/L	1.0	<1.0
Bromobenzene	µg/L	1.0	<1.0
2-Chlorotoluene	µg/L	1.0	<1.0
4-Chlorotoluene	µg/L	1.0	<1.0
1,3-Dichlorobenzene	µg/L	1.0	<1.0
1,4-Dichlorobenzene	µg/L	1.0	<1.0
1,2-Dichlorobenzene	µg/L	1.0	<1.0
1,2,4-Trichlorobenzene	µg/L	1.0	<1.0
1,2,3-Trichlorobenzene	µg/L	1.0	<1.0

Volatile Organic Compounds - Other VOCs (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
Cyclohexane	µg/L	1.0	<1.0

Volatile Organic Compounds - Surrogates (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
Surrogate Dibromofluoromethane	%		*108*
Surrogate Toluene-D8	%		*96.5*
Surrogate 4-Bromofluorobenzene	%		*103*

Volatile TRH and BTEX (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
TRH C6-C9	µg/L	10	<10
TRH C6-C10	µg/L	10	<10
TRH C6-C10 less BTEX (F1)	µg/L	10	<10
Methyl tert butyl ether (MTBE)	µg/L	1.0	<1.0
Benzene	µg/L	1.0	<1.0
Toluene	µg/L	1.0	<1.0
Ethylbenzene	µg/L	1.0	<1.0
meta+para Xylene	µg/L	2.0	<2.0
ortho-Xylene	µg/L	1.0	<1.0
Total Xylene	µg/L	3.0	<3.0
Naphthalene (value used in F2 calc)	µg/L	1.0	<1.0
Surrogate Dibromofluoromethane	%		*108*
Surrogate Toluene-D8	%		*96.5*
Surrogate 4-Bromofluorobenzene	%		*103*

Semi-volatile TRH (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
TRH C10-C14	µg/L	50	<50
TRH C15-C28	µg/L	100	<100
TRH C29-C36	µg/L	100	<100
Total +ve TRH C10-C36	µg/L	50	<50
TRH >C10-C16	µg/L	50	<50
TRH >C10-C16 less Naphthalene F2	µg/L	50	<50
TRH >C16-C34 (F3)	µg/L	100	<100
TRH >C34-C40 (F4)	µg/L	100	<100
Total +ve TRH >C10-C40	µg/L	50	<50
Surrogate o-Terphenyl	%		*70.8*

Polycyclic Aromatic Hydrocarbons (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
Naphthalene	µg/L	0.10	0.10
Acenaphthylene	µg/L	0.10	<0.10
Acenaphthene	µg/L	0.10	<0.10
Fluorene	µg/L	0.10	<0.10
Phenanthrene	µg/L	0.10	<0.10
Anthracene	µg/L	0.10	<0.10
Fluoranthene	µg/L	0.10	<0.10
Pyrene	µg/L	0.10	<0.10
Benzo(a)anthracene	µg/L	0.10	<0.10
Chrysene	µg/L	0.10	<0.10
Benzo(b,j,k)fluoranthene	µg/L	0.20	<0.20
Benzo(a)pyrene	µg/L	0.10	<0.10
Indeno(1,2,3-c,d)pyrene	µg/L	0.10	<0.10
Dibenzo(a,h)anthracene	µg/L	0.10	<0.10
Benzo(g,h,i)perylene	µg/L	0.10	<0.10
Total +ve PAH	µg/L	0.10	0.10
Surrogate p-Terphenyl-D14	%		*107*

Dissolved Low Level Metals (Water)

Envirolab ID	Units	PQL	MFJ0410-01
Your Reference			WDUP102
Date Sampled			15/10/2024
Arsenic	µg/L	1.0	<1.0
Cadmium	µg/L	0.10	0.16
Chromium	µg/L	1.0	<1.0
Copper	µg/L	1.0	9.0
Mercury	µg/L	0.050	<0.050
Nickel	µg/L	1.0	130
Lead	µg/L	1.0	<1.0
Zinc	µg/L	1.0	680

Method Summary

Method ID	Methodology Summary
METALS-021	Determination of Mercury by Cold Vapour AAS.
METALS-022	Determination of various metals by ICP-MS.Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements.Salt forms and/or anion/cation forms (e.g. FeO, PbO, ZnO, BO3) are determined stoichiometrically from the base metal concentration.
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-022_PAH	Determination of semi-volatile organic compounds (SVOCs) by GC-MS. Water samples are extracted by LLE and solids using DCM/Acetone/Methanol. For PAHs:- Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. 1. 'TEQ 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. 'TEQ 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. 'TEQ 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, for Total +ve calculations, the PQL is reflective of the lowest individual PQL and therefore, for example, "Total +ve PAHs" is simply a sum of the positive individual PAHs.
ORG-023	Determination of volatile organic compounds (VOCs) by P&T-GC-MS. Water samples are analysed directly by purge and trap GC-MS. Soils are extracted with Methanol, diluted and analysed by purge and trap GC-MS.
ORG-023_F1_TOT	Determination of volatile organic compounds (VOCs) by P&T-GC-MS. Water samples are analysed directly by purge and trap GC-MS. Solids are extracted with Methanol, diluted and analysed 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 therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

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.

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.

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.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

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.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

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 QAQC tables for details (available on request); <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; 60-140% for organics (+/-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 typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

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. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

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 or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

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

Air volume measurements are not covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary MFJ0410

Client Details

Client	JK Environments
Your Reference	E36466PR
Date Issued	23/10/2024

Recommended Holding Time Compliance

No recommended holding time exceedances

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	Yes	No Outliers
LCS	Yes	No Outliers
Duplicates	Yes	No Outliers
Matrix Spike	Yes	No Outliers
Surrogates / Extracted Internal Standards	Yes	No Outliers
QC Frequency	No	QC Frequency Outliers Exist - See detailed list below

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary MFJ0410

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
Fumigants | Water	1	15/10/2024	22/10/2024	23/10/2024	Yes
VOC - MAH | Water	1	15/10/2024	22/10/2024	23/10/2024	Yes
Halogenated Aliphatics | Water	1	15/10/2024	22/10/2024	23/10/2024	Yes
Halogenated Aromatics | Water	1	15/10/2024	22/10/2024	23/10/2024	Yes
Other VOC | Water	1	15/10/2024	22/10/2024	23/10/2024	Yes
VOC - Surrogates | Water	1	15/10/2024	22/10/2024	23/10/2024	Yes
vTRH&MBTEXN | Water	1	15/10/2024	22/10/2024	23/10/2024	Yes
sTRH | Water	1	15/10/2024	21/10/2024	21/10/2024	Yes
PAH | Water	1	15/10/2024	21/10/2024	21/10/2024	Yes
Dissolved Metals (LL) | Water	1	15/10/2024	21/10/2024	22/10/2024	Yes
Dissolved Metals (LL)-Hg | Water	1	15/10/2024	21/10/2024	22/10/2024	Yes

Outliers: QC Frequency

ORG-020|Semi-volatile TRH (Water)| Batch BFJ3847

Analysis	QC Type	Expected	Reported
sTRH	Duplicate	1	0
	Matrix Spike	1	0

ORG-022_PAH|Polycyclic Aromatic Hydrocarbons (Water)| Batch BFJ3847

Analysis	QC Type	Expected	Reported
PAH	Duplicate	1	0
	Matrix Spike	1	0

ORG-023_F1_TOT|Volatile TRH and BTEX (Water)| Batch BFJ4133

Analysis	QC Type	Expected	Reported
vTRH&MBTEXN	Blank	2	1
	Duplicate	3	2

Quality Control MFJ0410

ORG-023|Volatile Organic Compounds - Fumigants (Water) | Batch BFJ4133

Analyte	Units	PQL	Blank	DUP1 BFJ4133-DUP1# Samp | QC | RPD %	DUP2 BFJ4133-DUP2# Samp | QC | RPD %	LCS %
2,2-Dichloropropane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,2-Dichloropropane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	96.2
cis-1,3-Dichloropropene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	87.6
trans-1,3-Dichloropropene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	82.8
1,2-Dibromoethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	90.6

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

ORG-023_F1_TOT|Volatile Organic Compounds - MAH (Water) | Batch BFJ4133

Analyte	Units	PQL	Blank	DUP1 BFJ4133-DUP1# Samp | QC | RPD %	DUP2 BFJ4133-DUP2# Samp | QC | RPD %	LCS %
Benzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	94.4
Toluene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	95.6
Ethylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	94.4
meta+para Xylene	µg/L	2.0	<2.0	<2.0 | <2.0 | [NA]	<2.0 | <2.0 | [NA]	95.0
Styrene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
ortho-Xylene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	91.5
Isopropylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
n-Propylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,3,5-Trimethylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
tert-Butylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,2,4-Trimethylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
sec-Butylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
4-Isopropyltoluene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
n-Butyl benzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

Quality Control MFJ0410

ORG-023|Volatile Organic Compounds - Halogenated Aliphatics (Water) | Batch BFJ4133

Analyte	Units	PQL	Blank	DUP1 BFJ4133-DUP1# Samp | QC | RPD %	DUP2 BFJ4133-DUP2# Samp | QC | RPD %	LCS %
Dichlorodifluoromethane (Freon-12)	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	[NA]
Chloromethane	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	[NA]
Vinyl chloride	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	[NA]
Bromomethane	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	[NA]
Chloroethane	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	[NA]
Trichlorofluoromethane (Freon-11)	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	[NA]
1,1-Dichloroethene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
trans-1,2-Dichloroethene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,1-Dichloroethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	101
cis-1,2-Dichloroethene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Bromochloromethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Chloroform	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	102
1,1,1-Trichloroethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	103
1,1-Dichloropropene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Carbon Tetrachloride	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,2-Dichloroethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	96.5
Trichloroethene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	111
Dibromomethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Bromodichloromethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	97.4
1,1,2-Trichloroethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,3-Dichloropropane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Tetrachloroethene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	98.5
Dibromochloromethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	93.3
1,1,1,2-Tetrachloroethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Bromoform	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	89.4
1,1,2,2-Tetrachloroethane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,2,3-Trichloropropane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,2-Dibromo-3-chloropropane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Hexachlorobutadiene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

ORG-023|Volatile Organic Compounds - Halogenated Aromatics (Water) | Batch BFJ4133

Analyte	Units	PQL	Blank	DUP1 BFJ4133-DUP1# Samp | QC | RPD %	DUP2 BFJ4133-DUP2# Samp | QC | RPD %	LCS %
Chlorobenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
Bromobenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
2-Chlorotoluene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
4-Chlorotoluene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,3-Dichlorobenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,4-Dichlorobenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	94.8
1,2-Dichlorobenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]
1,2,4-Trichlorobenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	101
1,2,3-Trichlorobenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

ORG-023|Volatile Organic Compounds - Other VOCs (Water) | Batch BFJ4133

Analyte	Units	PQL	Blank	DUP1 BFJ4133-DUP1# Samp | QC | RPD %	DUP2 BFJ4133-DUP2# Samp | QC | RPD %	LCS %
Cyclohexane	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	98.0

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

Quality Control MFJ0410

ORG-023|Volatile Organic Compounds - Surrogates (Water) | Batch BFJ4133

Analyte	Units	PQL	Blank	DUP1 BFJ4133-DUP1# Samp | QC | RPD %	DUP2 BFJ4133-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ4133-MS2#
Surrogate Dibromofluoromethane	*%*		*104*	*105 | 104*	*107 | 107*	*102*	*106*
Surrogate Toluene-D8	*%*		*95.7*	*97.2 | 96.4*	*96.3 | 95.6*	*98.4*	*99.8*
Surrogate 4-Bromofluorobenzene	*%*		*103*	*103 | 102*	*103 | 102*	*94.4*	*96.9*

Analyte	Units	PQL	Blank	LCS %
Surrogate Dibromofluoromethane	*%*			*101*
Surrogate Toluene-D8	*%*			*100*
Surrogate 4-Bromofluorobenzene	*%*			*98.0*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

ORG-023_F1_TOT|Volatile TRH and BTEX (Water) | Batch BFJ4133

Analyte	Units	PQL	Blank	DUP1 BFJ4133-DUP1# Samp | QC | RPD %	DUP2 BFJ4133-DUP2# Samp | QC | RPD %	LCS %	Spike % BFJ4133-MS2#
TRH C6-C9	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	81.5	64.4
TRH C6-C10	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	85.9	76.9
TRH C6-C10 less BTEX (F1)	µg/L	10	<10	<10 | <10 | [NA]	<10 | <10 | [NA]	[NA]	[NA]
Methyl tert butyl ether (MTBE)	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]	[NA]
Benzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	97.8	86.3
Toluene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	97.6	85.3
Ethylbenzene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	95.3	81.1
meta+para Xylene	µg/L	2.0	<2.0	<2.0 | <2.0 | [NA]	<2.0 | <2.0 | [NA]	97.9	83.7
ortho-Xylene	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	93.9	81.5
Total Xylene	µg/L	3.0	<3.0	<3.0 | <3.0 | [NA]	<3.0 | <3.0 | [NA]	[NA]	[NA]
Naphthalene (value used in F2 calc)	µg/L	1.0	<1.0	<1.0 | <1.0 | [NA]	<1.0 | <1.0 | [NA]	[NA]	[NA]
Surrogate Dibromofluoromethane	*%*		*104*	*105 | 104*	*107 | 107*	*101*	*106*
Surrogate Toluene-D8	*%*		*95.7*	*97.2 | 96.4*	*96.3 | 95.6*	*100*	*99.8*
Surrogate 4-Bromofluorobenzene	*%*		*103*	*103 | 102*	*103 | 102*	*98.0*	*96.9*

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

ORG-020|Semi-volatile TRH (Water) | Batch BFJ3847

Analyte	Units	PQL	Blank	LCS %
TRH C10-C14	µg/L	50	<50	80.5
TRH C15-C28	µg/L	100	<100	74.9
TRH C29-C36	µg/L	100	<100	84.2
TRH >C10-C16	µg/L	50	<50	65.5
TRH >C16-C34 (F3)	µg/L	100	<100	77.6
TRH >C34-C40 (F4)	µg/L	100	<100	77.5
Surrogate o-Terphenyl	*%*		*83.9*	*92.3*

Batch QC Comments: [1]

Quality Control MFJ0410

ORG-022_PAH | Polycyclic Aromatic Hydrocarbons (Water) | Batch BFJ3847

Analyte	Units	PQL	Blank	LCS %
Naphthalene	µg/L	0.10	<0.10	90.4
Acenaphthylene	µg/L	0.10	<0.10	[NA]
Acenaphthene	µg/L	0.10	<0.10	87.8
Fluorene	µg/L	0.10	<0.10	74.7
Phenanthrene	µg/L	0.10	<0.10	85.0
Anthracene	µg/L	0.10	<0.10	[NA]
Fluoranthene	µg/L	0.10	<0.10	90.7
Pyrene	µg/L	0.10	<0.10	97.8
Benzo(a)anthracene	µg/L	0.10	<0.10	[NA]
Chrysene	µg/L	0.10	<0.10	96.5
Benzo(b,j,k)fluoranthene	µg/L	0.20	<0.20	[NA]
Benzo(a)pyrene	µg/L	0.10	<0.10	65.1
Indeno(1,2,3-c,d)pyrene	µg/L	0.10	<0.10	[NA]
Dibenzo(a,h)anthracene	µg/L	0.10	<0.10	[NA]
Benzo(g,h,i)perylene	µg/L	0.10	<0.10	[NA]
Surrogate p-Terphenyl-D14	*%*		*120*	*91.1*

Batch QC Comments: [1]

METALS-021 | Dissolved Low Level Metals (Water) | Batch BFJ3876

Analyte	Units	PQL	Blank	DUP1 BFJ3876-DUP1# Samp | QC | RPD %	LCS %	Spike % BFJ3876-MS1#
Mercury	µg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	102	121

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

METALS-022 | Dissolved Low Level Metals (Water) | Batch BFJ3877

Analyte	Units	PQL	Blank	DUP1 BFJ3877-DUP1# Samp | QC | RPD %	LCS %	Spike % BFJ3877-MS1#
Arsenic	µg/L	1.0	<1.0	<5.0 | <5.0 | [NA]	100	109
Cadmium	µg/L	0.10	<0.10	<0.50 | <0.50 | [NA]	102	102
Chromium	µg/L	1.0	<1.0	6.50 | 6.65 | [NA]	99.9	105
Copper	µg/L	1.0	<1.0	6.15 | 7.25 | [NA]	98.8	94.8
Lead	µg/L	1.0	<1.0	18.4 | 18.4 | [NA]	103	103
Nickel	µg/L	1.0	<1.0	<5.0 | <5.0 | [NA]	98.4	96.3
Zinc	µg/L	1.0	<1.0	265 | 272 | 2.37	99.9	99.4

The QC reported was not specifically part of this workorder but formed part of the QC process batch.

QC Comments

Identifier	Description
[1]	Unable to perform all QC according to our internal guidelines due to the limited amount of sample(s) available for testing.

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph +61 3 9763 2500
melbourne@envirolab.com.au
www.envirolab.com.au

Sample Receipt Advice MFJ0410

Client Details

Client	JK Environments
Attention	Craig Ridley

Sample Login Details

Your Reference	E36466PR
Envirolab Reference	MFJ0410
Date Sample Received	18/10/2024
Date Instructions Received	18/10/2024
Date Final Results Expected	24/10/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
Number of Samples	1 Water
Turnaround Time	4 Days
Temperatures / Cooling Methods	17.2°C Ice Pack

Additional Info

Sample storage - waters are routinely disposed at approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Where no sampling date has been supplied for some or all samples, the date of sample receipt has been used as the associated sampling date. The sampling dates are used to assess compliance to recommended Technical Holding Times.

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).

Please direct any queries to:

Pamela Adams

Phone	03 9763 2500
Email	padams@envirolab.com.au

Chris De Luca

Phone	03 9763 2500
Email	cdeluca@envirolab.com.au

Analysis underway, details on the following page

Sample Receipt Advice MFJ0410

Analysis Grid

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

	Combination 3 (D)	VOC Suite
MFJ0410-01 Water | 15/10/2024 WDUP102	•	•

Suite Details

Suite Name	Suite Analyses
Combination 3 (D) |Water	vTRH&MBTEXN, sTRH, PAH, As - Dissolved (LL), Cd - Dissolved (LL), Cr - Dissolved (LL), Cu - Dissolved (LL), Hg - Dissolved, Ni - Dissolved (LL), Pb - Dissolved (LL), Zn - Dissolved (LL)
VOC Suite |Water	Fumigants, VOC - MAH, Halogenated Aliphatics, Halogenated Aromatics, Other VOC, VOC - Surrogates

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E36466PR Date Results Required: STANDARD Page: 1 of 1	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley Cridley@jkenvironments.com.au

Location: Macquarie Park
Sampler: JTL

Sample Preserved in Esky on Ice

Tests Required

Date Sampled	Lab Ref:	Sample Number	Sample Containers	PID	Sample Description	Combo 2	Combo 3 (Dissolved)	Combo 3 (total)	VOCs	pH / EC	8 Metals	PAHs	TRH/BTEX	BTEX	Hardness		
15/10/2024	1	MW18	G x2, V x2, H, PVC	0	Groundwater		X		X	X					X		
15/10/2024	2	MW26	G x2, V x2, H, PVC	0.1	Groundwater		X		X	X					X		
15/10/2024	3	MW29	G x2, V x2, H, PVC	0.1	Groundwater		X		X	X					X		
15/10/2024	4	MW121	G x2, V x2, H, PVC	0.1	Groundwater		X		X	X					X		
15/10/2024	5	MW122	G x2, V x2, H, PVC	6.2	Groundwater		X		X	X					X		
15/10/2024	6	WDUP101	G x2, V x2, H, PVC	-	Duplicate		X		X								
15/10/2024	510/7 **	WDUP102	G x2, V x2, H, PVC	-	Duplicate		X		X								
15/10/2024	7	TB-W101	G x2, V x2, H, PVC	-	Blank			X									
15/10/2024	8	TS-W101	V	-	Spike									X			

1 57

Envirolab Services
25 Research Drive
Croydon South VIC 3136
Ph: (03) 9763 2500

Job No: MF50410
Date Received: 18/10/24
Time Received: 1110
Received By: JJ
Temp: Cool/Ambient 17.2 °C
Cooling: Ice/Icepack
Security: Intact/Broken/None

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

Job No: 364096
Date Received: 16/10/24
Time Received: 1510
Received By: JJ
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Remarks (comments/detection limits required):

** PLEASE SEND WDUP102 TO VIC FOR INTER-LAB ANALYSIS **

Sample Containers:
G - 100mL Amber Glass Bottle
V - BTEX Vial H - HNO3 Wash PVC
PVC - HDPE Plastic Bottles

Relinquished By:	Date:	Time:	Received By:	Date:
	16/10/2024	12:55	ELSSYD	16/10/24

Relinquished by: ELSSYD
Shann Tok
17/10/24
1105

Appendix F: Report Explanatory Notes

QA/QC Definitions

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[22] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[23]. The NEPM (2013) is consistent with these documents.

A. Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

B. Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

C. Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

D. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

E. Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;
- All blank data reported;

[22] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)

[23] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide*

- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

F. Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

G. Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

H. Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{\text{(Spike Sample Result – Sample Result) x 100}}{\text{Concentration of Spike Added}}$$

I. Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

J. Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

Appendix G: Data (QA/QC) Evaluation

Data (QA/QC) Evaluation

A. INTRODUCTION

This Data (QA/QC) Evaluation forms part of the validation process for the DQOs documented in the SAQP attached in Appendix J of this report. Checks were made to assess the data in terms of precision, accuracy, representativeness, comparability and completeness. These 'PARCC' parameters are referred to collectively as DQIs and are defined in the Report Explanatory Notes attached in the report appendices.

1. Field and Laboratory Considerations

The quality of the analytical data produced for this project has been considered in relation to the following:

- Sample collection, storage, transport and analysis;
- Laboratory PQLs;
- Field QA/QC results; and
- Laboratory QA/QC results.

2. Field QA/QC Samples and Analysis

The results for the field QA/QC samples are detailed in the laboratory summary tables (Table Q1 to Table Q3 inclusive) attached to the investigation report and are discussed in the subsequent sections of this Data (QA/QC) Evaluation report. A summary of the field QA/QC samples collected and analysed for this investigation is provided in the following table:

Sample Type	Number Analysed	Frequency (of Sample Type)
Intra-laboratory duplicate (soil)	3	Approximately 5% of primary samples
Inter-laboratory duplicate (soil)	3	As above
Intra-laboratory duplicate (soil vapour)	1	Approximately 15% of primary samples
Intra-laboratory duplicate (groundwater)	1	Approximately 20% of primary samples
Inter-laboratory duplicate (groundwater)	1	As above
Trip spikes Soil Water	 2 1	Three for the investigation to demonstrate adequacy of preservation, storage and transport methods
Trip blanks Soil Water	 2 1	Three for the investigation to demonstrate adequacy of storage and transport methods

Sample Type	Number Analysed	Frequency (of Sample Type)
Rinsate (soil SPT and HA)	2	Two for the investigation to demonstrate adequacy of decontamination methods
Soil Vapour Leak Test (IPA)	1	One for the investigation to demonstrate adequacy of vapour pin installation to minimise potential for leaks

3. Data Assessment Criteria

JKE adopted the following criteria for assessing the field and laboratory QA/QC analytical results:

Field Duplicates

Acceptable targets for precision of field duplicates in this report will be 30% or less, consistent with NEPM (2013). RPD failures will be considered qualitatively on a case-by-case basis taking into account factors such as the concentrations used to calculate the RPD (i.e. RPD exceedance where concentrations are close to the PQL are typically not as significant as those where concentrations are reported at least five or 10 times the PQL), sample type, collection methods and the specific analyte where the RPD exceedance was reported.

Trip Blanks and Rinsates

Acceptable targets for trip blank and rinsate samples in this report will be less than the PQL for organic analytes. Metals will be considered on a case-by-case basis with regards to typical background concentrations in soils and published drinking water guidelines for waters.

Trip Spikes

Acceptable targets for trip spike samples in this report will be 70% to 130%.

Isopropanol (IPA) Shroud

The IPA shroud sample is used for leak test purposes. The shroud sample intends to demonstrate a high IPA concentration, then the soil vapour samples ideally should not detect high concentrations of IPA. A significant (>10mg/m^3 or >10,000µg/m^3) detection of IPA in the soil vapour samples may indicate a leak in the installation and suggest that ambient air is being drawn into the installation during sampling.

Laboratory QA/QC

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the laboratory reports. These criteria were developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the acceptable limits adopted by the primary laboratory (Envirolab) is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics;
- 60-140% recovery acceptable for organics; and
- 10-140% recovery acceptable for VOCs.

Surrogate Spikes

- 60-140% recovery acceptable for general organics; and
- 10-140% recovery acceptable for VOCs.

Method Blanks

- All results less than PQL.

B. DATA EVALUATION

1. Sample Collection, Storage, Transport and Analysis

Samples were collected by trained field staff in accordance with our standard sampling procedures. Field sampling procedures were designed to be consistent with relevant guidelines, including NEPM (2013) and other guidelines made under the CLM Act 1997.

Appropriate sample preservation, handling and storage procedures were adopted. Laboratory analysis was undertaken generally in accordance with Schedule B(3) of NEPM (2013) and the laboratory NATA accredited methodologies. Envirolab noted that the asbestos results were reported to be consistent with the recommendations in NEPM (2013), however this level of reporting is outside the scope of their NATA accreditation. In the absence of other available analytical methods for asbestos, this was found to be acceptable for the purpose of this investigation.

JKE note that several asbestos samples were below the recommended minimum volume of 500mL and were analysed as received by the laboratory. This was attributed to the low sample return volumes that could be obtained using hand tools and push-tube sampling equipment. Considering the objectives of this investigation and multiple lines of evidence (existing PSI data, field observations, results from other boreholes), the data is considered sufficiently adequate and representative for the purpose of the investigation. As the samples were analysed using the NEPM (2013) methodology, albeit with a lower volume, and the above reasons, JKE is of the opinion that the low sample volume does not significantly impact on the validity of the data set as a whole.

JKE note that the temperature of the soil and water samples at the primary laboratory were reported to be up to 15°C and 14°C respectively. The temperature of the inter-laboratory soil and water samples upon receipt at the secondary laboratory were reported to be up to 21.4°C and 17.2°C respectively. JKE understand that the temperature is measured at the laboratory using an infrared temperature probe by scanning the outside of the sample container (i.e. one sample jar/container at the time of registering the samples). This procedure is not considered to be robust as there is a potential for the outside of the jar to warm to ambient temperature, or at least to increase from that of the internal contents, relatively quickly. JKE consider it is possible that the increase in temperature for the inter-laboratory duplicate samples may also be attributed to the length of time in transit to the secondary laboratory which is based in Victoria. However, based on the BTEX and TRH (F1 and F2) concentrations reported for the primary samples, JKE consider this does not

adversely impact on the validity of the data set as a whole. We also note that the trip spike results were acceptable, indicating the field/transport preservation was appropriate.

The laboratory analysis was generally undertaken within the specified holding times. The following exceedances were identified:

- Report 3363994-A: The analysis of BTEX, TRH, PAH, OCP and OPP in some soil samples was undertaken approximately one week beyond the recommended holding time. The delay in analysis was associated with the analysis being requested following receipt of the initial results. As the samples were stored in appropriate conditions (i.e. chilled), JKE consider it is unlikely that the analytes would change dramatically during the minor holding time exceedance and that the results are sufficiently reliable for the purpose of this investigation; and
- Report 363994-A: The analysis of pH and EC in soil samples was undertaken approximately two weeks beyond the recommended holding time. JKE note that the analysis was undertaken to establish soil-specific EILs, and to provide an indication of whether the soils would meet the ENM criteria. The delay in analysis was associated with the analysis being undertaken following receipt of the initial results. As the samples were stored in appropriate conditions (i.e. chilled), JKE consider it is unlikely that the pH and EC of the soil sample would change dramatically and that the results are sufficiently reliable for the purpose of establishing site-specific EILs and preliminary screening against the ENM criteria.

As an initial screen of the integrity of the seals of the soil vapour sampling canisters, the vacuum (recorded in inches of mercury – Hg") of the canisters is recorded in the field at the completion of sampling, and compared to the vacuum measured by the laboratory prior to analysis. With the exception of SV1, good correlation was achieved with differences of 1-2Hg" recorded. For SV1, the vacuum decreased by greater than 4Hg", indicating that dilution (and/or intake of additional VOC sources during transport) may have occurred. Further, though the canister was still in vacuum (-0.14Hg"), the vacuum was near equilibrium.

As a precaution, the back-up carbon tube (SV1-Carbon Tube) was also analysed for the same analytical suite, to the extent practicable. The intention was that the canister and carbon tube results would be compared to assess the potential for dilution which would have significance on the data quality to occur. However, the PQL for the carbon tube was up to three orders of magnitude higher than the canister and no useful comparison or correlation between the canister and carbon tube samples could be made. Considering the low VOC concentrations recorded in the other samples, the site history, and the proposed development details, the results are considered to be sufficiently reliable for the purpose of the investigation.

Review of the project data also indicated that:

- COC documentation was adequately maintained;
- Sample receipt advice documentation was provided for all sample batches;
- All analytical results were reported; and
- Consistent units were used to report the analysis results.

2. Laboratory PQLs

Appropriate PQLs were adopted for the analysis and all PQLs were below the SAC, with the exception of the following:

- Anthracene PQL for groundwater analysis was 10 times greater than the ecological SAC;

- Naphthalene PQL for groundwater analysis was approximately 10 times greater than the HSL-SSA SAC;
- Hexachlorobutadiene PQL for groundwater analysis was marginally greater than the HSL-SSA SAC; and
- Vinyl chloride PQL for groundwater analysis was approximately three times greater than the human contact SAC and 33 times greater than the HSL-SSA SAC.

In light of the PAH concentrations reported for soil and groundwater, and the VOC concentrations reported for groundwater, JKE is of the opinion that this is not significant, and it does not affect the quality of the dataset as a whole or the outcome of the investigation.

3. Field QA/QC Sample Results

Field Duplicates

The results indicated that field precision was acceptable. RPD non-conformances were reported for some analytes as discussed below:

- Elevated RPDs were reported for copper and lead in SDUP101/BH121 (0.01-0.15m);
- Elevated RPDs were reported for TRH F3 and F4, several PAH compounds and several heavy metals in SDUP102/BH113 (0.2-0.4m);
- An elevated RPD was reported for zinc in SDUP103/BH103 (0-0.1m);
- Elevated RPDs were reported for several PAH compounds, chlorpyrifos (an OPP compound) and lead in SDUP104/BH107 (0.12-0.3m);
- Elevated RPDs were reported for several PAH compounds and copper in SDUP106/BH110 (0.15-0.3m);
- An elevated RPD was were reported for o-Xylene in WDUP101/MW122; and
- Elevated RPDs were reported for the majority of VOCs in SVDUP1/SV7.

Values outside the acceptable limits for soil RPDs have been attributed to sample heterogeneity and the difficulties associated with obtaining homogenous duplicate samples of heterogeneous matrices. For the soil vapour duplicate sample, values outside the acceptable limits have been attributed to the difficulty of obtaining equilibrium via the split manifold (T piece) during sampling as the soil vapour canisters are supplied with slight differences in their initial negative pressures. As both the primary and duplicate sample results were compared to the SAC, the exceedances are not considered to have had an adverse impact on the data set as a whole.

The groundwater values outside the acceptable limits have been attributed to very low analyte concentrations, (1-2x the PQL). On this basis, JKE consider the RPD is acceptable.

Trip Blanks

During the investigation, two soil trip blanks and one water trip blank were placed in the eskies during sampling and transported back to the laboratory. The results were all less than the PQLs, therefore cross contamination between samples that may have significance for data validity did not occur.

Rinsates

All results were below the PQL, with the exception of zinc and TRH F2. The detectable concentration of light fraction TRH is most likely attributed to trihalomethanes. These compounds are breakdown products from the chlorination process and are common in potable water at the concentration reported (the Australian

drinking water guideline for total trihalomethanes is 250µg/L). The zinc concentration was equal to the laboratory PQL and was therefore considered negligible.

Trip Spikes

The results of the soil trip spike samples ranged from 97% to 114%, and from 107% to 120% for the water trip spike sample. The results indicated that field preservation methods were appropriate.

Soil Vapour Installations (Leak Tests)

The isopropyl alcohol sample (carbon tube) reported a concentration of 430mg/m^3 (430,000µg/m^3). The IPA results in the soil vapour samples were all below the criterion of 10mg/m^3 (10,000µg/m^3). This demonstrates that the leak test was successful, and the soil vapour pin seal integrity was adequate.

4. Laboratory QA/QC

The analytical methods implemented by the laboratory were performed in accordance with their NATA accreditation and were consistent with Schedule B(3) of NEPM (2013). The frequency of data reported for the laboratory QA/QC (i.e. duplicates, spikes, blanks, LCS) was considered to be acceptable for the purpose of this investigation. A review of the laboratory QA/QC data identified the following minor non-conformances:

Envirolab Report - 363994

- Matrix spike recoveries were not possible for several PAH compounds and chlorpyrifos (an OPP compound) in one soil sample due to interference from high analyte concentrations. Acceptable recoveries were obtained for the LCS;
- Matrix spike recovery was not possible for zinc in one soil sample due to sample heterogeneity. However, an acceptable obtained for the LCS; and
- RPD exceedances were reported for nickel in one soil pairing, and copper in another. The laboratory reported triplicate results.

Envirolab Report - 364385

- The PQL for TPH in one soil vapour sample was raised due to the high level of analytes present in the sample.

Envirolab Report - MFJ0388

- An RPD exceedance was reported for naphthalene in the soil duplicate sample. The laboratory considered the results to be acceptable due to sample heterogeneity. JKE note that the QA sample related to sample from an independent project included within the analytical batch and therefore not representative of the site conditions.

Envirolab Report – MFJ0410

- The laboratory noted they were unable to perform all QC analysis for semi-volatile TRHs according to their internal guidelines due to the limited amount of sample available for testing.

C. DATA QUALITY SUMMARY

JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

Non-conformances were reported for some field QA/QC samples and laboratory QA/QC analysis. These non-conformances were considered to be sporadic and minor, and were not considered to be indicative of systematic sampling or analytical errors. On this basis, these non-conformances are not considered to materially impact the report findings.

Appendix H: Field Work Documents

JKEnvironments

PID FIELD CALIBRATION FORM

Client: TTW (NSW) Pty Ltd			
Project: Additional Contamination Investigation			
Location: 269 Lane Cove Road, Macquarie Park			
Job Number: E36466PR			
PID			
Make: Honeywell	Model: Minirae lite+	Unit: Pid 4	Date of last factory calibration: 23/07/24
Date of calibration: 10/10/24		Name of Calibrator: LR	
Calibration gas: Iso-butylene		Calibration Gas Concentration: 100.0 ppm	
Measured reading: 100.2 ppm		Error in measured reading: ± 0.2 ppm	
Measured reading Acceptable (Yes/No):			
PID			
Make: Honeywell	Model: Minirae lite+	Unit: PID4	Date of last factory calibration: 23/07/24
Date of calibration: 15/10/24		Name of Calibrator: JTL	
Calibration gas: Iso-butylene		Calibration Gas Concentration: 100.0 ppm	
Measured reading: 100.5 ppm		Error in measured reading: ± 0.5 ppm	
Measured reading Acceptable (Yes/No):			
PID			
Make:	Model:	Unit:	Date of last factory calibration:
Date of calibration:		Name of Calibrator:	
Calibration gas: Iso-butylene		Calibration Gas Concentration: 100.0 ppm	
Measured reading: ppm		Error in measured reading: ± ppm	
Measured reading Acceptable (Yes/No):			
PID			
Make:	Model:	Unit:	Date of last factory calibration:
Date of calibration:		Name of Calibrator:	
Calibration gas: Iso-butylene		Calibration Gas Concentration: 100.0 ppm	
Measured reading: ppm		Error in measured reading: ± ppm	
Measured reading Acceptable (Yes/No):			
PID			
Make:	Model:	Unit:	Date of last factory calibration:
Date of calibration:		Name of Calibrator:	
Calibration gas: Iso-butylene		Calibration Gas Concentration: 100.0 ppm	
Measured reading: ppm		Error in measured reading: ± ppm	
Measured reading Acceptable (Yes/No):			

JKEnvironments

WATER QUALITY METER CALIBRATION FORM

Client:	TTW (NSW) PTY Ltd		
Project:	Additional Contamination Investigation		
Location:	269 Lane Cove Road / Macquarie Park		
Job Number:	E36466AR		
DISSOLVED OXYGEN			
Make:	YSI	Model:	Professional Plus
Date of calibration:	10/10/24	Name of Calibrator:	LR
Span value: 70% to 130%			
Measured value:	101%		
Measured reading Acceptable (Yes/No):			
pH			
Make:	YSI	Model:	Professional Plus
Date of calibration:	10/10/24	Name of Calibrator:	LR
Buffer 1: Theoretical pH = 7.01± 0.01		Expiry date: 11/24	Lot No: DK100123
Buffer 2: Theoretical pH = 4.01± 0.01		Expiry date: 3/25	Lot No: DU030124
Measured reading of Buffer 1:	7.05		
Measured reading of Buffer 2:	4.04		
Slope:	-	Measured reading Acceptable (Yes/No):	
EC			
Make:	YSI	Model:	Professional Plus
Date:	10/10/24	Name of Calibrator: LR	Temperature: 16 °C
Calibration solution:	Ranes Scientific	Expiry date: 5/25	Lot No: IC19548
Theoretical conductivity at temperature (see solution container):		1170 µS/cm	
Measured conductivity: 1168 µS/cm		Measured reading Acceptable (Yes/No):	
REDOX			
Make:	YSI	Model:	Professional Plus
Date of calibration:	10/10/24	Name of Calibrator:	LR
Calibration solution:	ORP test Solution	Expiry date: 10/25	Lot No: 9920
Theoretical redox value:	240mV		
Measured redox reading:	239.2 mV	Measured reading Acceptable (Yes/No):	

JKEnvironments

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466PK
Project:	Additional Contamination Investigation	Well No.:	MW18
Location:	269 Lane Cove Road, Macquarie Park	Depth (m):	13.1m

WELL FINISH DETAILS

	Gatic Cover ☒	Standpipe ☐	Other (describe) ☐

WELL DEVELOPMENT DETAILS

Method:	Development	SWL – Before (m):	4.79 m
Date:	10/10/24	Time – Before:	10:44am
Undertaken By:	LR	SWL – After (m):	7.84m
Total Vol. Removed:	80L	Time – After:	11:18am
PID Reading (ppm):	0.0		

Comments:

DEVELOPMENT MEASUREMENTS

Volume Removed (L)	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
0.5	20.6	93.0	105.5	4.39	157.4
5	20.5	40.5	6406	4.93	131.7
10	20.6	29.2	6401	4.80	132.5
15	20.6	20.1	6397	4.75	133.1
20	20.6	14.6	6398	4.76	133.2
25	20.6	57.4	6151	5.13	116.7
30	20.6	39.0	6077	5.15	109.5
35	20.6	22.5	5910	5.23	103.0
40	20.6	9.96	5942	5.20	94.6
45	20.6	48.0	5870	5.33	79.2
50	20.6	23.9	5809	5.32	72.2
55	20.6	11.8	5745	5.33	66.1
60	20.6	5.9	6258	5.33	61.9
65	20.7	54.5	5655	5.40	57.0
70	20.6	29.0	6073	5.42	51.2
75	20.6	13.9	6107	5.43	46.0
80	20.6	7.1	5575	5.44	39.9
–	–	–	–	–	
3 well volumes removed					

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)

clear water

YSI Used: YSI (hired) 3 wells volumes removed

Tested By:	LR
Date Tested:	10/10/24
Checked By:	CR
Date:	7/11/24

Remarks:

- Steady state conditions
- Difference in the pH less than 0.2 units, difference in the conductiveity less than 10% and SWL stable/not in drawdown
- Minimum 3 monitoring well volumes purged, unless well purged until it is effectively dry

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JKEnvironments

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466PR
Project:	Additional Contamination Investigation	Well No.:	MW26
Location:	264 Lane Cove Road, Macquarie Park	Depth (m):	14.2m

WELL FINISH DETAILS

	Gatic Cover ☒	Standpipe ☐	Other (describe) ☐

WELL DEVELOPMENT DETAILS

Method:	Development	SWL – Before (m):	9.99m
Date:	10/10/24	Time – Before:	8:16am
Undertaken By:	LR	SWL – After (m):	13.1m
Total Vol. Removed:	40	Time – After:	8:56am
PID Reading (ppm):	0.1		

Comments:

DEVELOPMENT MEASUREMENTS

Volume Removed (L)	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
0.5	15.3	105.6	16.0	4.83	540.3
5	19.9	56.9	3087	5.34	109.0
10	20	16.9	2785	5.36	97.1
15	20.1	10.9	3916	5.40	83
20	20.8	25.4	1333.	5.67	5.3
25	20.5	46.1	1054	6.04	1.8
30	20.9	22.0	70.0	6.36	-18.9
35	21.3	104.3	61.2	6.24	-27.3
40	20.4	96.6	39.6	6.37	-28.5
—	—	—	—	—	—
3 well volumes removed					

Clear

40

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)

YSI Used: YSI (hired)

3 well volumes removed

clear / silt free water at end.

13.1m

Tested By:	LR
Date Tested:	10/10/24
Checked By:	CR
Date:	7/11/24

Remarks:

- Steady state conditions
- Difference in the pH less than 0.2 units, difference in the conductiveity less than 10% and SWL stable/not in drawdown
- Minimum 3 monitoring well volumes purged, unless well purged until it is effectively dry

JKEnvironments

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466PR
Project:	Additional Contamination Investigation	Well No.:	MW121
Location:	269 Lane Cove Road, Macquarie Park	Depth (m):	7.0m

WELL FINISH DETAILS

	Gatic Cover ☒	Standpipe ☐	Other (describe) ☐

WELL DEVELOPMENT DETAILS

Method:	Development	SWL – Before (m):	2.36m
Date:	10/10/24	Time – Before:	9.24am
Undertaken By:	LR	SWL – After (m):	6.70m
Total Vol. Removed:	30L	Time – After:	9:48am
PID Reading (ppm):	0.4		

Comments:

DEVELOPMENT MEASUREMENTS

Volume Removed (L)	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
0.5L	19.8	83.2	14.6	6.49	78.7
5	19.6	42.7	646	5.83	71.8
10	19.9	50.4	110.3	5.66	74.0
15	20.1	75.6	896	5.29	87.5
20	20.5	61.0	353	5.61	89.2
25	20.5	83.5	38.1	5.12	102.8
30	20.4	95.4	31.4	6.15	91.4
–	–	–	–	–	–
	Well effectively Dry				

42

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)

YSI Used: YSI (hired)

Well effectively Dry
low recharge

Tested By:	LR
Date Tested:	10/10/24
Checked By:	CR
Date:	7/11/24

Remarks:

- Steady state conditions
- Difference in the pH less than 0.2 units, difference in the conductiveity less than 10% and SWL stable/not in drawdown
- Minimum 3 monitoring well volumes purged, unless well purged until it is effectively dry

JKEnvironments

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466PR
Project:	Additional Contamination Investigation	Well No.:	6.2m
Location:	269 Lane Cove Road, Macquarie Park	Depth (m):	MW122

WELL FINISH DETAILS

	Gatic Cover ☒	Standpipe ☐	Other (describe) ☐

WELL DEVELOPMENT DETAILS

Method:	Development	SWL – Before (m):	2.40m
Date:	10/10/24	Time – Before:	10:04am
Undertaken By:	LR	SWL – After (m):	Dry
Total Vol. Removed:	15L	Time – After:	10:18am
PID Reading (ppm):	8.3		

Comments:

DEVELOPMENT MEASUREMENTS

Volume Removed (L)	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
5	20.2	11.2	36.0	5.80	81.2
10	20.0	99.4	380.0	5.81	74.3
15	20.1	70.3	810	5.62	74.8
—	—	—	—	—	—
Well effectively Dry					

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)

YSI Used: YSI (hired)

Well effectively Dry
little/no recharge.

Tested By:	LR
Date Tested:	10/10/24
Checked By:	CR
Date:	7/11/24

Remarks:
- Steady state conditions
- Difference in the pH less than 0.2 units, difference in the conductiveity less than 10% and SWL stable/not in drawdown
- Minimum 3 monitoring well volumes purged, unless well purged until it is effectively dry

JKEnvironments

WATER QUALITY METER CALIBRATION FORM

Client:	TTW		
Project:	Proposed S5 Data Centre		
Location:	34 Waterloo Road, MACQUARIE PARK, NSW		
Job Number:	E36466PR		
DISSOLVED OXYGEN			
Make: YSI Professional Plus (Pro Plus)		Model: YSI 4	
Date of calibration: 15/10/24		Name of Calibrator: JTL	
Span value: 70% to 130%			
Measured value: 102.1			
Measured reading Acceptable (Yes/No):			
pH			
Make: YSI Professional Plus (Pro Plus)		Model: YSI4	
Date of calibration: 15/10/24		Name of Calibrator: JTL	
Buffer 1: Theoretical pH = 7.01± 0.01		Expiry date: 3/2025	Lot No: CQ220124
Buffer 2: Theoretical pH = 4.01± 0.01		Expiry date: 4/2025	Lot No: DY030124
Measured reading of Buffer 1: 7.00			
Measured reading of Buffer 2: 3.99			
Slope:		Measured reading Acceptable (Yes/No):	
EC			
Make: YSI Professional Plus (Pro Plus)		Model: YSI-4	
Date: 15/10/24	Name of Calibrator: JTL		Temperature: 17.5 °C
Calibration solution: AR - Conductivity Solution		Expiry date: 4/2025	Lot No: CZ071223
Theoretical conductivity at temperature (see solution container): 1197 - 1224 µS/cm			
Measured conductivity: 1209 µS/cm		Measured reading Acceptable (Yes/No):	
REDOX			
Make: YSI Professional Plus (Pro Plus)		Model: YSI-4	
Date of calibration: 15/10/24		Name of Calibrator: JTL	
Calibration solution: HANNA INSTRUMENTS INC HI7021L		Expiry date: 1/2025	Lot No: 9759
Theoretical redox value: 240mV			
Measured redox reading: 240.9 mV		Measured reading Acceptable (Yes/No):	

JKEnvironments

Client:	TTW	Job No.:	E36466PR
Project:	Proposed SS Data Centre	Well No.:	MW18
Location:	23 Waterloo Rd, Macquarie Park, NSW	Depth (m):	13.1

WELL FINISH

	Gatic Cover		Standpipe		Other (describe)

WELL PURGE DETAILS:

Method:	Peri Pump	SWL – Before:	4.47
Date:	15/10/2024	Time – Before:	4:15
Undertaken By:	JTL	Total Vol Removed:	4.81 L
Pump Program No:	Low	PID (ppm):	0.0

PURGING / SAMPLING MEASUREMENTS

Time (min)	SWL (m)	Vol (L)	Notes	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
4:27	4.79	0.5		19.7	2.3	2885	5.00	110.6
4:32	4.87	1.0	Pump setting lowered	20.2	1.0	2948	4.98	110.2
4:37	4.90	1.5	Pump setting lowered	20.3	0.4	2984	4.98	109.4
4:42	4.90	2.5		20.3	0.3	2996	4.97	108.6
4:47	4.91	3.0		20.3	0.3	3014	4.90	109.0
4:51	4.91	3.5		20.3	0.3	3021	4.90	109.3
			Steady state Achieved → Start sampling					

Total Vol
= 3500 + (4×40) + (4×100) + (2×125) + (3×250)
= 4810

Comments: Odours (YES / (NO)), NAPL/PSH (YES / (NO)), Sheen (YES / (NO)), Steady State Achieved (YES) / NO)

Sampling Containers Used: 4x glass amber, 4 x BTEX vials, 2 x HNO3 plastic, 0x H2SO4 plastic, 2x unpreserved plastic

YSI used: YSI 4 WDUP102

Tested By:	JTL
Date Tested:	15/10/2024
Checked By:	CR
Date:	2/12/2024

Remarks:
- Steady state conditions
- difference in the pH less than 0.2 units, difference in conductivity less than 10% 10% and SWL stable/not in drawdown

JKEnvironments

Client:	TTW	Job No.:	E36466PR
Project:	Proposed S5 Data Centre	Well No.:	MW26
Location:	34 Waterloo Road	Depth (m):	14.2

WELL FINISH

X	Gatic Cover		Standpipe		Other (describe)

WELL PURGE DETAILS:

Method:	Peripump	SWL – Before:	9.85
Date:	15/10/24	Time – Before:	12:30
Undertaken By:	JTL	Total Vol Removed:	3.40SL
Pump Program No:	Low	PID (ppm):	0.1

PURGING / SAMPLING MEASUREMENTS

Time (min)	SWL (m)	Vol (L)	Notes	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
12:38	9.93	0.5		19.4	1.5	1725	4.97	133.5
12:43	9.98	0.75	Pump setting lowered	19.3	2.3	1769	5.06	130.5
12:48	10.02	1.25	Pump setting lowered	19.5	1.6	1872	5.17	124.2
12:53	10.03	1.5		19.6	1.3	1943	5.24	117.0
12:58	10.02	1.6		19.6	1.3	2005	5.30	109.2
1:03	10.02	1.7		19.6	1.4	2036	5.34	104.8
1:08	10.02	2.0		19.7	1.7	2096	5.41	95.0
1:13	10.01	2.25		19.8	1.4	2155	5.45	88.1
1:18	10.01	2.5		20.0	1.2	2167	5.46	81.5
1:23	10.01	2.75		20.1	1.2	2190	5.48	75.9
			Steady state Achieved, start sampling					

Total Vol =
2750 +
(2×250) +
(2×100) +
(125) +
(250)
= 3405

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)

Sampling Containers Used: 2 x glass amber, 2 x BTEX vials, 1 x HNO3 plastic, 0 x H2SO4 plastic, 1 x unpreserved plastic

YSI used: YSI-9

Tested By: Jared Lim	**Remarks:**
Date Tested: 15/10/2024	- Steady state conditions - difference in the pH less than 0.2 units, difference in conductivity less than 10% 10% and SWL stable/not in drawdown
Checked By: CR	
Date: 21/11/2024	

JKEnvironments

Client:	TTW	Job No.:	E36466PR
Project:	Proposed S5 Data Centre	Well No.:	MW29
Location:	34 Waterloo Road	Depth (m):	13.1

WELL FINISH

X	Gatic Cover		Standpipe		Other (describe)

WELL PURGE DETAILS:

Method:	Peristaltic pump	SWL – Before:	12.83m
Date:	15/10/24	Time – Before:	3:06
Undertaken By:	JTL	Total Vol Removed:	0.665L
Pump Program No:	Low	PID (ppm):	0.1

PURGING / SAMPLING MEASUREMENTS

Time (min)	SWL (m)	Vol (L)	Notes	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
			Low water Start sampling					

Comments: Odours (YES / (NO)), NAPL/PSH (YES / (NO)), Sheen (YES / (NO)), Steady State Achieved (YES / (NO))

Sampling Containers Used: 2 x glass amber (100), 2x BTEX vials (40), 1 x HNO3 plastic (125), x H2SO4 plastic, x unpreserved plastic (250mL)

YSI used: YSI 4

Tested By: Jared Lim

Date Tested: 15/10/2024

Checked By: CR

Date: 2/12/2024

Remarks:

- Steady state conditions
- difference in the pH less than 0.2 units, difference in conductivity less than 10%

10% and SWL stable/not in drawdown

JKEnvironments

Client:	TTW	Job No.:	E36466PR
Project:	Proposed S5 Data Centre	Well No.:	MW121
Location:	34 Waterloo Road	Depth (m):	7.0

WELL FINISH

X	Gatic Cover		Standpipe	Other (describe)

WELL PURGE DETAILS:

Method:	Peri Pump	SWL – Before:	3.89m
Date:	15/10/24	Time – Before:	8:32
Undertaken By:	JTL	Total Vol Removed:	3.905 L
Pump Program No:	Low	PID (ppm):	0.1

PURGING / SAMPLING MEASUREMENTS

Time (min)	SWL (m)	Vol (L)	Notes	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
8:47	4.13	1.0		18.7	2.7	692	4.97	166.8
8:53	4.15	1.25		18.5	3.9	681	5.11	163.3
9:05	4.20	1.5		19.1	2.7	947	4.72	170.4
9:10	4.23	1.75		19.1	1.8	975	4.67	171.3
9:15	4.25	2.0		19.2	2.0	976	4.64	171.8
9:20	4.30	2.1	Pump setting lowered	19.3	1.7	976	4.61	173.9
9:25	4.34	2.25	Pump setting lowered	19.2	1.7	970	4.57	175.0
9:30	4.40	2.5	Pump setting lowered	19.2	1.6	963	4.57	176.8
9:35	4.42	2.75	Pump setting lowered	19.1	1.5	959	4.57	178.1
9:40	4.43	2.85	Pump setting lowered	18.9	1.4	951	4.57	179.3
9:45	4.46	3	[redacted]	19.1	1.5	946	4.58	179.6
9:50	4.50	3.1		19.3	1.4	954	4.59	178.4
9:55	4.52	3.25	Start sampling	19.2	1.5	958	4.59	179.4

Total Vol = 3250 + (2×400) + (2×100) + 125 + 250 = 3.905 L

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)

↳ SWL Not Stable

Sampling Containers Used: 3 x glass amber, 2 x BTEX vials, 1 x HNO3 plastic, 0 x H2SO4 plastic, 1 x unpreserved plastic

YSI used: YSI 9

Tested By: Jared Lim

Date Tested: 15/10/2024

Checked By: CR

Date: 2/12/2024

Remarks:
- Steady state conditions
- difference in the pH less than 0.2 units, difference in conductivity less than 10% 10% and SWL stable/not in drawdown

JKEnvironments

Client:	TTW	Job No.:	E36466PR
Project:	Proposed S5 Data Centre	Well No.:	MW122
Location:	34 Waterloo Road	Depth (m):	6.2

WELL FINISH

x	Gatic Cover		Standpipe		Other (describe)

WELL PURGE DETAILS:

Method:	Peri Pump	SWL – Before:	2.60
Date:	15/10/2024	Time – Before:	10:17
Undertaken By:	JTL	Total Vol Removed:	7.31 L
Pump Program No:	Low	PID (ppm):	62

PURGING / SAMPLING MEASUREMENTS

Time (min)	SWL (m)	Vol (L)	Notes	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
10:29	2.86	1.0		18.9	3.9	486.3	5.58	160.3
10:34	3.26	3.0	Pump setting lowered	19.8	0.4	597	5.34	152.1
10:39	3.34	3.5	Pump setting lowered	19.9	0.4	599	5.34	148.1
10:44	3.44	4.0		20.0	0.4	605	5.33	144.8
10:49	3.50	4.25	Pump setting lowered	20.0	0.6	605	5.33	141.3
10:54	3.59	4.75	Pump lowest setting	20.2	0.6	616	5.33	136.6
10:59	3.61	5.00		20.5	0.6	628	5.33	133.5
11:04	3.64	5.25		20.5	0.8	642	5.33	131.1
11:09	3.69	5.75		20.2	0.7	652	5.32	129.3
11:14	3.71	6.0		20.2	0.9	659	5.32	126.6
			Steady state Not achieved → start sampling					

Total Vol = 6000 + (4×40) + (4×100) + (2×125) + (2×250) = 7810

Comments: Odours (YES / (NO)) NAPL/PSH (YES / (NO)), Sheen (YES / (NO)) Steady State Achieved (YES / (NO)) WDMP10)

Sampling Containers Used: 4 (100) x glass amber, 4 (40) x BTEX vials, 1 (125) x HNO3 plastic, 0 x H2SO4 plastic, 1 (250) x unpreserved plastic

YSI used: YSI 4

Tested By: Jared Lim	**Remarks:**
Date Tested: 15/10/2024	- Steady state conditions
Checked By: CR	- difference in the pH less than 0.2 units, difference in conductivity less than 10%
Date: 2/12/2024	10% and SWL stable/not in drawdown

JKEnvironments

HAZARDOUS GROUND GAS DRILLING FIELD SHEET

Client:	TTW	Weather Conditions:	Sunny, clear
Project:	Proposed S5 Data Centre		
Location:	34 Waterloo Road, MACQUARIE PARK, NSW		
Job Number:	E36466PR		

Borehole Number, Start and Finish Time	Start Atmospheric Pressure and Completion Atmospheric Pressure (mb)	Drilling Depth (m Below Ground Level)	CH_4 (%v/v)	CO_2 (%v/v)	O_2 (%v/v)	H_2S (ppm)	CO (ppm)
BH101 9:54 AM	1023	0	0.0	0.0	20.9	0	0
		0.5	0.0	0.0	20.9	0	0
		1	0.0	0.0	20.9	0	0
		2	0.0	0.0	20.9	0	0
10:24 AM	1023	3	0.0	0.0	20.9	0	0
BH102 8:52 AM	1023	0	0.0	0.0	20.5	0	0
		0.5	0.0	0.0	20.5	0	0
		1	0.0	0.0	20.4	0	0
		2	0.0	0.0	20.4	0	0
9:23 AM	1023	3	0.0	0.0	20.5	0	0
BH103 7:40 AM	1023	0	0.0	0.0	20.4	0	0
		0.5	0.0	0.0	20.4	0	0
		1	0.0	0.0	20.3	0	0
		2	0.0	0.0	20.4	0	0
8:16 AM	1023	3	0.0	0.0	20.4	0	0

Notes:

Recorded by:	JTL
Date:	10/10/2024
Checked by:	CR
Date:	18/11/24

JKEnvironments

Soil Vapour Sampling Field Record

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466PR
Project:	Proposed NextDC Data Centre.	Sample ID.:	SV1
Location:	269 Lane Cove Road, Macquarie Park NSW	Pavement/Borehole Depth (m):	~300mm

Sampling Media: 1L Canister and Carbon Adsorbent Tube

Flow Restrictor/Flow Rate (mL/min): 50

Installation Type:	✓	Sub-surface Vapour Pin		Soil Vapour Borehole

PURGE DETAILS:

Equipment:	RAE Hand pump	Vacuum Pressure (Hg") – Before:	-29Hg"
Total Vol Purged:	300mL	Time – Before:	11:40am
Shut-in Test Passed:	yes	Vacuum Pressure (Hg") – After:	11:54am
Duration:	30 Seconds	Time – After:	-5Hg"
Carbon Tube Vol (mL):	500mL		

SAMPLING MEASUREMENTS

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
3285	1879	0.1	0909143938	500mL

FIELD DUPLICATE SAMPLE

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
—	—	—	—	—

SHROUD SAMPLE

Sample ID	Carbon Tube ID	Time Before:	Time After:	Carbon Tube Vol (mL)
—	—	—	—	—

BULK GAS MEASUREMENTS

CH_4 (%v/v)	CO_2 (%v/v	O_2 (%v/v)	CH4 (%LEL)	H_2S (ppm)	CO (ppm)	PID Cf (%)	PID (ppm)
0.0	0.0	19.0	0.0	0	0	1.0	0.1

Comments:

Tested By: Harley Wang	**Remarks:**
Date Tested: 17/10/24	
Checked By: CR	
Date: 18/11/24	

JKEnvironments

Soil Vapour Sampling Field Record

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466PR
Project:	Proposed NCentDC Data Centre	Sample ID.:	SV2
Location:	269 Lane Cove Road, Macquarie Park NSW	Pavement/Borehole Depth (m):	~300mm

Sampling Media: 1L Canister and Carbon Adsorbent Tube

Flow Restrictor/Flow Rate (mL/min): 50

Installation Type:		✓	Sub-surface Vapour Pin		Soil Vapour Borehole

PURGE DETAILS:

Equipment:	RAE Hand Pump	Vacuum Pressure (Hg") – Before:	-30Hg"
Total Vol Purged:	300mL	Time – Before:	12:27pm
Shut-in Test Passed:	Yes	Vacuum Pressure (Hg") – After:	12:45pm
Duration:	30 Seconds	Time – After:	-6Hg"
Carbon Tube Vol (mL):	500mL		

SAMPLING MEASUREMENTS

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
2271	612	0.1	0909143819	500mL

FIELD DUPLICATE SAMPLE

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
–	–	–	–	–

SHROUD SAMPLE

Sample ID	Carbon Tube ID	Time Before:	Time After:	Carbon Tube Vol (mL)
–	–	–	–	–

BULK GAS MEASUREMENTS

CH_4 (%v/v)	CO_2 (%v/v	O_2 (%v/v)	CH4 (%LEL)	H_2S (ppm)	CO (ppm)	PID Cf (%)	PID (ppm)
0.0	0.0	19.2	0.0	0	0	1.0	0.1

Comments:

Tested By: Harley Wang	**Remarks:**
Date Tested: 17/10/24	
Checked By: CR	
Date: 18/11/24.	

JKEnvironments

Soil Vapour Sampling Field Record

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466AR
Project:	Proposed NextDC Data Centre	Sample ID.:	SV3
Location:	269 Lane Cove Road, Macquarie Park NSW	Pavement/Borehole Depth (m):	~300mm

Sampling Media: 1L Canister and Carbon Adsorbent Tube

Flow Restrictor/Flow Rate (mL/min): 50

Installation Type:	✓	Sub-surface Vapour Pin		Soil Vapour Borehole

PURGE DETAILS:

Equipment:	RAE Hand pump	Vacuum Pressure (Hg") – Before:	-30Hg"
Total Vol Purged:	300mL	Time – Before:	4:34pm
Shut-in Test Passed:	Yes	Vacuum Pressure (Hg") – After:	-6Hg"
Duration:	30 Seconds	Time – After:	4:54pm
Carbon Tube Vol (mL):	500mL		

SAMPLING MEASUREMENTS

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
3283	369	1.3	0909147822	500mL

FIELD DUPLICATE SAMPLE

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
–	–	–	–	–

SHROUD SAMPLE

Sample ID	Carbon Tube ID	Time Before:	Time After:	Carbon Tube Vol (mL)
–	–	–	–	–

BULK GAS MEASUREMENTS

CH_4 (%v/v)	CO_2 (%v/v	O_2 (%v/v)	CH4 (%LEL)	H_2S (ppm)	CO (ppm)	PID Cf (%)	PID (ppm)
0.0	0.0	16.6	0.0	0	0	1.0	1.3

Comments:

Tested By: Harley Wang	Remarks:
Date Tested: 17/10/24	
Checked By: CR	
Date: 18/11/24	

JKEnvironments

Soil Vapour Sampling Field Record

Client:	TTW (NSW) Pty Ltd	Job No.:	E36466 PR
Project:	Proposed NextDC Data Centre	Sample ID.:	SV4
Location:	269 Lane Cove Road, Macquarie Park NSW	Pavement/Borehole Depth (m):	~300mm

Sampling Media: 1L Canister and Carbon Adsorbent Tube

Flow Restrictor/Flow Rate (mL/min): 50

Installation Type:	✓	Sub-surface Vapour Pin		Soil Vapour Borehole

PURGE DETAILS:

Equipment:	RAE Hand pump	Vacuum Pressure (Hg") – Before:	-29Hg"
Total Vol Purged:	300mL	Time – Before:	3:33pm
Shut-in Test Passed:	yes	Vacuum Pressure (Hg") – After:	-6Hg"
Duration:	30 Seconds	Time – After:	3:50pm
Carbon Tube Vol (mL):	500mL		

SAMPLING MEASUREMENTS

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
2471	1878	5.1	0909143937	500mL

FIELD DUPLICATE SAMPLE

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
–	–	–	–	–

SHROUD SAMPLE

Sample ID	Carbon Tube ID	Time Before:	Time After:	Carbon Tube Vol (mL)
–	–	–	–	–

BULK GAS MEASUREMENTS

CH_4 (%v/v)	CO_2 (%v/v	O_2 (%v/v)	CH4 (%LEL)	H_2S (ppm)	CO (ppm)	PID Cf (%)	PID (ppm)
0.0	0.0	19	0.0	0	24	1.0	5.1

Comments:

Tested By: Harley Wang	Remarks:
Date Tested: 17/10/24	
Checked By: CR	
Date: 18/11/24	

JKEnvironments

Soil Vapour Sampling Field Record

Client:	TTW(NSW) Pty Ltd	Job No.:	E36466PR
Project:	Proposed NextDC Data Centre	Sample ID.:	SV5
Location:	269 Lane Cove Road, Macquarie Park NSW	Pavement/Borehole Depth (m):	~300mm

Sampling Media: 1L Canister and Carbon Adsorbent Tube

Flow Restrictor/Flow Rate (mL/min): 50

Installation Type:		✓	Sub-surface Vapour Pin		Soil Vapour Borehole

PURGE DETAILS:

Equipment:	RAE Hand pump	Vacuum Pressure (Hg") – Before:	-29Hg"
Total Vol Purged:	300mL	Time – Before:	5:15pm
Shut-in Test Passed:	YES	Vacuum Pressure (Hg") – After:	-6Hg"
Duration:	30 Seconds	Time – After:	5:31pm
Carbon Tube Vol (mL):	500mL		

SAMPLING MEASUREMENTS

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
3520	1873	0.6	0909143377	

FIELD DUPLICATE SAMPLE

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
–	–	–	–	–

SHROUD SAMPLE

Sample ID	Carbon Tube ID	Time Before:	Time After:	Carbon Tube Vol (mL)
–	–	–	–	–

BULK GAS MEASUREMENTS

CH_4 (%v/v)	CO_2 (%v/v	O_2 (%v/v)	CH4 (%LEL)	H_2S (ppm)	CO (ppm)	PID Cf (%)	PID (ppm)
0.0	0.0	20.5	0.0	0	0	1.0	0.6

Comments:

Tested By: Harley Wang	Remarks:
Date Tested: 17/10/24	
Checked By: CR	
Date: 18/11/24	

JKEnvironments

Soil Vapour Sampling Field Record

Client:	TTW (NSW) pty Ltd	Job No.:	E36466PR
Project:	Proposed NEXT DC data Centre	Sample ID.:	SV6
Location:	269 Lane Cove Road, Macquarie Park NSW	Pavement/Borehole Depth (m):	~50mm

Sampling Media: 1L Canister and Carbon Adsorbent Tube

Flow Restrictor/Flow Rate (mL/min): 50

Installation Type:	✓	Sub-surface Vapour Pin		Soil Vapour Borehole

PURGE DETAILS:

Equipment:	RAE Hand pump	Vacuum Pressure (Hg") – Before:	-30Hg"
Total Vol Purged:	300mL	Time – Before:	2:34pm
Shut-in Test Passed:	Yes	Vacuum Pressure (Hg") – After:	-6Hg"
Duration:	30 Seconds	Time – After:	2:53pm
Carbon Tube Vol (mL):	500mL		

SAMPLING MEASUREMENTS

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
2272	611	1.0	0909144158	500mL

FIELD DUPLICATE SAMPLE

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
–	–	–	–	–

SHROUD SAMPLE

Sample ID	Carbon Tube ID	Time Before:	Time After:	Carbon Tube Vol (mL)
–	–	–	–	–

BULK GAS MEASUREMENTS

CH_4 (%v/v)	CO_2 (%v/v	O_2 (%v/v)	CH4 (%LEL)	H_2S (ppm)	CO (ppm)	PID Cf (%)	PID (ppm)
0.0	0.4	20.6	0.0	0	0	1.0	1.0

Comments:

Tested By: Harley Wang	**Remarks:**
Date Tested: 17/10/24	
Checked By: CR	
Date: 18/11/24	

JKEnvironments

Soil Vapour Sampling Field Record

Client:	TTW (NSW) pty Ltd	Job No.:	E36466PR
Project:	proposed Next DC data centre	Sample ID.:	SV7
Location:	269 Lane Cove Road, Macquarie Park NSW	Pavement/Borehole Depth (m):	AC pavement ~50mm

Sampling Media: 1L Canister and Carbon Adsorbent Tube

Flow Restrictor/Flow Rate (mL/min): 50

Installation Type:	✓	Sub-surface Vapour Pin		Soil Vapour Borehole

PURGE DETAILS:

Equipment:	RAE Hand pump	Vacuum Pressure (Hg") – Before:	-30Hg" / -28Hg"
Total Vol Purged:	300mL / 100mL	Time – Before:	1:40pm
Shut-in Test Passed:	Yes	Vacuum Pressure (Hg") – After:	-6Hg" / -6Hg"
Duration:	30 Seconds	Time – After:	2:04pm / 2:01pm
Carbon Tube Vol (mL):	500mL		

SAMPLING MEASUREMENTS

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
2265	616	0	0909143823	500mL

FIELD DUPLICATE SAMPLE

Canister #	Train/Flow Controller #	PID (ppm)	Back-up Tube ID	Carbon Tube Vol (mL)
2530	1863	0	0909143376	500mL

SHROUD SAMPLE

Sample ID	Carbon Tube ID	Time Before:	Time After:	Carbon Tube Vol (mL)
Shroud	0909144150	2:16pm	2:17pm	50mL

BULK GAS MEASUREMENTS

CH_4 (%v/v)	CO_2 (%v/v	O_2 (%v/v)	CH4 (%LEL)	H_2S (ppm)	CO (ppm)	PID Cf (%)	PID (ppm)
0.0	0.6	20.1	0.0	0	0	1.0	0

Comments:

Tested By: Harley Wang

Date Tested: 17/10/24

Checked By: CR

Date: 19/11/24

Remarks:

SVDUP1 taken at SV7

Shroud sample taken at SV7

Appendix I: Guidelines and Reference Documents

Acid Sulfate Soils Management Advisory Committee (ASSMAC), (1998). Acid Sulfate Soils Manual

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Appendix J: Sampling, Analysis and Quality Plan

APPENDIX J

REPORT TO

TTW (NSW) PTY LTD

ON

SAMPLING ANALYSIS AND QUALITY PLAN FOR ADDITIONAL CONTAMINATION INVESTIGATION

FOR

PROPOSED NEXTDC S5 DATA CENTRE

AT

269 LANE COVE ROAD, MACQUARIE PARK, NSW

Date: 4 October 2024

Ref: E36466PRrpt2-SAQP

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APPENDIX J

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Appendix C: Report Explanatory Notes

Appendix D: Guidelines and Reference Documents

Abbreviations

Ambient Background Concentrations	**ABC**
Asphaltic Concrete	**AC**
Additional Contamination Investigation	**ACI**
Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
Australian Drinking Water Guidelines	**ADWG**
Area of Environmental Concern	**AEC**
Asbestos Fines/Fibrous Asbestos	**AF/FA**
Australian Height Datum	**AHD**
Asbestos Management Plan	**AMP**
Acid Sulfate Soil	**ASS**
Above-Ground Storage Tank	**AST**
Before You Dig Australia	**BYDA**
Below Ground Level	**BGL**
Benzo(a)pyrene Toxicity Equivalent Factor	**BaP TEQ**
Bureau of Meteorology	**BOM**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
Cation Exchange Capacity	**CEC**
Cis-1,2-dichloroethene	**cis-DCE**
Contaminated Land Management	**CLM**
Contaminant(s) of Potential Concern	**CoPC**
Carbon Monoxide	**CO**
Carbon Dioxide	**CO_2**
Chain of Custody	**COC**
Methane	**CH_4**
Conceptual Site Model	**CSM**
Contaminant Threshold	**CT**
Development Application	**DA**
Dissolved Oxygen	**DO**
Data Quality Indicator	**DQI**
Data Quality Objective	**DQO**
Detailed Site Investigation	**DSI**
Electrical Conductivity	**EC**
Redox Potential	**Eh**
Ecological Investigation Level	**EIL**
Environment Protection Authority	**EPA**
Ecological Screening Level	**ESL**
Fibre Cement Fragment(s)	**FCF**
Groundwater Investigation Level	**GIL**
Hazardous Ground Gases	**HGG**
Health Investigation Level	**HIL**
Health Screening Level	**HSL**
Health Screening Level-Site Specific Assessment	**HSL-SSA**
International Organisation of Standardisation	**ISO**
JK Environments	**JKE**
JK Geotechnics	**JKG**
Licensed Asbestos Assessor	**LAA**
Lab Control Spike	**LCS**
Light Non-Aqueous Phase Liquid	**LNAPL**
Map Grid of Australia	**MGA**
National Association of Testing Authorities	**NATA**
National Environmental Protection Measure	**NEPM**
Organochlorine Pesticides	**OCP**

Organophosphate Pesticides	**OPP**
Polycyclic Aromatic Hydrocarbons	**PAH**
Polychlorinated Biphenyls	**PCB**
Perchloroethylene (also known as tetrachloroethene)	**PCE**
Per-and Polyfluoroalkyl Substances	**PFAS**
Photo-ionisation Detector	**PID**
Protection of the Environment Operations	**POEO**
Practical Quantitation Limit	**PQL**
Quality Assurance	**QA**
Quality Control	**QC**
Remediation Action Plan	**RAP**
Reduced/Relative Level	**RL**
Relative Percentage Difference	**RPD**
Site Assessment Criteria	**SAC**
Sampling, Analysis and Quality Plan	**SAQP**
State Environmental Planning Policy	**SEPP**
Site Specific Assessment	**SSA**
Source, Pathway, Receptor	**SPR**
Specific Contamination Concentration	**SCC**
Standard Penetration Test	**SPT**
Standing Water Level	**SWL**
Trip Blank	**TB**
Trichloroethene	**TCE**
Toxicity Characteristic Leaching Procedure	**TCLP**
Target Cancer Risk	**TCR**
Target Hazard Quotient	**THQ**
Total Recoverable Hydrocarbons	**TRH**
Trip Spike	**TS**
Upper Confidence Limit	**UCL**
United States Environmental Protection Agency	**USEPA**
Underground Storage Tank	**UST**
Vinyl Chloride	**VC**
Virgin Excavated Natural Material	**VENM**
Volatile Organic Compounds	**VOC**
World Health Organisation	**WHO**
Work Health and Safety	**WHS**

Units

Gram	**g**
Inch of Mercury	**"Hg**
Kilogram per Litre	**kg/L**
Litres	**L**
Metres BGL	**mBGL**
Metres	**m**
Millimetres	**mm**
Millivolts	**mV**
Millilitres	**ml or mL**
Milliequivalents	**meq**
micro Siemens per Centimetre	**µS/cm**
Micrograms per Litre	**µg/L**
Milligrams per Kilogram	**mg/kg**
Milligrams per Litre	**mg/L**
Parts Per Million	**ppm**
Percentage	**%**
Percentage weight for weight	**%w/w**

1 INTRODUCTION

TTW (NSW) Pty Ltd ('the client') commissioned JK Environments (JKE) to prepare a Sampling Analysis and Quality Plan (SAQP) for the Additional Contamination Investigation (ACI) to be undertaken by JKE for the proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW ('the site'). The site location is shown on Figure 1 and the proposed investigation will be confined to the site boundaries as shown on Figure 2 attached in the appendix A.

JKE has previously undertaken a Preliminary Site Investigation (PSI) at the site. A summary of this information is included in Section 2.

1.1 Proposed Development Details

The proposed development includes demolition of all existing structures and construction of two multi-storey data centre buildings. A 9-storey office building is proposed to be connected to the north of the northern datacentre building. The buildings are to be terraced into the existing slope. A plaza is proposed to the north of the buildings and landscaping is likely to be included within the setbacks. A new road is proposed in a generalised east-west direction between the data centre buildings, and a second road is proposed in a generalised north-south direction along the south-eastern boundary. Excavation to depths of approximately 9m below ground level (BGL) may be required to accommodate the development.

1.2 Aims and Objectives

The overarching aims of the investigation are to fill some of the data gaps identified in the PSI where there is adequate site access, and to provide updated preliminary advice in relation to waste disposal/on-site re-use options and potential remediation requirements.

The ACI objectives are to:

- Assess the soil, soil vapour and groundwater contamination conditions via implementation of a sampling and analysis program;
- Document an iteration and review of the conceptual site model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Provide preliminary waste classifications for off-site disposal of soil; and
- Inform the preparation of the Remediation Action Plan (RAP).

1.3 Scope of Work

The SAQP has been prepared generally in accordance with a JKE proposal (Ref: EP61043Prev1) of 21 August 2024 and written acceptance from the client in the form of a purchase order dated 10 September 2024.

The scope of work included review of the PSI and preparation of an SAQP with regards to National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[1], and other guidelines made under or with regards to the Contaminated Land Management Act (1997)[2].

A list of reference documents/guidelines is included in Appendix D.

[1] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[2] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

2 SITE INFORMATION

2.1 Background

A PSI was previously undertaken by JKE in 2024[3]. The PSI included a review of site history information, a walkover site inspection, soil sampling from 34 boreholes and groundwater sampling from three groundwater monitoring wells installed at the site. The PSI sample locations are shown on Figure 3 in Appendix A. The PSI identified that the site was historically used for agricultural purposes until the 1950s, and has been used for various commercial activities since the 1980s. Fuel storage (including in underground storage tanks - USTs) occurred during this time.

The PSI encountered fill and/or clay soils to depths of approximately 0.2mBGL to 5mBGL, underlain by siltstone and sandstone bedrock. The maximum depth of fill encountered was 4mBGL. Groundwater was not encountered during auger drilling for the PSI. The fill typically comprised of silty and/or gravelly sand, sandy gravel, and silty and/or sandy clay. Inclusions noted within the fill included igneous, siltstone and sandstone gravel, tile and glass fragments, slag, ash, roots and root fibres. A fibre cement fragment (FCF) was observed in the fill in BH2 at a depth of approximately 0.5-1.5mBGL, however, subsequent laboratory analysis confirmed this FCF did not contain asbestos.

The standing water level (SWL) recorded in the monitoring wells installed for the PSI ranged from approximately 5.15mBGL to 13.26mBGL. Groundwater levels calculated on these measurements ranged from approximately 49.7m Australian height datum (AHD) to 62.9mAHD.

During the site walkover inspection, FCF/asbestos containing material (ACM) was observed on the surface within the paved area in the central portion of the site (refer to figures attached in Appendix A). The FCF/ACM was collected for laboratory testing and subsequently confirmed to contain asbestos. At the completion of the fieldworks, no visible FCF/ACM remained at the surface in the vicinity of the borehole locations.

The PSI identified fill soils impacted by asbestos (in the form of asbestos fines/fibrous asbestos - AF/FA) at concentrations above the adopted site assessment criteria (SAC) in two locations in the north of the site. Asbestos was detected at concentrations below the SAC at two locations in the central section of the site.

The PSI identified that the groundwater beneath the site was impacted by heavy metals at concentrations above the adopted SAC. The pH of the groundwater was also outside of the acceptable ranges (i.e. below the lower threshold). The low pH of the groundwater was considered likely to be a regional issue.

SAC exceedances from the PSI are shown on Figure 4 in Appendix A.

The PSI also identified several data gaps, which were required to be addressed. JKE concluded that the site could be made suitable for the proposed data centre via remediation. The following was recommended:

- A surface walkover and 'emu-picking' of all visible FCF/ACM from the site surface should be undertaken and an asbestos clearance certificate obtained from a SafeWork NSW licensed asbestos assessor (LAA);

[3] JKE, (2024). *Report to TTW (NSW) Pty Ltd on Preliminary Site Investigation (PSI) for Proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW.* (Ref: E36466PRrpt) (referred to as PSI)

- Interim management of the site is to occur under an Asbestos Management Plan (AMP), until remediation occurs. The AMP is to be prepared by an LAA;
- Undertake a Detailed Site Investigation (DSI) to better assess the risks associated with the AEC/potential sources of contamination and inform preparation of a Remediation Action Plan (RAP). The DSI should address the data gaps identified in the PSI. A SAQP should be prepared for the DSI prior to commencement of the investigation;
- A RAP is to be prepared to address the contamination issues identified at the site; and
- The site is to be managed, remediated and validated in accordance with the RAP and AMP.

2.2 Site Identification

Table 2-1: Site Identification

Current Site Owner (certificate of title):	NEXTDC Limited
Site Address:	269 Lane Cove Road, Macquarie Park, NSW (also known as 34 Waterloo Road, Macquarie Park)
Lot & Deposited Plan:	Lot 3 in DP1129811
Current Land Use:	Commercial (warehouse/distribution)
Proposed Land Use:	Commercial (data storage centre)
Local Government Area:	City of Ryde
Current Zoning:	E2 – Commercial Centre
Site Area (m^2) (approx.):	22,550
RL (AHD in m) (approx.):	57-66
Geographical Location (decimal degrees) (approx.):	Latitude: -33.785458 Longitude: 151.128366
Site Plans:	Appendix A

2.3 Site Location and Regional Setting

The site is located in a predominantly commercial area of Macquarie Park and is bound by Waterloo Road to the north-east and Lane Cove Road to the north-west. The site is located approximately 1km to the south-west of the Lane Cove River.

2.4 Topography

The site is located in an area of undulating topography falling towards the north/north-east at approximately 2-3°. Parts of the site appear to have been levelled to account for the slope and accommodate the existing development.

2.5 Site Inspection

Walkover inspections of the site were undertaken by JKE during the course of the fieldworks for the PSI between 27 November 2023 and 5 January 2024. The site has remained generally unchanged since the PSI. An internal inspection of the southern building was undertaken on 25 September 2024 for the preparation of this SAQP. A summary of the key observations is provided below:

- The majority of the site was occupied by two large warehouse-type buildings with associated office space. The majority of the remaining area was sealed with asphaltic concrete (AC) and/or concrete pavement which appeared to be in fair to good condition (based on a cursory inspection), with some evidence of heaving and cracking observed. No obvious staining on pavements and surfaces were observed;
- The buildings were of brick and metal construction (northern building) and pebblecrete construction with fibre cement in-fill panels (southern building). Warning labels on the in-fill panels indicated the fibre cement contained asbestos. The buildings appeared to be generally in good condition based on a cursory inspection;
- The internal inspection of the southern building identified a concrete loading dock and water treatment equipment located in the south and south-eastern portion of the building. The remainder of the building was occupied with rooms/office space. The internal walls and flooring appeared to be in relatively good condition based on a cursory inspection;
- A 1-2 storey carpark was located in the central portion of the site, between the two large buildings. A former tennis court was located to the west of carpark;
- A large grass-covered fill mound occupied the north-western portion of the site;
- No obvious indications of erosion were observed at the site boundaries;
- Exposed fill soils were observed in the formed gardens across the site and along the south-western and north-western boundaries;
- Parts of the site appear to have been levelled to accommodate the existing development;
- An UST was identified in the north-east of the site, and a former holding tank was observed in the south of the site. Additional USTs were suspected within the south of the site (see Figure 2 in Appendix A);
- Surface water run-off was expected to generally flow in a northerly direction in sympathy with the local topography and collect within on-site stormwater drainage infrastructure. Infiltration of rainwater was expected to occur within the landscaped and unpaved areas of the site;
- Sensitive environments, such as wetland, ponds, creeks or extensive areas of native vegetation were not identified on-site or in the immediate surrounds; and
- The vegetation within the site appeared to be generally healthy (based on a cursory inspection) with no obvious indications of plant stress or die-back.

2.6 Surrounding Land Use

During the site inspection, JKE observed the following land uses in the immediate surrounds:

- North-east: Macquarie Park Metro Station and Waterloo Road, with offices and commercial units beyond;
- North-west: Lane Cove Road, with a veterinary clinic, car display room and offices (Hyundai), and a construction site (presumably offices and/or residential apartments);
- South–east: Commercial offices, including Foxtel and Sky News; and
- South-west: A large warehouse (Chamberlain), with commercial offices, a hotel (Quest) and Epping Road beyond.

JKE did not observe any land uses in the immediate surrounds that were identified as potential contamination sources for the site.

2.7 Underground Services

The 'Before You Dig Australia' (BYDA) plans were reviewed for the PSI in order to establish whether any major underground services exist at the site or in the immediate vicinity that could act as a preferential pathway for contamination migration.

The BYDA plans indicate that fibre optic cables and communication (Telstra) main cables extend through the site, generally within the southern areas and in the vicinity of the USTs. An electrical cottage/chamber is located in the south-eastern corner of the southern building, and the associated high voltage cables extend along the southern wall of the building and extends to the north-west beyond the site boundary. Considering the geological conditions (discussed in Section 2.8.1), there is a potential for the service trenches to act as preferential pathway for contamination migration (i.e. through relatively permeable backfill). The approximate locations of the underground services have been transposed onto the figures attached in Appendix A.

2.8 Summary of Regional Geology and Hydrogeology

2.8.1 Regional Geology

Regional geological information was reviewed for the PSI. The PSI indicated that the site is underlain by Ashfield Shale of the Wianamatta Group, which typically consists of black to dark grey shale and laminite. The site is located near the geological boundary with Hawkesbury Sandstone, which typically consists of medium to coarse grained quartz sandstone with minor shale and laminite lenses.

2.8.2 Acid Sulfate Soil (ASS) Risk and Planning

ASS risk maps were reviewed for the PSI. The PSI indicated that the site is not located within a risk area.

2.8.3 Hydrogeology

Hydrogeological information presented in the PSI indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive aquifers of low to moderate productivity. There was a total of 41 registered bores within the report buffer of 1,000m. In summary:

- There were two bores on-site (EMW1 and EMW2, as shown on Figure 2). The bores were registered for monitoring purposes and were located in the north of the site;
- The majority of the bores in the surrounds were registered for monitoring purposes;
- There were no nearby bores (i.e. within 1km) registered for domestic or irrigation uses; and
- The drillers log information from the closest registered bores typically identified fill and/or clay soil to depths ranging from approximately 2.1m to 5.2mBGL, underlain by shale. Sandstone bedrock was encountered beneath the shale at depths of approximately 8.4m to 15mBGL; and
- The standing water level (SWL) was reported for one bore located approximately 170m to the north of the site. The SWL was reported to be at a depth of approximately 18mBGL. JKE note that the construction details recorded on the licence indicate the well was screened within the sandstone bedrock aquifer and are likely to be representative of a deeper aquifer. SWLs were not reported for the other nearby bores.

The information reviewed for the PSI, and the intrusive investigation identified that the subsurface conditions typically consist of relatively low permeability (residual) soils overlying shallow bedrock. The potential for viable groundwater abstraction and use of groundwater under these conditions is considered to be low. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur. Use of groundwater is not proposed as part of the development as far as we are aware.

Though the local topography typically falls towards the north/north-east, considering the information reviewed for the PSI and the SWLs measured in the monitoring wells during the PSI, the groundwater is inferred to flow towards the north/north-west as shown on Figure 5 attached in Appendix A.

2.9 Receiving Water Bodies

Surface water bodies were not identified in the immediate vicinity of the site. The closest down-gradient surface water body is Shrimptons Creek (a tributary of the Lane Cove River) located approximately 1km to the north-west of the site. This waterbody may be a potential receptor.

3 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and background/site history site history information. Reference should also be made to the figures attached in Appendix A.

3.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC) are presented in the following table:

Table 3-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site has been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated. The PSI identified fill soils across the site, extending to depths of approximately 0.1m to 4mBGL. A large fill mound was also observed in the north-west of the site. There is potential for the deep filling to generate hazardous ground gasses (HGG).	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), petroleum hydrocarbons (referred to as total recoverable hydrocarbons – TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs), asbestos and HGG, primarily including methane and carbon dioxide.
Fuel storage – A fuel holding tank (UST) was identified in the south of the site, and other USTs were also suspected in this area. Another UST was identified in the north-east of the site (see figures attached in Appendix A). The records reviewed for the PSI identified that the USTs were previously used to store petrol and diesel. JKE has been provided documentation indicating that the UST in the north-east of the site was decommissioned in-situ, and the associated infrastructure (vent pipes) were removed. This information will be included within the ACI report.	Lead, TRH, BTEX and PAHs.
Historical agricultural use – The site appears to have been used for grazing and market garden/orchard purposes. This could have resulted in contamination across the site via use of machinery, application of pesticides and building/ demolition of various structures. Irrigation pipes made from asbestos cement may also be associated with this AEC.	Heavy metals, TRH, PAHs, OCPs, PCBs and asbestos. JKE note that OCPs only became commercially available in the 1940s. Prior to this time pesticides were predominantly heavy metal compounds.
Use of pesticides – Pesticides may have been used beneath the buildings and/or around the site.	Heavy metals and OCPs.
Hazardous Building Material – Hazardous building materials may be present as a result of former building and demolition activities. These materials have also	Asbestos, lead and PCBs.

Source / AEC	CoPC
been identified in the existing buildings/ structures on site. The PSI identified FCF/ACM on the surface of exposed soils in the central portion of the site (see figures attached in Appendix A).	
Commercial Printing/Publishing – The historical records indicate that the site was used for book publishing during the 1980s and 1990s. Leaks and spills of fluids and solvents may have occurred during this time.	Volatile organic compounds (VOCs) including tetrachloroethene (also known as perchloroethylene - PCE) and the breakdown products trichloroethene (TCE), cis-1,2-dichloroethene (cis-DCE) and vinyl chloride (VC).

JKE note that herbicides have not been included as CoPC as herbicides are not commonly found at residual concentrations likely to pose a risk to human health or the environment (NSW DEC 2005, *Guidelines for Assessing Former Orchards and Market Gardens*).

JKE note that the PSI identified Per-and Polyfluoroalkyl substances (PFAS) as CoPC associated with historical commercial printing/publishing activities, and potentially related to historic firefighting activities at the site. However, based on the findings of the PSI, JKE do not consider PFAS to be CoPC for the ACI as the reported PFAS concentrations in soil and groundwater were low.

3.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 3-2: CSM

Potential mechanism for contamination	Potential mechanisms for contamination include: • Fill material – importation of impacted material, 'top-down' impacts (e.g. placement of fill, leaching from surficial material etc), or sub-surface release (e.g. impacts from buried material); • Fuel storage – 'top-down', spills (e.g. during filling of the tanks and/or dispensing activities), or sub-surface release (e.g. from leaking tank or pipework); • Historical agricultural use – 'top-down' and spills (e.g. application of pesticides, refuelling or repairing machinery, and other activities at the ground surface level); • Use of pesticides – 'top-down' and spills (e.g. during normal use, application and/or improper storage); and • Hazardous building materials – 'top-down' (e.g. demolition resulting in surficial impacts in unpaved areas).
Affected media	Soil, soil vapour, HGG and groundwater have been identified as potentially affected media.
Receptor identification	Human receptors include site users (predominantly adults), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users, and recreational water users within Shrimptons Creek and the Lane Cove River.

	Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas), and freshwater ecology in Shrimptons Creek and the Lane Cover River.
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants), HGG and vapours (volatile TRH, naphthalene and BTEX). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Potential exposure pathways for ecological receptors include primary/direct contact and ingestion. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of HGG/vapours within enclosed spaces such as buildings and basements.
Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the proposed building and basement (either from soil contamination or volatilisation of contaminants from groundwater); • HGG intrusion into the proposed building and basement; • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; and • Migration of groundwater off-site and into nearby water bodies, including aquatic ecosystems and those being used for recreation.
Presence of preferential pathways for contaminant movement	The fibre optics/communication and high voltage power cables and duct (see figures attached in Appendix A) and associated services trench/trench backfill are potential preferential pathways for contaminant migrations throughout the site and off-site. This could occur via groundwater/seepage if present, or via soil vapour/HGG migration through the trenches and/or trench backfill.

4 SAMPLING, ANALYSIS AND QUALITY PLAN

4.1 Data Quality Objectives (DQO)

Data Quality Objectives (DQOs) have been developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2. The DQOs were prepared with reference to the process outlined in Schedule B2 of NEPM (2013). The seven-step DQO approach for this project is outlined in the following sub-sections.

The DQO process is validated in part by the Data Quality Assurance/Quality Control (QA/QC) Evaluation. The Data (QA/QC) Evaluation will be summarised in the ACI report.

4.1.1 Step 1 - State the Problem

The CSM identified potential sources of contamination/AEC at the site that may pose a risk to human health and the environment. Additional investigation data is required to fill data gaps, inform the preparation of a RAP and to provide the client with preliminary advice regarding soil waste classification. We anticipate this information will also be considered by the consent authority in exercising its planning functions in relation to the development proposal.

4.1.2 Step 2 - Identify the Decisions of the Study

The objectives of the ACI are outlined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- What are the preliminary waste classifications for soils?
- Are any results above the SAC?
- Do potential risks associated with contamination exist, and if so, what are they?
- What are the most likely remedial options to address contamination risks?

4.1.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Existing relevant environmental data from previous reports;
- Site information, including site observations and site history documentation;
- Sampling of potentially affected media, including soil, soil vapour and groundwater;
- Observations of sub-surface variables such as soil type, photo-ionisation detector (PID) concentrations, odours and staining, and groundwater physiochemical parameters;
- Laboratory analysis of soils, fibre cement, soil vapour and groundwater samples for the CoPC identified in the CSM; and
- Field and laboratory QA/QC data.

4.1.4 Step 4 - Define the Study Boundary

The sampling will be confined to the site boundaries as shown in Figure 2 and will be limited vertically to a maximum nominated sampling depth of 7mBGL (spatial boundary). The final depth could depend on site

conditions and will be noted in the ACI. At this stage, the sampling is scheduled to be completed in October 2024 (temporal boundary). Areas not accessible for sampling will be noted in the ACI as data gaps.

4.1.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

4.1.5.1 Tier 1 Screening Criteria

The laboratory data will be assessed against relevant Tier 1 screening criteria (referred to as SAC), as outlined in Section 5. Exceedances of the SAC do not necessarily indicate a requirement for remediation or a risk to human health and/or the environment. Exceedances are considered in the context of the CSM and valid source-pathway-receptor (SPR) linkages.

Statistical evaluation of the dataset via calculation of mean values and/or 95% upper confidence limit (UCL) values will not be undertaken due to the spatial distribution of the data and the number of samples submitted for analysis. For the ACI, the individual results will be assessed as either above or below the SAC.

4.1.5.2 Field and Laboratory QA/QC

Field QA/QC will include analysis of inter-laboratory duplicates (minimum of 5% of primary samples), intra-laboratory duplicates (minimum of 5% of primary samples), and trip spike (for volatiles), trip blank (for selected organic and inorganic compounds) and rinsate (for selected organic and inorganic compounds) samples (one for each medium sampled to assess the adequacy of field practices). Soil vapour QA/QC will also include a leak test sample.

Further details regarding the sampling and analysis undertaken, and the acceptable limits adopted, will be included in the Data Quality (QA/QC) Evaluation presented in the ACI report.

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which will be outlined in the laboratory reports. These criteria are developed and implemented in accordance with the laboratory's National Association of Testing Authorities, Australia (NATA) accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence are reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, the most conservative concentration reported are to be adopted.

4.1.5.3 Appropriateness of Practical Quantitation Limits (PQLs)

The PQLs of the analytical methods are to be considered in relation to the SAC to confirm that the PQLs are less than the SAC. In cases where the PQLs are greater than the SAC, a discussion of this is provided.

4.1.6 Step 6 – Specify Limits on Decision Errors

To limit the potential for decision errors, a range of quality assurance processes are adopted. A quantitative assessment of the potential for false positives and false negatives in the analytical results will be undertaken with reference to Schedule B(3) of NEPM (2013) using the data quality assurance information collected.

Decision errors can be controlled through the use of hypothesis testing. The test can be used to show either that the baseline condition is false or that there is insufficient evidence to indicate that the baseline condition is false. The null hypothesis is an assumption that is assumed to be true in the absence of contrary evidence. For the ACI, the null hypothesis will be adopted which is that, there is considered to be a complete SPR linkage for the CoPC identified in the CSM unless this linkage can be proven not to (or unlikely to) exist. The null hypothesis will be adopted for this investigation. Quantitative limits on decision errors were not established as the sample plan is not probabilistic.

Data Quality Indicators (DQI) for field and laboratory QA/QC samples are defined below. An assessment of the DQI's is to be made in relation to precision, accuracy, representativeness, completeness and comparability.

Field Duplicates

Acceptable targets for precision of field duplicates will be 30% or less, consistent with NEPM (2013). RPD failures will be considered qualitatively on a case-by-case basis taking into account factors such as the concentrations used to calculate the RPD (i.e. RPD exceedance where concentrations are close to the PQL are typically not as significant as those where concentrations are reported at least five or 10 times the PQL), sample type, collection methods and the specific analyte where the RPD exceedance was reported.

Trip Blanks and Rinsates

Acceptable targets for field blank and rinsate samples in this report will be less than the PQL for organic analytes. Metals will be considered on a case-by-case basis with regards to typical background concentrations in soils and published drinking water guidelines for waters.

Trip Spikes

Acceptable targets for trip spike samples will be 70% to 130%.

Isopropanol Shroud

The isopropanol shroud sample is used for leak test purposes during soil vapour sampling. The shroud sample intends to demonstrate a high isopropanol concentration within the shroud atmosphere, then the soil vapour samples obtained from the vapour pin installation ideally should not detect high concentrations of isopropanol. A significant (>10mg/m^3 or >10,000µg/m^3) detection of isopropanol in the soil vapour samples may indicate a leak in the vapour pin installation and suggest that ambient air is being drawn into the installation during sampling.

Laboratory QA/QC

The suitability of the laboratory data will be assessed against the laboratory QA/QC criteria. These criteria are developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the typical limits is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics; and
- 60-140% recovery acceptable for organics.

Surrogate Spikes

- 60-140% recovery acceptable for general organics.

Method Blanks

- All results less than PQL.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence will be reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is to be undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, we will adopt the most conservative concentration reported.

4.1.7 Step 7 - Optimise the Design for Obtaining Data

The most resource-effective design will be used in an optimum manner to achieve the investigation objectives. Adjustment of the investigation design can occur following consultation or feedback from project stakeholders. For this investigation, the design was optimised via consideration of the access constraints in light of the PSI data gaps, various lines of evidence used to select the sample locations, the media being sampled, and also by the way in which the data will be collected. The sampling plan and methodology are outlined in the following sub-sections.

4.2 Soil Sampling Plan and Methodology

The soil sampling plan and methodology proposed for the ACI is outlined in the table below:

Table 4-1: Proposed ACI Soil Screening and Sampling Plan and Methodology

Aspect	Input
Sampling Density	Samples for the ACI will be collected from 23 locations as shown on the attached Figure 6.
Sampling Plan	The sampling locations will be placed on a judgemental sampling plan positioned to target areas of potential deep filling and the identified USTs. Additional soil sampling will also be positioned for site coverage within the southern building, as this was previously not assessed. The sampling plan, in conjunction with the existing PSI data, is considered suitable to make an assessment of potential risks associated with the AEC and CoPC identified in the CSM, in light of the site access constraints.

Aspect	Input
Set-out and Sampling Equipment	Sampling locations will be set out using a tape measure. In-situ sampling locations will be checked for underground services by an external contractor prior to sampling. Samples will be collected using various equipment, including: • A drill rig equipped with spiral flight augers (150mm diameter); • An excavator equipped with a pendulum auger (250-300mm diameter); and • A hand auger. Soil samples will be obtained from a Standard Penetration Test (SPT) split-spoon sampler when using the drill rig where practicable, and/or directly from the auger.
Sample Collection and Field QA/QC	Soil samples will be obtained in accordance with our standard field procedures. Soil samples will be collected from the fill and natural profiles based on field observations. The sample depths will be shown on the logs included in the ACI report. Soil samples for contamination testing will be placed in glass jars with plastic caps and Teflon seals with minimal headspace. Samples for asbestos analysis will be placed in zip-lock plastic bags. During sampling, soil at selected depths will be split into primary and duplicate samples for field QA/QC analysis. The field splitting procedure includes alternate filling of the sampling containers to obtain a representative split sample. Homogenisation of duplicate samples will not occur to minimise the potential for the release of volatile organic compounds.
Field Screening of Soils	A portable PID fitted with a 10.6mV lamp will be used to screen the samples for the presence of volatile organic compounds (VOCs). PID screening for VOCs will be undertaken on soil samples using the soil sample headspace method. VOC data will be obtained from partly filled zip-lock plastic bags following equilibration of the headspace gases. PID calibration records will be maintained for the project. The field screening for asbestos quantification will include the following: • A representative bulk sample (approximately 10L sample, to the extent achievable based on sample return) is to be collected from fill at 1m intervals, or from each distinct fill profile. The quantity of material for each sample may vary based on the return achieved using the auger. The bulk sample intervals will be shown on the borehole logs; • Each sample will be weighed using an electronic scale; • Each bulk sample will be passed through a sieve with a 7.1mm aperture and inspected for the presence of fibre cement. If the soils are cohesive in nature, the samples will be subsequently placed on a contrasting support (blue tarpaulin) and inspected for the presence of fibre cement. Any soil clumps/nodules will be disaggregated; • The condition of fibre cement or any other suspected asbestos materials will be noted on the field records; and • If observed, any fragments of fibre cement in the bulk sample will be collected, placed in a zip-lock bag and assigned a unique identifier. Calculations for asbestos content will be undertaken based on the requirements outlined in Schedule B1 of NEPM (2013), as summarised in Section 5.1. Bulk samples in unpaved areas will be taken from the top 100mm, then each distinct fill profile thereafter, with a minimum of one sample per 1m depth of each fill profile.

Aspect	Input
	A calibration/check of the accuracy of the scale used for weighing the fibre cement fragments will be undertaken using a set of calibration weights. Calibration/check records are maintained on file by JKE. The scale used to weigh the 10L samples will not be calibrated, however this is not considered significant as this method of providing a weight for the bulk sample is considered to be considerably more accurate than applying a nominal soil density conversion.
Field Screening of HGG	A portable landfill gas analyser (GFM 436) will be used to screen the annulus of the large diameter boreholes (focussing on locations 101, 102 and 103 in the deep fill mound) drilled with the excavator for HGG. Readings will be undertaken at regular intervals throughout the depth of filling and will be recorded on field logs.
Decontami-nation and Sample Preservation	Sampling personnel will use disposable nitrile gloves during sampling activities. Re-usable sampling equipment will be decontaminated between sampling events using a Decon and potable water solution, followed by a rinse in potable water. Soil samples will be preserved by immediate storage in an insulated sample container with ice. On completion of the fieldwork, the samples may be stored temporarily in fridges in the JKE warehouse before being delivered in the insulated sample container to a NATA registered laboratory for analysis under standard chain of custody (COC) procedures.

4.3 Groundwater Sampling Plan and Methodology

The groundwater sampling plan and methodology proposed for the ACI is outlined in the table below:

Table 4-2: Proposed Groundwater Sampling Plan and Methodology

Aspect	Input
Sampling Plan	Groundwater monitoring wells will be installed in BH121 (MW121) and BH122 (MW122). The wells will be positioned to provide groundwater contaminant information in the immediate vicinity of the USTs in the south of the site. Groundwater samples will also be collected from three existing monitoring wells (MW18, MW26 and MW29), which were previously positioned for site coverage. Considering the topography and the location of the nearest down-gradient water body, MW18 is considered to be in the up-gradient area of the site and expected to provide an indication of groundwater flowing onto (beneath) the site from the south. MW26 and MW29 are considered to be in the intermediate to down-gradient area of the site and expected to provide an indication of groundwater flowing across (beneath) the site and beyond the down-gradient site boundary. MW121 is targeted to the down-gradient location of the USTs and MW122 is targeted to the up-gradient location of the USTs. It is noted that groundwater wells cannot be installed in the vicinity of the northern-most UST due to drilling depth restrictions associated with the Sydney Metro tunnel reserves.
Monitoring Well Installation Procedure	The monitoring well construction details will be documented on the appropriate borehole logs. The monitoring wells will be installed to depths of approximately 6 to 7mBGL. The wells will generally be constructed as follows: • 50mm diameter Class 18 PVC (machine slotted screen) installed in the lower section of the well to intersect groundwater;

Aspect	Input
	• 50mm diameter Class 18 PVC casing installed in the upper section of the well (screw fixed); • A 2mm sand filter pack used around the screen section for groundwater infiltration; • A hydrated bentonite seal/plug used on top of the sand pack to seal the well; and • A gatic cover installed at the surface with a concrete plug to limit the inflow of surface water. The monitoring well installation, including the screen lengths, is considered suitable for assessment of general groundwater quality with regards to Table 5 in Schedule B2 of NEPM 2013.
Monitoring Well Development	The monitoring wells will be developed after installation using a submersible electrical pump. The existing wells will also be re-developed due to the passage of time. During development, the following parameters will be monitored using calibrated field instruments: • SWL, using an electronic dip meter; and • pH, temperature, electrical conductivity (EC), dissolved oxygen (DO) and redox potential (Eh) using a multi-probe water quality meter. Steady state conditions are considered to have been achieved when the difference in the pH measurements is less than 0.2 units, the difference in conductivity is less than 10%, and when the SWL is not in drawdown. In the event that groundwater in-flow is relatively slow, the development will continue until the wells are effectively dry. The field monitoring records and calibration data will be included in the ACI report.
Groundwater Sampling	The monitoring wells will be allowed to recharge for approximately five to seven days after development. Prior to sampling, the monitoring wells will be checked for the presence of Light Non-Aqueous Phase Liquids (LNAPL) using an inter-phase probe electronic dip meter. The monitoring well head space will be checked for VOCs using a calibrated PID unit. The samples will be obtained using a peristaltic pump/disposable plastic bailer. During sampling, the following parameters will be monitored using calibrated field instruments: • SWL using an electronic dip meter; and • pH, temperature, EC, DO and Eh using a YSI Multi-probe water quality meter. Steady state conditions is considered to have been achieved when the difference in the pH measurements is less than 0.2 units, the difference in conductivity is less than 10%, and when the SWL was not in drawdown. Groundwater samples will be obtained directly from the single use PVC tubing and placed in the sample containers. Duplicate samples are to be obtained by alternate filling of sample containers. This technique is adopted to minimise disturbance of the samples and loss of volatile contaminants associated with mixing of liquids in secondary containers, etc. Groundwater removed from the wells during development and sampling will be transported to JKE in jerry cans and stored in holding drums prior to collection by a licensed waste water contractor for off-site disposal. The field monitoring record and calibration data will be included in the ACI report.
Decontaminant and Sample Preservation	During development, the development pump and hose will be flushed between monitoring wells with a potable water and Decon solution, followed by a pulse of potable water (single-use tubing will be used for each well). This will also occur for the inter-phase probe electronic dip meter during development and sampling. The groundwater sampling process utilises a peristaltic pump and single-use tubing, therefore no decontamination procedure for the sampling is considered necessary.

Aspect	Input
	The samples will be preserved with reference to the analytical requirements and placed in an insulated container with ice or ice bricks. On completion of the fieldwork, the samples may be temporarily stored in a fridge at the JKE office, before being delivered in the insulated sample container to a NATA registered laboratory for analysis under standard COC procedures.

4.4 Soil Vapour Sampling Plan and Methodology

The soil vapour sampling plan and methodology proposed for the ACI is outlined in the table below:

Table 4-3: Proposed Soil Vapour Sampling Plan and Methodology

Aspect	Input
Sampling Plan	Soil vapour samples will be collected from sub-slab vapour pins at seven locations shown on Figure 6. Considering the identified sources (USTs and commercial printing/publishing), the locations are considered to be appropriate to address the objectives of the SAQP.
Set-out and Sampling Equipment	The sampling locations will be set out using a tape measure. Samples will be collected using laboratory-supplied canisters using the USEPA TO-15 sampling method from sub-slab vapour pins.
Vapour pin Installation	Soil vapour pins will be installed by JKE in the sub-slab zone directly beneath the base of the concrete slab. A 16mm diameter hammer hole will be advanced through the slab and sealed with a temporary vapour pin. A copy of the Standard Operating Procedure (SOP) for Installation and Extraction of the Vapour Pin is attached in Appendix B. Prior to sampling, the sub-slab soil gas conditions will be allowed to re-equilibrate for at least 60 minutes before soil vapour sampling.
Soil vapour Sampling (USEPA TO-15)	Soil vapour sampling will utilise single-use tubing and other sampling apparatus (e.g, soil vapour pins, canisters, flow restrictors), therefore no fieldwork-phase decontamination procedures are considered necessary. The NATA registered laboratory will supply JKE with the sampling apparatus which will include a "*Certificate of Cleanliness*" confirming that the canisters are clean. The following procedures are to be implemented for soil vapor sampling: • Leak detection will be undertaken by placing a cloth soaked in isopropyl alcohol (IPA) into the shroud. At the soil vapour sampling location, a laboratory supplied syringe will be used to draw air from within the shroud through a thermal desorption carbon tube which will be analysed for IPA; • A shut in/leak test will be undertaken to test the integrity of the vacuum on the sample train. Once the shut-in/leak test is passed, this will be recorded on the COC documents; • Approximately 300mL of air is to be purged through the sample collection pathway using laboratory supplied syringe. The purged volume is to be recorded on the COC; • Once the above has been completed, the following procedure is implemented for soil vapour sampling: ➢ Connect the female connector to the Teflon tubing extending from the soil vapour pin to the sampling train (note: these will already be connected from the purging stage) and then to the canister; ➢ Open the valve on the canister and the sample will begin to collect in the canister. The vacuum gauge on the canister will be checked to ensure that a vacuum of approximately -26 to -30" Hg is present within the canister. The initial vacuum level and initial sampling time will be recorded on the COC;

Aspect	Input
	➢ Sampling should continue until a vacuum level of approximately -5 to -4" Hg is present within the canister, with sampling stopped by closing the valve on the canister. The final vacuum level and final sampling time will be recorded on the COC; ➢ Disconnect the canister and the sample train. Following completion of soil vapour sampling the soil vapour pins are to be extracted as per the SOP attached in Appendix B; and • Duplicate samples will be obtained simultaneously using a splitter piece. 1L canisters will be utilised with flow restrictors set to between 50-100mL/minute. On completion of the fieldwork, the soil vapour samples may be temporarily stored prior to delivery to a NATA registered laboratory for analysis under standard COC procedures and within recommended holding times.
Field and Meteorological Data	A portable landfill gas analyser (GFM) will be connected to the gas fitting at each location following sampling. Concentrations of methane (CH_4), carbon dioxide (CO_2), oxygen (O_2), hydrogen sulphide (H_2S), carbon monoxide (CO) and hexane will be recorded on the field sheets. Barometric pressure, wind speed and temperature will be recorded on the day of monitoring, based on data downloaded from the Bureau of Meteorology (BOM) for the nearest weather station that reports this information.

4.5 Laboratory Analysis and Proposed Analytical Schedule

Samples will analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. The laboratory details are provided in the table below:

Table 4-4: Laboratory Details

Samples	Laboratory
All primary samples and field QA/QC samples including intra-laboratory duplicates, trip blanks, trip spikes, field rinsate and shroud samples	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)
Inter-laboratory duplicates	Envirolab Services Pty Ltd VIC, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)

For the ACI, an allowance has been made for the following analysis:

- Up to 60 selected soil samples for: heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc); PAHs; TRH; and BTEX;
- Up to 40 selected soil samples for: OCP; OPP; and PCBs;
- Up to 60 selected soil samples (500mL) for asbestos using laboratory quantification (gravimetric) methods;
- Up to 10 selected FCF, if found on or in soil, analysed for asbestos;
- Up to 10 selected soil samples will be analysed for EC;
- Up to six targeted soil samples will be analysed for pH; CEC; and clay content for the calculation of ecological SAC for selected metals;

- Up to five selected soil samples will be analysed for VOCs;
- Targeted toxicity characteristic leachate procedure (TCLP) analysis for selected metals and PAHs for waste classification purposes;
- Up to seven soil vapour sample analysed for VOCs (including BTEX), naphthalene and selected TRHs; and
- Up to five groundwater samples for: heavy metals; TRH/BTEX; low level PAHs; VOCs; pH; EC; and hardness.

The soil analysis will generally target the fill soils and the first contact of natural soils. Deeper samples may be analysed based on the results of the shallow soils and site observations. A staged approach to soil sample analysis has been undertaken to allow for targeting areas based on the results of the initial analysis round.

We note that the analytical method for TO-15 will only enable analysis of TRH F2 in the C_{10}-C_{12} fractions and does not cover >C_{12}-C_{16}. However, for the purposes of the vapour screening this method is considered more accurate and reliable than the TO-17.

5 SITE ASSESSMENT CRITERIA (SAC)

The following SAC derived from the NEPM 2013 and other guidelines, as discussed in the following sub-sections, will be adopted for the ACI.

5.1 Soil

Soil data will be compared to relevant Tier 1 screening criteria in accordance with NEPM (2013) as outlined below.

5.1.1 Human Health

- Health Investigation Levels (HILs) for a 'commercial/industrial' exposure scenario (HIL-D);
- Health Screening Levels (HSLs) for a 'commercial/industrial' exposure scenario (HSL-D). HSLs were calculated based on conservative assumptions including a 'sand' type and a depth interval of 0m to 1m;
- HSLs for direct contact presented in the CRC Care Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[4]; and
- Asbestos was assessed against the HSL-D criteria. A summary of the asbestos criteria is provided in the table below:

Table 5-1: Details for Asbestos SAC

Guideline	Applicability
Asbestos in Soil	The HSL-D criteria will be adopted for the assessment of asbestos in soil. The SAC adopted for asbestos are derived from the NEPM 2013 and based on the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[5]. The SAC include the following: • No visible asbestos at the surface/in the top 10cm of soil; • <0.05% w/w bonded asbestos containing material (ACM) in soil; and • <0.001% w/w asbestos fines/fibrous asbestos (AF/FA) in soil. Concentrations for bonded ACM concentrations in soil are based on the following equation which is presented in Schedule B1 of NEPM (2013): $$\text{\% w/w asbestos in soil} = \frac{\text{\% asbestos content x bonded ACM (kg)}}{\text{Soil volume (L) x soil density (kg/L)}}$$ However, we are of the opinion that the actual soil volume in a 10L bucket varies considerably due to the presence of voids, particularly when assessing cohesive soils. Therefore, each bucket sample was weighed using electronic scales and the above equation was adjusted as follows (we note that the units have also converted to grams): $$\text{\% w/w asbestos in soil} = \frac{\text{\% asbestos content x bonded ACM (g)}}{\text{Soil weight (g)}}$$

[4] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

[5] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

5.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for a 'commercial/industrial' exposure scenario. Though the NEPM (2013) requires only the top 2m of soil to be compared to EILs and ESLs, JKE has compared all results to the EILs and ESLs to account for potential cut/fill activities during the redevelopment of the site;
- The criterion for benzo(a)pyrene has been increased from the value presented in NEPM (2013) based on the Canadian Soil Quality Guidelines[6];
- ESLs were adopted based on the soil type;
- EILs for selected metals will be calculated based on the most conservative added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values presented in the document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[7] as an initial screen; and
- Where the initial screen identified exceedances of the EILs, representative samples will be analysed for soil pH and CEC. Arithmetic averages will be calculated based on the soil types (i.e. coarse vs fine etc). The average concentrations will then be used to select the ACL values presented in Schedule B(1) of NEPM (2013). This method is considered to be adequate for the Tier 1 screening.

5.1.3 Management Limits for Petroleum Hydrocarbons

Management limits for petroleum hydrocarbons (as presented in Schedule B1 of NEPM 2013) will be considered.

5.1.4 Waste Classification

Data for the waste classification assessment will be assessed in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (2014)[8] as outlined in the following table:

Table 5-2: Waste Categories

Category	Description
General Solid Waste (non-putrescible)	• If Specific Contaminant Concentration (SCC) ≤ Contaminant Threshold (CT1) then Toxicity Characteristics Leaching Procedure (TCLP) not needed to classify the soil as general solid waste; and • If TCLP ≤ TCLP1 and SCC ≤ SCC1 then treat as general solid waste.
Restricted Solid Waste (non-putrescible)	• If SCC ≤ CT2 then TCLP not needed to classify the soil as restricted solid waste; and • If TCLP ≤ TCLP2 and SCC ≤ SCC2 then treat as restricted solid waste.
Hazardous Waste	• If SCC > CT2 then TCLP must be undertaken to classify the soil as hazardous waste; and • If TCLP > TCLP2 and/or SCC > SCC2 then treat as hazardous waste.
Virgin Excavated Natural Material (VENM)	Natural material (such as clay, gravel, sand, soil or rock fines) that meet the following:

[6] Canadian Council of Ministers of the Environment, (1999). *Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)* (referred to as the Canadian Soil Quality Guidelines)

[7] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

[8] NSW EPA, (2014). *Waste Classification Guidelines, Part 1: Classifying Waste.* (referred to as Waste Classification Guidelines 2014)

Category	Description
	• That has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial mining or agricultural activities; • That does not contain sulfidic ores or other waste; and • Includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a notice published in the NSW Government Gazette.

The ACI will also include a high-level assessment of the soil data in the deep fill mound, in relation to the Excavated Natural Material (ENM) criteria, based on the respective exemption/order.

5.2 Soil Vapour

Soil vapour data will be assessed against the HSL-D and interim HIL-D concentrations presented in Schedule B1 of NEPM (2013). Conservatively the HSLs will be derived using a 0-1m depth interval and a sand soil type.

For VOC compounds detected above the PQL and for which there are no NEPM (2013) SAC, the USEPA vapour intrusion screening level calculator will be used to derive screening criteria based on a target cancer risk (TCR) of $1x10^{-5}$ for non-threshold/carcinogenic compounds and target hazard quotient (THQ) of 1 for threshold/non-carcinogenic compounds.

5.3 Groundwater

Groundwater data will be compared to relevant Tier 1 screening criteria in accordance with NEPM (2013), following an assessment of environmental values in accordance with the Guidelines for the Assessment and Management of Groundwater Contamination (2007)[9]. Environmental values for the ACI include aquatic ecosystems, human uses (incidental contact and recreational water use), and human-health risks in non-use scenarios (vapour intrusion).

5.3.1 Human Health

- The NEPM (2013) HSLs are not applicable for this project as bedrock has previously been encountered at depths shallower than 2m. On this basis, JKE have undertaken a site-specific assessment (SSA) for the Tier 1 screening of human health risks posed by volatile contaminants in groundwater. The assessment included selection of alternative Tier 1 criteria that are considered suitably protective of human health. These criteria are based on drinking water guidelines and have been referred to as HSL-SSA. The criteria are based on the following:
  - Australian Drinking Water Guidelines 2011 (updated 2021)[10] for BTEX compounds and selected VOCs;
  - World Health Organisation (WHO) document titled Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality

[9] NSW Department of Environment and Conservation, (2007). *Guidelines for the Assessment and Management of Groundwater Contamination.*

[10] National Health and Medical Research Council (NHMRC), (2021). *National Water Quality Management Strategy, Australian Drinking Water Guidelines 2011* (referred to as ADWG 2011)

(2008)[11] for petroleum hydrocarbons. We have conservatively adopted the value of 100µg/L for TRH F1 and F2;

- USEPA screening levels for naphthalene (threshold value for tap water); and
- The use of the laboratory PQLs for other contaminants where there are no Australian guidelines.

- The ADWG 2011 will be multiplied by a factor of 10 to assess potential risks associated with incidental/recreational-type exposure to groundwater (e.g. within down-gradient water bodies, with bore water used for irrigation, or with seepage water in the basement). These have been deemed as 'recreational' SAC.

5.3.2 Environment (Ecological - aquatic ecosystems)

Groundwater Investigation Levels (GILs) for 95% protection of freshwater species will be adopted based on the Default Guideline Values in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018)[12]. The 99% trigger values will be adopted where required to account for bioaccumulation. Low and moderate reliability trigger values will also be adopted for some contaminants where high-reliability trigger values don't exist.

[11] World Health Organisation (WHO), (2008). *Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality* (referred to as WHO 2008)

[12] Australian and New Zealand Governments (ANZG), (2018). *Australian and New Zealand Guidelines for Fresh and Marine Water Quality.* Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia (referred to as ANZG 2018)

6 ACI REPORTING REQUIREMENTS

A ACI report is to be prepared presenting the results of the investigation, generally in accordance with the NSW EPA Consultants Reporting on Contaminated Land, Contaminated Land Guidelines (2020)[13].

[13] NSW EPA, (2020). *Consultants Reporting on Contaminated Land, Contaminated Land Guidelines*

7 LIMITATIONS

The report limitations are outlined below:

- This SAQP was developed based on the information available, as documented in this plan. There is always a potential that the proposed investigation will identify contamination impacts (actual or potential) that trigger a need for further investigation;
- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The plan is based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The preparation of this report has been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or landuse. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors
This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions
Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data
Site investigations identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an investigation indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Investigation Limitations
Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Investigation Report

Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the investigation. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the investigation. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

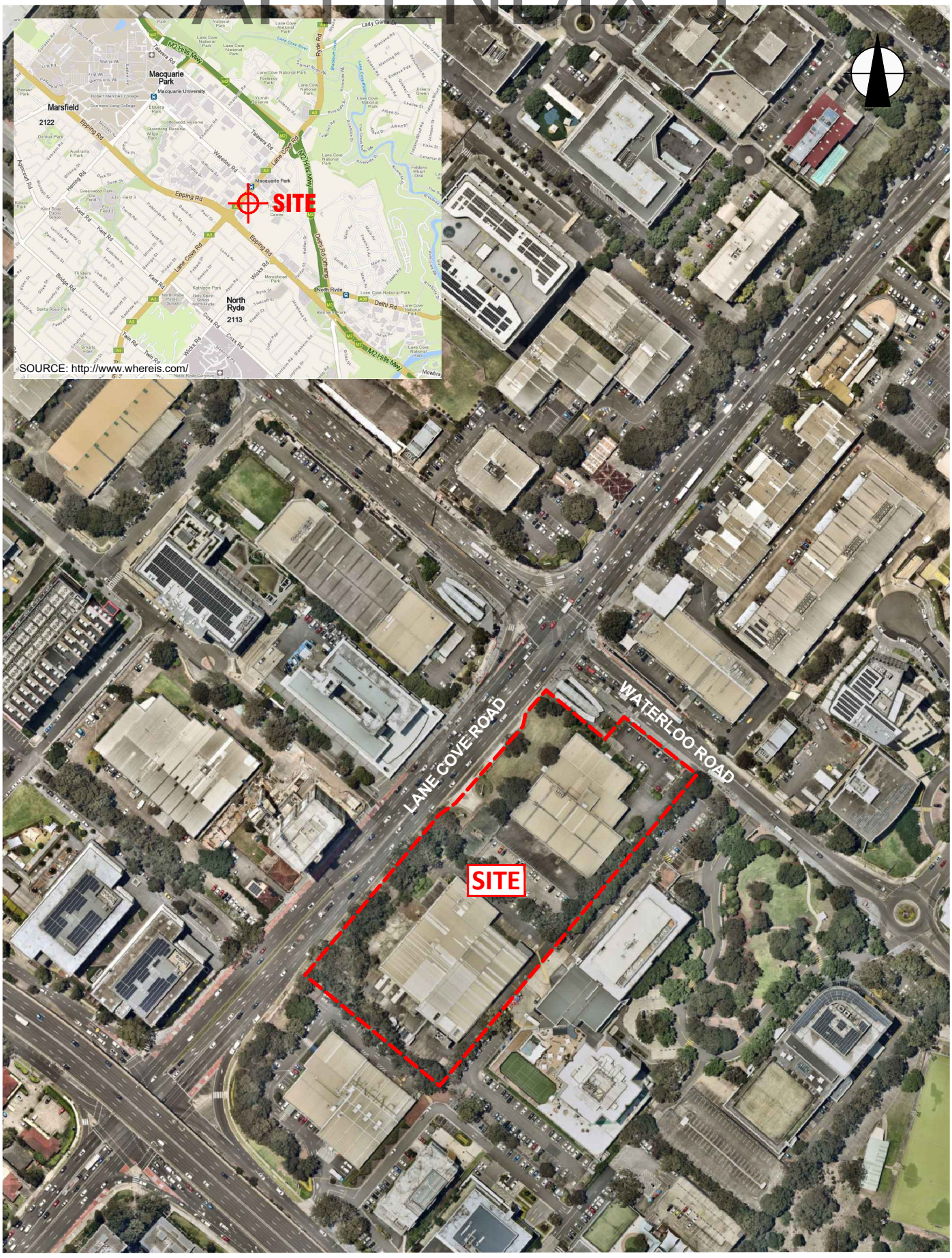
To reduce the likelihood of borehole and test pit log misinterpretation, the complete investigation should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely

Because an environmental site investigation is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site investigation, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.

Appendix A: Report Figures

APPENDIX 1



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

This plan should be read in conjunction with the Environmental report.

Title:	**SITE LOCATION PLAN**
Location:	34 WATERLOO ROAD, MACQUARIE PARK, NSW
Project No:	E36466PR
Figure No:	1

JKEnvironments

PLOT DATE: 12/01/2024 12:07:08 PM DWG FILE: K:\SC EIS JOBS\36000'S\E36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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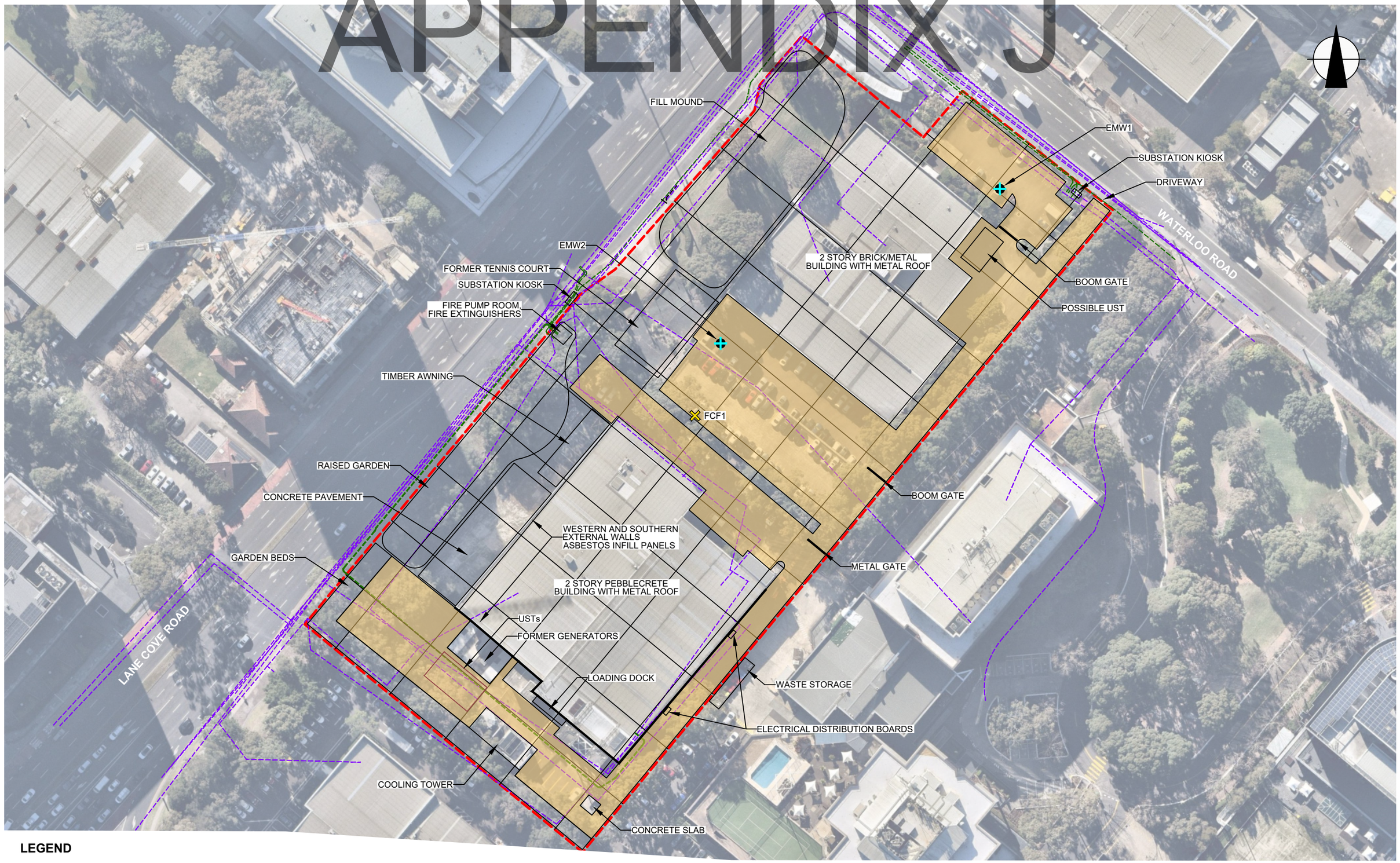
APPENDIX J



LEGEND

- APPROXIMATE SITE BOUNDARY
- CONCRETE AND ASPHALT HARDSTANDS
- EXISTING MONITORING WELL LOCATION
- FCF(Surface) FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
- APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
- APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SITE FEATURES PLAN**

Location: 34 WATERLOO ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 2

JKEnvironments

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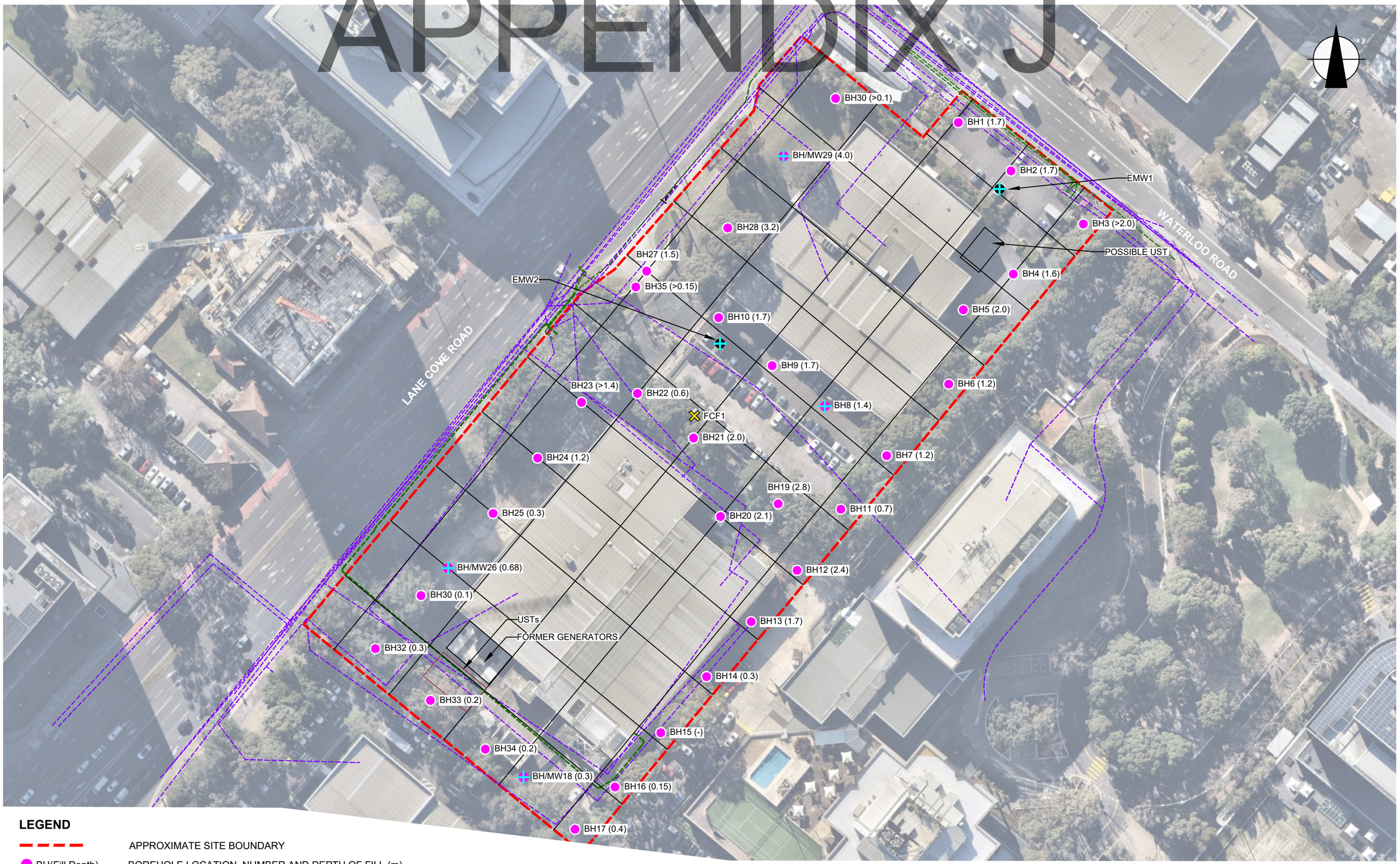

LEGEND

APPROXIMATE SITE BOUNDARY	
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
FCF(Surface)	FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
	EXISTING MONITORING WELL LOCATION
	APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
	APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SAMPLE LOCATION PLAN**

Location: 34 WATERLOO ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 3

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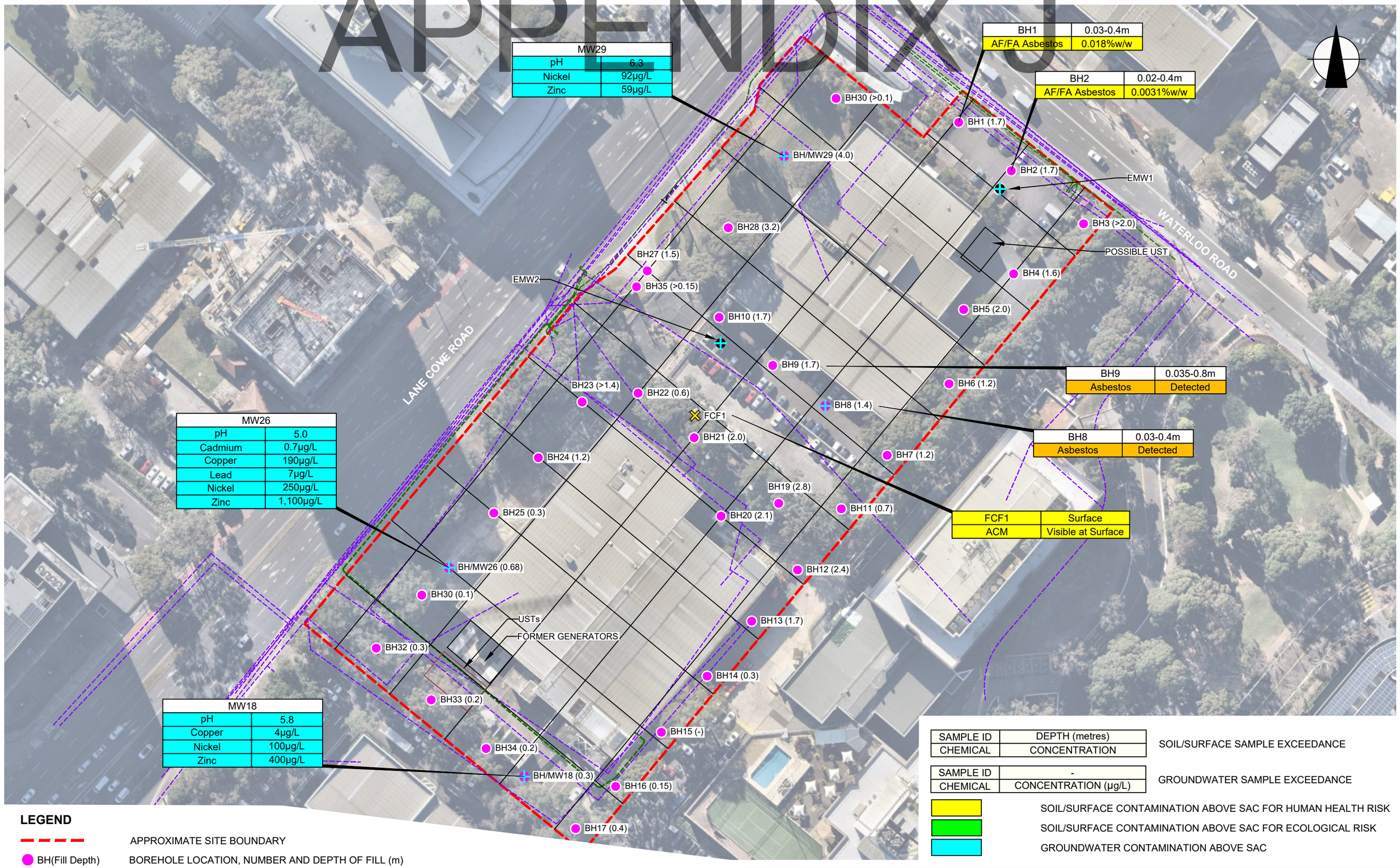
APPENDIX J



SAMPLE ID	DEPTH (metres)
CHEMICAL	CONCENTRATION

SOIL/SURFACE SAMPLE EXCEEDANCE

SAMPLE ID	-
CHEMICAL	CONCENTRATION (µg/L)

GROUNDWATER SAMPLE EXCEEDANCE

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR HUMAN HEALTH RISK

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK

GROUNDWATER CONTAMINATION ABOVE SAC

LEGEND

- APPROXIMATE SITE BOUNDARY
- BH(Fill Depth) BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
- BH/MW(Fill Depth) BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
- FCF(Surface) FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
- EXISTING MONITORING WELL LOCATION
- APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
- APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SAC EXCEEDANCE PLAN**

Location: 34 WATERLOO ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 4

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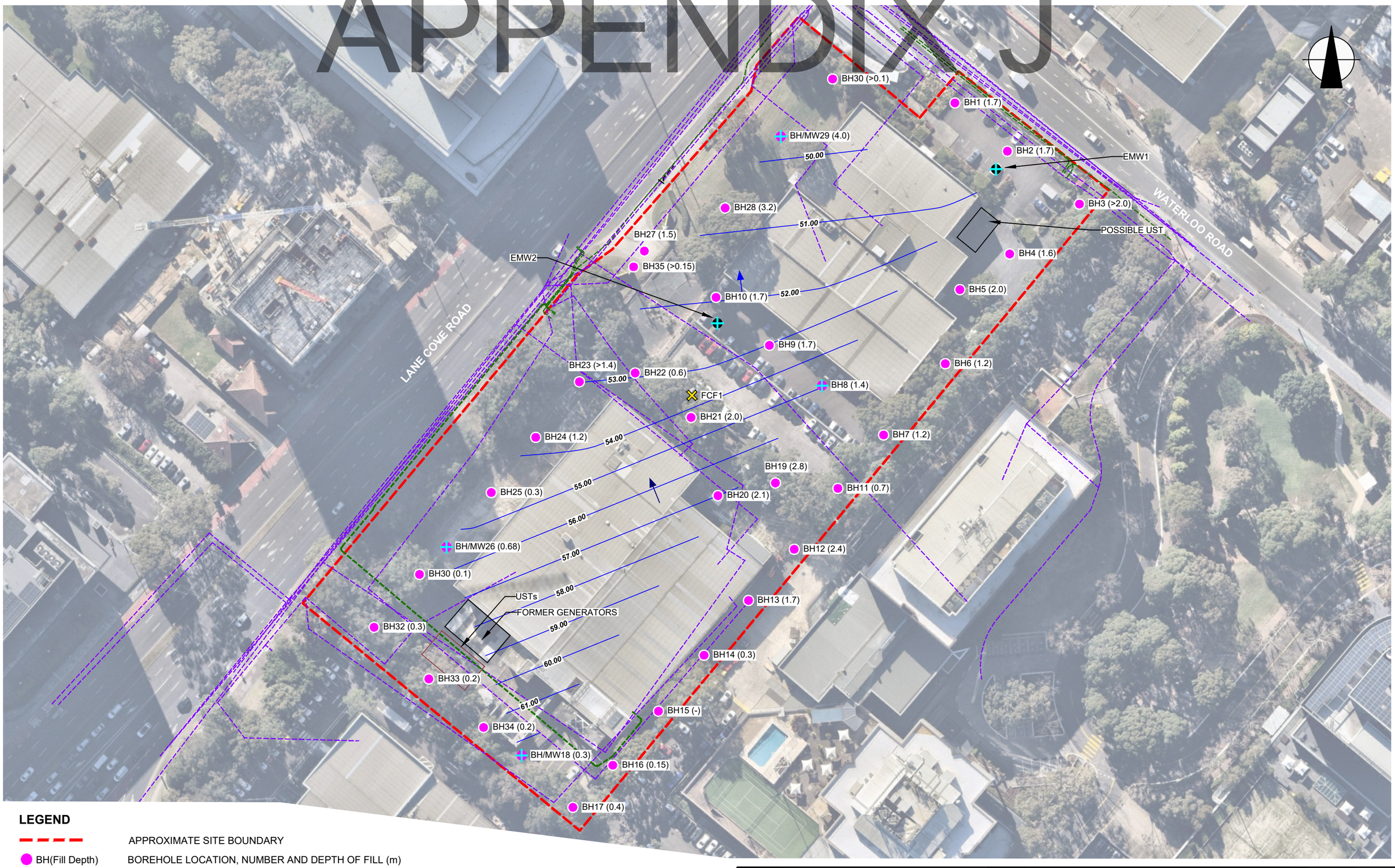
APPENDIX J



LEGEND

APPROXIMATE SITE BOUNDARY	
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
FCF(Surface)	FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
	EXISTING MONITORING WELL LOCATION
54.00	GROUNDWATER CONTOUR INTERVALS (m)
	INFERRED GROUNDWATER FLOW DIRECTION

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **GROUNDWATER CONTOUR PLOT**

Location: 34 WATERLOO ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 5

JKEnvironments

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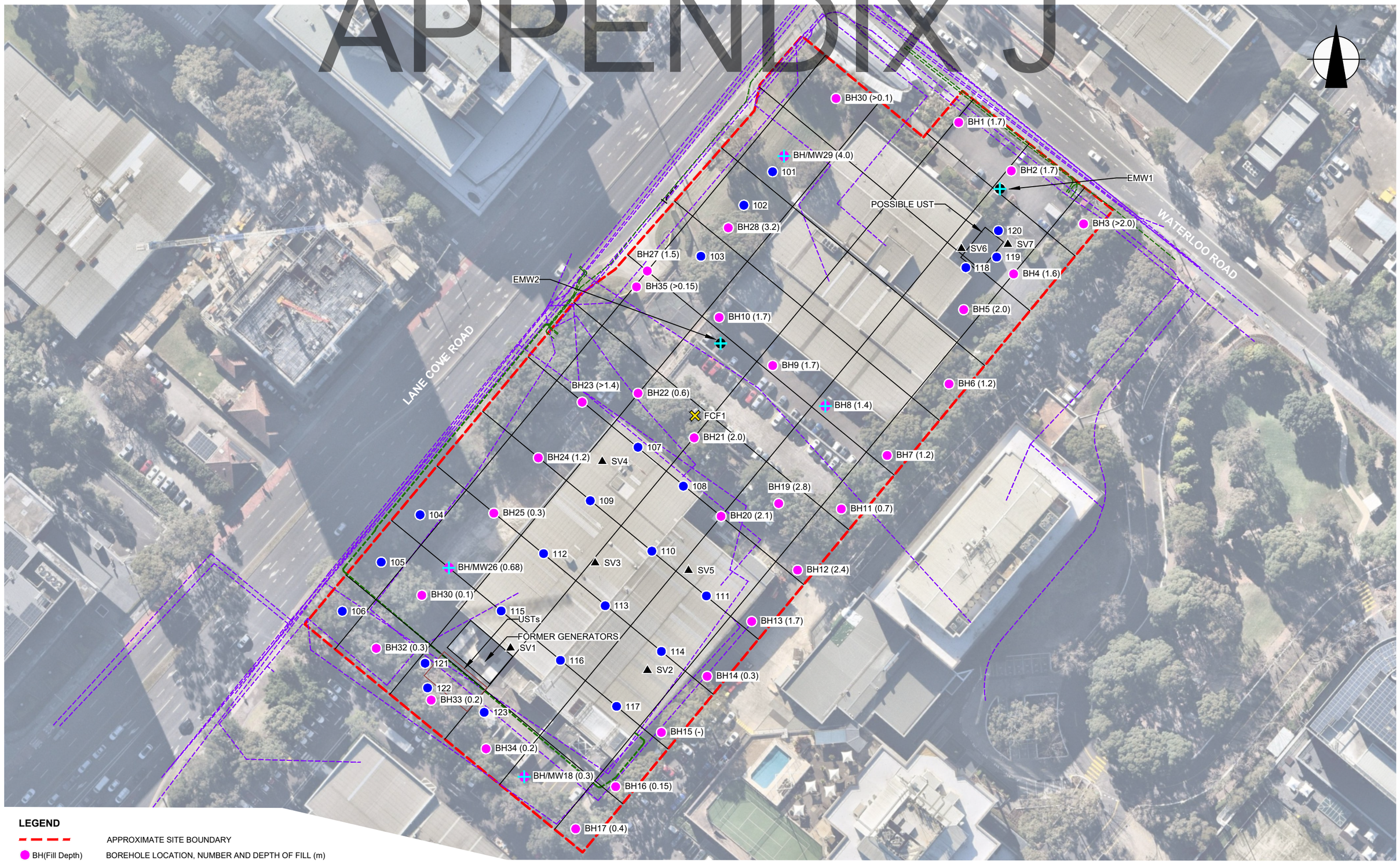
APPENDIX J



LEGEND

	APPROXIMATE SITE BOUNDARY
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
FCF(Surface)	FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
	EXISTING MONITORING WELL LOCATION
	APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
	APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES
101	PROPOSED SAMPLE LOCATION AND NUMBER
▲	PROPOSED SOIL VAPOR PIN LOCATION AND NUMBER

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **PROPOSED SAMPLE LOCATION PLAN**

Location: 34 WATERLOO ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 6

JKEnvironments

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Appendix B: Soil Vapour Pin Installation and Removal Procedure

APPENDIX J

Cox-Colvin & ASSOCIATES, INC. ENVIRONMENTAL SERVICES

Standard Operating Procedure Installation and Extraction of the Vapor Pin™

March 16, 2012

Scope:

This standard operating procedure describes the installation and extraction of the Vapor Pin™[1] for use in sub-slab soil-gas sampling.

Purpose:

The purpose of this procedure is to assure good quality control in field operations and uniformity between field personnel in the use of the Vapor Pin™ for the collection of sub-slab soil-gas samples.

Equipment Needed:

- Assembled Vapor Pin™ [Vapor Pin™ and silicone sleeve (Figure 1)] - Because of sharp edges, gloves are recommended for sleeve installation;
- Hammer drill;
- 5/8-inch diameter hammer bit (Hilti™ TE-YX 5/8" x 22" #00206514 or equivalent);
- 1½-inch diameter hammer bit (Hilti™ TE-YX 1½" x 23" #00293032 or equivalent) for flush mount applications;
- ¾-inch diameter bottle brush;
- Wet/dry vacuum with HEPA filter (optional);
- Vapor Pin™ installation/extraction tool;
- Dead blow hammer;
- Vapor Pin™ flush mount cover, as necessary;
- Vapor Pin™ protective cap; and
- VOC-free hole patching material (hydraulic cement) and putty knife or trowel.

Figure 1. Assembled Vapor Pin™.

Installation Procedure:

1) Check for buried obstacles (pipes, electrical lines, etc.) prior to proceeding.

2) Set up wet/dry vacuum to collect drill cuttings.

3) If a flush mount installation is required, drill a 1½-inch diameter hole at least 1¾-inches into the slab.

4) Drill a 5/8-inch diameter hole through the slab and approximately 1-inch into the underlying soil to form a void.

5) Remove the drill bit, brush the hole with the bottle brush, and remove the loose cuttings with the vacuum.

6) Place the lower end of Vapor Pin™ assembly into the drilled hole. Place the small hole located in the handle of the extraction/installation tool over the Vapor

[1] Cox-Colvin & Associates, Inc., designed and developed the Vapor Pin™; a patent is pending.

Pin™ to protect the barb fitting and cap, and tap the Vapor Pin™ into place using a dead blow hammer (Figure 2). Make sure the extraction/installation tool is aligned

Figure 2. Installing the Vapor Pin™.

parallel to the Vapor Pin™ to avoid damaging the barb fitting.

For flush mount installations, unscrew the threaded coupling from the installation/extraction handle and use the

Figure 3. Flush-mount installation.

hole in the end of the tool to assist with the installation (Figure 3).

During installation, the silicone sleeve will form a slight bulge between the slab and the Vapor Pin™ shoulder. Place the

Figure 4. Installed Vapor Pin™.

protective cap on Vapor Pin™ to prevent vapor loss prior to sampling (Figure 4).

7) For flush mount installations, cover the Vapor Pin™ with a flush mount cover.

8) Allow 20 minutes or more (consult applicable guidance for your situation) for the sub-slab soil-gas conditions to equilibrate prior to sampling.

9) Remove protective cap and connect sample

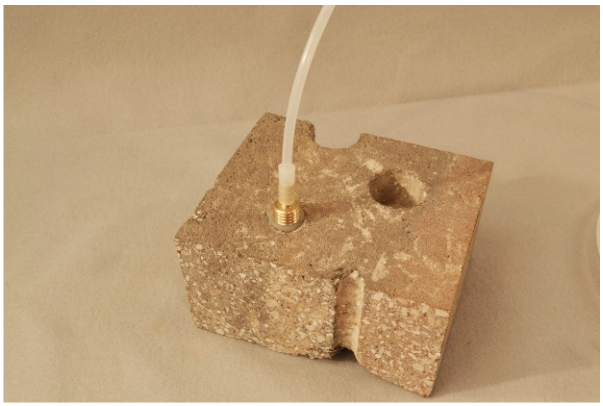

Figure 5. Vapor Pin™ sample connection.

tubing to the barb fitting of the Vapor Pin™ (Figure 5).

10) Conduct leak tests [(e.g., real-time

monitoring of oxygen levels on extracted sub-slab soil gas, or placement of a water dam around the Vapor Pin™) Figure 6].

Figure 6. Water dam used for leak detection.

Consult your local guidance for possible tests.

11) Collect sub-slab soil gas sample. When finished sampling, replace the protective cap and flush mount cover until the next sampling event. If the sampling is complete, extract the Vapor Pin™.

Extraction Procedure:

1) Remove the protective cap, and thread the installation/extraction tool onto the barrel of the Vapor Pin™ (Figure 7). Continue turning the tool to assist in extraction, then pull the Vapor Pin™ from the hole (Figure 8).

Figure 7. Removing the Vapor Pin™.

Figure 8. Extracted Vapor Pin™.

2) Fill the void with hydraulic cement and smooth with the trowel or putty knife.

3) Prior to reuse, remove the silicone sleeve and discard. Decontaminate the Vapor Pin™ in a hot water and Alconox® wash, then heat in an oven to a temperature of 130° C.

The Vapor Pin™ to designed be used repeatedly; however, replacement parts and supplies will be required periodically. These parts are available on-line at www.CoxColvin.com.

Replacement Parts:

Vapor Pin™ Kit Case - VPC001
Vapor Pins™ - VPIN0522
Silicone Sleeves - VPTS077
Installation/Extraction Tool - VPIE023
Protective Caps - VPPC010
Flush Mount Covers - VPFM050
Water Dam - VPWD004
Brush - VPB026

Appendix C: Report Explanatory Notes

QA/QC Definitions

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[14] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[15]. The NEPM (2013) is consistent with these documents.

A. Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

B. Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

C. Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

D. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

E. Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;
- All blank data reported;

[14] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)

[15] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide*

- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

F. Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

G. Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

H. Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{\text{(Spike Sample Result – Sample Result) x 100}}{\text{Concentration of Spike Added}}$$

I. Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

J. Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

Appendix D: Guidelines and Reference Documents

Australian and New Zealand Environment Conservation Council (ANZECC), (2000). Australian and New Zealand Guidelines for Fresh and Marine Water Quality

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