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LANE COVE WEST
DEVELOPMENT PTY LTD

Detailed Site Investigation

67 Mars Road, Lane Cove West NSW

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EXECUTIVE SUMMARY

EI Australia (EI) was engaged by Lane Cove West Development Pty Ltd ('the client') to conduct a detailed investigation of 67 Mars Road, Lane Cove West NSW ('the site').

The site is located 8.8km north-west of the Sydney central business district, within the local government area of Lane Cove Council. It comprises one cadastral allotment, identified as Lot 10 in Deposited Plan (DP) 1036457, covering an area of 9431m^2. At the time of this investigation, the land was occupied by a large warehouse and an on-grade parking area (the latter forming the northern-most portion).

Based on the findings of a preliminary investigation of the site, completed by EI in June 2022 (EI Australia Report E25663.E01_Rev0), there was potential for contamination to exist on the land. In accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021*, further investigation was warranted, in order to determine the site's suitability for commercial redevelopment.

The purpose of this detailed site investigation (DSI), therefore, was to determine the contamination status of the land, in support of the corresponding development application to Lane Cove Council. It enables the developer to meet obligations under the *Contaminated Land Management Act 1997* and *State Environmental Planning Policy (Resilience and Hazards) 2021*, in particular the requirements for the assessment and management of contaminated soil and groundwater.

Objectives

The objectives of this investigation were to:

- Assess the nature and degree of any soil and groundwater contamination, by means of intrusive sampling and laboratory analysis for the relevant contaminants of potential concern (COPCs); and
- Make recommendations for the appropriate management of any impacted soils and/or groundwater, should site contamination be confirmed.

Findings

The key findings of this DSI were as follows:

- The site had been used for commercial (warehousing) purposes since the late 1950s. The possible activities included electrical engineering (1956-1980; *Philips Electrical Industries Pty Limited* / *Philips Industries Holdings Pty Limited*) and waste transfer (*Lane Cove Return and Earn*).
- Since its construction (sometime between 1951 and 1961), no major renovations were made to the existing warehouse. After 1978, the northern portion of the property was paved, for formal use as a parking / loading area. Two electricity substations were present along the southern site boundary.
- The local surroundings consisted of vacant and residential properties up to the 1950s, after which time they were increasingly (re)developed for commercial / light industrial purposes.
- The site and surrounding lands within close proximity (≤250m radius) were free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*. The site was not included on the *List of NSW Contaminated Sites Notified to the EPA*.
- No olfactory indicator of contamination (i.e. suspicious odour) was detected during the inspections. Visual indication of site contamination was limited to fragments of fibre cement sheeting in the garden beds along the eastern boundary.

- No visual evidence of infrastructure associated with an underground storage tank was observed on the site. No aboveground storage tank was present.
- Excluding any hardstand, the sub-surface of the site was generalised as a layer of silty clay filling (0-1m thickness), overlying natural (residual), clayey sand and sandy clay, with (weathered) sandstone bedrock occurring from 1.5-5.9m below ground level (BGL) onwards. The potential for acid sulfate soils to be present was very low.
- Laboratory analytical results for the representative fill and natural soil samples were found to comply with the adopted investigation levels applicable to commercial / industrial settings, except for:
  - Zinc in shallow fill at BH114 (1100 mg/kg) and BH117 (640 mg/kg), the concentrations exceeding the adopted ecological investigation level (570 mg/kg); and
  - Bonded asbestos in shallow fill at BH114 and BH117.
- The depth to groundwater was 2.27-4.39m BGL (43.72-51.12m Australian Height Datum), with the inferred hydraulic gradient being north-westerly, flowing towards Lane Cove River. Local groundwater conditions were acidic pH (pH: 3.43-6.41), fresh (electrical conductivity: 33-365 μS/cm) and relatively non-oxidising (anoxic; dissolved oxyden: 0.36-1.82 mg/L).
- Laboratory analytical results for the representative groundwater samples were found to comply with the adopted investigation levels, except for dissolved copper (2-6 µg/L), nickel (BH104M: 11 µg/L) and zinc (17-35 µg/L). The heavy metal concentrations were considered typical of urban environments, indicative of natural (background) conditions, and did not pose a significant risk to any of the identified receptors.

Based on the findings of this DSI, and with consideration of EI's *Statement of Limitations* (**Section 11**), it was concluded that zinc- and asbestos- contaminated filling existed near the mid-eastern, site boundary (at least). As the identified hotspots (BH114 and BH117) were located outside the proposed basement footprint, within designated setback / landscaping areas (i.e. where existing soils would be retained), remediation of the corresponding fill was warranted, in order for the site to be suitable for the commercial redevelopment.

1. INTRODUCTION

1.1 Background and Purpose

EI Australia (EI) was engaged by Lane Cove West Development Pty Ltd ('the client') to conduct a detailed investigation of 67 Mars Road, Lane Cove West NSW (henceforth referred to as 'the site').

The site is located 8.8km north-west of the Sydney central business district (CBD), within the local government area (LGA) of Lane Cove Council (**Figure 1**, **Appendix A**). It comprises one cadastral allotment, identified as Lot 10 in Deposited Plan (DP) 1036457, covering an area of 9431m^2 (**Figure 2**, **Appendix A**). At the time of this investigation, the land was occupied by a large warehouse and an on-grade parking area (the latter forming the northern-most portion).

Based on the findings of a preliminary site investigation (PSI), completed by EI in June 2022 (EI Australia Report E25663.E01_Rev0), there was potential for contamination to exist on the land. The possible sources of contamination were former light industrial activities, imported fill soils of unknown origin and quality, release of hazardous materials from building fabrics, the application of pesticides, leaks from vehicles and oil drums in the parking area, and off-site migration of chemicals from neighbouring commercial properties. In accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021*, further investigation was warranted, in order to determine the site's suitability for commercial redevelopment.

The purpose of this detailed site investigation (DSI), therefore, was to determine the contamination status of the land, in support of the corresponding development application (DA) to Lane Cove Council. It enables the developer to meet obligations under the *Contaminated Land Management Act 1997* and *State Environmental Planning Policy (Resilience and Hazards) 2021*, in particular the requirements for the assessment and management of contaminated soil and groundwater.

1.2 Proposed Development

Based on the supplied plans (**Appendix C**), site redevelopment involved the demolition of existing structures, followed by the construction of a multi-storey, light industrial complex (business park), overlying three levels of basement.

The basement would cover the majority of the site, with its finished floor level at 34.8 meters Australian Height Datum (AHD), requiring bulk excavation to depths of around 9 meters below ground level (BGL). Locally deeper excavations might be required for footings, lift overrun pits, crane pads and service trenches. Landscaped (set-back) areas were proposed for the site boundaries.

1.3 Project Objectives

The objectives of this investigation were to:

- Assess the nature and degree of any soil and groundwater contamination, by means of intrusive sampling and laboratory analysis for the relevant contaminants of potential concern (COPCs); and
- Make recommendations for the appropriate management of any impacted soils and/or groundwater, should site contamination be confirmed.

1.4 Scope of Works

To achieve the above objectives, the following scope of works was completed:

- Review of the previous environmental investigation relating to the site;
- Review of existing underground services on-site, utilising *Dial-Before-You-Dig* plans and electro-magnetic equipment operated by a licensed locator;
- A site walkover inspection;
- Drilling of test boreholes at twenty-one accessible locations across the site (BH101-BH121);
- Multiple level sampling of fill and natural soils at each of the boreholes;
- In-field screening of soil headspace samples for volatile organic compounds (VOCs), using a photo-ionisation detector (PID);
- The installation of a groundwater monitoring well in each of the bores BH104M, BH108M, BH115M and BH120M;
- Completion of a groundwater monitoring event (GME), which included measurement of standing water levels (SWLs) and sampling at the installed wells; and
- Laboratory analysis of selected soil and groundwater samples for the COPCs, as determined from the conceptual site model (CSM) and field observations.

This report documents the desk study findings, the CSM, data quality objectives, sampling methodologies and laboratory analytical results. It also provides a record of observations made during the site walkover inspections, test bore and monitoring well construction logs and a discussion of the results in regards to potential risks to human health and the environment. It concludes with a statement concerning the site's suitability for the proposed (commercial) development.

1.5 Regulatory Framework

The following regulatory framework and guidelines were considered during this DSI:

- *Contaminated Land Management Act 1997* (the CLM Act 1997);
- *Protection of the Environment Operations Act 1997* (the POEO Act 1997);
- *Environmental Planning and Assessment Act 1979* (the EP&A Act 1979);
- *State Environmental Planning Policy (Resilience and Hazards) 2021*;
- *Lane Cove Local Environmental Plan 2009;*
- EPA (2017) *Guidelines for the NSW Site Auditor Scheme;*
- EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*;
- EPA (2022a) *Sampling Design Part 1 - Application*; and
- NEPC (2013) *National Environmental Protection (Assessment of Site Contamination) Amendment Measure 1999.*

2. SITE DESCRIPTION

2.1 Property Identification, Location and Physical Setting

The site identification details and associated information are presented in **Table 2-1**. The site locality and assessment area are illustrated in **Figures 1** and **2**, **Appendix A**.

Table 2-1 Site Identification Details

Attribute	Description
Street Address	67 Mars Road, Lane Cove West NSW
Location and Description	8.8 km north-west of Sydney CBD, bound by Mars Road (south), Sirius Road (west) and light industrial properties (north and east). Rectangular shaped block of land, containing a large warehouse and an on-grade parking area (northern-most portion).
Geographical Coordinates	Northern-eastern corner of site (GDA2020-MGA56): ▪ Easting: 328506.282 ▪ Northing: 6257444.238 (Source: http://maps.six.nsw.gov.au)
Site Area	9431m^2 (**Appendix C**)
Lot and DP	Lot 10 in DP 1036457
State Survey Marks	One permanent and one state survey marks are situated within close proximity to the site: ▪ PM51036: on the corner of Mars and Sirius Roads (approximately 25m southwest); and ▪ SS37221: on Mars Road (approximately 55m northwest). (Source: http://maps.six.nsw.gov.au)
LGA	Lane Cove Council
Parish	Willoughby
County	Cumberland
Current Zoning	IN2: Light Industrial (*Lane Cove Local Environmental Plan 2009*)

2.2 Local Land Use

The site is situated with a commercial / industrial precinct. The local sensitive receptors within close proximity to the site are identified in **Table 2-2.**

Table 2-2 Local Sensitive Receptors

Direction	Land Use Description	Sensitive Receptor (and distance from site)
North	Commercial / industrial properties Nurses for Aged Care Carlile Swimming Lane Cove West	Aged care residents (80m northeast) School users (80m north)
South	Commercial / industrial properties	Building occupants
East	Commercial / industrial properties MindChamps Early Learning & Preschool	Childcare centre users (immediately adjacent)
West	Commercial / industrial properties	Building occupants

2.3 Regional Setting

The topography, (hydro)geology and soil landscape information is summarised in **Table 2-3**.

Table 2-3 Regional Setting Information

Attribute	Description
Topography	The site gently slopes downwards to the north-west. Relative elevations range between 46m and 53m AHD (**Appendix C**).
Drainage	Likely to be consistent with the general slope of the site. Surface runoff is expected to be collected in stormwater pits and piped to the municipal drain system.
Geology	The Department of Mineral Resources *Sydney 1:100,000 Geological Series Sheet 9130* (DMR, 1983) indicates the site is underlain by Hawkesbury Sandstone (*Rh*), consisting of medium to coarse-grained quartz sandstone, very minor shale and laminate lenses.
Soil Landscape	The Soil Conservation Service of NSW *Soil Landscapes of the Sydney 1:100,000 Sheet* (Chapman and Murphy, 1989) indicates that the site overlies a Glenorie (*gn*) residual landscape. This landscape is characterised by undulating to rolling low hills on Wianamatta Group shales.
Acid Sulfate Soil (ASS) Risk	With reference to the *Prospect / Parramatta River Acid Sulfate Soil Risk Map* (1:25,000 scale; Murphy, 1997), the site lies within an area of '*No Known Occurrence*'. In such cases, ASSs are not known or expected to occur and "land management activities are not likely to be affected by ASS materials." The site is not classified on the *Lane Cove Local Environmental Plan 2009 - Acid Sulfate Soil Map*, further proof that the potential for ASS to be present on-site was low. Given the site's high elevation (46-53m AHD), as well as the above map information, the potential for ASS presence on-site was considered to be low and further assessment was unwarranted.
Nearest Surface Water Feature	Lane Cove River, approximately 400m north-west of the site. Lane Cove River flows in a south easterly direction, draining into Parramatta River.
Groundwater Bore Records and Groundwater Flow Direction	A search for groundwater bores registered with WaterNSW, conducted as part of the EI (2022) preliminary investigation (**Section 2.4**), revealed no registered bores within a 500m radius of the site. Groundwater flow direction in the area was inferred to be north-westerly, towards Lane Cove River.

2.4 Site Walkover Inspections

Observations were recorded during walkover inspections of the site, conducted on 31 May and 15 and 16 September 2022. These observations are summarised below. Refer also to **Appendix D** of this report, as well as Appendix D of the EI (2022) PSI, for site photographs.

- The site was located in a predominantly light industrial area. The activities included warehousing, wholesales and mixed businesses. Heavy industries were not present.
- The site surface displayed a gentle down slope to the northwest. The Lane Cove River was located approximately 400m northwest of the site.
- The site was a rectangular shaped block of land. A large warehouse covered the majority of the area. An on-grade parking area, accessible from Sirius Road, formed the northern-most portion of the site.
  - At the time of this investigation, the southern warehouse was formerly occupied by *Australian Electoral Commissi*on (AEC), while the northern parking area was utilised by *Lane Cove Return and Earn*.
  - The building was in fair to good condition.

- Fibre cement sheeting (FCS), all of which was potential asbestos-containing material (ACM), formed parts of the building fabric, including the eaves, roofing and flooring. Given the state and colours of the building surface coatings, lead-based paints were likely to be present.
- The concrete and asphalt paving of the northern car parking area displayed cracking, weathering and surface (oil-like) staining.
- Two electricity substations were present along the southern site boundary.
- Waste materials, including oil drums, construction materials and general office / household items, were present in the parking area.
- Accessible soils were present along the site boundaries. Some fragments of FCS were observed in the garden beds along the eastern site boundary.
- A range of plants was present on the site and within the areas adjacent to it, including small to large (mature) trees, grasses and weeds. The vegetation did not appear to be distressed, indicating that phytotoxicity was not an issue for local soils.
- No visual evidence of infrastructure associated with an underground storage tank (UST) was observed on the site. No above-ground storage tank (AST) was present.
- No olfactory indicator of contamination (i.e. suspicious odour) was detected during the inspection.
- There was no NSW Fire and Rescue Station (or Training College) in the vicinity (<100m) of the site.

3. PREVIOUS INVESTIGATION

A previous (preliminary) investigation had been completed for the site by EI, which was documented under the following report:

- EI (2022a) *Preliminary Site Investigation; 67 Mars Road, Lane Cove West NSW* (EI Australia Reference E25663.E01_Rev0, dated 3 June 2022).

A summary of the key findings of this PSI is provided in **Table 3-1**.

Note: A hazardous materials survey of the existing warehouse was documented under EI (2022b) *Hazardous Materials Survey; 67 Mars Road, Lane Cove West NSW* (EI Australia Reference E25663.E10_Rev0, dated 7 June 2022). This survey confirmed the presence of asbestos- and metal-containing products, including lead-based paints.

Table 3-1 Summary of the Previous Investigation

Project Task	Findings
Objectives	The objectives of the PSI were to: ▪ Provide a qualitative assessment of the environmental condition of the site, by appraising the potential for contamination on the basis of field observations, historical land uses and other documentary evidence; ▪ Make a conclusion about suitability of the site for the proposed (commercial / light industrial) use; and ▪ Make recommendations for further investigation of the site, should the potential for contamination be confirmed.
Scope of Works	The scope of the investigation included: ▪ Review of relevant (hydro)geological and soil landscape maps for the project area; ▪ A search for groundwater bore records within close vicinity (500m radius) of the site; ▪ A site walkover inspection; ▪ Review of site history, based on land titles records, aerial photographs (dating back to 1951) and property files archived by Lane Cove Council; ▪ Searches of public registers maintained by the NSW Environment Protection Authority (EPA) for statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*; ▪ A search of the *List of NSW Contaminated Sites Notified to the EPA*; ▪ Presentation of a CSM; and ▪ Data interpretation and reporting.
History, Description and CSM	The history review established that the site had been used for commercial (warehousing) purposes since the late 1950s. The possible activities included electrical engineering (1956-1980; *Philips Electrical Industries Pty Limited / Philips Industries Holdings Pty Limited*) and waste transfer (*Lane Cove Return and Earn*). Since its construction (sometime between 1951 and 1961), no major renovations were made to the warehouse which existed on the site. After 1978, the northern portion of the property was paved, for formal use as a parking / loading area. Two electricity substations were present along the southern site boundary. The local surroundings consisted of vacant land and residential properties up to the 1950s, after which time they were increasingly (re)developed for commercial / light industrial purposes. Both the site and close surroundings (≤250m radius) were free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*. The site was not included on the *List of NSW Contaminated Sites Notified to the EPA*. No suspicious odour was detected during the site inspection. FCS formed parts of the building fabric, including the eaves, roofing and flooring. The paving of the northern car parking area displayed cracking, weathering and surface (oil-like) staining. Waste materials, including oil drums, construction materials and general office / household items, were present in the parking area. Some fragments of FCS were observed in the garden beds along the eastern site boundary.

Project Task	Findings
	There was no evidence that an underground storage tank had been installed on the site. No aboveground storage tank was present. The sub-surface conditions were expected to be a layer of filling (≤1m thickness), overlying natural, residual sandy clay soils and (weathered) sandstone bedrock. The potential for ASSs to be present on the site was very low. A shallow (<3m below ground level) groundwater table was unlikely. The local groundwater flow direction was inferred to be north-westerly, towards Lane Cove River. The CSM established there was potential for contamination to be present within the site area. The possible sources of contamination were former light industrial activities, imported fill soils of unknown origin and quality, release of hazardous materials from building fabrics, the application of pesticides, leaks from vehicles and oil drums in the parking area, and off-site migration of chemicals from neighbouring commercial properties.
Conclusion	EI concluded that there was potential for contamination to exist on the site. Further investigation was warranted, in order to determine the land's suitability for the proposed (commercial / light industrial) development.
Recommendations	EI provided the following recommendations in relation to the proposed development: ▪ A Stage 2 DSI should be undertaken, to further assess soil and groundwater quality on the property. The DSI should include intrusive sampling and associated laboratory analysis for the identified COPCs. ▪ Following building / pavement demolition and removal of associated wastes, an inspection of the exposed surface should be performed by a suitably qualified environmental consultant. This inspection would coincide with the asbestos clearance program. ▪ All soil materials designated for off-site disposal, including any *virgin excavated natural material* (VENM), must be pre-classified in accordance the EPA (2014) *Waste Classification Guidelines*. ▪ Any material being imported to the site should be validated as suitable for the intended (residential) use, in accordance with EPA guidelines. In particular, imported filling / landscaping material must be certified as meeting the VENM classification, prior to importation. EI emphasised that these recommendations could be managed through the development application process.

4. CONCEPTUAL SITE MODEL

In accordance with NEPC (2013) *Schedule B2 - Guideline on Site Characterisation*, a CSM was developed as part of the EI (2022a) preliminary investigation, which assessed plausible linkages between potential contamination sources, migration pathways and receptors. It is hereby summarised, taking into account the findings from EI's additional walkover inspections and anecdotal information supplied by the client.

4.1 Summary of Site History

The site had been used for commercial (warehousing) purposes since the late 1950s. The possible activities included electrical engineering (1956-1980; *Philips Electrical Industries Pty Limited* / *Philips Industries Holdings Pty Limited*) and waste transfer (*Lane Cove Return and Earn*).

Since its construction (sometime between 1951 and 1961), no major renovations were made to the warehouse which still existed on the site. After 1978, the northern portion of the property was paved, for formal use as a parking / loading area. Two electricity substations were present along the southern site boundary.

The local surroundings consisted of vacant land and residential properties up to the 1950s, after which time they were increasingly (re)developed for commercial / light industrial purposes.

4.2 Predicted Subsurface Conditions

The sub-surface conditions were expected to be a layer of filling (≤1m thickness), overlying natural, residual sandy clay soils and (weathered) sandstone bedrock. The potential for ASS to be present on the site was very low.

A shallow (<3m BGL) groundwater table was unlikely. The local groundwater flow direction was inferred to be north-westerly, towards Lane Cove River.

4.3 Potential Contamination Sources

The potential contamination sources were as follows:

- Former and current on-site commercial / light industrial activities, including electrical engineering (1956-1980) and waste transfer;
- Imported fill materials of unknown origin and quality, used to grade and level the site;
- Surface deposition of hazardous materials, such as ACM, lead-based paints, metallic objects, oils and polychlorinated biphenyls (PCBs), due to weathering of exposed building fabrics and the presence of two electricity substations;
- Application of pesticides around building (footing) perimeters;
- Leaks from vehicles / oil drums in the parking area; and
- Off-site migration from neighbouring commercial / light industrial properties.

4.4 Contaminants of Potential Concern

The COPCs at the site were considered to be:

- Priority Metals (PM) - arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc;
- Total Recoverable Hydrocarbons (TRHs);
- Volatile Organic Compounds (VOCs); including
  - Chlorinated VOCS (CVOCs); and

  - The monocyclic aromatic hydrocarbons benzene, toluene, ethylbenzene, xylenes (BTEX);
- Polycyclic Aromatic Hydrocarbons (PAHs);
- Phenols;
- Organochlorine and Organophosphorus Pesticides (OCPs / OPPs);
- Polychlorinated Biphenyls (PCBs);
- Cyanides;
- Per- and Poly- Fluoroalkyl Substances (PFASs); and
- Asbestos.

Note: Other chemicals regulated by the EPA under a control order were not deemed to be COPCs.

4.5 Risk Assessment

An assessment of the potential contamination risks for the site is outlined in **Table 4-1**.

Table 4-1 Assessment of Potential Contamination Risk

Potential Source	Impacted Medium	COPC	Risk of Contamination
On-site commercial / light industrial activities	Soil	PM, TRH, VOC (BTEX), PAH, phenols, PCB, cyanide, PFAS, asbestos	**Moderate to High** Site currently occupied by a waste recycling business in the northern part of the warehouse. The southern portion was formerly occupied by AEC. No gross contamination was observed; however, previous commercial activities and two substations pose concern.
Importation of fill of unknown origin and quality	Soil	PM, TRH, BTEX, PAH, OCP, OPP, PCB, asbestos	**Moderate** Shallow filling was expected on the site. No gross contamination was noted during the site visit.
Hazardous building materials	Building fabrics Near surface soil	PM (lead in particular), PCB, asbestos	**High** Hazardous building materials were present in various locations. Fragments of FCS were also observed in the garden beds along the eastern site boundary. Two substations are on-site.
Application of pesticides	Near surface soil (building footing areas)	PM (arsenic and copper), OCP, OPP	**Low** If present, pesticides are expected to be limited to shallow, building footprint soils.
Leakage from vehicles / oil drums	Near surface soil	PM, TRH, VOC (BTEX), PAH, phenols, PCB, cyanide, PFAS, asbestos	**Moderate** The surface pavements were noted to be in poor condition, with major cracks and staining. Waste oil drums had been stored in the parking area.
Migration from off-site sources	Soil Groundwater	PM, TRH, VOC (BTEX), PAH, phenols, cyanide, PFAS	**Low to Moderate** Current local activities included warehousing, wholesales and mixed businesses. Heavy industries were not present. However, given the long-term industrial use of the area, the migration risk still had to be considered.

4.6 Identified Receptors

The following potential receptors of site contamination were identified:

- Current site users / occupiers;
- On-site demolition / construction workers (during future redevelopment);
- Users of the adjacent land during future demolition / construction works;
- Future site users; and
- Local groundwater and (ultimately) Lane Cove River.

A summary of the CSM, identifying the potential contamination sources, exposure pathways and human and environmental receptors, is presented in Table 4-2.

4.7 Data Gaps

Additional intrusive (soil and groundwater) sampling and analysis were required, to better assess the contamination risks. The gaps, or decisions, requiring closure were:

- Are there contaminants present within the site at levels which pose unacceptable risk(s) to the local sensitive receptors?
- Are soil and/or groundwater conditions at the site suitable for the proposed use?

Where soils and/or groundwater were found to be unsuitable, recommendations would have to be made regarding the remediation strategy for the site.

Table 4-2 Preliminary Conceptual Site Model

Potential Source	Impacted Medium	CCPCs	Transport Mechanism	Exposure Pathway	Potential Receptor
On-site commercial / light industrial activities Imported fill of unknown origin and quality Hazardous building materials Application of pesticides Leakage from vehicles / oil drums Off-site migration	Soil	PM, TRH, VOC (BTEX), PAH, phenols, PCB, cyanide, PFAS, asbestos	Disturbance of surface and subsurface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	Ingestion Dermal contact Inhalation of particulates	Current and future site occupier Demolition / construction workers Adjacent site users Future intrusive workers
			Atmospheric dispersion from soil to outdoor and indoor air spaces		
			Volatilisation of contamination from soil and diffusion to indoor air spaces.	Inhalation of vapours	
	Groundwater	Dissolved PM, TRH, VOC (BTEX and CVOC), PAH, phenols, cyanide, PFAS	Volatilisation of contamination from groundwater to indoor or outdoor air spaces (onsite and offsite)	Inhalation of vapours Ingestion Dermal contact	Current and future site occupier Demolition / construction workers Adjacent site users Future intrusive workers
			Migration of dissolved phase impacts in groundwater via diffusion and advection	Biota uptake	Lane Cove River

Footnote: Site workers during demolition / construction are assumed to use personal protective equipment (PPE), as per SafeWork NSW regulations

5. METHODOLOGY

5.1 Sampling, Analytical and Quality Plan

The sampling, analytical and quality plan (SAQP) ensures that the data collected during environmental works are representative and provided a robust basis for assessment decisions. The SAQP for this investigation included the following:

- Data quality objectives (DQOs), including a summary of the objectives of this investigation;
- Investigation methodology, including the media to be sampled, details of analytes and parameters to be monitored and a description of the rationale for intended sampling points;
- Sampling procedures (including sample handling, preservation and storage);
- Field screening methods;
- Laboratory analysis methods; and
- Analytical quality assurance / quality control (QA/QC).

5.2 Data Quality Objectives

In accordance with the NEPC (2013) *Schedule B2 Guideline on Site Characterisation*, the USEPA (2006) *Data Quality Assessment* and EPA (2017) *Guidelines for the NSW Site Auditor Scheme*, DQOs were developed by the EI investigation team, following the NEPM- / NSW EPA-endorsed, seven step process (**Table 5-1**). In doing so, the appropriate levels of data quantity and quality needed for the specific requirements of the project were established.

Table 5-1 Summary of Project Data Quality Objectives

DQO Step	Details
1. State the Problem Summarise the contamination problem that will require new environmental data, and identify the resources available to resolve the problem; develop a conceptual site model.	Site designated for redevelopment, involving the demolition of existing structures, followed by the construction of a multi-storey, light industrial complex (business park), overlying three levels of basement (**Section 1.2**). The previous investigation (**Section 3**) and CSM considered there was potential for contamination. The site thus required detailed investigation of the nature and degree of any soil and groundwater contamination, in support of the development application to Lane Cove Council and enable the developer to meet its obligations under *State Environmental Planning Policy 2021* and the *Contaminated Land Management Act 1997*. Analytical results to be compared against criteria relevant to commercial / industrial settings.
2. Identify the Goal of the Study (Identify the decisions) Identify the decisions that need to be made on the contamination problem and the new environmental data required to make them.	The decisions for this DSI concerned the following questions: ▪ Has the nature, extent and source of any soil and/or groundwater impacts onsite been defined? ▪ What impact do the local (hydro)geological conditions have on the fate and transport of any contaminants that may be present? ▪ Does the level of impact coupled with the fate and transport of potential contaminants represent an unacceptable risk to identified human and/or environmental receptors on- or off- site? ▪ Does the collected data provide sufficient information to allow the selection and design of an appropriate remedial strategy, if necessary? ▪ If the data does not provide sufficient information, what data gaps require closure to enable the suitability of the site to be determined, or selection and design of an appropriate remedial strategy?
3. Identify Information Inputs (Identify inputs to decision) Identify the information needed to support any decision and specify which inputs require new environmental measurements.	Inputs to the decision making process included: ▪ The proposed development plans and land use; ▪ Findings of the EI (2022a) PSI; ▪ National and EPA guidelines endorsed under the *NSW Contaminated Land Management Act 1997*; ▪ Observations obtained from an intrusive investigation in locations and to depths deemed appropriate for assessment purposes; and ▪ Laboratory analysis of selected samples for the COPCs. At the end of the DSI, a decision had to be made regarding whether the environmental conditions were suitable for the proposed redevelopment, or if additional assessment / remedial works were required to make the site suitable.
4. Define the Boundaries of the Study Specify the spatial and temporal aspects of the environmental media that the data must represent to support decision.	**Lateral** – The investigation was conducted within the cadastral boundaries of the site. **Vertical** – From the ground surface, down to the deepest depth of borehole drilling (6.1m BGL). **Temporal** – Results were valid on the day of data / sample collection and remain valid as long as no changes occur on site or contamination (if present) does not migrate on site or on to the site from off-site sources.

DQO Step	Details
5. Develop the Analytic Approach (Develop a decision rule) To define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for choosing from alternative actions.	The decision rules for the investigation were: ▪ Where individual concentrations of contaminants and/or the 95% Upper Confidence Limit (UCL) of the average concentration for a contaminant of concern exceeds the NEPC (2013) criteria for the land use scenario (as defined in **Section 5.5**) then an unacceptable risk to the end site user is identified; or ▪ Where individual concentrations of contaminants and the 95% UCL for a contaminant of concern does not exceed the NEPC (2013) criteria for the land use scenario (as defined in **Section 5.5**) then no unacceptable risk to the end site user is identified and the site is suitable for the prosed use. All data must meet the prescribed DQOs/DQIs to be acceptable for use.
6. Specify Performance or Acceptance Criteria (Specify limits on decision errors) Specify the decision-maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data.	Specific limits for this project were in accordance with National and EPA guidance, and appropriate indicators of data quality and standard procedures for field sampling and handling. Laboratory test results were accepted if: ▪ All contracted laboratories were accredited by NATA for the analyses undertaken; ▪ All laboratory analytical data were within pre-determined assessment criteria, in accordance with laboratory QA/QC policies and DQOs; ▪ QA/QC results demonstrated acceptable reliability and representativeness of the data set; and ▪ Laboratory limits of reporting (LOR) were below the adopted assessment criteria for the tested COPC. The principal decision rule for the investigation was: ▪ If the concentrations of chemicals in the soil / groundwater exceeded the adopted assessment criteria, then determine the need to further investigate the extent of impact(s) on-site. ▪ Decision criteria for QC measures are defined by the Data Quality Indicators (DQIs) outlined in **Table 5-2**.
7. Develop the Detailed Plan for Obtaining Data (Optimise the design for obtaining data) Identify the most resource-effective sampling and analysis design for general data that are expected to satisfy the DQOs.	In order to achieve the most resource-effective sampling and analysis design and generate data that satisfied the DQO: ▪ Fill and natural soil sampling was conducted at 21 boreholes (BH101-BH121); ▪ In-field screening of soil headspace samples for VOC contamination was carried out with a portable PID; ▪ Installing groundwater wells in four of the bores (BH104M, BH108M, BH115M and BH120M); ▪ Completion of a single GME, utilising the four installed wells; ▪ Selected, discrete fill / natural soil and groundwater samples were analysed for the COPCs; and ▪ Review of the results, to determine if further sampling was warranted (that being where soil concentrations were found to exceed the adopted criteria endorsed by the EPA, relevant to the proposed land use(s)). During the DSI, written instructions were issued to guide field personnel in the required fieldwork activities. All field works were performed in accordance with EPA guidelines and EI standard operating procedures (SOPs).

5.3 Data Quality Indicators

To ensure that the investigation data were of an acceptable quality, they were assessed against the quality indicators outlined in **Table 5-2**. Assessment of data quality is presented in **Section 6** and **Appendix I**.

Table 5-2 Data Quality Indicators

QA/QC Component	Data Quality Indicator(s)
Precision A quantitative measure of the variability (or reproducibility) of data	Data precision was assessed by reviewing the performance of blind field duplicate sample sets, through calculation of relative percentage differences (RPD). Precision was deemed acceptable if RPDs were found dominantly to be less than 30%. RPDs that exceeded this range were considered acceptable where: ▪ Results were less than 10 times the limits of reporting (LOR); ▪ Results were less than 20 times the LOR and the RPD was less than 50%; or ▪ Heterogeneous materials or volatile compounds were encountered.
Accuracy A quantitative measure of the closeness of reported data to the "true" value	Data accuracy was assessed through the analysis of: ▪ Split field duplicate sample sets; ▪ Field / method blanks, analysed for the analytes targeted in the primary samples; ▪ Matrix spike sample sets; and ▪ Laboratory control samples.
Representativeness The confidence (expressed qualitatively) that data are representative of each medium present onsite	To ensure the data produced by the laboratory were representative of conditions encountered in the field, the following measures were taken: ▪ Blank samples run in parallel with field samples, to confirm there were no unacceptable instances of laboratory artefacts; ▪ Review of RPDs for field and laboratory duplicates to provide an indication that the samples were generally homogeneous, with no unacceptable instances of significant sample matrix heterogeneities; and ▪ The appropriateness of collection methodologies, handling, storage and preservation techniques was assessed to ensure/confirm there was minimal opportunity for sample interference or degradation (i.e. volatile loss during transport due to incorrect preservation / transport methods).
Completeness A measure of the amount of useable data from a data collection activity	Analytical data sets were considered complete upon confirmation that: ▪ SOPs for sampling protocols were adhered to; and ▪ All chain of custody (COC) documentation was properly completed. It could then be determined whether the generated data were sufficient for the purposes of the land use assessment.
Comparability The confidence that data are equivalent for each sampling event	Given that several data sets from separate sampling episodes were required, issues of comparability were reduced through adherence to SOPs and regulator-endorsed or published guidelines and standards on each data gathering activity. In addition the data were collected by experienced samplers and NATA-accredited laboratory methodologies will be employed.

5.4 Sampling Rationale

With reference to the CSM and DQOs, the soil / groundwater sampling and analytical plans were in accordance with the following rationale:

- Multiple level (fill and natural) soil sampling at twenty-one (21) boreholes, located in accessible parts of the site, identified as BH101-BH121, in order to characterise *in situ* materials;
- In-field screening of soil headspace samples for VOCs, using a portable PID;
- Installing a groundwater monitoring well in each of BH104, BH108, BH115 and BH120 (hence identified as BH104M, BH108M, BH115M and BH120M, respectively);

- Completion of a GME, utilising the installed monitoring wells, to characterise local groundwater conditions; and
- Laboratory analysis of representative soil and groundwater samples for the COPCs.

Note: The number of borehole locations (21) complied with the minimum number of points recommended in Table 2 of the EPA (2022a) *Sampling Design Part 1 – Application* for an investigation area of 9431m^2; however, due to the site being covered by a large warehouse and restricted access in the internal areas at the time of the field works, a systematic (square grid) sampling pattern that would enable the detection of a nominated hotspot of 25-26m diameter with 95% level of confidence could not be adopted. Instead, the sampling strategy was more akin to a mixed judgemental / randomised pattern, where access was permissible. The placement of 'targeted' bores in the vicinity of the electricity substations was as close as possible, following guidance from the services locator, to avoid underground surfaces.

5.5 Assessment Criteria

The assessment criteria adopted for this DSI were selected from available published guidelines that are endorsed by national or state regulatory authorities, with due consideration of the exposure scenario that is expected for the site, the likely exposure pathways, and the identified potential receptors. The adopted assessment criteria are outlined in **Table 5-3**.

For the purposes of this DSI, the adopted soil assessment criteria are referred to as the *Soil Investigation Levels* (SILs) and the adopted groundwater assessment criteria are referred to as *Groundwater Investigation Levels* (GILs).

Table 5-3 Adopted Investigation Levels for Soil and Groundwater

Medium	Guidelines	Rationale
Soil	NEPC (2013) HILs, HSLs, EILs, ESLs and Management Limits	**Soil Health-based Investigation Levels (HILs)** NEPC (2013) *HIL-D* thresholds for commercial / industrial settings. **Soil Health-based Screening Levels (HSLs)** NEPC (2013) *HSL-D* thresholds for vapour intrusion in commercial and industrial settings (to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene). **Asbestos *HSL-D*:** ▪ No visible asbestos on the soil surface in all areas of the site; ▪ <0.05% w/w bonded ACM in all areas of the site; ▪ <0.001% w/w friable ACM in all areas of the site. **Ecological Investigation / Screening Levels (EILs / ESLs)** NEPC (2013) EILs/ESLs for commercial/industrial settings were adopted, to assess potential impacts in proposed landscaping areas. EILs / ESLs were considered relevant for any retained soils in the top 2m (root zone). Derived EILs were determined by the addition of a site-specific Added Contaminant Limit and the Ambient Background Concentration for a high traffic NSW suburb. The adopted ESL criteria were based on coarse grained media. **Management Limits for Petroleum Hydrocarbons** Where the HSLs and ESLs for petroleum hydrocarbons were exceeded, sample results were also assessed against the NEPC (2013) *Management Limits* for the F1-F4 TRH fractions, to assess propensity for phase-separated hydrocarbons, fire and explosive hazards and adverse effects on buried infrastructure.
	CRC CARE (2017) high reliability ecological criteria	**High reliability ecological criterion for Benzo(α)pyrene** The CRC Care (2017) high reliability ecological guideline for commercial and industrial settings was used to assess protection of terrestrial ecosystems against benzo(α)pyrene.
	HEPA (2020) values	**Soil Investigation Levels for PFAS** Values from the PFAS National Environmental Management Plan for industrial / commercial settings were adopted for PFASs in soils.

Medium	Guidelines	Rationale
Groundwater	ANZG (2018) GILs for Marine Waters and NEPC (2013) Groundwater HSLs	**Groundwater Investigation Levels (GILs) for Marine Waters** ANZG (2018) provides GILs for typical, slightly-moderately disturbed aquatic ecosystems, including Trigger Values for 95% level of protection of aquatic ecosystems; however, the 99% values were applied for the bio-accumulative analytes. **Health-based Screening Levels (HSLs)** The NEPC (2013) groundwater *HSL-D* thresholds for vapour intrusion in commercial and industrial settings were applied to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene impacts.
	NHMRC (2022) Recreational Criteria	**Recreational Criteria** NHMRC (2022) Recreational Criteria were adopted; where no criterion was available, the lowest NHMRC (2022) Drinking Water threshold was assumed (multiplied by a factor of 10).
	HEPA (2020) interim values for marine ecosystems	**Groundwater Investigation Levels for PFAS** Values from the PFAS National Environmental Management Plan for slightly-moderately disturbed aquatic ecosystems were adopted for PFASs in groundwater.
	NJDEP (2021) screening criteria	Screening criteria for CVOCs from the New Jersey Department of Environmental Protection (2021) *Vapor Intrusion Technical Guidance* were adopted. This guidance is endorsed by the United States Environment Protection Agency and by site auditors in NSW.

5.6 Soil Sampling Methodology

The soil sampling works conducted at the site are described in **Table 5-4**. Sampling locations are illustrated in **Figure 2**, **Appendix A**.

Table 5-4 Summary of Soil Sampling Methodology

Activity/Item	Details
Fieldwork	Conducted on 15 and 16 September 2022. Comprised 21 borehole locations in accessible parts of the site. Prior to drilling, locations were surveyed by a contracted services locator, with assistance from *Dial-Before-You-Dig* plans.
Drilling Method	Test bores BH114 and BH117 were advanced by shovel, and test bores BH110, BH111, BH113, BH118, BH119 and BH121 were advanced by hand auger. The remaining bores were drilled using a mechanical drilling rig, fitted with solid flight augers. The maximum drilling depth was 6.1m BGL. Borehole logs are presented in **Appendix E**.
Soil Logging	Drilled / examined soils were logged in the field in accordance with Australian Standard AS1726-2017. Soil was evaluated on a qualitative basis for visual and olfactory signs of contamination. Soil descriptions are included in the borehole logs (**Appendix E**).
Soil Sampling	Soil samples were collected by dry grab method from the auger flights / bucket (the sampler wearing dedicated nitrile gloves) and placed into laboratory-supplied, acid-washed, solvent-rinsed glass jars and zip-lock, plastic bags (the latter for in-field VOC/PID screening and asbestos samples). Blind and split field duplicates were prepared by collecting a bulk amount of soil and dividing (post mixing) into three separate glass jars.
Soil Vapour Screening	Screening for VOC in soil headspace samples was conducted using a pre-calibrated PID with a 10.6mV ionisation lamp. The calibration certificate for the PID is presented in **Appendix F**.
Decontamination	Nitrile sampling gloves were replaced between each sampling location. The auger flights and bucket were cleaned of all residual soil between each borehole location by washing with a mixture of Alconox and potable water (1/20) until free of all residual materials, then rinsed with water.

Activity/Item	Details
Management of Soil Cuttings	Soil cuttings were used to backfill the completed boreholes.
Sample Preservation and Transport	Sealed sample containers were stored in an insulated chilled chest (with frozen ice packs), whilst on-site and in transit to the contracted laboratories. Chilled sample chests were transported to the primary laboratory (SGS Australia Pty Ltd (SGS)) using chain-of-custody (COC) procedures. Signed COC certificates and sample receipt advice (SRA) were provided by SGS for confirmation purposes (**Appendix G**). Split (inter-laboratory) soil field duplicates were submitted to Envirolab Services Pty Ltd (Envirolab; the secondary laboratory) under strict COC conditions. Signed COC certificates and SRA were provided by Envirolab for confirmation purposes (**Appendix G**).
Laboratory Analysis and Quality Control	Soil samples were analysed by SGS and Envirolab for the COPCs. All samples were analysed within the required holding period, as documented in the corresponding laboratory reports (**Appendix H**). In addition to the split (inter-laboratory) field duplicates (analysed by Envirolab), QC testing comprised one blind (intra-laboratory) field duplicate, an equipment rinsate blank, a laboratory-prepared trip spike soil sample and a laboratory-prepared trip blank soil sample, all analysed by SGS.

5.7 Groundwater Sampling

The groundwater sampling works are described in **Table 5-5**. The monitoring well location is illustrated in **Figure 2**, **Appendix A**.

Table 5-5 Summary of Groundwater Sampling Methodology

Activity/Item	Details
Fieldwork	Four groundwater monitoring wells (BH104M, BH108M, BH115M and BH120M) were installed on 15 and 16 September 2022. A single GME, involving water level gauging, well purging, field testing and groundwater sampling, was completed on 23 September 2022.
Well Construction	Well construction was in general accordance with the standards described in NUDLC (2012) and involved the following: ▪ 50mm, Class 18 uPVC, threaded, machine-slotted screen and casing; ▪ Base and top of each well was sealed with a uPVC cap; ▪ Annular, graded sand filter was used to approximately 300 mm above top of screen interval; ▪ Granular bentonite was applied above annular filter to seal the screened interval; ▪ Cuttings backfilled to just below ground level; and ▪ Surface completion comprised of a stick-up section of pipe, a plastic J-cap closing the well and a gatic cover at ground level. Head elevations at each monitoring well were extrapolated using the spot elevations provided on survey plans provided by the client. Well construction details are provided in **Table 7-3**.
Well Development	Well development was conducted immediately after installation. The development process involved the removal of water and accumulated sediment within the full length of the water column using a dedicated, high density polyethylene (HDPE), disposable bailer. Bailing was continued until no further reduction in suspended sediment was observed (i.e. after removal of several well volumes of water).
Well Gauging	Monitoring wells were gauged to determine SWL prior to groundwater purging and sampling. Gauging was conducted with a water/oil interface probe.
Well Purging, Field Testing and Sampling	Groundwater was purged and sampled by a low-flow / minimal draw-down method, using a peristaltic pump with dedicated tubing. During the purging process, water was continuously measured for field parameters (temperature (T), electrical conductivity (EC), reduction-oxidation potential (Redox), dissolved oxygen (DO) and pH) using a *Hanna Multi Parameter 9829* positioned within an open flow-through cell. Once water quality parameters stabilised (i.e. within ± 10% for DO, ± 3% for EC, ± 0.05 for pH, ± 0.2° for temperature and ± 20mV for redox), groundwater sampling was

Activity/Item	Details
	undertaken, by diverting the outlet of the bladder pump (immediately before the flow cell) to the sampling vials and bottles. Refer to **Appendix F** for all field data sheets.
Decontamination Procedure	Sampling equipment (interface probe and water quality kit probes) were decontaminated between uses by washing in a solution of potable water and PFAS-free detergent, then rinsed with potable water. Decontamination was not required for the sampling pump, as dedicated disposal bladders and tubing were used for sampling at each individual well. Dedicated gloves were used for the collection of each sample.
Sample Containers and Preservation	Sample containers were supplied by the laboratory with the following preservatives: ▪ one, 1 litre amber glass, acid-washed and solvent-rinsed bottle; ▪ two, 40ml glass vials, pre-preserved with dilute hydrochloric acid, Teflon-sealed; ▪ one, 250mL, HDPE bottle, pre-preserved with dilute nitric acid (1mL); and ▪ one, PFAS bottle container. Samples for metals analysis were field-filtered using 0.45 µm pore-size membranes. All containers were filled with sample to the brim then capped and stored in insulated chests (containing ice bricks), until completion of the fieldwork and during sample transit to the laboratory.
Sample Transport	After sampling, the ice brick filled chests were transported to SGS using strict COC procedures. SRA was provided by the laboratory to document sample condition upon receipt. Copies of the SRA and COC certificates are presented in **Appendix G**. A split (inter-laboratory) field duplicate was submitted to Envirolab under strict COC procedures. Signed COC certificates and sample receipt documentation were provided by Envirolab for contamination purposes (**Appendix G**).
Laboratory Analysis and Quality Control	Groundwater samples were analysed by SGS and Envirolab for the COPCs. All samples were analysed within the required holding period, as documented in the corresponding laboratory reports (**Appendix H**). In addition to the split (inter-laboratory) field duplicate (analysed by Envirolab), QC testing comprised a blind (intra-laboratory) field duplicate, an equipment rinsate blank, a laboratory-prepared, trip spike water sample and a laboratory-prepared, trip blank water sample, all tested by SGS.

6. DATA QUALITY ASSESSMENT

The assessment of data quality is defined as the scientific and statistical evaluation of environmental results to determine if they meet the objectives of the project (USEPA, 2006). For this DSI, data quality assessment involved an evaluation of the compliance of the field (sampling) and laboratory procedures with established protocols, as well as the accuracy and precision of the associated results from the quality control measures. The findings are summarised in **Table 6-1** and discussed in detail in **Appendix I**.

In summary, the overall quality of the analytical data from this DSI was considered to be of an acceptable standard for interpretive use and preparation of an updated CSM.

Table 6-1 Quality Assurance Process

Stage	Control	Conformance [Yes, Part, No]	Report Section(s)
Preliminaries	DQOs and DQIs established	Yes	See **Sections 5.2** and **5.3**
Field Work	Suitable documentation of fieldwork observations including borehole logs and field notes.	Yes	See **Appendices E** and **F**
Sampling Plan	Use of relevant and appropriate sampling plan (density, type, and location)	Yes	See **Section 5.4**
	All media sampled and duplicates collected	Yes	See **Appendices E, F, H**
	Use of approved and appropriate sampling methods	Yes	See **Sections 5.6** and **5.7**
	Selection of soil samples according to field PID readings (where VOCs are present)	Yes	See **Section 7**
	Preservation and storage of samples upon collection and during transport to laboratory	Yes	See **Sections 5.6** and **5.7**
	Appropriate field rinsate and trip blanks taken	Yes	See **Appendices E, F, H**
	Completed field and analytical laboratory sample COC procedures and documentation	Yes	See **Appendix G**
Laboratory	Sample holding times within acceptable limits	Yes	See **Appendices H, I, J**
	Use of appropriate analytical procedures and NATA-accredited laboratories	Yes	See **Appendices H, I, J**
	LOR low enough to meet adopted criteria	Yes	See **Appendices H, I, J**
	Laboratory blanks	Yes	See **Appendices H, I, J**
	Laboratory duplicates	Yes	See **Appendices H, I, J**
	Matrix spikes	Yes	See **Appendices H, I, J**
	Surrogates	Yes	See **Appendices H, I, J**
	Analytical results for replicated samples, including field and laboratory duplicates, expressed as RPD	Yes	See **Appendices H, I, J**
	Checking for the occurrence of apparently unusual or anomalous results (e.g. laboratory results that appear to be inconsistent with field observations or measurements)	Yes	See **Appendices B, E, F**
Reporting	Report reviewed by senior staff to assess project meets NSW EPA guidelines and objectives	Yes	See **Document Control**

7. RESULTS

7.1 Soil

Sub-Surface Conditions

Based on the borehole logs (and excluding any hardstand), the sub-surface of the site was generalised as a layer of silty clay filling (0-1m thickness), overlying natural (residual), clayey sand and sandy clay, with (weathered) sandstone bedrock occurring from 1.5-5.9m BGL onwards. The potential for ASS to be present on the site was very low.

More details encountered during the soil investigation by EI are provided in **Table 7-1** and borehole logs are presented in **Appendix E**.

Table 7-1 Generalised Sub-Surface Profile

Layer	Description	Minimum - Maximum Depth (m BGL)
Hardstand	Asphalt / Concrete	0-0.30
Fill	Silty CLAY; low to medium plasticity, yellow / dark brown, with plastic and FCS fragments, plant rootlets.	0.1-1.0
Natural	Clayey SAND; fine to coarse grained, mottled yellow / orange / pink / red brown and light grey, with medium to high plasticity clay, traces of sub-angular gravels and weathered sandstone / shale fragments.	0.1-6.0
	Sandy CLAY; medium plasticity, mottled orange / red brown and grey, with fine to coarse grained (poorly graded) sand, trace of weathered sandstone / shale fragments.	0.2-6.1
Bedrock	SANDSTONE	1.5-5.9

Field Observations and PID Results

Soil samples were collected from the test bores at various depths ranging between 0.1-2.3m BGL. All examined soils were evaluated on a qualitative basis for odour and visual signs of contamination (e.g. hydrocarbon odours, oil staining, petrochemical filming, asbestos fragments, ash, and charcoal) and the following observations were noted:

- A slight hydrocarbon odour was detected in the fill materials at BH103. An organic odour was detected in the shallow fill at BH121.
- No soil staining was observed in any of the examined soils.
- Fragments of potential ACM were observed in the shallow fill at BH114 and BH117.
- No ash and slag was observed in any of the examined soils.
- VOC concentrations in soil headspace samples were screened in-field using a portable PID. All VOC concentrations were low (<1 parts per million (ppm).
- No evidence of actual or potential ASSs was encountered in any of the examined soils.
- Groundwater seepage was encountered in BH104M (at 3.5m BGL), BH108M (at 3.5m BGL), BH115M (at 4.0m BGL) and BH120M (at 3.5m BGL).

Laboratory Analytical Results

A summary of the laboratory analytical results for the tested (representative) soil samples is presented in **Table 7-2**. More detailed tabulation is presented in **Table T-1**, **Appendix B**.

All results were found to comply with the adopted SILs applicable to commercial / industrial settings, except for zinc and asbestos in the fill soils at BH114 and BH117.

Table 7-2 Summary of Soil Analytical Results

Number of Primary Samples	Analyte	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Samples Exceeding SILs
Priority Metals (total)				
27	Arsenic	<1	9	None
27	Cadmium	<0.3	0.3	None
27	Chromium	1.5	40	None
27	Copper	<0.5	33	None
27	Lead	1	100	None
27	Mercury	<0.05	0.09	None
27	Nickel	<0.5	30	None
27	Zinc	<2	1100	EIL (570 mg/kg) BH114_0.1-0.2 (1100 mg/kg) BH117_0.1-0.2 (640 mg/kg)
PAHs				
27	Naphthalene	<0.1	<0.1	None
27	Benzo(α)pyrene	<0.1	<0.1	None
27	Carcinogenic PAHs (as B(α)P TEQ)	<0.3	<0.3	None
27	Total PAHs	<0.8	<0.8	None
VOCs (including BTEX) and TRHs				
13	Total VOCs	<24	<24	None
27	Benzene	<0.1	<0.1	None
27	Toluene	<0.1	<0.1	None
27	Ethyl benzene	<0.1	<0.1	None
27	Total Xylenes	<0.3	<0.3	None
27	F1 – TRHs	<25	<25	None
27	F2 – TRHs	<25	78	None
27	F3 – TRHs	<90	410	None
27	F4 – TRHs	<120	<120	None
Pesticides				
20	Total OCPs	<1	91	None
20	Total OPPs	<1.7	<1.7	None
PCB				
20	Total PCBs	<1	<1	None

Number of Primary Samples	Analyte	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Samples Exceeding SILs
Phenols				
6	Total Phenols	<0.5	4.4	None
Cyanide				
6	Total Cyanide	<0.5	<0.5	None
PFASs				
6	PFOS	<0.0016	0.0019	None
6	PFOS + PFHxS	<0.0016	0.0019	None
6	PFOA	<0.0008	<0.0008	None
Asbestos				
21	Asbestos	Not detected	Detected	BH114_0.1-0.2 (bonded) BH117_0.1-0.2 (bonded)

7.2 Groundwater

Monitoring Well Construction

Construction details for the groundwater monitoring wells are summarised in **Table 7-3**.

Table 7-3 Monitoring Well Construction Details

Well	Well Depth (m BGL)	Top of Well Casing (m BGL)	Screen Interval (m BGL)	Groundwater Seepage (m BGL)	Lithology Screened	RL[1] (m AHD)
BH104M	5.9	0.09	2.9-5.9	3.5	Sand	48.11
BH108M	6.0	0.09	3.0-6.0	3.5	Sand	50.69
BH115M	6.1	0.09	3.1-6.1	4.0	Sand	51.25
BH120M	6.2	0.09	3.2-6.2	3.5	Sand	53.39

Footnote:
[1] The relative level (RL; m AHD) corresponds to the ground surface at the well location, extrapolated from the survey plan (**Appendix C**)

Field Observations

Field data from the GMW are presented in **Table 7-4**. Field data sheets are attached in **Appendix F**. Samples were evaluated on the basis of odour and visual signs of contamination, with the following observations noted:

- Groundwater was found to be clear / light grey in colour, with low to medium turbidity;
- No suspicious odour was detected in any of the groundwater wells; and
- No sheen was observed on the sampled groundwater.

The field data (**Table 7-4**) indicated that the groundwater was acidic, fresh (i.e. non-saline) and non-oxidising. Based on the SWL data (extrapolated to relative levels in metres AHD), the local hydraulic gradient was inferred to be north-westerly, towards Lane Cove River, consistent with the surface topography (**Table 2-3**).

Table 7-4 Groundwater Field Data

Well	SWL (m BTOC[1])	SWL (m BGL)	SWL[2] (m AHD)	DO (mg/L)	pH	EC (µS/cm)	T (°C)	Redox[3] (mV)
BH104M	4.30	4.39	43.72	0.93	3.43	365	23.3	422
BH108M	3.15	3.24	47.45	1.25	3.76	223	22.6	398
BH115M	3.08	3.17	48.08	0.36	6.41	181	21.6	305
BH120M	2.18	2.27	51.12	1.82	4.80	33	19.9	454

Footnotes:
[1] m BTOC denotes meters below top of well casing
[2] SWL (in metres AHD) calculated by subtracting the SWL in metres BGL from the RL of the ground surface at the well location
[3] Redox readings were adjusted to the Standard Hydrogen Electrode by adding 205mV to the field electrode potential

Laboratory Analytical Results

A summary of the laboratory analytical results for the groundwater samples is presented in **Table 7-2**. More detailed tabulation is presented in **Table T-2**, **Appendix B**.

All results were found to comply with the adopted GILs, except for dissolved copper, nickel and zinc. Heavy metals in groundwater are common in urbanised areas of Sydney, including the suburb of Lane Cove West. It was assumed that these metal levels do not pose an immediate threat to human health or the environment, being representative of urban background groundwater conditions.

Table 7-5 Summary of Groundwater Analytical Results

Number of Primary Samples	Analyte	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Sample(s) Exceeding GILs
Priority Metals (total dissolved)				
4	Arsenic	<1	<1	None
4	Cadmium	<0.1	<0.1	None
4	Chromium	<1	1	None
4	Copper	2	6	ANZG (2018) 1.3 µg/L BH104M (4 µg/L), BH108M (2 µg/L), BH115M (3 µg/L) and BH120M (6 µg/L)
4	Lead	<1	<1	None
4	Mercury	<0.1	<0.1	None
4	Nickel	<1	11	ANZG (2018) 7 µg/L BH104M (11 µg/L)
4	Zinc	<5	35	ANZG (2018) 15 µg/L BH104M (17 µg/L), BH108M (18 µg/L) and BH120M (35 µg/L)
PAHs				
4	Naphthalene	<0.1	<0.1	None
4	Benzo(α)pyrene	<0.1	<0.1	None
4	Total PAHs	<1	<1	None
VOCs (including BTEX) and TRHs				
4	Total VOCs	<10	<10	None

Number of Primary Samples	Analyte	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)	Sample(s) Exceeding GILs
4	Benzene	<0.5	<0.5	None
4	Toluene	<0.5	<0.5	None
4	Ethyl benzene	<0.5	<0.5	None
4	o-Xylene	<0.5	<0.5	None
4	m + p-Xylenes	<1	<1	None
4	F1 – TRHs	<50	<50	None
4	F2 – TRHs	<60	<60	None
4	F3 – TRHs	<500	<500	None
4	F4 – TRHs	<500	<500	None
Phenols				
4	Total Phenols	<50	<50	None
Pesticides				
4	Total OCPs	<1	<1	None
PFAS				
3	PFOS	<0.002	0.019	None
3	PFOS + PFHxS	<0.002	0.019	None
3	PFOA	0.002	0.050	None

8. SITE CHARACTERISATION

8.1 Subsurface Conditions

Based on the borehole logs (and excluding any hardstand; **Appendix E**), the sub-surface of the site was generalised as a layer of silty clay filling (0-1m thickness), overlying natural (residual), clayey sand and sandy clay, with (weathered) sandstone bedrock occurring from 1.5-5.9m BGL onwards. The potential for ASS to be present on the site was very low

8.2 Soil Impacts

Laboratory analytical results for the representative fill and natural soil samples were found to comply with the adopted SILs applicable to commercial / industrial settings, with the following exceptions:

- Zinc in shallow fill at BH114 (1100 mg/kg) and BH117 (640 mg/kg), the concentrations exceeding the adopted EIL (570 mg/kg); and
- Bonded asbestos in shallow fill at BH114 and BH117.

Both BH114 and BH117 were located outside the proposed basement footprint, within designated setback / landscaping areas (i.e. where existing soils would be retained). Therefore, remediation of the soils in the vicinities of these hotspots will be required.

8.3 Groundwater Impacts

From the GME of 23 September 2022, the depth to groundwater was 2.27-4.39m BGL (43.72-51.12m AHD), with the inferred hydraulic gradient being north-westerly, flowing towards Lane Cove River. Local groundwater conditions were acidic pH (pH: 3.43-6.41), fresh (EC: 33-365 µS/cm) and relatively non-oxidising (anoxic; DO: 0.36-1.82 mg/L).

No suspicious odour was detected in the monitoring wells. Analysis of representative samples identified elevated levels of dissolved copper (2-6 µg/L), nickel (BH104M: 11 µg/L) and zinc (17-35 µg/L); however, no hydrocarbons were detected. The heavy metal concentrations were considered typical of urban environments, indicative of their natural (background) conditions, and did not pose a significant risk to any of the identified receptors (**Section 4.6**). Local soils were not considered to be the source of metal impacts (at least for copper and nickel), given the low levels in the tested, representative (fill and natural) samples.

8.4 Review of Conceptual Site Model

The CSM discussed in **Section 4** was considered to appropriately identify contamination sources, migration mechanisms and exposure pathways, as well as potential on-site and off-site receptors. A revised CSM, taking into account the DSI findings, is presented in **Table 8-1**. This model remains valid for the proposed (commercial) development.

Table 8-1 Revised Conceptual Site Model

Potential Source	Impacted Medium	COPC	Transport Mechanism	Exposure Pathway	Potential Receptor	Source-Pathway-Receptor (SPR) Linkage
On-site commercial / light industrial activities Imported fill of unknown origin and quality	Soil	PM (zinc), asbestos	Disturbance of surface and subsurface soils during redevelopment, future site maintenance and use post redevelopment	Ingestion Inhalation of particulates	Current and future site occupiers Demolition / construction workers Adjacent site users Future intrusive workers	**Moderate to High** Zinc and asbestos detected in shallow soil
Hazardous building materials Application of pesticides Leakage from vehicles / oil drums	Groundwater	Dissolved PM (copper, nickel and zinc)	Release during redevelopment, future site maintenance and use post redevelopment	Ingestion	Current and future site occupiers Demolition / construction workers Adjacent site users Future intrusive workers	**Low** Metal exceedances limited to copper, nickel and zinc, the concentrations for which were consistent with natural (background) levels for urban areas. No organic compound exceedances identified.
Off-site migration			Migration of dissolved phase impacts via diffusion and advection	Biota uptake	Lane Cove River	

Footnote: The use of personal protective equipment is mandatory for construction and excavation workers, weakening the corresponding SPR linkage.

9. CONCLUSION

The property identified as 67 Mars Road, Lane Cove West NSW was the subject of a detailed investigation, conducted in order to assess the nature and degree of on-site contamination. The key findings of this DSI were as follows:

- The site had been used for commercial (warehousing) purposes since the late 1950s. The possible activities included electrical engineering (1956-1980) and waste transfer.
- Since its construction (sometime between 1951 and 1961), no major renovations were made to the existing warehouse. After 1978, the northern portion of the property was paved, for formal use as a parking / loading area. Two electricity substations were present along the southern site boundary.
- The local surroundings consisted of vacant and residential properties up to the 1950s, after which time they were increasingly (re)developed for commercial / light industrial purposes.
- The site and surrounding lands within close proximity (≤250m radius) were free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*. The site was not included on the *List of NSW Contaminated Sites Notified to the EPA*.
- No olfactory indicator of contamination (i.e. suspicious odour) was detected during the inspections. Visual indication of site contamination was limited to fragments of FCS in the garden beds along the eastern boundary.
- No visual evidence of infrastructure associated with a UST was observed on the site. No AST was present.
- Excluding any hardstand, the sub-surface of the site was generalised as a layer of silty clay filling (0-1m thickness), overlying natural (residual), clayey sand and sandy clay, with (weathered) sandstone bedrock occurring from 1.5-5.9m BGL onwards. The potential for ASS to be present was very low.
- Laboratory analytical results for the representative fill and natural soil samples were found to comply with the adopted SILs applicable to commercial / industrial settings, except for:
  - Zinc in shallow fill at BH114 (1100 mg/kg) and BH117 (640 mg/kg), the concentrations exceeding the adopted EIL (570 mg/kg); and
  - Bonded asbestos in shallow fill at BH114 and BH117.
- The depth to groundwater was 2.27-4.39m BGL (43.72-51.12m AHD), with the inferred hydraulic gradient being north-westerly, flowing towards Lane Cove River. Local groundwater conditions were acidic pH (pH: 3.43-6.41), fresh (EC: 33-365 µS/cm) and relatively non-oxidising (anoxic; DO: 0.36-1.82 mg/L).
- Laboratory analytical results for the representative groundwater samples were found to comply with the adopted GILs, except for dissolved copper (2-6 µg/L), nickel (BH104M: 11 µg/L) and zinc (17-35 µg/L). The heavy metal concentrations were considered typical of urban environments, indicative of natural (background) conditions, and did not pose a significant risk to any of the identified receptors.

Based on the findings of this DSI, and with consideration of EI's *Statement of Limitations* (**Section 11**), it was concluded that zinc- and asbestos- contaminated filling existed near the mid-eastern, site boundary (at least). As the identified hotspots (BH114 and BH117) were located outside the proposed basement footprint, within designated setback / landscaping areas (i.e. where existing soils would be retained), remediation of the corresponding fill was warranted, in order for the site to be suitable for the commercial redevelopment.

10. RECOMMENDATIONS

EI provides the following recommendations in relation to the proposed redevelopment:

- A remediation action plan (RAP) should be prepared for the site, which shall:
  - Include methodology for the removal and validation of contaminated soils;
  - Describe the procedures for waste classification of excavated soils designated for off-site disposal during the remediation and subsequent basement construction;
  - Include an unexpected find protocol; and
  - Include details for the preparation of a Site Validation Report.

  Note: Under the proposed development (**Section 1.2** and **Appendix C**), bulk excavation of site soils will be conducted, in order to construct the basements. All soil materials that are designated for off-site disposal, including any VENM, must be pre-classified in accordance the EPA (2014) *Waste Classification Guidelines*. The data generated by this DSI can be utilised for this purpose.
- Following building / pavement demolition and removal of associated wastes, an inspection of the exposed soil surface should be performed by a suitably qualified environmental consultant. The current building footprint is to be targeted during this inspection, to ascertain whether further investigation is warranted and/or the RAP requires modification.
- An asbestos clearance inspection and certificate should be completed by a suitably qualified professional (SafeWork NSW Licensed Asbestos Assessor) following demolition of the existing warehouse and pavements (and the exposed surface inspection).
- Implementation of the remediation and validation works for the site, as outlined in the RAP.
- Once appropriately classified, all waste materials are to be transported to EPA-licensed waste facilities by the appointed waste contractors. All tipping dockets supplied by the landfill companies are to be retained, to confirm the appropriate (lawful) disposal of wastes.
- Preparation of a validation report by a suitably qualified environmental consultant, confirming site suitability for the proposed land use, as well as the correct disposal of all wastes.
- Any material being imported to the site should be pre-validated as suitable for the intended use, in accordance with EPA guidelines. In particular, imported filling / landscaping material must be certified as meeting the VENM classification, prior to importation.

EI emphasise that these recommendations can be managed through the development application process, in accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021*.

11. STATEMENT OF LIMITATIONS

This report has been prepared for the exclusive use of Lane Cove West Development Pty Ltd, whom is the only intended beneficiary of EI's work. The scope of the investigation carried out for the purpose of this report was limited to that agreed with Lane Cove West Development Pty Ltd.

No other party should rely on this document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

The findings presented in this report are the result of discrete and specific sampling methodologies used in accordance with best industry practices and standards. Due to the site-specific nature of soil sampling from point locations, it is considered likely that all variations in subsurface conditions across a site cannot be fully defined, no matter how comprehensive the field program.

While normal assessments of data reliability have been made, EI assumes no responsibility or liability for errors in any data obtained from regulatory agencies (e.g. Council, EPA), statements from sources outside of EI, or developments resulting from situations outside the scope of works of this project.

Despite all reasonable care and diligence, the ground conditions encountered and concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated. In addition, site characteristics may change at any time in response to variations in natural conditions, chemical reactions and other events (e.g. groundwater movement and or spillages of contaminating substances). These changes may occur subsequent to EI's investigation.

EI's assessment is necessarily based upon the results of the site investigation and the restricted program of surface and subsurface sampling, screening and chemical testing which was set out in the project proposal. Neither EI, nor any other reputable consultant, can provide unqualified warranties nor does EI assume any liability for site conditions not observed or accessible during the time of the investigations.

This report was prepared for Lane Cove West Development Pty Ltd and no responsibility is accepted for use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice.

This report and associated documents remain the property of EI subject to payment of all fees due for this assessment. The report shall not be reproduced except in full and with prior written permission by EI.

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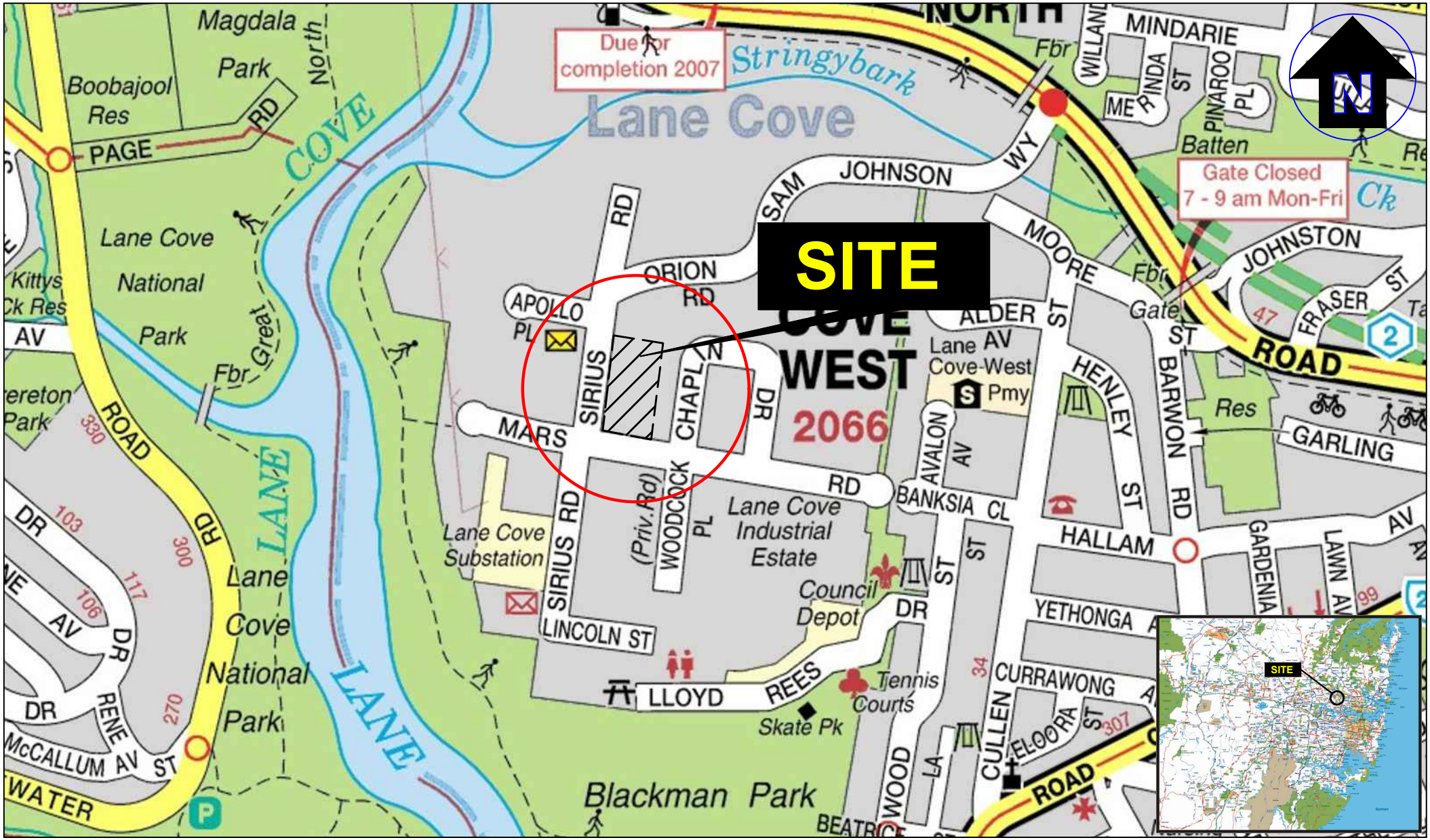
Appendix A – Figures

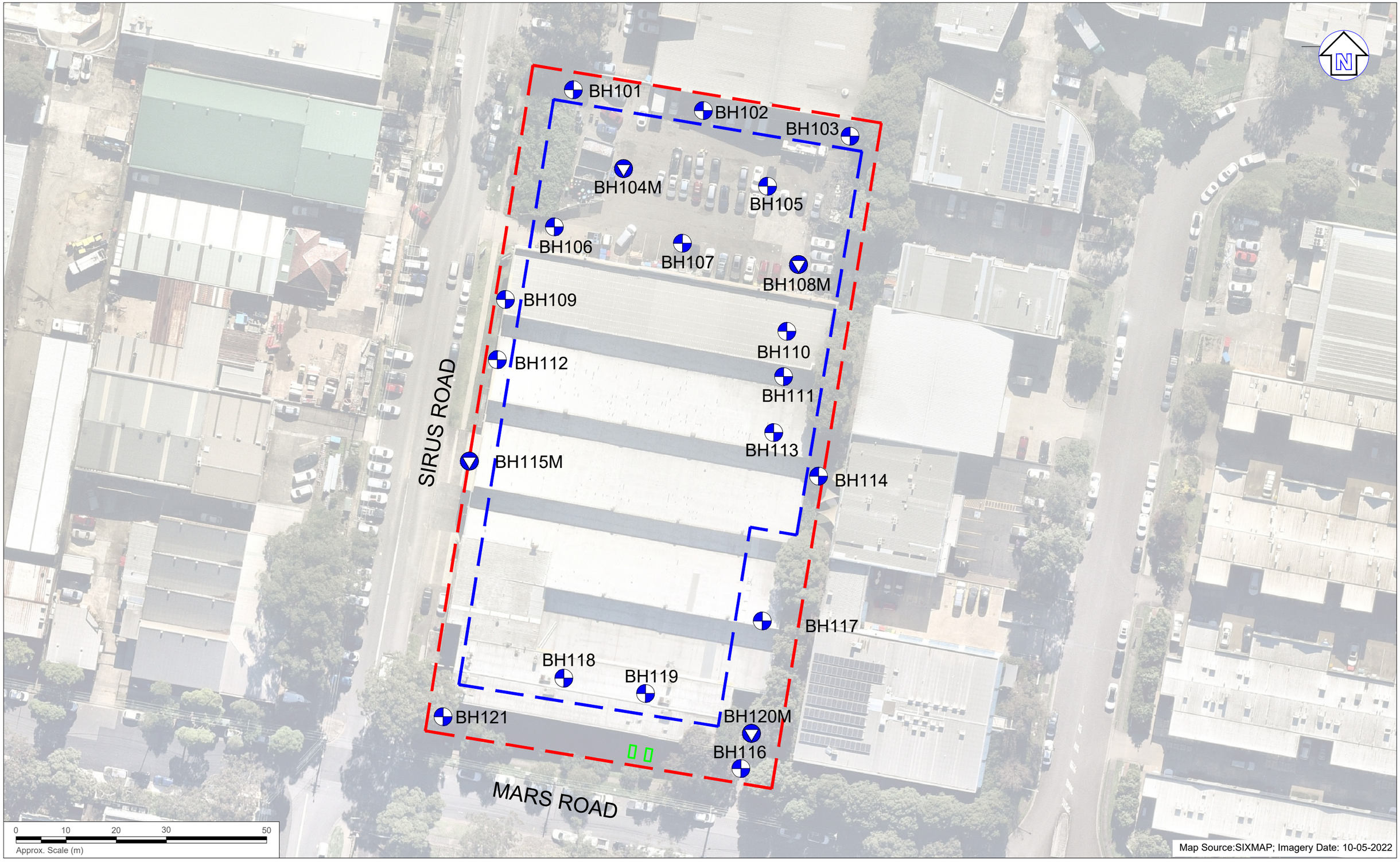
1. Site Locality Plan
2. Sampling Location Plan
3. Groundwater Contour Plan



eiaustralia Practical Solutions for Built Environments Suite 6.01, 55 Miller Street, PYRMONT 2009 Ph (02) 9516 0722 Fax (02) 9518 5088	Drawn:	R.L.	**Lane Cove West Development Pty Ltd** Detailed Site Investigation 67 Mars Road, Lane Cove West NSW Site Locality Plan
	Approved:	-	
	Date:	11-07-2022	
	Scale:	Not To Scale	

Figure: 1

Project: E25663.E02



LEGEND (All locations are Approximate)

- Approximate site boundary
- Proposed basement boundary
- Borehole / groundwater monitoring well location
- Borehole location
- Substation location

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Approved:	-
Date:	28-09-22

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Detailed Site Investigation
67 Mars Road, Lane Cove West NSW

Sampling Location Plan

Figure: 2

Project: E25663.E02

LEGEND (All locations are Approximate)

- Approximate site boundary
- Proposed basement boundary
- Borehole / groundwater monitoring well location
- Inferred groundwater flow direction

Note: Groundwater RL in mAHD, based on SWLs measured on 23-09-2022

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Lane Cove West Development Pty Ltd
Detailed Site Investigation
67 Mars Road, Lane Cove West NSW

Groundwater Contour Plan

Figure: 3

Project: E25663.E02

Appendix B – Tables

1. Summary of Soil Analytical Results

2. Summary of Groundwater Analytical Results

Table 1 – Summary of Soil Test Results

Sample ID	Sampling Date	Priority Metals								PAHs				BTEX				Total VOCs	TRHs									Total OCPs	Total OPPs	PCBs	Phenols	PFAS			Cyanide	Asbestos
		As	Cd	Cr#	Cu	Pb	Hg	Ni	Zn	Carcinogenic PAHs (as B(a)P TEQ)	Benzo(a)pyrene	Total PAHs	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes		F1	F2	F3	F4	TRH C10-C14 *	TRH C15-C28 *	TRH C29-C36 *	TRH C10-C36 Total *	TRH >C10-C40 Total *					PFOS	PFOS+PFHxS	PFOA		Presence / absence
Fill																																			
BH104M_0.2-0.3	15/09/2022	3	<0.3	20	1.6	9	<0.05	4.9	15	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH109_0.2-0.3		2	<0.3	26	<0.5	10	<0.05	<0.5	4.3	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH112_0.2-0.3		3	<0.3	42	<0.5	18	<0.05	0.9	10	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	<0.0016	<0.0016	<0.0008	<0.5	No
BH114_0.1-0.2		5	<0.3	19	33	42	0.07	8.3	1100	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	78	410	<120	38	270	280	590	490	<1	<1.7	<1	3	NA	NA	NA	NA	Chrysotile, Amosite asbestos found in approx 90x20x4mm cement sheet fragments x3.
BH116_0.3-0.4	16/09/2022	4	<0.3	17	4.3	29	<0.05	1.7	40	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH117_0.1-0.2	15/09/2022	6	<0.3	22	25	49	0.09	12	640	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	25	210	<120	<20	82	200	280	240	<1	<1.7	<1	4.4	<0.0016	<0.0016	<0.0008	<0.5	Chrysotile asbestos found in approx 30x30x4mm cement sheet fragment.
BH120M_0.3-0.4	16/09/2022	2	<0.3	2.6	1.2	18	<0.05	<0.5	<2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
Statistical Analysis																																			
Maximum concentration		6	<0.3	42	33	49	0.09	12	1100	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	78	410	<120	38	270	280	590	490	<1	<1.7	<1	4.4	<0.0016	<0.0016	<0.0008	<0.5	Yes
Natural																																			
BH101_0.3-0.4	15/09/2022	4	<0.3	10	0.5	4	<0.05	<0.5	2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH101_1.3-1.4		3	<0.3	9.1	<0.5	5	<0.05	<0.5	2.6	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH102_0.3-0.4		3	<0.3	18	1.7	4	<0.05	3.3	3.9	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	<0.0016	<0.0016	<0.0008	<0.5	No
BH103_0.3-0.4		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	No
BH103_1.2-1.3		3	<0.3	13	<0.5	15	<0.05	<0.5	<2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	41	<90	<120	20	71	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH104M_0.8-0.9		3	<0.3	30	1.1	9	<0.05	1.9	5.2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH105_1.0-1.1		3	<0.3	19	16	8	<0.05	30	18	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH106_0.5-0.6		7	<0.3	40	3.7	11	<0.05	3.7	5.7	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	<0.0016	<0.0016	<0.0008	<0.5	No
BH107_0.5-0.6		6	<0.3	18	2.3	5	<0.05	4.1	3.8	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH108M_0.3-0.4		4	<0.3	17	<0.5	10	<0.05	<0.5	2.2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH108M_1.5-1.6		3	<0.3	18	<0.5	12	<0.05	0.7	2.1	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH109_1.4-1.5		3	<0.3	18	2.9	9	<0.05	0.5	7.9	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH110_0.2-0.3		4	<0.3	17	<0.5	14	<0.05	<0.5	4.7	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH111_0.2-0.3		3	<0.3	17	<0.5	13	<0.05	0.5	5.3	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	<0.0016	<0.0016	<0.0008	<0.5	No
BH113_0.2-0.3		3	<0.3	16	<0.5	14	<0.05	<0.5	3.2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH115M_1.3-1.4	16/09/2022	9	<0.3	10	<0.5	6	<0.05	<0.5	<2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH118_0.1-0.2		2	<0.3	3.9	6	3	<0.05	1.4	3.2	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	<45	<45	<110	<210	<1	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH119_0.2-0.3		<1	<0.3	1.5	3.4	1	<0.05	1.5	5.3	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	NA	<25	<25	<90	<120	<20	74	<45	<110	<210	91	<1.7	<1	<0.5	NA	NA	NA	NA	No
BH120M_1.4-1.5		6	<0.3	5.3	1.2	13	<0.05	<0.5	2.8	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH121_0.1-0.2		5	0.3	11	16	100	<0.05	2.8	250	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	400	<120	<20	66	380	450	400	<1	<1.7	<1	<0.5	0.0019	0.0019	<0.0008	<0.5	No
BH121_1.1-1.2		7	<0.3	23	<0.5	20	<0.05	<0.5	8.7	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	<25	<90	<120	<20	<45	<45	<110	<210	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Analysis																																			
Maximum concentration		9	0.3	40	16	100	<0.05	30	250	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<24	<25	41	400	<120	20	74	380	450	400	91	<1.7	<1	<0.5	0.0019	0.0019	<0.0008	<0.5	No
NEPM (2013) Criteria																																			
HIL D - *Commercial / Industrial*		3,000	900	3,600 Cr(VI)	240,000	1,500	730	6,000	400,000	40		4,000												3,600					7	240,000			1500	
HSL D - *Commercial / Industrial* Soil texture classification –SAND		Source depths (0 m to <1 m. BGL)												NL	4	NL	NL	NL		310	NL														0.05 / 0.001
		Source depths (1 m to <2 m. BGL)												NL	6	NL	NL	NL		480	NL														
		Source depths (2 m to <4 m. BGL)												NL	9	NL	NL	NL		NL	NL														
		Source depths (4 m + BGL)												NL	20	NL	NL	NL		NL	NL														
EILs / ESLs - *Commercial / Industrial* [1] [2]		160		680	210	1,800		110	570		172 [3]			370	75	135	165	180		215	170	1,700	3,300				640							
Management Limits – *Commercial / Industrial* [1]																				700	1,000	3,500	10,000											
(HEPA (2020)) PFAS [10] HIL D - Industrial / commercial (HIL/D)																															20	50		

Notes:

Highlighted values exceeded HIL / HSL

Highlighted values exceeded EILs / ESLs

Results are recorded in mg/kg

HIL D	NEPC 1999 Amendment 2013 'HIL D' - Health based commercial / industrial settings.
HSL D	NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels applicable for vapour intrusion values applicable for commercial / industrial settings.
EIL	Ecological Investigation Level for urban residential and public open space land use.
ESL	Ecology Screening Level for commercial and industrial land use.
#	Thresholds are for Chromium VI.
*	Only detected concentrations were tabulated
NA	Not Analysed
NC	Not calculated
NR	No reference criteria available in current regulatory tools.
1	As strata is predominantly sand, coarse grained soil assessment criteria values were applied.
2	EIL criteria is derived from a site specific Added Contaminant Limit (ACL) with the Ambient Background Concentration (ABC) for a high traffic NSW suburb.
3	The ecological criteria for benzo(a)pyrene was sourced from CRC Care (2017) Technical Report No. 39 Risk-based management and remediation guidance for benzo(a)pyrene.
4	NSW EPA 2014 CT1 General Solid Waste Thresholds (without leachate test), in Waste Classification Guidelines, Table 1
5	NSW EPA 2014 CT2 Maximum values for Leachable concentration and specific contaminant concentration for Restricted Solid Waste Thresholds, Waste Classification Guidelines Table 1
6	NSW EPA 2014 TCLP1/SCC1 General Solid Waste Thresholds (leachable concentration and total concentration when used together), in Waste Classification Guidelines Table 2
7	NSW EPA 2014 TCLP2/SCC2 Restricted Solid Waste Thresholds (leachable concentration and total concentration when used together), in Waste Classification Guidelines Table 2
8	NSW EPA Scheduled Chemical Wastes Chemical Control Order 2004. Section 4.14
9	NSW EPA Polychlorinated Biphenyl (PCB) Chemical Control Order 1997. Where PCBs are reported at concentrations >2 mg/kg and <50 mg/kg, material is non-scheduled PCB waste. Where PCBs are reported at concentrations >50 mg/kg, material is scheduled PCB waste.
10	Value dervied from the National Environmental Management Plan for PFAS - Soil Criteria for Investigation - Human Health Based Guidance Values for Residential with Garden / Accessible Soil Sites.
F1	F1 subtract the sum of BTEX concentrations from the C6-C10 fraction.
F2	F2 subtract naphthalene from the >C10-C16 fraction.
F3	(>C16-C34)
F4	(>C34-C40)

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Table T2 - Summary of Groundwater Analytical Results

Sample ID	Sampling Date	Metals								PAHs			BTEX					TRHs				Total VOC	Total Phenols	Pesticides		PFAS		
		As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Total PAHs	Benzo(a)pyrene	Naphthalene	Benzene	Toluene	Ethylbenzene	o-xylene	m/p-xylene	F1	F2	F3	F4			Total OCP	Total OPP	PFOS	PFOS + PFHxs	PFOA
BH104M	23/9/2022	<1	<0.1	<1	4	<1	<0.1	11	17	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	<50	<1	<PQL	<0.002	0.008	0.050
BH108M		<1	<0.1	1	2	<1	<0.1	6	18	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	<50	<1	<PQL	<0.002	<0.002	<0.002
BH115M		<1	<0.1	<1	3	<1	<0.1	<1	15	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	<50	<1	<PQL	0.019	0.019	0.004
BH120M		<1	<0.1	<1	6	<1	<0.1	5	35	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	<50	<1	<PQL	<0.002	<0.002	<0.002
Statistical Analysis																												
Maximum Concentration		<1	<0.1	1	6	<1	<0.1	11	35	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	<10	<50	<1	<PQL	0.019	0.019	0.050
GILs																												
HSL D - *Commercial / industrial* Soil texture classification – Clay	2m to <4m											NL	30,000	NL	NL	NL	NL	NL	NL									
	4m to <8m											NL	30,000	NL	NL	NL	NL	NL	NL									
	8m+											NL	35,000	NL	NL	NL	NL	NL	NL									
GILs	Marine Waters [1]		0.7 [2]	27 (Cr III) 4.4 (Cr VI)	1.3	4.4	0.1 [2]	7	15 [3]			50 [3]	500 [3]	180 [4]	5 [4]	350 [4]	275 [4]	50 [5]	60 [5]	500 [5]	500 [5]		400		400			400
	Recreational Water [6]	100	20		1,000 *	100	10	200	3,000*				10	25*	3*	20 *	20 *											
NJDEP - Screening Levels [7]												300	23	330,000	700													
PFAS - Marine Water [8]																										0.13		220

Notes:

Highlighted indicates criteria exceeded

Highlighted indicates criteria not met

All values are µg/L unless stated otherwise

HSL D	NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels for vapour intrusion applicable for commercial / industrial settings.
NL	Not Limiting
#	Only detected concentrations were tabulated.
F1	To obtain F1 subtract the sum of BTEX concentrations from the C6-C10 fraction.
F2	To obtain F2 subtract naphthalene from the >C10-C16 fraction.
F3	(>C16-C34)
F4	(>C34-C40)
1	NEPM (2013) Groundwater Investigation Levels for fresh and marine water quality, based on ANZECC & ARMCANZ (2000).
2	Chemical for which possible bioaccumulation and secondary poisoning effects should be considered, refer to ANZG (2018) for further guidance.
3	Figure may not protect key species from chronic toxicity, refer to ANZECC & ARMCANZ (2000) for further guidance
4	Low reliability toxicity data, refer to ANZECC & ARMCANZ (2000)
5	In lack of a criteria the laboratory PQL has been used (DEC, 2007).
6	Based on NHMRC (2011 - update August 2018 v.3.5) Drinking Water Guidelines. The lowest of the Health Guideline x10 or the Aesthetic Guideline has been chosen as the assessment criteria. Aesthetic based criteria have been indicated by *
7	Value dervied from the NJDEP vapour intrusion groundwater screening levels (GWSL)
8	Value dervied from the National Environmental Management Plan for PFAS - 95% species protection for slightly to moderately disturbed systems.

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Appendix C – Plans of the Proposed Development

(B) RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES (6985913C)
(D) EASEMENT TO DRAIN WATER 2 WIDE (DP 1036457)
(E) EASEMENT FOR SUPPORT VARIABLE WIDTH (DP 1036457)
(F) EASEMENT TO PERMIT ENCROACHING STRUCTURE TO REMAIN (PROPOSED DP 1036457)

M G A

SIRIUS ROAD

MARS ROAD

10

9431 m²

Double Storey
Pre-Cast Slab Warehouse
Steel Roof

1 DP 1211788

1 DP1085895

2 DP1010544

3 DP1010544

SP 73040

SP 68866

134.67

134.395

70.115

70.095

52.00

48.00

50.00

RL 51.25 RL 50.74 RL 50.47 RL 50.12 RL 49.30 RL 47.20 RL 45.90
RL 51.59 RL 51.08 RL 50.27 RL 49.47 RL 47.66 RL 46.07
RL 50.85 RL 48.11
RL 51.89 RL 51.83 RL 52.35 RL 52.45
RL 52.98 RL 53.13 RL 53.58 RL 53.72 RL 53.90 RL 53.99
RL 49.27 Basement Exit
RL 53.46 RL 53.58 RL 53.56 RL 53.47 RL 53.46 RL 53.97
RL 49.47 RL 50.72 RL 50.69
Bottom of Retaining Wall RL 48.27
Top of Retaining Wall RL 48.67
Top Kerb 48.08
Stormwater Pit SL 47.98
Gutter RL 52.17
Bld Cor at Grd 48.16
Top Kerb 48.66
Roof Peak RL 56.41
Bld Cor at Grd 49.03
Gutter RL 53.43
Kerb RL 49.34
TRW 53.23 BRW 52.22
Fce 53.23
TRW 53.22 BRW 52.02
Fce 53.26
TRW 53.23 BRW 52.02
TRW 53.18 BRW 52.01
Fce 53.07
TRW 53.13 BRW 51.95
Fce 52.85
TRW 52.89 BRW 51.89
Fce 52.38
TRW 52.65 BRW 51.86
Stormwater Pit
Roof Height 65.71
Roof Height 61.475
Roof Height 63.11
Roof Height 60.81
Roof Height 60.67
Roof Height 61.93
Roof Height 62.855
Outdoor Deck RL 54.38
Ground RL 53.48

NBN Concrete Footpath Paved Terrace Concrete Driveway Concrete Top Back of Kerb Hydrant Stairs Wall Concrete Footpath Concrete Footpath Bitumen Car Parking Concrete Top Back of Kerb Power Box Power Pole Concrete Footpath Top Back of Kerb Power Pole Concrete Driveway Concrete Block Block Retaining Wall Top of Timber Retaining Wall Stairs Ramp Stairs Concrete Stormwater Pit Building Corner Subject to Final Survey

All Buildings are Pre-Cast Concrete Panels

Amendments	Date	By

ROBERT MOORE AND ASSOCIATES PTY LTD
ENGINEERS, SURVEYING & DEVELOPMENT CONSULTANTS
27 Castle Hill Road
West Pennant Hills
NSW 2125
Telephone : (02) 9484 4600
Fax Number : (02) 9484 4966
Email : enq@rmapl.com.au

Design :	SCALE : 1/200@A1	Client : KITRON BMHM PTY LTD
Drawn : MR	DATUM : AHD	Project : DETAIL PLAN Lot 10 DP 1036457 67 Mars Road Lane Cove West
Checked : AO	Date : JULY 2021	
L G A : LANE COVE		

Sheet No. 1 of 1 Sheets
DRAWING No. 210009 DT3

DEVELOPMENT APPLICATION
PROPOSED BUSINESS CENTRE

2538

UNIT SCHEDULE	
Unit No.	Unit Area
UNIT 01	720 m²
UNIT 02	467 m²
UNIT 03	363 m²
UNIT 04	471 m²
UNIT 05	304 m²
UNIT 06	522 m²
UNIT 07	510 m²
UNIT 08	392 m²
UNIT 09	515 m²
UNIT 10	385 m²
UNIT 11	338 m²
UNIT 12	467 m²
UNIT 13	363 m²
UNIT 14	471 m²
UNIT 15	304 m²
UNIT 16	223 m²
UNIT 17	511 m²
UNIT 18	392 m²
UNIT 19	514 m²

Grand total: 19

SELF-STORAGE SCHEDULE		
Unit No.	Unit Area	Volume
SELF-STORE 01	79 m²	394 m³
SELF-STORE 02	78 m²	390 m³
SELF-STORE 03	78 m²	390 m³
SELF-STORE 04	79 m²	394 m³
SELF-STORE 05	94 m²	471 m³
SELF-STORE 06	78 m²	390 m³
SELF-STORE 07	78 m²	390 m³
SELF-STORE 08	78 m²	390 m³
SELF-STORE 09	79 m²	394 m³
SELF-STORE 10	72 m²	359 m³
SELF-STORE 11	78 m²	390 m³
SELF-STORE 12	78 m²	390 m³
SELF-STORE 13	78 m²	390 m³
SELF-STORE 14	94 m²	471 m³
SELF-STORE 15	79 m²	394 m³
SELF-STORE 16	78 m²	390 m³
SELF-STORE 17	79 m²	394 m³
SELF-STORE 18	79 m²	394 m³
SELF-STORE 19	78 m²	390 m³
SELF-STORE 20	78 m²	390 m³
SELF-STORE 21	79 m²	394 m³
SELF-STORE 22	94 m²	471 m³
SELF-STORE 23	78 m²	390 m³
SELF-STORE 24	78 m²	390 m³
SELF-STORE 25	78 m²	390 m³
SELF-STORE 26	79 m²	394 m³
SELF-STORE 27	72 m²	359 m³
SELF-STORE 28	78 m²	390 m³
SELF-STORE 29	78 m²	390 m³
SELF-STORE 30	78 m²	390 m³
SELF-STORE 31	94 m²	471 m³
SELF-STORE 32	79 m²	394 m³
SELF-STORE 33	78 m²	390 m³
SELF-STORE 34	79 m²	394 m³
SELF-STORE 35	78 m²	390 m³
SELF-STORE 36	78 m²	390 m³
SELF-STORE 37	78 m²	390 m³
SELF-STORE 38	78 m²	390 m³
SELF-STORE 39	79 m²	394 m³
SELF-STORE 40	72 m²	359 m³
SELF-STORE 41	78 m²	390 m³
SELF-STORE 42	78 m²	390 m³
SELF-STORE 43	78 m²	390 m³
SELF-STORE 44	78 m²	390 m³

Grand total: 44

TOTAL PARKING SCHEDULE	
Description	Count
Visitor	228
Visitor - Disabled	16
Truck Parking Bay	16
Loading Bay	18
Motorcycle Bay	16
Visitor Bicycle Rack (Fits 2 Bikes)	14

GROSS FLOOR AREAS	
	FLOOR AREA (sqm)
BASEMENT 01 *	781
BASEMENT 02 *	1364
BASEMENT 03 *	1364
LEVEL 01	4082
LEVEL 02	3769
Grand total	11360

** DENOTES FIGURE EXLUDED FROM F.S.R. CALCULATIONS*

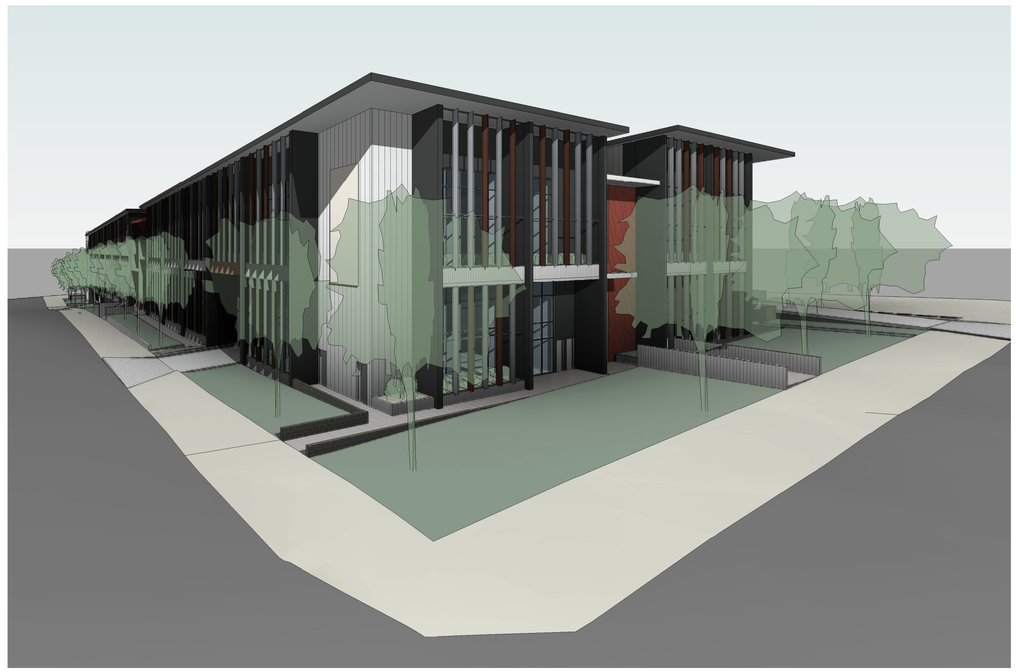
DEEP SOIL AREA	
	AREA (sqm)
	1829 (19.4%)

SOFT LANDSCAPING AREA	
OVER STRUCTURES	AREA (sqm)
LEVEL 01	687
LEVEL 02	273
Grand total	960 (10.2%)

TOTAL CALCULATIONS

SITE AREA	=	9,431 m²
TOTAL FLOOR AREA	=	7,851 m²
FLOOR SPACE RATIO	=	0.832 : 1
BUILDING AREA	=	6,525 m²
SITE COVER	=	70 %
TOTAL NETT UNIT AREA	=	7,520 m²
TOTAL SELF-STORAGE AREA	=	2,710 m²
Surplus Carparking	=	2,088m² (146 SPACES)
TOTAL LANDSCAPING	=	2,789 m² (29.6%)
Deep Soil Area	=	1,829 m² (19.4%)
Landscaping on Structures	=	960 m² (10.2%)

DRAWING SHEET LIST			
Sheet Number	Sheet Name	Current Revision	Current Revision Date
00	Cover Sheet	E	01-04-22
01	Site Analysis	E	01-04-22
02	Site Plan	E	01-04-22
03	Basement Level 03	E	01-04-22
04	Basement Level 02	E	01-04-22
05	Basement Level 01	E	01-04-22
06	Level 01	E	01-04-22
07	Level 02	E	01-04-22
08	Roof Plan	E	01-04-22
09	Site Elevations	E	01-04-22
10	Site Elevations	E	01-04-22
11	Site Sections	E	01-04-22
12	3D Buiding Height Plane	E	01-04-22
13	Driveway Ramp Sections	E	01-04-22
14	Driveway Ramp Sections	E	01-04-22
15	Schedule of Finishes	E	01-04-22
16	Shadow Diagrams	E	01-04-22
17	Shadow Diagrams	E	01-04-22
18	Shadow Diagrams	E	01-04-22



ADDRESS: 67 Mars Road, Lane Cove West

CLIENT: Eton Huang

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ryleton pty ltd t/as architex
abn 32 003 315 142

1:500

0 m 5 10m 25m

True Northpoint

Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
C	Co-ordination with Traffic / Landscape / Waste / Access + New Survey	06-08-21
B	Prelim. Issue to Client + Consultants	02-07-21
A	Preliminary Drawings for Pre-DA Meeting	07-06-21

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Robert Del Pizzo
NSW Reg. No. 3972

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

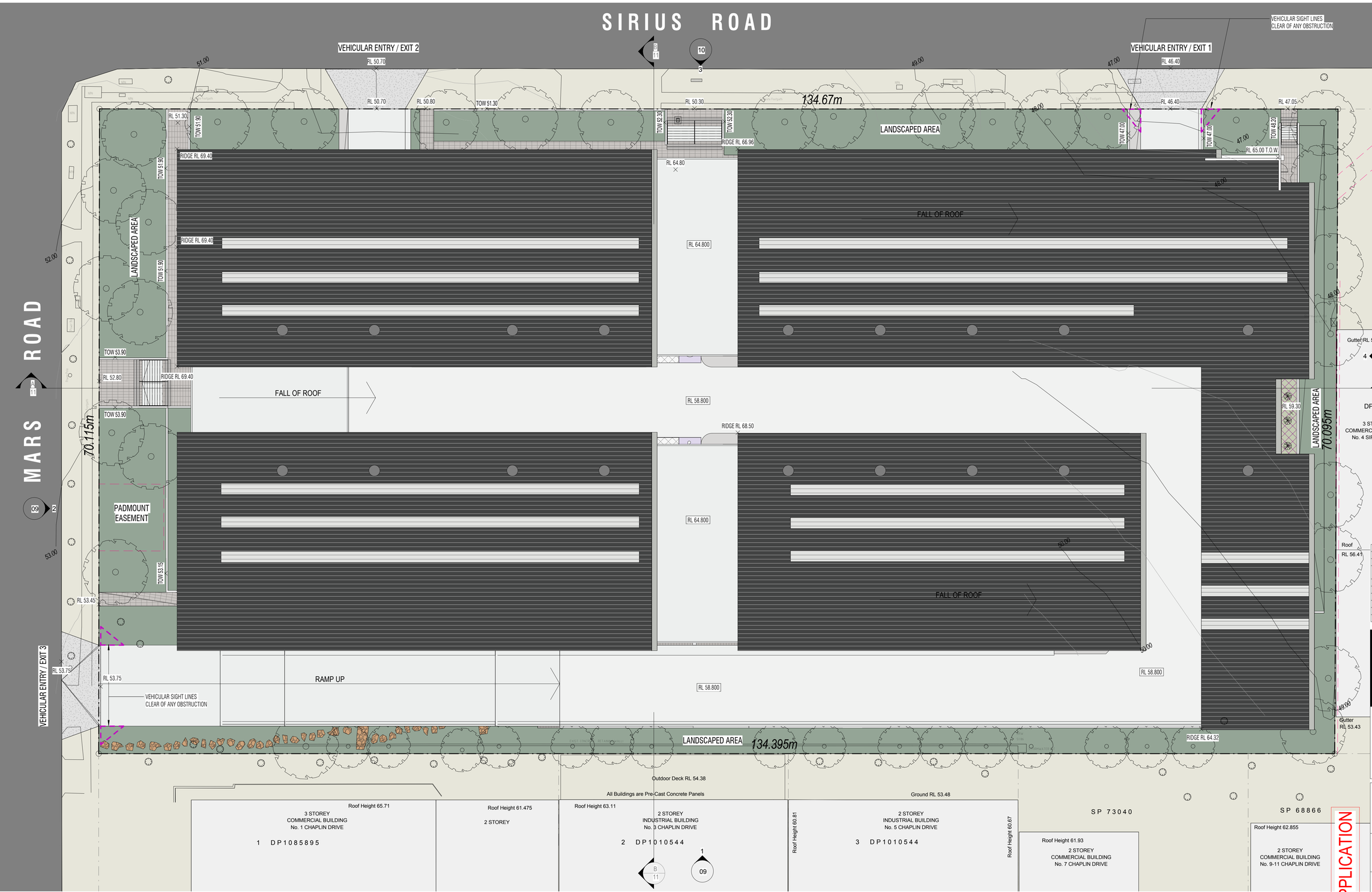
Client
Eton Huang

Title
Site Analysis

Drawn	Scale	Checked
VGF	1 : 500	PDP
Job No	Drawing No.	Issue
2538	01	E

DEVELOPMENT APPLICATION

1 Site Analysis
1 : 500



Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
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Robert Del Pizzo
NSW Reg. No. 3972

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Site Plan

Drawn	Scale	Checked
VGF	As indicated	PDP
Job No	Drawing No.	Issue
2538	02	E

DRIVEWAY RAMP SECTIONS: REFER TO DWG NO. 13 + 14

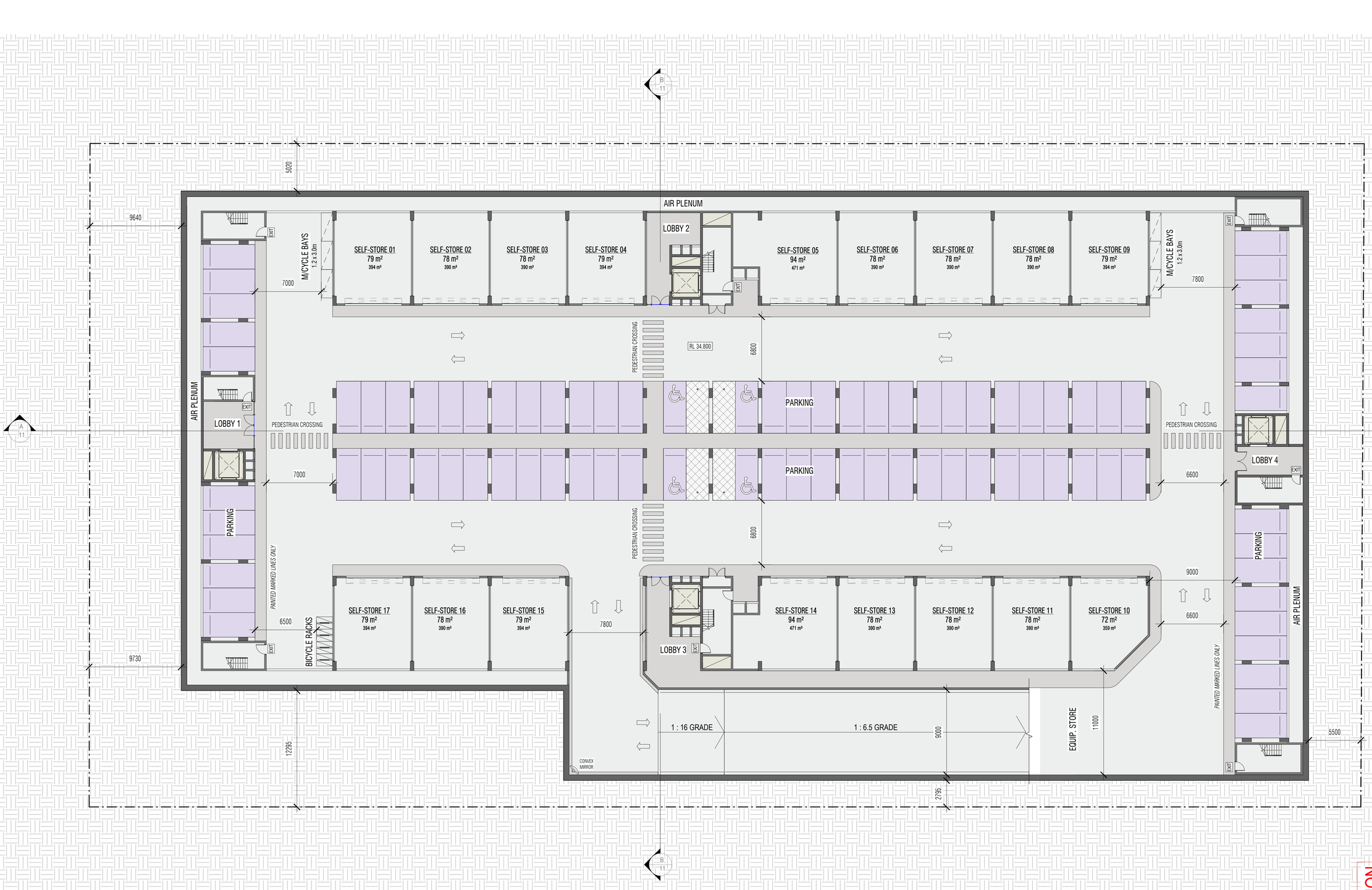
WASTE / RECYCLE BINS INDICATED: REFER TO WASTE MANAGEMENT REPORT

STORMWATER DETAILS + SITE LEVELS: REIREFER TO CIVIL DRAWINGSIGS

LANDSCAPE DETAILS: REFER TO LANDSCAPE DRAWINGS

DEVELOPMENT APPLICATION

1 Site Plan
1 : 200



1:200

0 m 2 4m 10m

True Northpoint

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DRIVEWAY RAMP SECTIONS: REFER TO DWG NO. 13 + 14

WASTE / RECYCLE BINS INDICATED: REFER TO WASTE MANAGEMENT REPORT

STORMWATER DETAILS + SITE LEVELS: REFER TO CIVIL DRAWINGS

LANDSCAPE DETAILS: REFER TO LANDSCAPE DRAWINGS

Issue	Issue descrption	Date
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Nominated Architect:
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Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

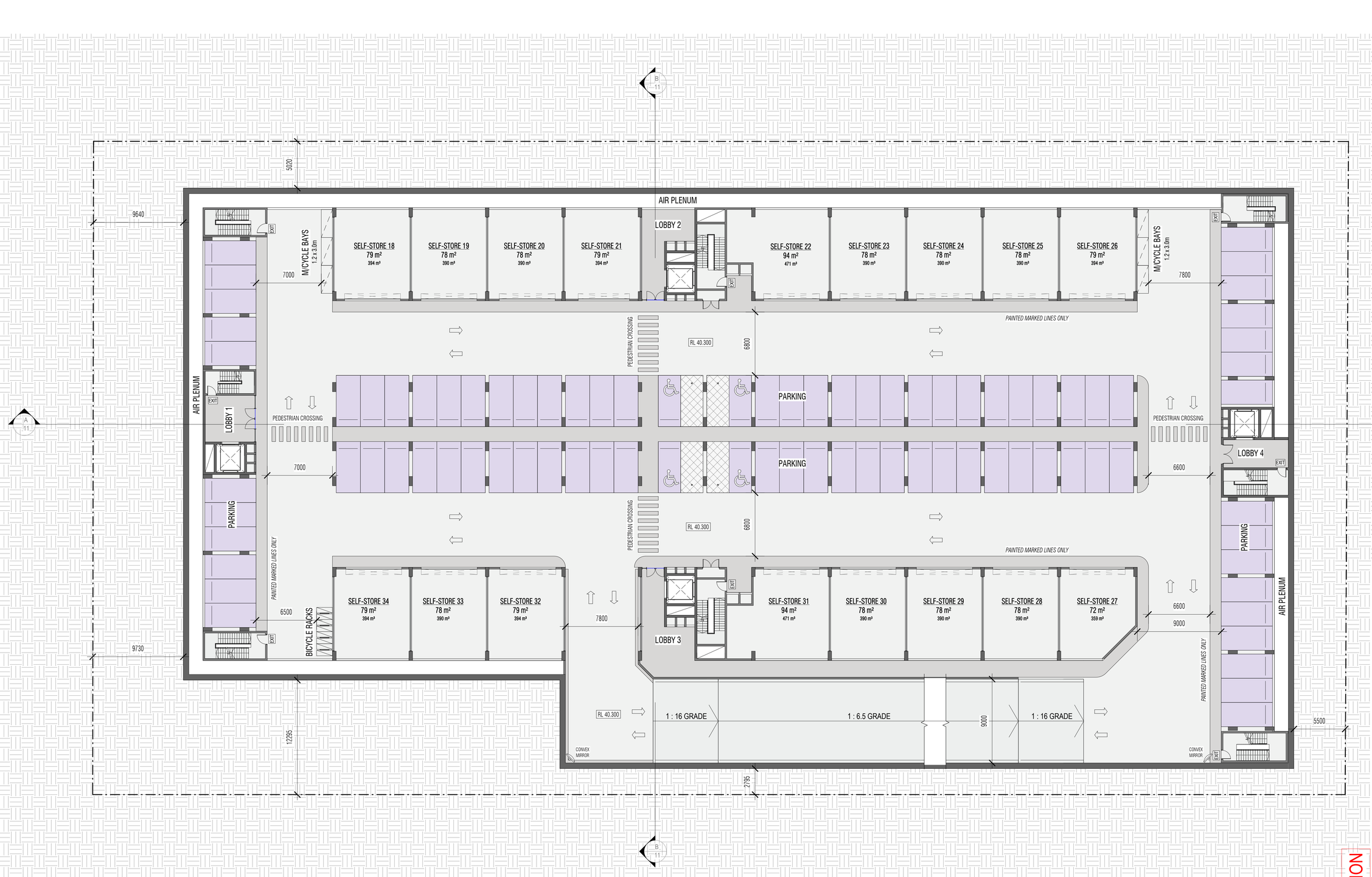
Title
Basement Level 03

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	03	E

DEVELOPMENT APPLICATION

PARKING SCHEDULE - BASEMENT 03	
Description	**Count**
Visitor	81
Visitor - Disabled	4
Motorcycle Bay	6
Visitor Bicycle Rack (Fits 2 Bikes)	4

1 Basement 03
1 : 200



1:200

0 m 2 4m 10m

True Northpoint

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DRIVEWAY RAMP SECTIONS: REFER TO DWG NO. 13 + 14

WASTE / RECYCLE BINS INDICATED: REFER TO WASTE MANAGEMENT REPORT

STORMWATER DETAILS + SITE LEVELS: REFER TO CIVIL DRAWINGS

LANDSCAPE DETAILS: REFER TO LANDSCAPE DRAWINGS

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
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Nominated Architect:
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Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Basement Level 02

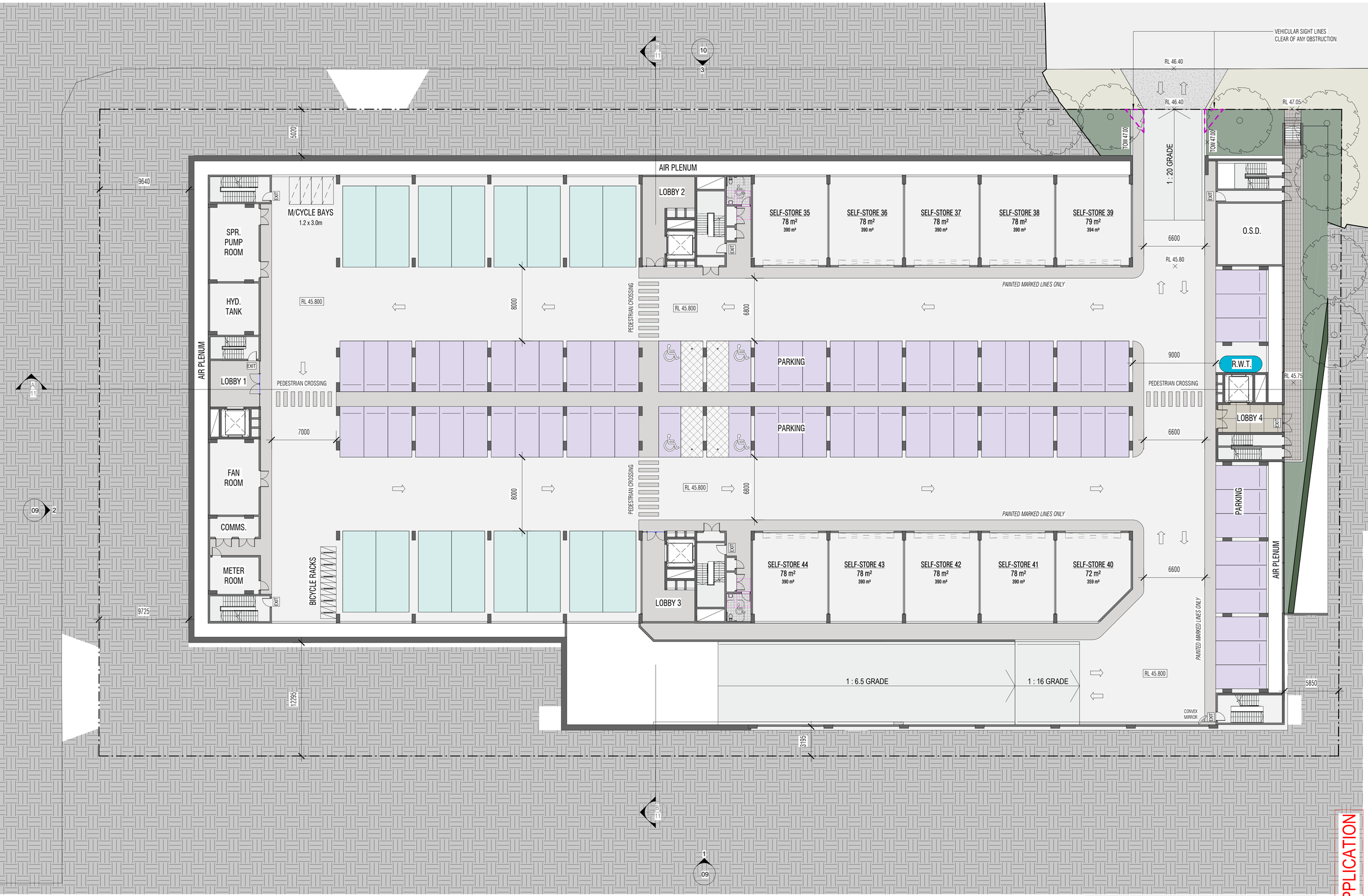
Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	04	E

DEVELOPMENT APPLICATION

PARKING SCHEDULE - BASEMENT 02

Description	Count
Visitor	81
Visitor - Disabled	4
Motorcycle Bay	6
Visitor Bicycle Rack (Fits 2 Bikes)	4

② Basement 02
1 : 200



1:200

0 m 2 4m 10m

True Northpoint

Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

DRIVEWAY RAMP SECTIONS: REFER TO DWG NO. 13 + 14

WASTE / RECYCLE BINS INDICATED: REFER TO WASTE MANAGEMENT REPORT

STORMWATER DETAILS + SITE LEVELS: REFER TO CIVIL DRAWINGS

LANDSCAPE DETAILS: REFER TO LANDSCAPE DRAWINGS

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
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③ Basement 01
1 : 200

PARKING SCHEDULE - BASEMENT 01	
Description	Count
Visitor	66
Visitor - Disabled	4
Truck Parking Bay	16
Motorcycle Bay	4
Visitor Bicycle Rack (Fits 2 Bikes)	6

DEVELOPMENT APPLICATION

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Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Basement Level 01

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	05	E

SIRIUS ROAD

MARS ROAD

1:200

0 m 2 4m 10m

True Northpoint

Do not scale, check and verify all dimensions before commencing new work, ground levels may vay due to site conditions.

5m BUILDING SETBACK

4m BUILDING SETBACK

10m BUILDING SETBACK

LANDSCAPED AREA

LANDSCAPED AREA

LANDSCAPED AREA

RAMP UP

1 : 20 GRADE

1 : 20 GRADE MAX

1:14 GRADE

1:14

UNIT 01
720 m²
RL 51.300

UNIT 02
467 m²
RL 51.300

UNIT 03
363 m²
RL 51.300

UNIT 04
471 m²
RL 51.300

UNIT 05
304 m²
RL 51.300

UNIT 06
522 m²
RL 51.300

UNIT 07
510 m²
RL 51.300

UNIT 08
392 m²
RL 51.300

UNIT 09
515 m²
RL 51.300

LOBBY 1

LOBBY 2

LOBBY 3

LOBBY 4

DRIVEWAY
RL 51.300

PAINTED MARKED LINES ONLY

PAINTED MARKED LINES ONLY

CONVEX MIRROR

PADMOUNT EASEMENT

EXIT

66OLT. WASTE / RECYCLE BIN STORE TO EACH UNIT AS PER WASTE MANAGEMENT REPORT

Gutter RL 52.17

DP 1211788

3 STOREY COMMERCIAL BUILDING No. 4 SIRIUS ROAD

Roof RL 56.41

Gutter RL 53.43

Outdoor Deck RL 54.38

All Buildings are Pre-Cast Concrete Panels

Ground RL 53.48

1 DP1085895 — 3 STOREY COMMERCIAL BUILDING No. 1 CHAPLIN DRIVE — Roof Height 65.71

2 STOREY — Roof Height 61.475

2 DP1010544 — 2 STOREY INDUSTRIAL BUILDING No. 3 CHAPLIN DRIVE — Roof Height 63.11

3 DP1010544 — 2 STOREY INDUSTRIAL BUILDING No. 5 CHAPLIN DRIVE — Roof Height 60.81

Roof Height 60.67

Roof Height 61.93 — 2 STOREY COMMERCIAL BUILDING No. 7 CHAPLIN DRIVE

SP 73040

SP 68866 — Roof Height 62.65 — 2 STOREY COMMERCIAL BUILDING No. 9-11 CHAPLIN DRIVE

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
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Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Level 01

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	06	E

DEVELOPMENT APPLICATION

DRIVEWAY RAMP SECTIONS: REFER TO DWG NO. 13 + 14

WASTE / RECYCLE BINS INDICATED: REFER TO WASTE MANAGEMENT REPORT

STORMWATER DETAILS + SITE LEVELS: REFER TO CIVIL DRAWINGS

LANDSCAPE DETAILS: REFER TO LANDSCAPE DRAWINGS

④ Level 01
1 : 200

SIRIUS ROAD

MARS ROAD

5m BUILDING SETBACK

4m BUILDING SETBACK

10m BUILDING SETBACK

1:200

0 m 2 4m 10m

True Northpoint

Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

LINE OF ROOF OVER

UNIT 11
338 m²
RL 58.800

UNIT 12
467 m²
RL 58.800

LOBBY 2

UNIT 13
363 m²
RL 58.800

UNIT 14
471 m²
RL 58.800

UNIT 15
304 m²
RL 58.800

660LT. WASTE / RECYCLE BIN STORE TO EACH UNIT AS PER WASTE MANAGEMENT REPORT

LOBBY 1

OPEN DRIVEWAY
RL 58.800

PAINTED MARKED LINES ONLY

CONVEX MIRROR

LOBBY 4

Gutter RL 52.17

DP 1211788

2 STOREY COMMERCIAL BUILDING No. 4 SIRIUS ROAD

UNIT 10
385 m²

UNIT 19
514 m²
RL 58.800

LOBBY 3

UNIT 18
392 m²
RL 58.800

UNIT 17
511 m²
RL 58.800

UNIT 16
223 m²

Roof RL 56.41

Gutter RL 53.43

1 : 20 GRADE | 1 : 16 GRADE | 1 : 6.5 GRADE | 1 : 16 GRADE

OPEN DRIVEWAY
RL 58.800

Outdoor Deck RL 54.38

All Buildings are Pre-Cast Concrete Panels

Ground RL 53.48

3 STOREY COMMERCIAL BUILDING No. 1 CHAPLIN DRIVE
Roof Height 65.71
1 DP1085895

2 STOREY
Roof Height 61.475

2 STOREY INDUSTRIAL BUILDING No. 3 CHAPLIN DRIVE
Roof Height 63.11
2 DP1010544

2 STOREY INDUSTRIAL BUILDING No. 5 CHAPLIN DRIVE
Roof Height 60.81
3 DP1010544

2 STOREY COMMERCIAL BUILDING No. 7 CHAPLIN DRIVE
Roof Height 60.67
Roof Height 61.93

SP 73040

2 STOREY COMMERCIAL BUILDING No. 9-11 CHAPLIN DRIVE
Roof Height 62.855

SP 68866

Issue	Issue description	Date
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Robert Del Pizzo
NSW Reg. No. 3972

DRIVEWAY RAMP SECTIONS: REFER TO DWG NO. 13 + 14

WASTE / RECYCLE BINS INDICATED: REFER TO WASTE MANAGEMENT REPORT

STORMWATER DETAILS + SITE LEVELS: REFER TO CIVIL DRAWINGS

LANDSCAPE DETAILS: REFER TO LANDSCAPE DRAWINGS

DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Level 02

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	07	E

5 Level 02
1 : 200

SIRIUS ROAD

MARS ROAD

1:200
0 m 2 4m 10m

True Northpoint

Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

RIDGE RL 69.40
FALL OF ROOF
RL 65.00
RIDGE RL 66.96
FALL OF ROOF
RL 65.00 T.O.W.
RL 64.800
RIDGE RL 69.40
RL 65.00
RL 66.000
RL 66.20
RL 66.20
RL 58.800
RIDGE RL 68.50
RL 65.00
FALL OF ROOF
RL 64.800
FALL OF ROOF
RL 65.00
RIDGE RL 70.40
RAMP UP
RL 58.800
RIDGE RL 64.32
Gutter/RL 52.17
Gutter RL 53.43
Outdoor Deck RL 54.38
All Buildings are Pre-Cast Concrete Panels
Ground RL 53.48

Roof
RL 56.41

DP 1211788

3 STOREY
COMMERCIAL BUILDING
No. 4 SIRIUS ROAD

Roof Height 65.71
3 STOREY
COMMERCIAL BUILDING
No. 1 CHAPLIN DRIVE
1 DP1085895

Roof Height 61.475
2 STOREY

Roof Height 63.11
2 STOREY
INDUSTRIAL BUILDING
No. 3 CHAPLIN DRIVE
2 DP1010544

Roof Height 60.81

2 STOREY
INDUSTRIAL BUILDING
No. 5 CHAPLIN DRIVE
3 DP1010544

Roof Height 60.67

Roof Height 61.93
2 STOREY
COMMERCIAL BUILDING
No. 7 CHAPLIN DRIVE

SP 73040

SP 68866

Roof Height 62.855
2 STOREY
COMMERCIAL BUILDING
No. 9-11 CHAPLIN DRIVE

Issue	Issue description	Date
E	Development Application Issue	01-04-22
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Nominated Architect:
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NSW Reg. No. 3972

DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

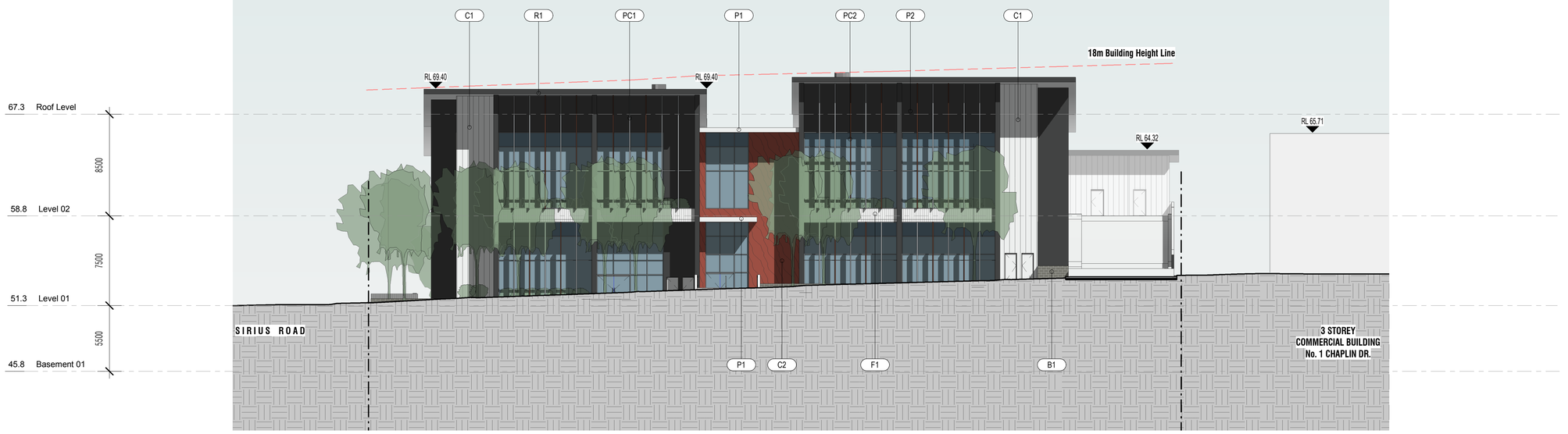
Title
Roof Plan

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	08	E

6 Roof Level
1 : 200

1:200
0 m 2 4m 10m

1 East Elevation
1 : 200



2 South Elevation - Mars Road
1 : 200

Issue	Issue description	Date
E	Development Application Issue	01-04-22
C	Co-ordination with Traffic / Landscape / Waste / Access + New Survey	06-08-21
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NSW Reg. No. 3972

DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

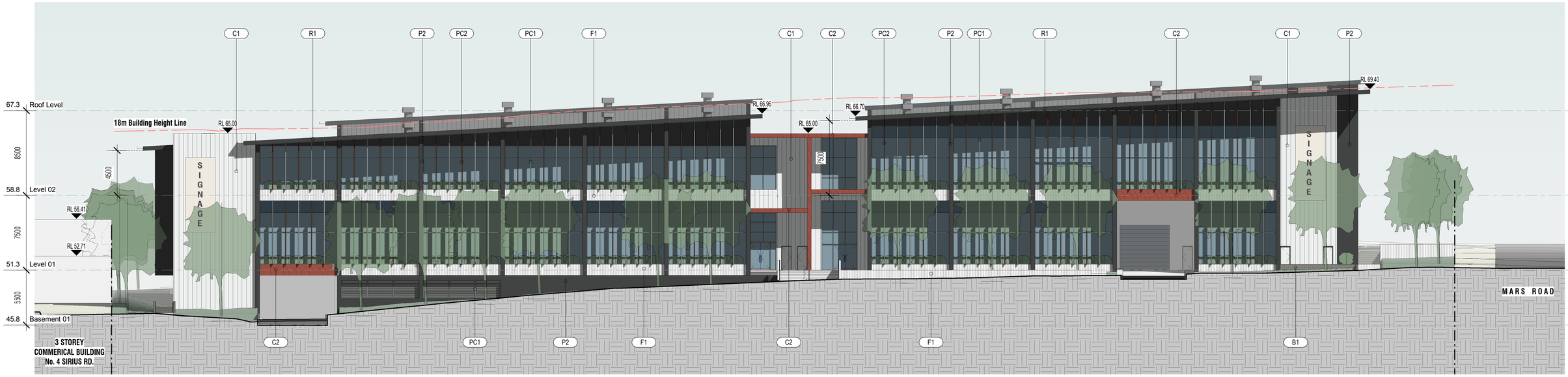
Client
Eton Huang

Title
Site Elevations

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	09	E

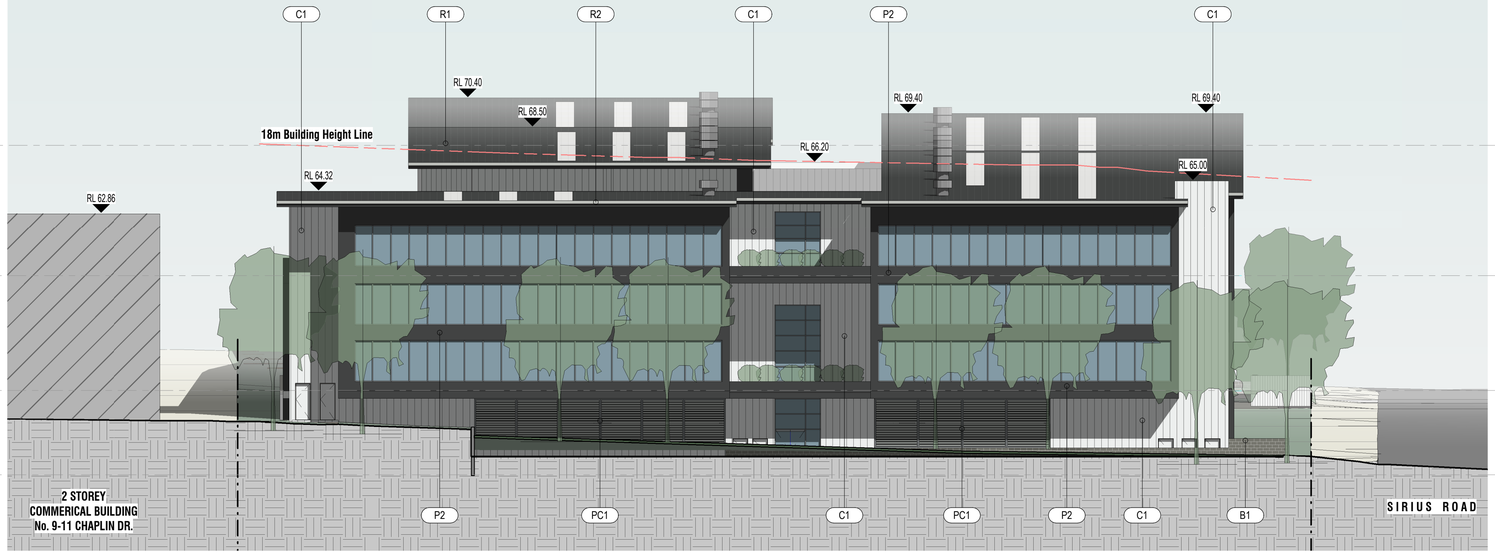
1:200

0 m 2 4m 10m



③ West Elevation - Sirius Road

1 : 200



④ North Elevation

1 : 200

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
C	Co-ordination with Traffic / Landscape / Waste / Access + New Survey	06-08-21
B	Prelim. Issue to Client + Consultants	02-07-21
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Robert Del Pizzo
NSW Reg. No. 3972

DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Site Elevations

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	10	E

1:200

0 m 2 4m 10m

A Section A - A

1 : 200

B Section B - B

1 : 200

DEVELOPMENT APPLICATION

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
C	Co-ordination with Traffic / Landscape / Waste / Access + New Survey	06-08-21
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Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

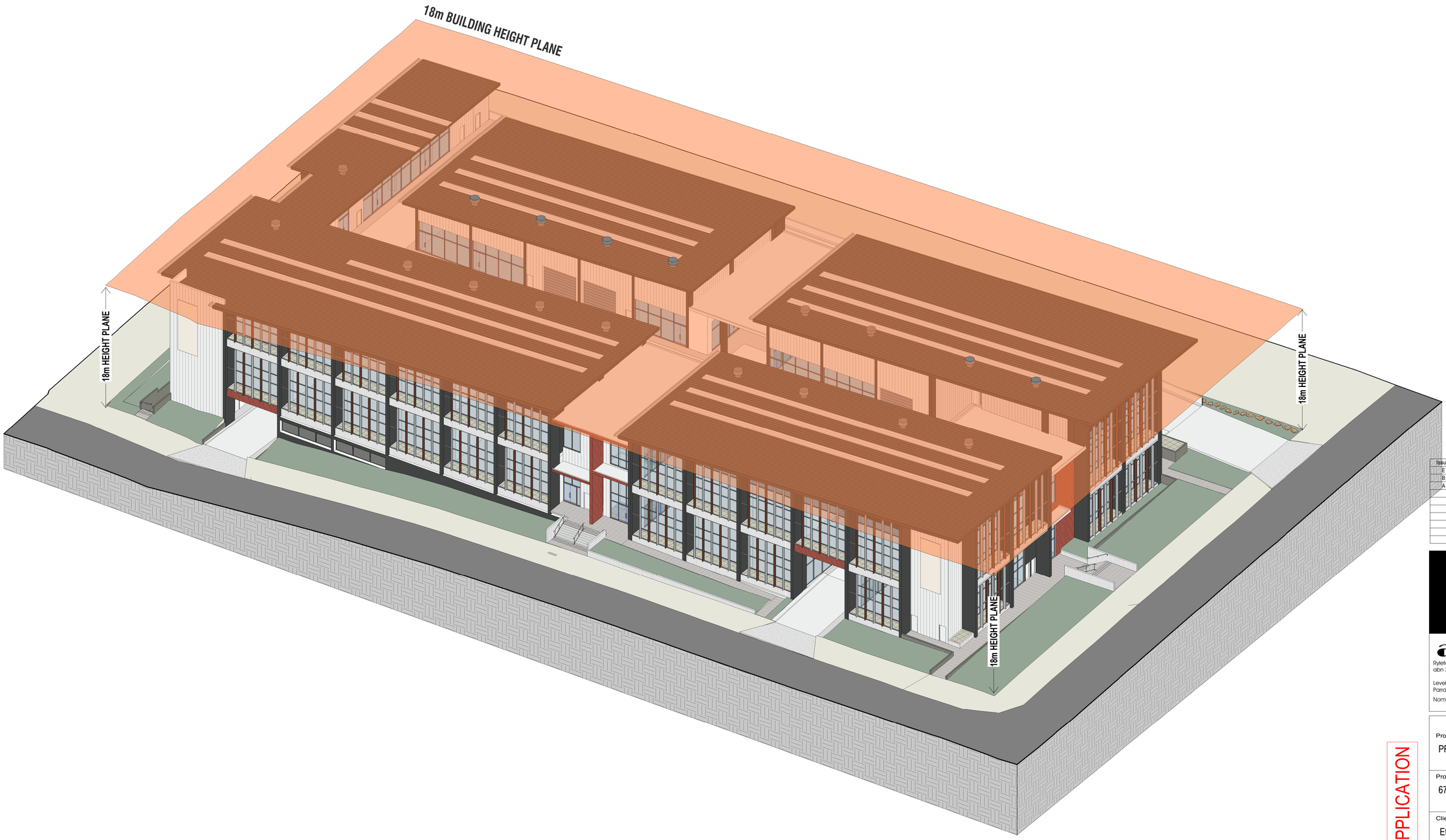
Client
Eton Huang

Title
Site Sections

Drawn	Scale	Checked
VGF	1 : 200	PDP
Job No	Drawing No.	Issue
2538	11	E

1:250

0 m 2.5 5m 12.5m



1 3D Building Height Plane

Issue	Issue description	Date
E	Development Application Issue	01-04-22
B	Prelim. Issue to Client + Consultants	02-07-21
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DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

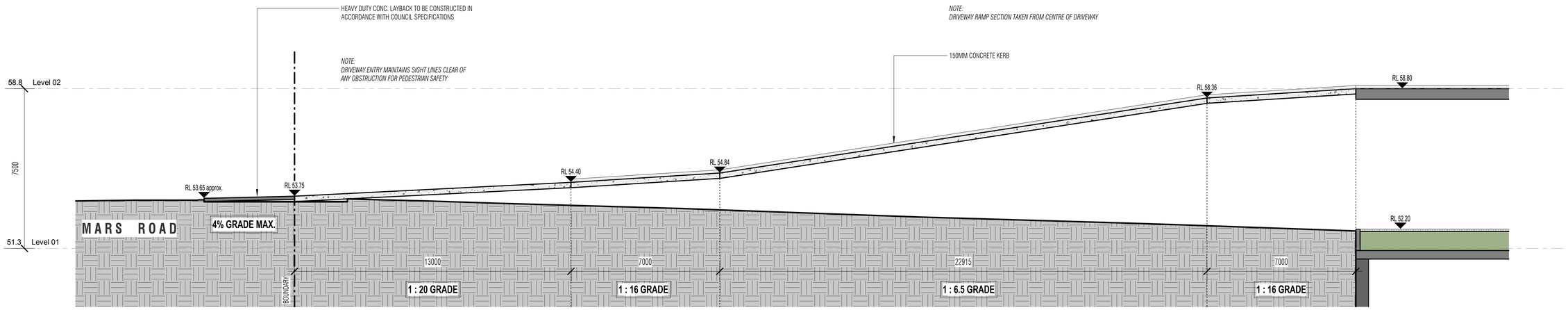
Client
Eton Huang

Title
3D Buiding Height Plane

Drawn	Scale	Checked
VGF		PDP
Job No	Drawing No.	Issue
2538	12	E

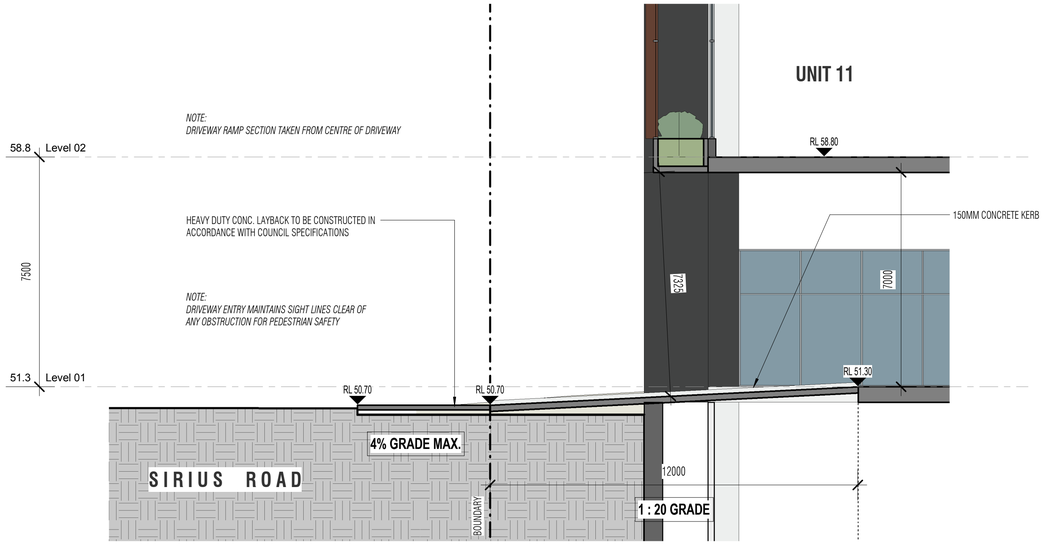
1:100

0 m 1 2m 5m



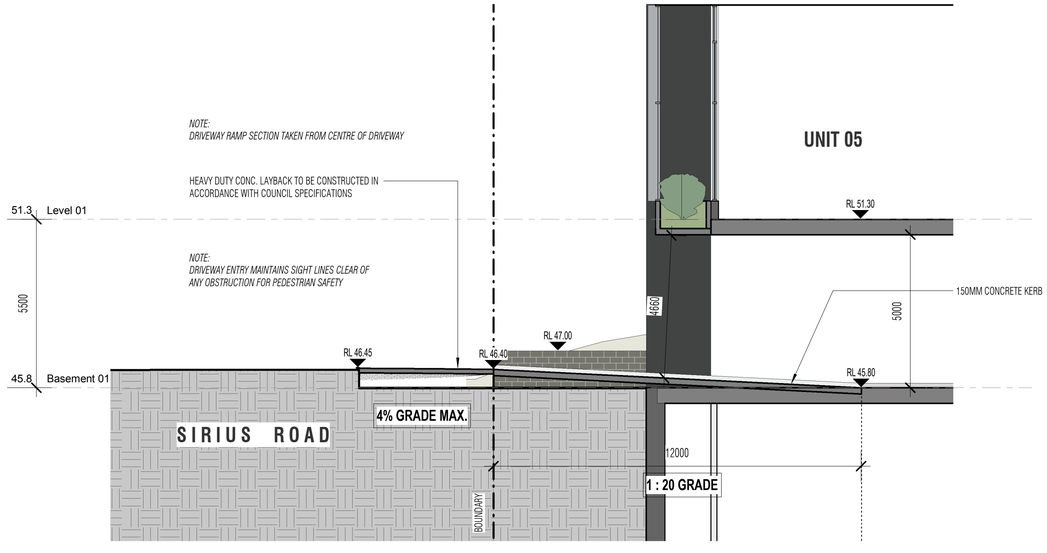
① Section Thru Driveway Entry/Exit - Mars Road

1 : 100



② Section Thru Driveway Entry/Exit (South) - Sirius Road

1 : 100



③ Section Thru Driveway Entry/Exit (North) - Sirius Road

1 : 100

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
B	Prelim. Issue to Client + Consultants	02-07-21

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Nominated Architect: Robert Del Pizzo
NSW Reg. No. 3972

DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

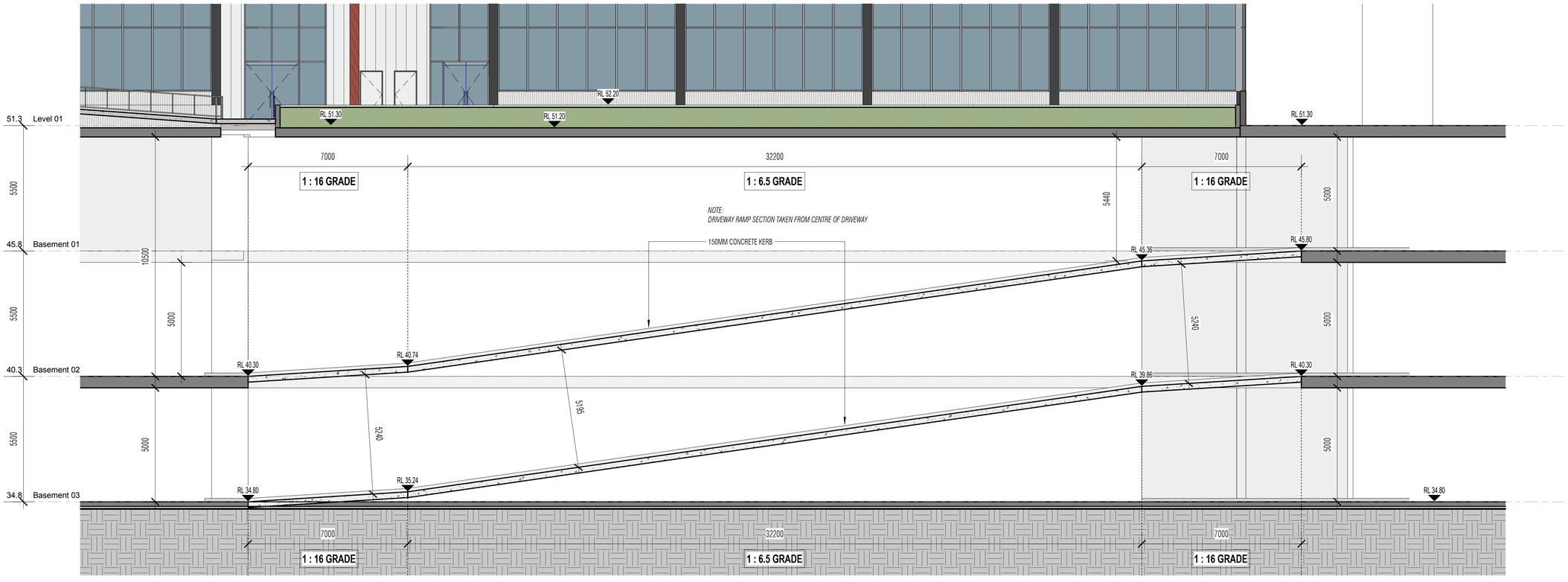
Client
Eton Huang

Title
Driveway Ramp Sections

Drawn	Scale	Checked
PDP	1 : 100	RDP
Job No	Drawing No.	Issue
2538	13	E

1:100

0 m 1 2m 5m



④ Section Thru Basement Driveway Ramps

1 : 100

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
B	Prelim. Issue to Client + Consultants	02-07-21

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DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

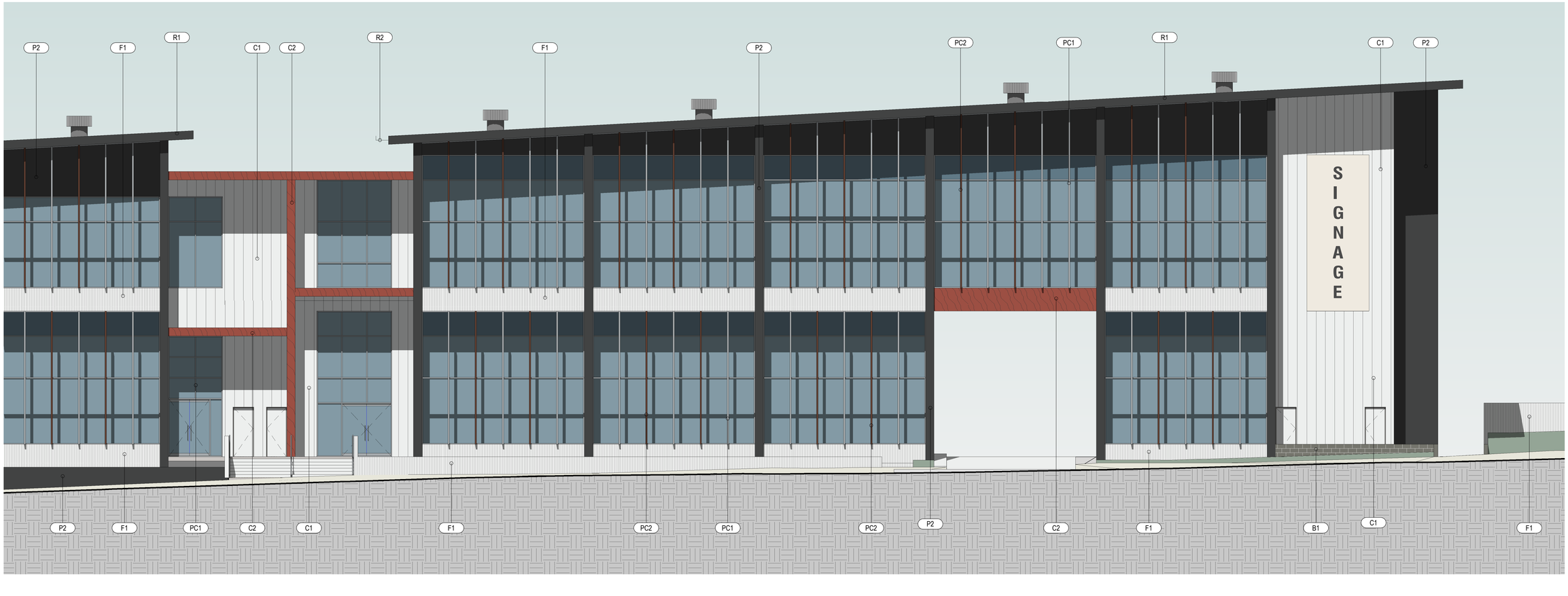
Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Driveway Ramp Sections

Drawn	Scale	Checked
PDP	1 : 100	RDP
Job No	Drawing No.	Issue
2538	14	E

1:100
0 m 1 2m 5m



Schedule of Materials and Finishes

Code	Application	Manufacturer	Finish	Product ID / Descriptic	Sample
P1	Paint Finish 1	Dulux	Lexicon Half	SW1 G2	
P2	Paint Finish 2	Dulux	Colorbond Monument	C29	
F1	Painted Concrete Rippled Edge Formwork	Dulux	Lexicon Half	SW1 G2	
C1	Wall Cladding 1	James Hardie Dulux Painted	Axon Cladding Lexicon Half	404418 - 400mm wide SW1 G2	
C2	Wall Cladding 2	Timber Panels	Bush Cherry (or similar)	600x1200mm (or similar)	
PC1	Windows / Handrails / Vertical Blades	Dulux Duratec	Eternity Silver Pearl	9007024Q	
PC2	Feature Vertical Blades	Colorbond	Terrain	C34	
R1	Roof Sheeting 1	Colorbond	Monument		
R2	Gutters + Downpipes	Colorbond	Shale Grey		
B1	Retaining Walls	Boral	Split Face Block	Charcoal	

DEVELOPMENT APPLICATION

Issue	Issue description	Date
E	Development Application Issue	01-04-22
B	Prelim. Issue to Client + Consultants	02-07-21

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Project
PROPOSED BUSINESS CENTRE

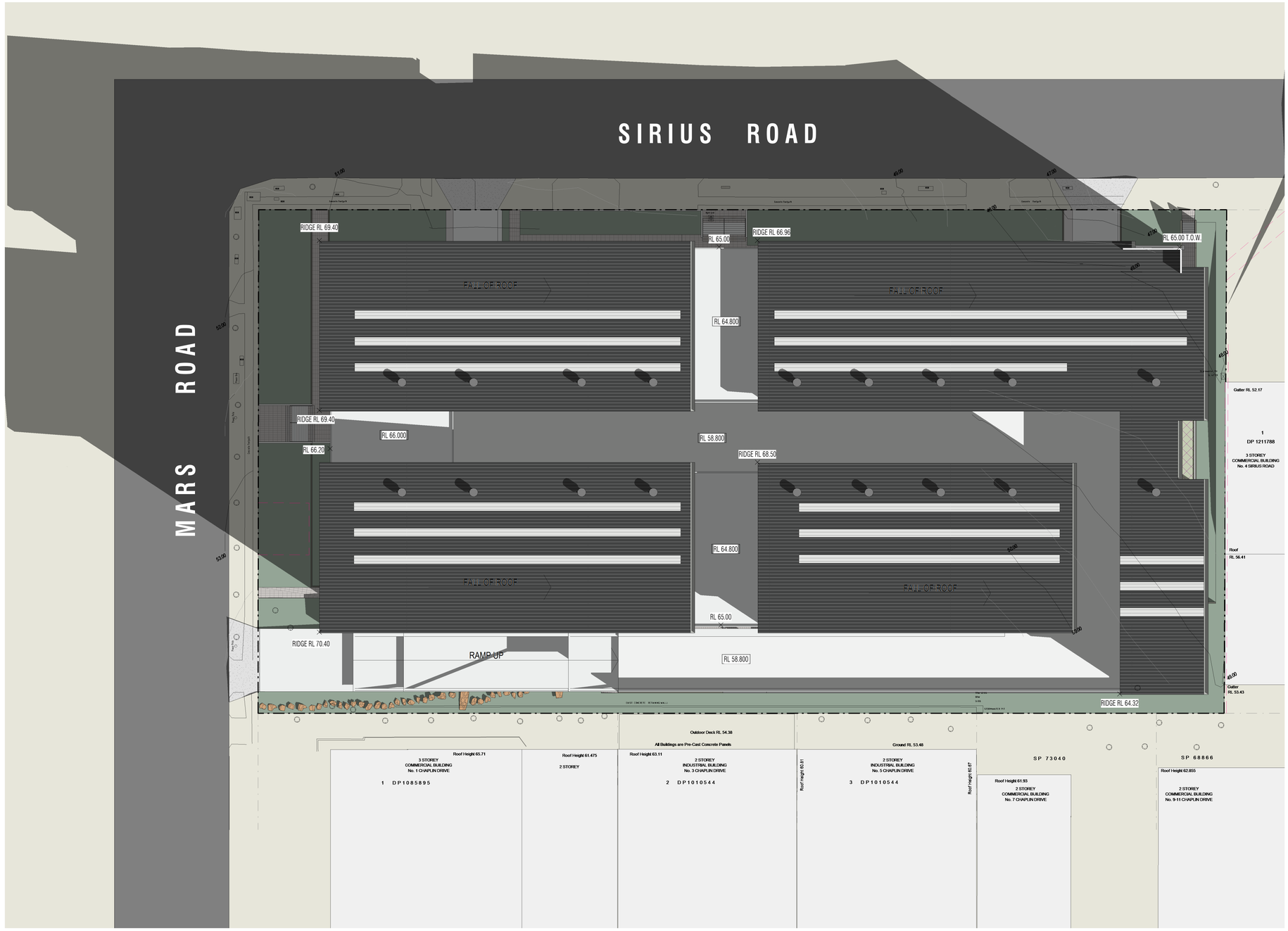
Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Schedule of Finishes

Drawn	Scale	Checked
PDP	1 : 100	RDP
Job No	Drawing No.	Issue
2538	15	E

1 Schedule of Finishes
1 : 100



1 Shadow Diagram - 9am 21st June
1 : 300

1:300
0 m 3 6m 15m

True Northpoint

Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
C	Co-ordination with Traffic / Landscape / Waste / Access + New Survey	06-08-21
B	Prelim. Issue to Client + Consultants	02-07-21

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DEVELOPMENT APPLICATION

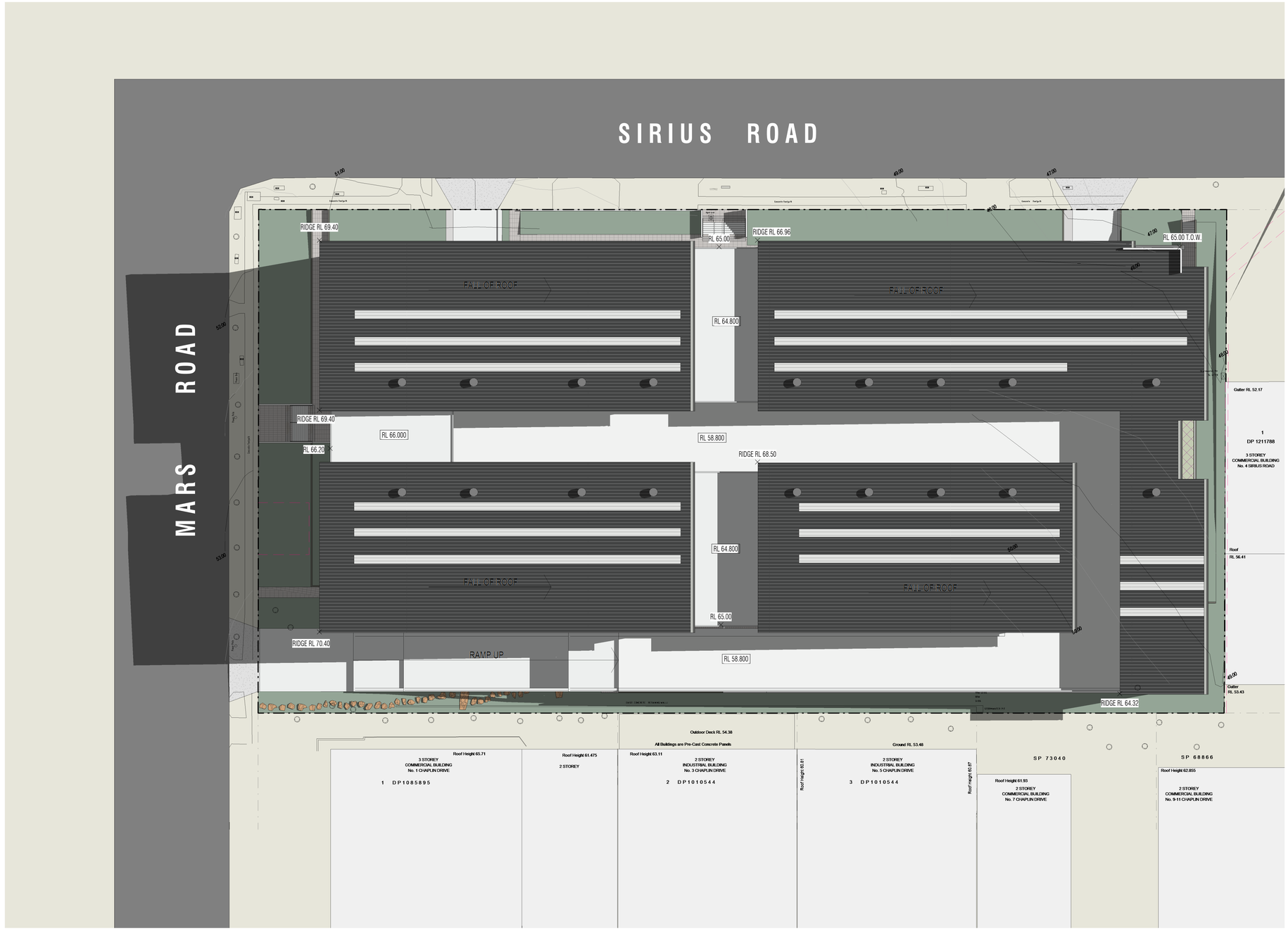
Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Shadow Diagrams

Drawn	Scale	Checked
PDP	1 : 300	RDP
Job No	Drawing No.	Issue
2538	16	E



② Shadow Diagram - 12noon 21st June

1 : 300

1:300

0 m 3 6m 15m

True Northpoint

Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
C	Co-ordination with Traffic / Landscape / Waste / Access + New Survey	06-08-21
B	Prelim. Issue to Client + Consultants	02-07-21

DEVELOPMENT APPLICATION

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Nominated Architect:
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NSW Reg. No. 3972

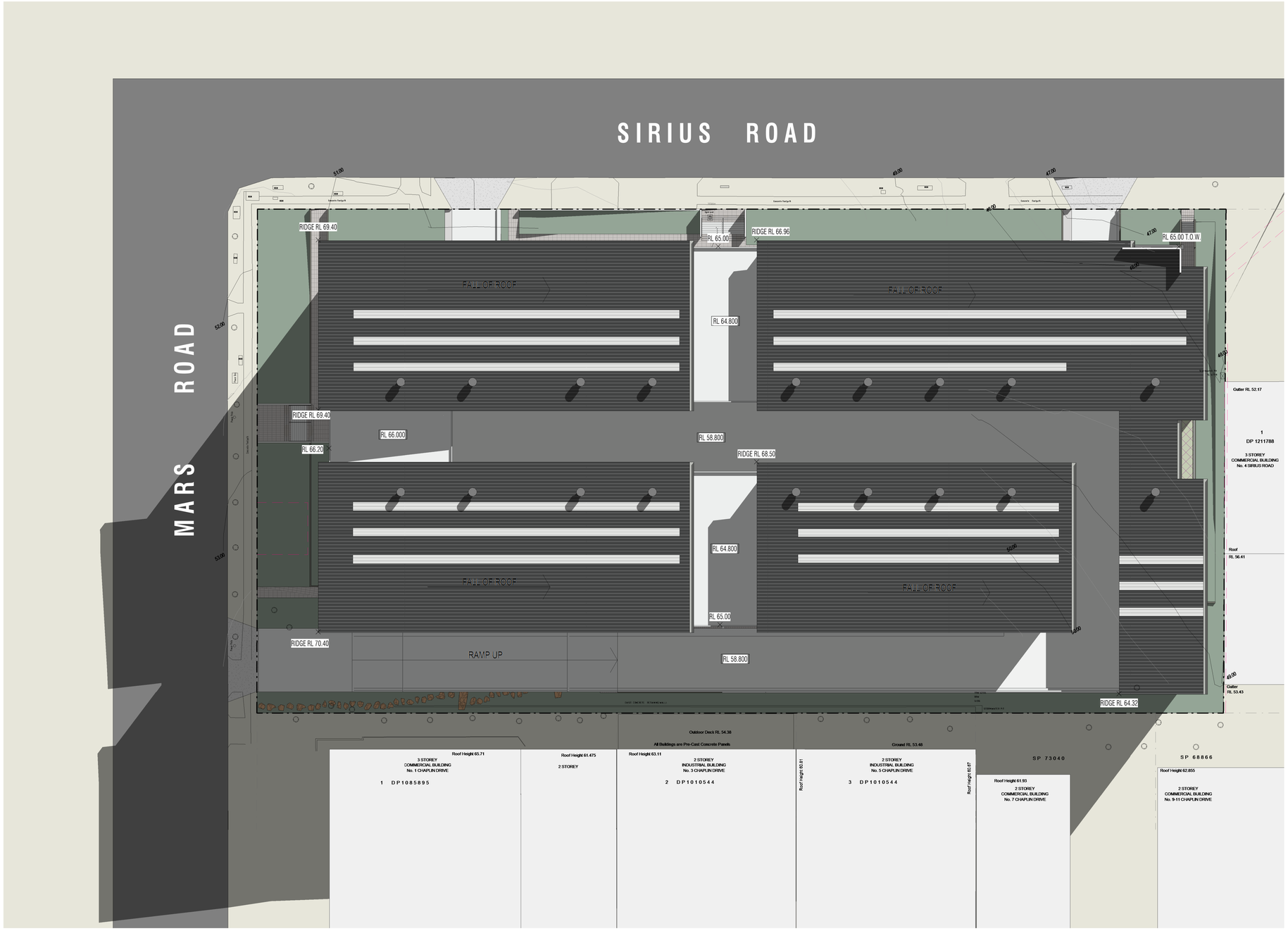
Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

Client
Eton Huang

Title
Shadow Diagrams

Drawn	Scale	Checked
PDP	1 : 300	RDP
Job No	Drawing No.	Issue
2538	17	E



③ Shadow Diagram - 3pm 21st June

1 : 300

1:300

0 m 3 6m 15m

True Northpoint

Do not scale, check and verify all dimensions before comencing new work, ground levels may vary due to site conditions.

Issue	Issue descrption	Date
E	Development Application Issue	01-04-22
C	Co-ordination with Traffic / Landscape / Waste / Access + New Survey	06-08-21
B	Prelim. Issue to Client + Consultants	02-07-21

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NSW Reg. No. 3972

DEVELOPMENT APPLICATION

Project
PROPOSED BUSINESS CENTRE

Project Address
67 Mars Road, Lane Cove West

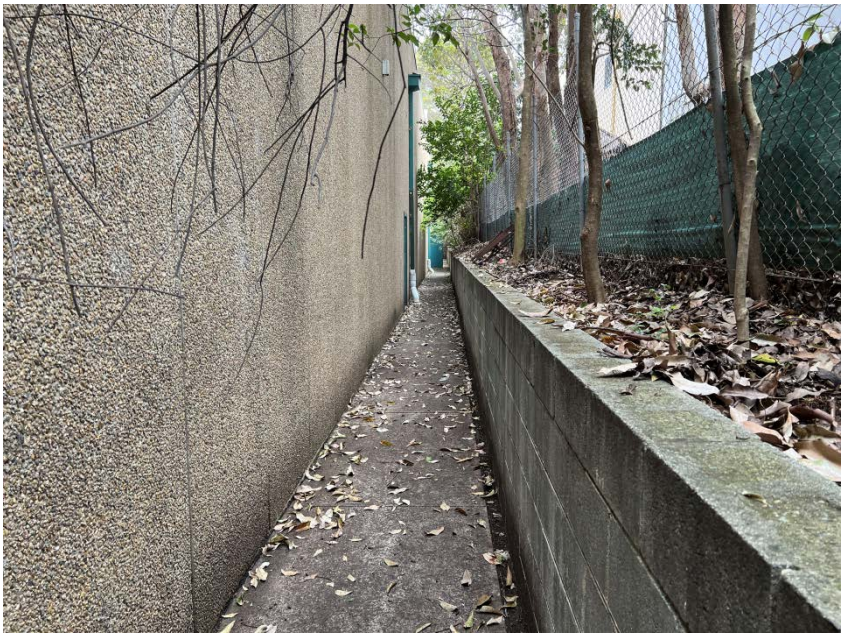
Client
Eton Huang

Title
Shadow Diagrams

Drawn	Scale	Checked
PDP	1 : 300	RDP
Job No	Drawing No.	Issue
2538	18	E

Appendix D – Site Photographs

Photograph 1: Western site boundary.



Photograph 2: Eastern site boundary.

Photograph 3: FCM fragments on the eastern site boundary.

Appendix E – Borehole Logs

BOREHOLE: BH101

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	ASPHALT; 100 mm thickness.			ASPHALT HARDSTAND
				0.10				CIS	Clayey SAND; fine to coarse grained, pinkish brown, no odour.	D - M	-	NATURAL
			0.5		BH101_0.3-0.4 PID=2.0 ppm							
			1.0	1.00					From 1.00 m, colour change to orange mottled brown.			
					BH101_1.3-1.4 PID=1.5 ppm							
			1.5	1.50					Hole Terminated at 1.50 mBGL; Target Depth Reached.			
			2.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:45 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH102

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	ASPHALT; 150 mm thickness.			ASPHALT HARDSTAND
				0.15				CIS	Clayey SAND; fine to coarse grained, orange mottled brown, with trace sub-angular gravels, no odour.	D	-	NATURAL
			0.5		BH102_0.3-0.4 PID=0.5 ppm							
			1.0	1.00					From 1.00 m, colour change to orange with light grey.			
			1.5		BH102_1.4-1.5 PID=0.6 ppm							
				1.60					Hole Terminated at 1.60 mBGL; Target Depth Reached.			
			2.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:46 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH103

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0	0.10				-	ASPHALT; 100 mm thickness.			ASPHALT HARDSTAND
								CIS	Clayey SAND; fine to coarse grained, orange, no odour.			NATURAL
			0.5		BH103_0.3-0.4 PID=8.1 ppm							
			1.0	1.00					From 1.00 m, colour change to orange mottled light grey, with slight hydrocarbon odour.	D	-	
					BH103_1.2-1.3 PID=4.9ppm							
			1.5	1.50					From 1.50 m, colour change to pale grey, no odour.			
					BH103_1.8-1.9 PID=1.8 ppm							
			2.0	2.00					Hole Terminated at 2.00 mBGL; Target Depth Reached.			
			2.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:46 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

TEST: BH104M

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS
AD/T	-	GWNE	0	0.15				-	ASPHALT; 150 mm thickness.			Gatic Cover
					BH104M_0.2-0.3 PID=1.1 ppm			-	FILL: Silty CLAY; low to medium plasticity, yellow, no odour.			
				0.50				CIS	Clayey SAND; fine to coarse grained, orange, no odour.			
			1		BH104M_0.8-0.9 PID=0.5 ppm							Cuttings
				1.50				-	SANDSTONE			
			2									uPVC 50 mm Casing Bentonite
			3							D	-	
			4									Sand
			5									uPVC 50 mm Screen
				5.90								
			6						Hole Terminated at 5.90 mBGL; Target Depth Reached.			

PIEZOMETER DETAILS: ID BH104M; Static Water Level

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH105

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	ASPHALT; 250 mm thickness.			ASPHALT HARDSTAND
				0.25				CIS	Clayey SAND; fine to coarse grained, yellowish orange, no odour.			NATURAL
			0.5									
			1.0		BH105_1.0-1.1 PID=0.5 ppm					D - M	-	
			1.5									
			2.0									
				2.10					From 2.10 m, colour change to pink mottled light grey.			
					BH105_2.2-2.3 PID=0.6 ppm							
				2.40					Hole Terminated at 2.40 mBGL; Target Depth Reached.			
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:47 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH106

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0					-	ASPHALT: 200 mm thickness.			ASPHALT HARDSTAND
				0.20				CIS	Clayey SAND; fine to coarse grained, orange, no odour.			NATURAL
AD/T	-	GWNE	0.5		BH106_0.5-0.6 PID=0.6 ppm					D	-	
			1.0									
				1.10					From 1.10 m, colour change to light grey.			
				1.50	BH106_1.4-1.5 PID=0.9 ppm							
			1.5						Hole Terminated at 1.50 mBGL; Target Depth Reached.			
			2.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH107

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	ASPHALT: 300 mm thickness.			ASPHALT HARDSTAND
				0.30				CIS	Clayey SAND; fine to coarse grained, orange, no odour.			NATURAL
			0.5		BH107_0.5-0.6 PID=0.7 ppm							
			1.0							D	-	
			1.5	1.50	BH107_1.6-1.7 PID=1.1 ppm				From 1.50 m, colour change to light grey, with minor weathered shale fragments.			
			2.0	2.00					Hole Terminated at 2.00 mBGL; Target Depth Reached.			
			2.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:48 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

TEST: BH108M

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID / Static Water Level
AD/T	-	GWNE	0	0.20				-	ASPHALT: 200 mm thickness.			BH108M
					BH108M_0.3-0.4 PID=0.6 ppm			CIS	Clayey SAND; fine to coarse grained, orange, no odour.			
			1	1.40					From 1.40 m, colour change to yellowish brown.			
					BH108M_1.5-1.6 PID=0.6 ppm					D	-	
			2									
			3									
			4									
			5									
			6	6.00					Hole Terminated at 6.00 mBGL; Target Depth Reached.			

Gatic Cover
Cuttings
uPVC 50 mm Casing
Bentonite
Sand
uPVC 50 mm Screen

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 19:08 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH109

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Silty CLAY; low to medium plasticity, yellow, no odour.			FILL
					BH109_0.2-0.3 PID=0.3 ppm							
				0.30				CIS	Clayey SAND; fine to coarse grained, red, no odour.			NATURAL
			0.5									
					BH109_0.7-0.8 PID=0.3 ppm					D - M	-	
				1.00				CIS	Sandy CLAY; medium plasticity, red mottled orange, with fine to coarse grained, poorly graded sand, no odour.			
			1.0									
			1.5	*1.50*					Hole Terminated at 1.50 mBGL; Target Depth Reached.			
			2.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:50 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH110

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Hand Auger	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0					-	CONCRETE: 100 mm thickness.			CONCRETE HARDSTAND
				0.10				CIS	Clayey SAND; fine to coarse grained, pinkish orange, no odour.			NATURAL
					BH110_0.2-0.3 PID=1.0 ppm							
HA	-	GWNE	0.5	0.50					From 0.50 m, colour change to brown.	M	-	
					BH110_0.8-0.9 PID=0.9 ppm							
			1.0	1.00					Hole Terminated at 1.00 mBGL; Target Depth Reached.			
			1.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:50 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH111

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Hand Auger	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0					-	CONCRETE: 100 mm thickness.			CONCRETE HARDSTAND
				0.10				CIS	Clayey SAND; fine to coarse grained, pinkish orange, no odour.			NATURAL
HA	-	GWNE			BH111_0.2-0.3 PID=0.9 ppm							
			0.5	0.50					From 0.50 m, colour change to brown.	M	-	
					BH111_0.8-0.9 PID=2.1 ppm							
			1.0	1.00					Hole Terminated at 1.00 mBGL; Target Depth Reached.			
			1.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:51 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH112

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0		BH112_0.2-0.3 PID=0.6 ppm			-	FILL: Silty CLAY; low to medium plasticity, dark brown, no odour.	M	-	FILL
				0.30				CIS	Clayey SAND; fine to coarse grained, red, no odour.			NATURAL
			0.5		BH112_0.7-0.8 PID=0.7 ppm							
			1.0	1.00				CIS	Sandy CLAY; medium plasticity, red mottled grey, with minor shale fragments, no odour.			
					BH112_1.3-1.4 PID=0.4 ppm							
			1.5	1.50					Hole Terminated at 1.50 mBGL; Target Depth Reached.			
			2.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:51 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH113

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Hand Auger	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0					-	CONCRETE: 100 mm thickness.			CONCRETE HARDSTAND
				0.10				CIS	Clayey SAND; fine to coarse grained, pinkish orange, no odour.			NATURAL
HA	-	GWNE			BH113_0.2-0.3 PID=1.1 ppm							
			0.5	0.50					From 0.50 m, colour change to pink mottled dark brown.	M	-	
			1.0		BH113_1.0-1.1 PID=0.8 ppm							
				1.10					Hole Terminated at 1.10 mBGL; Target Depth Reached.			
			1.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:51 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH114

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Shovel	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
SHOVEL	-	GWNE	0.0		BH114_0.1-0.2 PID=0.7 ppm			-	FILL: Silty CLAY; low plasticity, dark brown, with rootlets, with fibre cement sheeting fragments, no odour.	M	-	TOPSOIL
				0.30					Hole Terminated at 0.30 mBGL; Refusal on Hard Clay.			
			0.5									
			1.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:52 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

TEST: BH115M

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	16/9/22
Position	Refer to Figure 2			Date Completed	16/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID Static Water Level BH115M	
AD/T	-	GWNE	0	0.10				-	CONCRETE: 100 mm thickness.			BH115M	Gatic Cover
					BH115M_0.3-0.4 PID=0.4 ppm			CIS	Clayey SAND; fine to coarse grained, red mottled brown and grey, no odour.				
			1	1.00				CIS	Sandy CLAY; medium plasticity, red mottled orange, no odour.				Cuttings
					BH115M_1.3-1.4 PID=0.4 ppm								
			2										uPVC 50 mm Casing
													Bentonite
			3							D - M	-		
		▽	4										Sand
			5										uPVC 50 mm Screen
			6	6.10					Hole Terminated at 6.10 mBGL; Target Depth Reached.				

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:53 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH116

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	16/9/22
Position	Refer to Figure 2			Date Completed	16/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0.0					-	FILL: Silty CLAY; low to medium plasticity, dark brown, no odour.			FILL
					BH116_0.3-0.4 PID=0.4 ppm							
				0.40				CIS	Sandy CLAY; medium plasticity, red mottled grey, no odour.			NATURAL
			0.5							M	-	
			1.0		BH116_1.1-1.2 PID=0.4 ppm							
			1.5	1.50					Hole Terminated at 1.50 mBGL; Target Depth Reached.			
			2.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:53 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH117

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	15/9/22
Position	Refer to Figure 2			Date Completed	15/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Shovel	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
SHOVEL	-	GWNE	0.0		BH117_0.1-0.2 PID=0.2 ppm			-	FILL: Silty CLAY; low plasticity, dark brown, with plastic and fibre cement sheeting fragments, no odour.	D	-	TOPSOIL
				0.20					Hole Terminated at 0.20 mBGL; Refusal on Hard Clay.			
			0.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:53 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH118

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	16/9/22
Position	Refer to Figure 2			Date Completed	16/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Hand Auger	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0	0.08				-	CONCRETE: 80 mm thickness.			CONCRETE HARDSTAND
					BH118_0.1-0.2 PID=0.8 ppm			CIS	Clayey SAND; fine to coarse grained, orange, no odour.			NATURAL
HA	-	GWNE	0.5	0.20				CIS	Sandy CLAY; medium plasticity, red mottled grey, with minor shale fragments, no odour.	M	-	
					BH118_0.7-0.8 PID=0.3 ppm							
			1.0	1.00					Hole Terminated at 1.00 mBGL; Target Depth Reached.			
			1.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:54 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH119

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	16/9/22
Position	Refer to Figure 2			Date Completed	16/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Hand Auger	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0					-	CONCRETE: 150 mm thickness.			CONCRETE HARDSTAND
				0.15				CIS	Clayey SAND; fine to medium grained, brown, with medium to high plasticity clay, no odour.			NATURAL
HA	-	GWNE			BH119_0.2-0.3 PID=0.2 ppm							
				0.40				CIS	Sandy CLAY; medium plasticity, red mottled pale grey, no odour.	M	-	
			0.5									
					BH119_0.7-0.8 PID=0.3 ppm							
				0.80					Hole Terminated at 0.80 mBGL; Target Depth Reached.			
			1.0									
			1.5									

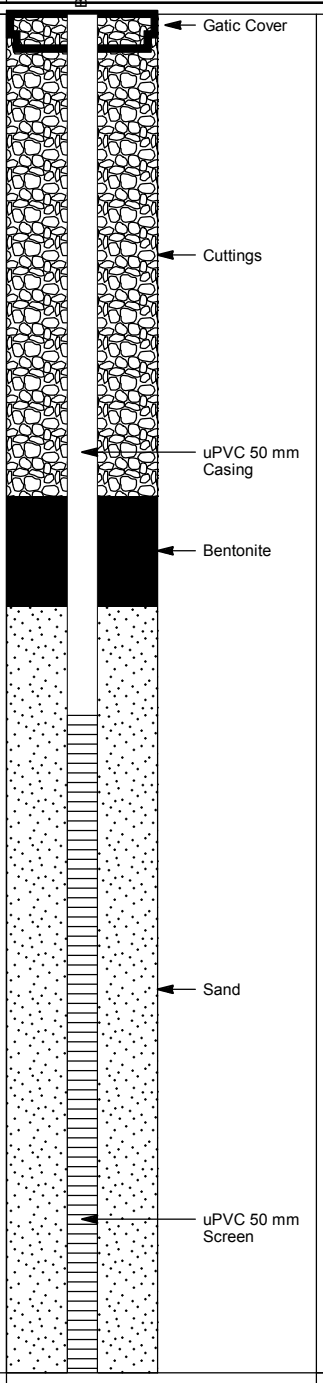
This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:54 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

TEST: BH120M

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	16/9/22
Position	Refer to Figure 2			Date Completed	16/9/22
Job No.	E25663.E02	Contractor	Geosense Drilling Pty Ltd	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig		Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS
AD/T	-	GWNE	0	0.15				-	CONCRETE: 150 mm thickness.			ID Static Water Level BH120M
					BH120M_0.3-0.4 PID=4.5 ppm			-	FILL: Silty CLAY; low to medium plasticity, red motted grey, no odour.			
			1	1.00				CIS	Sandy CLAY; medium plasticity, red mottled grey, with minor shale fragments, no odour.			
					BH120M_1.4-1.5 PID=2.3 ppm							
			2	2.00					From 2.0 m, colour change to brown.	M	-	
			3									
			4									
			5									
			6	6.20					Hole Terminated at 6.20 mBGL; Target Depth Reached.			



This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:55 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH121

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	67 Mars Road, Lane Cove West NSW			Date Started	16/9/22
Position	Refer to Figure 2			Date Completed	16/9/22
Job No.	E25663.E02	Contractor	-	Logged RW	Date:
Client	Lane Cove West Development Pty Ltd	Drill Rig	Hand Auger	Checked	Date:
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA	-	GWNE	0.0		BH121_0.1-0.2 PID=2.4 ppm			-	FILL: Silty CLAY; medium plasticity, dark brown, with rootlets, with organic odour.	M	-	TOPSOIL
				0.30					From 0.50 m, colour change to brown.			
			0.5		BH121_0.5-0.6 PID=4.5 ppm							
				0.60				CIS	Sandy CLAY; medium plasticity, red mottled pale grey, no odour.			NATURAL
			1.0		BH121_1.1-1.2 PID=1.1 ppm							
				1.20					Hole Terminated at 1.20 mBGL; Target Depth Reached.			
			1.5									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 EIA 1.03.GPJ <<DrawingFile>> 04/10/2022 13:56 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

Appendix F – Calibration Form and Field Data Sheets

EI Australia
Suite 6.01, 55 Miller Street
PYRMONT, NSW, 2009

ABN 33 102 449 507
E service@eiaustralia.com.au
W www.eiaustralia.com.au
T 02 9516 0722

CALIBRATION CERTIFICATE FOR PHOTO IONISATION DETECTOR

Instrument: Mini RAE 3000

Serial Number: 592-906667 - EI **PID02** ☑ **OR** 592-901345 - EI **PID03** ☐

Instrument Conditions: Good

Calibration gas species: Isobutylene.

Calibration gas concentration: 100 ppm

Gas bottle number: Lot: 1074828 CYL: 106

This PID has been calibrated to Isobutylene gas with the span concentration displayed as 97.2 ppm at 100 ppm span setting (allowable range +/-10ppm from span setting).

The PID is initially zero calibrated in fresh air.

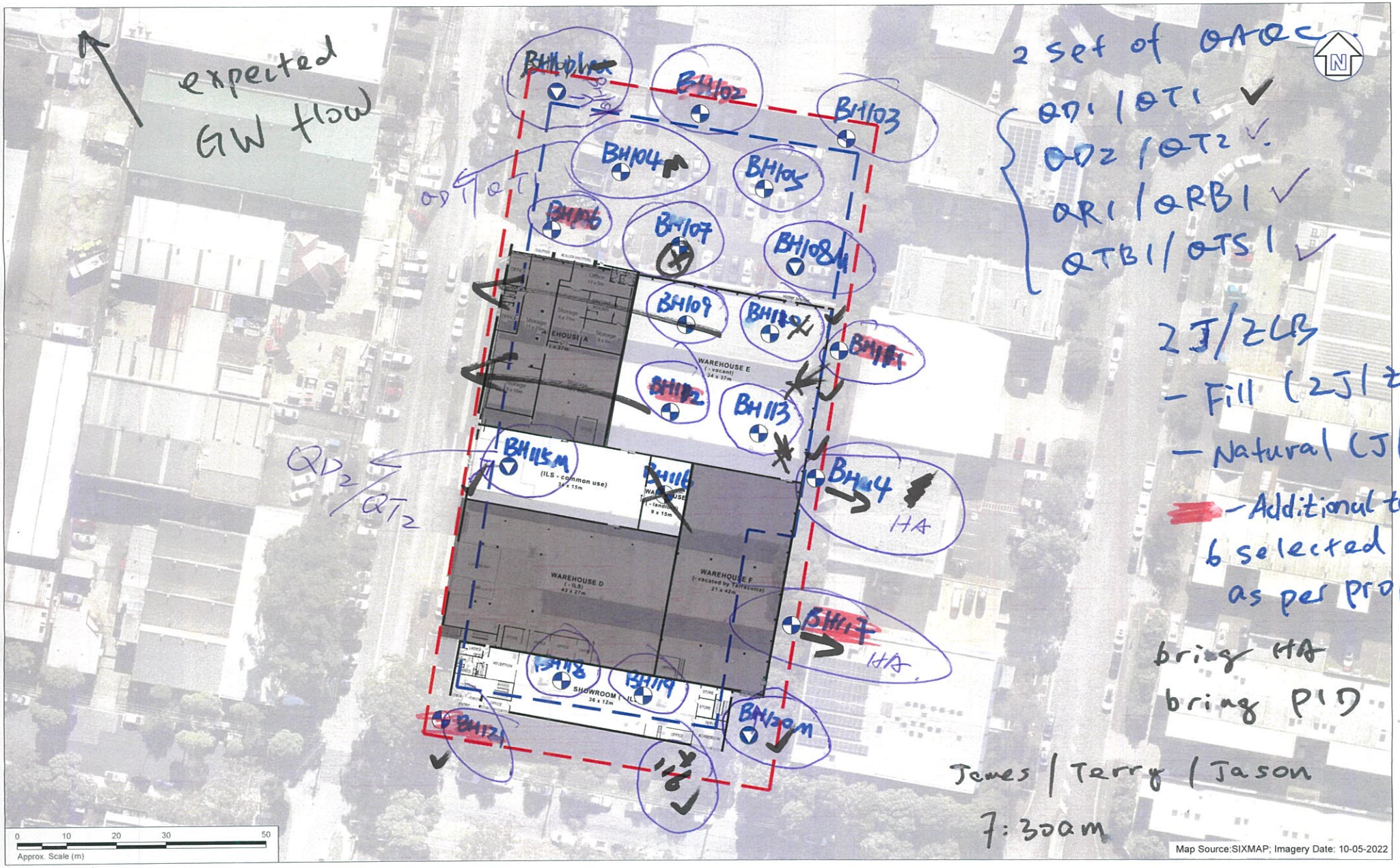
Remaining gas in bottle: Ho psi (if reading is <250 psi, notify Equipment Manager to arrange new gas bottle order)

The above detector was calibrated in accordance with manufacturer's specifications.

Signed: [signature]

Date: 16/9/22

Time: 12:12 pm



LEGEND (All locations are Approximate)

- Approximate site boundary
- Proposed basement boundary
- Proposed groundwater monitoring well location
- Proposed borehole location

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Practical Solutions for Built Environments
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	T.Z.
Approved:	-
Date:	20-07-22

Lane Cove West Development Pty Ltd
Detailed Site Investigation
67 Mars Road, Lane Cove West NSW
Proposed Sampling Location Plan

Figure: X

Project: E25663.E02

Daily Inspection / Work Summary Card - Remediation & Validation Form

OP 005a (Rev 2)

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EI Australia
Suite 6.01, 55 Miller Street
PYRMONT, NSW, 2009

ABN 42 909 129 957
E service@eiaustralia.com.au
W www.eiaustralia.com.au
T 02 9516 0722

Project Number:	E25663	Engineer Name:	R.W.	Page: 1	1 of 1
Date:	23/09/2025	Time ON Site: ~~7:30~~	7:30 am		
Travel Time:	1.5hr	Time OFF Site:	10:30 am		
Site Address/Location:	67 Mowbray Rd. Lane Cove West				
Climatic Conditions:	Rain				

Completed Works:

4 ~~GW~~ GMW sampling

GW - BH104M
GW - BH108M
GW - BH115M
GW - BH120M

Comments / Issues / Conclusions / Further Testing Required / Actions to be Undertaken / Timing of Actions:

QT1/QD1 were taken from GW-BH120M

Signed by:

WATER SAMPLING FIELD SHEET

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Site Address:	67 Mars Rd, Lane Cove West	Job Number:	E25663
Client:	Lane Cove West Development Pty Ltd	Date:	23/09/2022
Field Staff:	RW	Sampling Location ID :	BH104M
Well Location:		Round No	1

MEDIUM ☒Groundwater ☐Surface Water ☐Stormwater ☐Other:

SAMPLING POINT INFO

Well Installation Date:	15/09/22	Stick up / down (m):	-0.09 (+ above ground - below ground)
Initial Well Depth (mBTOC):	5.9	Screen Interval (mBTOC):	3m
Previous Sampling Date:	N.A	Previous SWL (mBTOC):	N.A

PID READINGS

PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	

PRE PURGE

Total Well Depth (mBTOC):	5.83	Well Head Condition:	Good
SWL (mBTOC):	4.30	Water Column (m):	1.53

PHASE SEPARATED HYDROCARBONS (PSH)

Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	

Field Filtered

Yes (0.45 µm) ☒ No ☐ (Request lab 0.45 µm filter the sample)

PURGE AND SAMPLE

Sampling Method ☐Bladder ☒Peristaltic ☐Submersible ☐Other:

Depth of Pump Inlet (mBTOC):	Fill Timer:
Pump Pressure Regulator (psi):	Discharge Timer:
Weather Conditions:	Cycle:
Pump on time:	Pump off time:

WATER QUALITY PARAMETERS

Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
9:40			23.75	365	216.9	0.93	3.43	clear, low turbidity, no odour, no sheen
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:

SIGNATURE:

WATER SAMPLING FIELD SHEET

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Site Address:	67 Mars Rd, Lane Cove West	Job Number:	E25663
Client:	Lane Cove West Development Pty Ltd	Date:	23/09/2022
Field Staff:	RW	Sampling Location ID	BH 108M
Well Location:		Round No	1

MEDIUM ☒Groundwater ☐Surface Water ☐Stormwater ☐Other:

SAMPLING POINT INFO

Well Installation Date:	15/09/2022	Stick up / down (m):	-0.09 (+ above ground - below ground)
Initial Well Depth (mBTOC):	5.9	Screen Interval (mBTOC):	3
Previous Sampling Date:	N.A.	Previous SWL (mBTOC):	N.A.

PID READINGS

PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	

PRE PURGE

Total Well Depth (mBTOC):	6.04	Well Head Condition:	Good
SWL (mBTOC):	3.15	Water Column (m):	2.89

PHASE SEPARATED HYDROCARBONS (PSH)

Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	

Field Filtered

Yes (0.45 µm) ☒ No ☐ (Request lab 0.45 µm filter the sample)

PURGE AND SAMPLE

Sampling Method ☐Bladder ☒Peristaltic ☐Submersible ☐Other:

Depth of Pump Inlet (mBTOC):	Fill Timer:
Pump Pressure Regulator (psi):	Discharge Timer:
Weather Conditions:	Cycle:
Pump on time:	Pump off time:

WATER QUALITY PARAMETERS

Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
10:30			22.61	223	193.0	1.75	3.76	Light grey, medium turbidity, no odour, no sheen
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:

SIGNATURE:

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address:	67 Mars Rd, Lane Cove West	Job Number:	E25663
Client:	Lane Cove West Development Pty Ltd	Date:	23/09/202
Field Staff:	RW	Sampling Location ID	BH115M
Well Location:		Round No	1

MEDIUM ☒Groundwater ☐Surface Water ☐Stormwater ☐Other:

SAMPLING POINT INFO

Well Installation Date:	16/9/22	Stick up / down (m):	-0.09 (+ above ground - below ground)
Initial Well Depth (mBTOC):	6.1m	Screen Interval (mBTOC):	3m
Previous Sampling Date:	N.A.	Previous SWL (mBTOC):	N.A.

PID READINGS

PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	

PRE PURGE

Total Well Depth (mBTOC):	6.01m	Well Head Condition:	Good
SWL (mBTOC):	3.08m	Water Column (m):	2.93

PHASE SEPARATED HYDROCARBONS (PSH)

Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	

Field Filtered

Yes (0.45 µm) ☒ No ☐ (Request lab 0.45 µm filter the sample)

PURGE AND SAMPLE

Sampling Method ☐Bladder ☒Peristaltic ☐Submersible ☐Other:

Depth of Pump Inlet (mBTOC):	Fill Timer:
Pump Pressure Regulator (psi):	Discharge Timer:
Weather Conditions:	Cycle:
Pump on time:	Pump off time:

WATER QUALITY PARAMETERS

Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
8:50			21.55	181.0	100.2	0.36	6.41	clear, low turbidity, no odour, no sheen
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:

SIGNATURE:

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address:	67 Mars Rd, Lane Cove West	Job Number:	E25663
Client:	Lane Cove West Development Pty Ltd	Date:	23/09/2022
Field Staff:	RW	Sampling Location ID	BH120M
Well Location:		Round No	1

MEDIUM ☒Groundwater ☐Surface Water ☐Stormwater ☐Other:

SAMPLING POINT INFO

Well Installation Date:	16/4/22	Stick up / down (m):	-0.09 (+ above ground - below ground)
Initial Well Depth (mBTOC):	6.2	Screen Interval (mBTOC):	3m
Previous Sampling Date:	N.A.	Previous SWL (mBTOC):	N.A.

PID READINGS

PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	

PRE PURGE

Total Well Depth (mBTOC):	6.04	Well Head Condition:	Good
SWL (mBTOC):	2.18	Water Column (m):	3.86

PHASE SEPARATED HYDROCARBONS (PSH)

Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	

Field Filtered

Yes (0.45 µm) ☒ No ☐ (Request lab 0.45 µm filter the sample)

PURGE AND SAMPLE

Sampling Method ☐Bladder ☒Peristaltic ☐Submersible ☐Other:

Depth of Pump Inlet (mBTOC):	Fill Timer:
Pump Pressure Regulator (psi):	Discharge Timer:
Weather Conditions:	Cycle:
Pump on time:	Pump off time:

WATER QUALITY PARAMETERS

Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
8:10			19.92	330	248.8	1.82	4.80	light grey, low to medium turbidity, no odour, no sheen
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS: QD1/QT1 were taken from BH120M

SIGNATURE:

Appendix G – Chain of Custody and Sample Receipt Documentation

source: Sydney.pdf page: 1 SGS Ref: SE236890_COC

E-MAILED
19/9 @ 3.16 pm

Sheet 1 of 6

Site: 67 Mars Rd, Lane Cove West, NSW

Project No: E25663

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos / Phenols	HM [A] /TRH/BTEX/PAHs / VOCs	HM [A] /TRH/BTEX	BTEX	VOCs / PFAS / Cyanide	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM [A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM [B] / PAH
BH101_0.3-0.4	1	J, ZLB	15/09/2022	AM/PM	X				X																		
BH101_1.3-1.4	2	J, ZLB	15/09/2022	AM/PM	X					X																	
BH102_0.3-0.4	3	J, ZLB	15/09/2022	AM/PM	X				X				X														
BH102_1.4-1.5		J, ZLB	15/09/2022	AM/PM	X																						
BH103_0.3-0.4	4	J, ZLB	15/09/2022	AM/PM	X									X													
BH103_1.2-1.3	5	J, ZLB	15/09/2022	AM/PM	X				X																		
BH103_1.8-1.9		J, ZLB	15/09/2022	AM/PM	X																						
BH104M_0.2-0.3	6	J, ZLB	15/09/2022	AM/PM	X				X																		
BH104M_0.8-0.9	7	J, ZLB	15/09/2022	AM/PM	X					X																	
BH105_1.0-1.1	8	J, ZLB	15/09/2022	AM/PM	X				X																		
BH105_2.2-2.3		J, ZLB	15/09/2022	AM/PM	X																						
BH106_0.5-0.6	9	J, ZLB	15/09/2022	AM/PM	X				X				X														

M

SGS EHS Sydney COC
SE236890

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table [X]

Sampler's Name (EI):	Received by (SGS):
Print: RW / LW	Print: Suba
Signature:	Signature: B. Subaraj
Date: 19/09/2022	Date: 16/09/22 @ 4:30

Sampler's Comments:
Please send QT1/QT2 samples to Envirolab
Please cc Sharon

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

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Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

Sheet 2 of 6

Site: 67 Mars Rd, Lane Cove West, NSW

Project No: E25663

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos /Phenols	HM [A] /TRH/BTEX/PAHs /VOCs	HM [A] /TRH/BTEX	BTEX	VOCs /PFAS/ Cyanide	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM [A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM [B] / PAH
BH106_1.4-1.5		J, ZLB	15/09/2022	AM/PM	X																							
BH107_0.5-0.6	10	J, ZLB	15/09/2022	AM/PM	X				X																			
BH107_1.6-1.7		J, ZLB	15/09/2022	AM/PM	X																							
BH108M_0.3-0.4	11	J, ZLB	15/09/2022	AM/PM	X				X																			
BH108M_1.5-1.6	12	J, ZLB	15/09/2022	AM/PM	X					X																		
BH109_0.2-0.3	13	J, ZLB	15/09/2022	AM/PM	X				X																			
BH109_0.7-0.8		J, ZLB	15/09/2022	AM/PM	X																							
BH109_1.4-1.5	14	J, ZLB	15/09/2022	AM/PM	X					X																		
BH110_0.2-0.3	15	J, ZLB	15/09/2022	AM/PM	X				X																			
BH110_0.8-0.9		J, ZLB	15/09/2022	AM/PM	X																							
BH111_0.2-0.3	16	J, ZLB	15/09/2022	AM/PM	X				X				X															
BH111_0.8-0.9		J, ZLB	15/09/2022	AM/PM	X																							

VI

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

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PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC June 2021 FORM v.5 - SGS

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):		Received by (SGS):	
Print	RW / EL	Print	Suba
Signature		Signature	B. Subary
Date	19/09/2022	Date	20/09/22 @ 4:30

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table [X]

Sampler's Comments:
Please send QT1/QT2 samples to Envirolab

Sheet 3 of 6

Site: 67 Mars Rd, Lane Cove West, NSW

Project No: E25663

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	SOIL	WATER	0.45 µm field filtered	OTHER	HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos / phenols	HM [A] /TRH/BTEX/PAHs / VOCs	HM [A] /TRH/BTEX	BTEX	VOCs / PFAS / Cyanide	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM [A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM [B] / PAH
BH112_0.2-0.3	17	J, ZLB	15/09/2022	AM/PM	X				X				X															
BH112_0.7-0.8		J, ZLB	15/09/2022	AM/PM	X																							
BH112_1.3-1.4		J, ZLB	15/09/2022	AM/PM	X																							
BH113_0.2-0.3	18	J, ZLB	15/09/2022	AM/PM	X				X																			
BH113_1.0-1.1		J, ZLB	15/09/2022	AM/PM	X																							
BH114_0.1-0.2	19	J, ZLB	15/09/2022	AM/PM	X				X																			
BH115M_0.3-0.4		J, ZLB	16/09/2022	AM/PM	X																							
BH115M_1.3-1.4	20	J, ZLB	16/09/2022	AM/PM	X					X																		
BH116_0.3-0.4	21	J, ZLB	16/09/2022	AM/PM	X				X																			
BH116_1.0-1.1		J, ZLB	16/09/2022	AM/PM	X																							
BH117_0.1-0.2	22	J, ZLB	15/09/2022	AM/PM	X				X				X															
BH118_0.1-0.2	23	J, ZLB	16/09/2022	AM/PM	X				X																			

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed. acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

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Ph: 9516 0722
lab@eiaustralia.com.au

COC June 2021 FORM v.5 - SGS

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):		Received by (SGS):	
Print	RW /LW	Print	Suba
Signature		Signature	
Date	19/09/2022	Date	16/09/22 @ 4:30

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table [X]

Sampler's Comments:
Please send QT1/QT2 samples to Envirolab

Sheet 4 of 6

Site: 67 Mars Rd, Lane Cove West, NSW

Project No: E25663

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos / Phenols	HM[A] /TRH/BTEX/PAHs / VOCs	HM[A] /TRH/BTEX	BTEX	VOCs / PFAS / Cyanide	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM[A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM[B] / PAH
BH118_0.7-0.8		J, ZLB	16/09/2022	AM/PM	X																						
BH119_0.2-0.3	24	J, ZLB	16/09/2022	AM/PM	X				X																		
BH119_0.7-0.8		J, ZLB	16/09/2022	AM/PM	X																						
BH120M_0.3-0.4	25	J, ZLB	16/09/2022	AM/PM	X				X																		
BH120M_1.4-1.5	26	J, ZLB	16/09/2022	AM/PM	X					X																	
BH121_0.1-0.2	27	J, ZLB	16/09/2022	AM/PM	X				X				X														
BH121_0.5-0.6		J, ZLB	16/09/2022	AM/PM	X																						
BH121_1.1-1.2	28	J, ZLB	16/09/2022	AM/PM	X					X																	
QD1	29	J	16/09/2022	AM/PM	X						X																
QD2	30	J	16/09/2022	AM/PM	X						X																
QR1	31	P,VC	16/09/2022	AM/PM		X					X																
QRB1		P,VC	16/09/2022	AM/PM		X																					

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Teflon Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

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PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC June 2021 FORM v.5 - SGS

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):		Received by (SGS):
Print	RW / LW	Print Silba
Signature		Signature B. Subasey
Date	19/09/2022	Date 16/09/22 @ 4:30

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table [X]

Sampler's Comments:
Please send QT1/QT2 samples to Envirolab

Sheet 5 of 6

Site: 67 Mars Rd, Lane Cove West, NSW

Project No: E25663

Laboratory: **SGS Australia**
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	SOIL	WATER	0.45 µm field filtered	OTHER	HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM [A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM [B] / PAH
TS	32	VC	Lab prepared		X							X															
TB	33	VC	Lab prepared		X							X															

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

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Contamination | Remediation | Geotechnical
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC June 2021 FORM v.5 - SGS

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):		Received by (SGS):	
Print	RW / LW	Print	Suba
Signature		Signature	
Date	19/09/2022	Date	16/09/22 @ 4'30

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table [X]

Sampler's Comments:
Please send QT1/QT2 samples to Envirolab

SAMPLE RECEIPT ADVICE

SE236890

CLIENT DETAILS

Contact	Richard Wang
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd, Lane Cove West, NSW**
Order Number	**E25663**
Samples	33

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Fri 16/9/2022
Report Due	Tue 27/9/2022
SGS Reference	**SE236890**

SUBMISSION DETAILS

This is to confirm that 33 samples were received on Friday 16/9/2022. Results are expected to be ready by COB Tuesday 27/9/2022. Please quote SGS reference SE236890 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	32 Soil, 1 Water
Date documentation received	19/9/2022 @3:16PM	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	13.5°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

16 soil samples have been placed on hold as no tests have been assigned for them by the client. These samples will not be processed.
PFAS subcontracted to SGS Melbourne, Unit 10/585 Blackburn Road Notting Hill VIC 3168, NATA Accreditation Number 2562, Site number 14420. Results may be delayed.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

SAMPLE RECEIPT ADVICE

SE236890

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd, Lane Cove West, NSW

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH101_0.3-0.4	30	14	26	11	1	10	11	7
002	BH101_1.3-1.4	-	-	26	-	-	10	81	7
003	BH102_0.3-0.4	30	14	26	11	1	10	81	7
005	BH103_1.2-1.3	30	14	26	11	1	10	11	7
006	BH104M_0.2-0.3	30	14	26	11	1	10	11	7
007	BH104M_0.8-0.9	-	-	26	-	-	10	81	7
008	BH105_1.0-1.1	30	14	26	11	1	10	11	7
009	BH106_0.5-0.6	30	14	26	11	1	10	81	7
010	BH107_0.5-0.6	30	14	26	11	1	10	11	7
011	BH108M_0.3-0.4	30	14	26	11	1	10	11	7
012	BH108M_1.5-1.6	-	-	26	-	-	10	81	7
013	BH109_0.2-0.3	30	14	26	11	1	10	11	7
014	BH109_1.4-1.5	-	-	26	-	-	10	81	7
015	BH110_0.2-0.3	30	14	26	11	1	10	11	7
016	BH111_0.2-0.3	30	14	26	11	1	10	81	7
017	BH112_0.2-0.3	30	14	26	11	1	10	81	7
018	BH113_0.2-0.3	30	14	26	11	1	10	11	7
019	BH114_0.1-0.2	30	14	26	11	1	10	11	7
020	BH115M_1.3-1.4	-	-	26	-	-	10	81	7
021	BH116_0.3-0.4	30	14	26	11	1	10	11	7
022	BH117_0.1-0.2	30	14	26	11	1	10	81	7
023	BH118_0.1-0.2	30	14	26	11	1	10	11	7
024	BH119_0.2-0.3	30	14	26	11	1	10	11	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE236890

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd, Lane Cove West, NSW

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
025	BH120M_0.3-0.4	30	14	26	11	1	10	11	7
026	BH120M_1.4-1.5	-	-	26	-	-	10	81	7
027	BH121_0.1-0.2	30	14	26	11	1	10	81	7
028	BH121_1.1-1.2	-	-	26	-	-	10	81	7
029	QD1	-	-	-	-	-	10	11	7
030	QD2	-	-	-	-	-	10	11	7
032	TS	-	-	-	-	-	-	11	-
033	TB	-	-	-	-	-	-	11	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE236890

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd, Lane Cove West, NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content	Per- and Polyfluoroalkyl Substances (PFAS) in	Total Cyanide in soil by Discrete Analyser	Total Recoverable Elements in Soil/Waste
001	BH101_0.3-0.4	2	1	1	-	-	7
002	BH101_1.3-1.4	-	1	1	-	-	7
003	BH102_0.3-0.4	2	1	1	56	1	7
004	BH103_0.3-0.4	2	-	-	-	-	-
005	BH103_1.2-1.3	2	1	1	-	-	7
006	BH104M_0.2-0.3	2	1	1	-	-	7
007	BH104M_0.8-0.9	-	1	1	-	-	7
008	BH105_1.0-1.1	2	1	1	-	-	7
009	BH106_0.5-0.6	2	1	1	56	1	7
010	BH107_0.5-0.6	2	1	1	-	-	7
011	BH108M_0.3-0.4	2	1	1	-	-	7
012	BH108M_1.5-1.6	-	1	1	-	-	7
013	BH109_0.2-0.3	2	1	1	-	-	7
014	BH109_1.4-1.5	-	1	1	-	-	7
015	BH110_0.2-0.3	2	1	1	-	-	7
016	BH111_0.2-0.3	2	1	1	56	1	7
017	BH112_0.2-0.3	2	1	1	56	1	7
018	BH113_0.2-0.3	2	1	1	-	-	7
019	BH114_0.1-0.2	2	1	1	-	-	7
020	BH115M_1.3-1.4	-	1	1	-	-	7
021	BH116_0.3-0.4	2	1	1	-	-	7
022	BH117_0.1-0.2	2	1	1	56	1	7
023	BH118_0.1-0.2	2	1	1	-	-	7
024	BH119_0.2-0.3	2	1	1	-	-	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE236890

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd, Lane Cove West, NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content	Per- and Polyfluoroalkyl Substances (PFAS) in	Total Cyanide in soil by Discrete Analyser	Total Recoverable Elements in Soil/Waste
025	BH120M_0.3-0.4	2	1	1	-	-	7
026	BH120M_1.4-1.5	-	1	1	-	-	7
027	BH121_0.1-0.2	2	1	1	56	1	7
028	BH121_1.1-1.2	-	1	1	-	-	7
029	QD1	-	1	1	-	-	7
030	QD2	-	1	1	-	-	7
033	TB	-	-	1	-	-	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE236890

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd, Lane Cove West, NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
031	QR1	7	9	11	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE236890

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd, Lane Cove West, NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water
031	QR1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

306219

Sheet 6 of 6

Site:	Project No:
67 Mars Rd, Lane Cove West, NSW	E25663

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	SOIL	WATER	0.45 µm field filtered	OTHER	HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM [A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM [B] / PAH
QT1		J	16/09/2022	AM/PM	X						X																
QT2		J	16/09/2022	AM/PM	X						X																

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other____

Container Type:
J = solvent washed, acid rinsed, Teflon sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Teflon Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC June 2021 FORM v.5 - SGS

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):	Received by (SGS):
Print RW / LW	*Print*
Signature	*Signature*
Date 19/09/2022	*Date*

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table [X]

Sampler's Comments:
Please send QT1/QT2 samples to Envirolab

Sheet 1 of 6

Site: 67 Mars Rd, Lane Cove West, NSW

Project No: E25663

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos / Phenols	HM[A] /TRH/BTEX/PAHs / VOCs	HM[A] /TRH/BTEX	BTEX	VOCs / PFAS / Cyanide	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM[A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM[B] / PAH
BH101_0.3-0.4		J, ZLB	15/09/2022	AM/PM	X				X																			
BH101_1.3-1.4		J, ZLB	15/09/2022	AM/PM	X					X																		
BH102_0.3-0.4		J, ZLB	15/09/2022	AM/PM	X				X				X															
BH102_1.4-1.5		J, ZLB	15/09/2022	AM/PM	X																							
BH103_0.3-0.4		J, ZLB	15/09/2022	AM/PM	X									X														
BH103_1.2-1.3		J, ZLB	15/09/2022	AM/PM	X				X																			
BH103_1.8-1.9		J, ZLB	15/09/2022	AM/PM	X																							
BH104M_0.2-0.3		J, ZLB	15/09/2022	AM/PM	X				X																			
BH104M_0.8-0.9		J, ZLB	15/09/2022	AM/PM	X					X																		
BH105_1.0-1.1		J, ZLB	15/09/2022	AM/PM	X				X																			
BH105_2.2-2.3		J, ZLB	15/09/2022	AM/PM	X																							
BH106_0.5-0.6		J, ZLB	15/09/2022	AM/PM	X				X				X															

M

ENVIROLAB

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

Job No: 306219

Date Received: 20/09/2022

Time Received: 17:06

Received By: [illegible]

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

17°C

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J = solvent washed, acid rinsed, Teflon sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Teflon Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table [X]

Sampler's Name (EI):		Received by (SGS): Envirolab
Print	RW / LW	Print Nancy Zhang
Signature		Signature
Date	19/09/2022	Date 20/09/2022 17:06

Sampler's Comments: ① ②

① Please send QT1/QT2 samples to Envirolab

② Please cc Sharon

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Conservation | Remediation | Geotechnics
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

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

SAMPLE RECEIPT ADVICE

Client Details

Client	EI Australia
Attention	Lab Email, Sharon Li

Sample Login Details

Your reference	E25663, 67 Mars Rd Lane Cove West
Envirolab Reference	306219
Date Sample Received	20/09/2022
Date Instructions Received	20/09/2022
Date Results Expected to be Reported	29/09/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	17
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:

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

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Acid Extractable metalsin soil
QT1	✓	✓	✓
QT2	✓	✓	✓

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.

Sheet 1 of 1

Site: 67 Mars Rd, Lane Cove West

Project No: E25663

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/BTEX/PAHs	HM[A] /TRH/BTEX	BTEX	VOCs / OCP / OPP / PFAS / phenols	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM[A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Lead	TCLP HM[B] / PAH
BH101M	1	S, P, VC	23/9/22	AM		X				X			X														
BH108M	2	↓	↓	↓		X				X			X														
BH115M	3					X				X			X														
BH120M	4					X				X			X														
QD1	5					X					X																
QR1	6					X					X																
QRB1		↓	↓	↓		X																					
TS	7	VC	Lab prepared			X						X															
TB	8	VC	Lab prepared			X						X															

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

SGS EHS Sydney COC
SE237041

LABORATORY TURNAROUND
- ☐ Standard
- ☐ 24 Hours
- ☐ 48 Hours
- ☒ 72 Hours
- ☐ Other ____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

eiaustralia
Contamination | Remediation | Geotechnical
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC June 2021 FORM v.5 - SGS

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):	Received by (SGS):
Print: Richard Wang	Print: George Zhi
Signature:	Signature:
Date: 23/9/22	Date: 23/9/22 @ 2pm

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table ☐

Sampler's Comments:
Please CC Fiona Zhang

source:SE_Admin.pdf page 1 SGS Ref: SE237041 COC

Yin, Emily (Sydney)

From: Richard Wang - ElAustralia <richard.wang@eiaustralia.com.au>
Sent: Friday, 23 September 2022 1:34 PM
To: AU.SampleReceipt.Sydney (Sydney)
Subject: [EXTERNAL] E25663 Groundwater samples

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. ***

Hi SGS team,

Regarding the E25663 groundwater samples that the courier just collected from El office today, could I please change one sample ID from BH101M to BH104M?

Apologies for the inconvenience.

Kind regards,

Richard Wang
Environmental Engineer

M 04 24691207
E richard.wang@eiaustralia.com.au

Suite 6.01, 55 Miller Street
Pyrmont, NSW 2009

www.eiaustralia.com.au

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Please consider the environment before printing this email.

SAMPLE RECEIPT ADVICE

SE237041

CLIENT DETAILS

Contact	Richard Wang
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd Lane Cove West**
Order Number	**E25663**
Samples	8

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Fri 23/9/2022
Report Due	Wed 28/9/2022
SGS Reference	**SE237041**

SUBMISSION DETAILS

This is to confirm that 8 samples were received on Friday 23/9/2022. Results are expected to be ready by COB Wednesday 28/9/2022. Please quote SGS reference SE237041 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	8 Water
Date documentation received	23/9/2022	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	17°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three Days		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

PFAS subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

SAMPLE RECEIPT ADVICE

SE237041

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd Lane Cove West

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Water	OP Pesticides in Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	Total Phenolics in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	BH104M	30	13	22	1	7	9	78	7
002	BH108M	30	13	22	1	7	9	78	7
003	BH115M	30	13	22	1	7	9	78	7
004	BH120M	30	13	22	1	7	9	78	7
005	QD1	-	-	-	1	7	9	11	7
006	QR1	-	-	-	1	7	9	11	7
007	TS	-	-	-	-	-	-	11	-
008	TB	-	-	-	-	-	-	11	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE237041

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd Lane Cove West

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Per- and Polyfluoroalkyl Substances (PFAS) in
001	BH104M	1	56
002	BH108M	1	56
003	BH115M	1	56
004	BH120M	1	56
005	QD1	1	-
006	QR1	1	-

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

source: SE_Autoscan.pdf page: 1 SGS Ref: SE237041A_COC

Yin, Emily (Sydney)

From: Fiona Zhang - EIAustralia <fiona.zhang@eiaustralia.com.au>
Sent: Tuesday, 4 October 2022 2:51 PM
To: AU.Environmental.Sydney (Sydney); AU.SampleReceipt.Sydney (Sydney)
Cc: Li Wei - EIAustralia; Sharon Li - EIAustralia
Subject: [EXTERNAL] RE: Report Job SE237041, your reference E25663 67 Mars Rd Lane Cove West, order number E25663

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. ***

Hi SGS,

Can you please run 72h TAT for copper for sample QRB1?

SGS EHS Alexandria Laboratory
SE237041A COC
Received: 04-Oct-2022

Kind regards,
Fiona Zhang
BEng (Env), MEng (Env)
Environmental Engineer

T 02 9516 0722 M 0405 380 237
E fiona.zhang@eiaustralia.com.au

Suite 6.01, 55 Miller Street
Pyrmont, NSW 2009

www.eiaustralia.com.au

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If you are not the intended recipient, our apologies - please destroy it and notify us so that we can appropriately re-address it.
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Please consider the environment before printing this email.

From: AU.Environmental.Sydney@SGS.com [mailto:AU.Environmental.Sydney@SGS.com]
Sent: Wednesday, 28 September 2022 6:00 PM
To: Fiona Zhang - EIAustralia; Laboratory Results - EIAustralia; Richard Wang - EIAustralia
Subject: Report Job SE237041, your reference E25663 67 Mars Rd Lane Cove West, order number E25663

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear EI team,

Please find attached the report for SGS job SE237041, your reference E25663 67 Mars Rd Lane Cove West, order number E25663.

If you have any questions or concerns, please don't hesitate to contact your SGS Client Services representative.

Best Regards,
SGS Alexandria Customer Service Team

SAMPLE RECEIPT ADVICE

SE237041A

CLIENT DETAILS

Contact	Richard Wang
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd Lane Cove West-Add**
Order Number	**E25663**
Samples	9

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Tue 4/10/2022
Report Due	Fri 7/10/2022
SGS Reference	**SE237041A**

SUBMISSION DETAILS

This is to confirm that 9 samples were received on Tuesday 4/10/2022. Results are expected to be ready by COB Friday 7/10/2022. Please quote SGS reference SE237041A when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	1 Water
Date documentation received	4/10/2022@2:51PM	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	17°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three Days		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

SAMPLE RECEIPT ADVICE

SE237041A

CLIENT DETAILS

Client EI AUSTRALIA

Project E25663 67 Mars Rd Lane Cove West-Add

SUMMARY OF ANALYSIS

No.	Sample ID	Trace Metals (Dissolved) in Water by ICPMS
009	QRB1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

Sheet 1 of 1

Site: 67 Mars Rd Lane Cove West

Project No: E2663

Laboratory: **Envirolab Services**
12 Ashley Street,
CHATSWOOD NSW 2067
P: 02 9910 6200

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	SOIL	WATER	0.45 µm field filtered	OTHER	HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/BTEX/PAHs	HM[A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride			TCLP HM[B] / PAH
QT1	1.	S,P,VC	23/9/22	AM		X					X																

ENVIROLAB GROUP

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

Job No: 306491
Date Received: 23-9-22
Time Received: 1530
Received By: AP
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH

LABORATORY TURNAROUND

- ☐ Standard
- ☐ 24 Hours
- ☐ 48 Hours
- ☒ 72 Hours
- ☐ Other____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag

eiaustralia
Contamination | Remediation | Geotechnical

Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC June 2021 FORM v.5 - Envirolab

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):	Received by (Envirolab):
Print: Richard Wang	Print: AP
Signature:	Signature:
Date: 23/09/22	Date: 23-9-22 1530

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table ☐

Sampler's Comments:
Please CC Fiona Zhang

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	EI Australia
Attention	Lab Email

Sample Login Details

Your reference	E25663, Lane Cove West
Envirolab Reference	306491
Date Sample Received	23/09/2022
Date Instructions Received	23/09/2022
Date Results Expected to be Reported	28/09/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Water
Turnaround Time Requested	3 days
Temperature on Receipt (°C)	19
Cooling Method	None
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:

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

Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	HM in water - dissolved
QT1	✓	✓	✓

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

Additional Info

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

Appendix H – Laboratory Analytical Reports

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Richard Wang
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd, Lane Cove West, NSW**
Order Number	**E25663**
Samples	33

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE236890 R0**
Date Received	16/9/2022
Date Reported	28/9/2022

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

PFAS subcontracted to SGS Melbourne, Unit 10/585 Blackburn Road Notting Hill VIC 3168, NATA Accreditation Number 2562, Site number 14420. Repoert No. ME329549
PFAS analysed from glass jar, instead of plastic.

No respirable fibres detected in all soil samples using trace analysis technique.
Sample # 19 : Chrysotile, Amosite asbestos found in approx 90x20x4mm cement sheet fragments x3.
Sample # 22 : Chrysotile asbestos found in approx 30x30x4mm cement sheet fragment.
Asbestos analysed by Approved Identifiers Ravee Sivasubramaniam and Yusuf Kuthpudin .

SIGNATORIES

Akheeqar BENIAMEEN
Chemist

Bennet LO
Senior Chemist

Dong LIANG
Metals/Inorganics Team Leader

Ly Kim HA
Organic Section Head

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

Shane MCDERMOTT
Inorganic/Metals Chemist

VOC's in Soil [AN433] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	<1	-	-
Chloromethane	mg/kg	1	-	<1	<1	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	<0.1	-	-
Bromomethane	mg/kg	1	-	<1	<1	-	-
Chloroethane	mg/kg	1	-	<1	<1	-	-
Trichlorofluoromethane	mg/kg	1	-	<1	<1	-	-
Acetone (2-propanone)	mg/kg	10	-	<10	<10	-	-
Iodomethane	mg/kg	5	-	<5	<5	-	-
1,1-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	-	-
Acrylonitrile	mg/kg	0.1	-	<0.1	<0.1	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	<0.5	-	-
Allyl chloride	mg/kg	0.1	-	<0.1	<0.1	-	-
Carbon disulfide	mg/kg	0.5	-	<0.5	<0.5	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1-dichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
Vinyl acetate	mg/kg	10	-	<10	<10	-	-
MEK (2-butanone)	mg/kg	10	-	<10	<10	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	-	-
Bromochloromethane	mg/kg	0.1	-	<0.1	<0.1	-	-
Chloroform	mg/kg	0.1	-	<0.1	<0.1	-	-
2,2-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	-	-
Carbon tetrachloride	mg/kg	0.1	-	<0.1	<0.1	-	-
Dibromomethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	<0.1	-	-
2-nitropropane	mg/kg	10	-	<10	<10	-	-
Bromodichloromethane	mg/kg	0.1	-	<0.1	<0.1	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	<1	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,3-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
Chlorodibromomethane	mg/kg	0.1	-	<0.1	<0.1	-	-
2-hexanone (MBK)	mg/kg	5	-	<5	<5	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	<0.1	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
Chlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
Bromoform	mg/kg	0.1	-	<0.1	<0.1	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	<1	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	<0.1	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	<1	-	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	<0.1	-	-
Bromobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
n-propylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
2-chlorotoluene	mg/kg	0.1	-	<0.1	<0.1	-	-
4-chlorotoluene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
tert-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
sec-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
p-isopropyltoluene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
n-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	<0.1	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	-	-
Total VOC*	mg/kg	24	-	<24	<24	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	<3.0	<3.0	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	<1.8	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	<1.8	-	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	<1	-	-
Chloromethane	mg/kg	1	<1	-	<1	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	<0.1	-	-
Bromomethane	mg/kg	1	<1	-	<1	-	-
Chloroethane	mg/kg	1	<1	-	<1	-	-
Trichlorofluoromethane	mg/kg	1	<1	-	<1	-	-
Acetone (2-propanone)	mg/kg	10	<10	-	<10	-	-
Iodomethane	mg/kg	5	<5	-	<5	-	-
1,1-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	-
Acrylonitrile	mg/kg	0.1	<0.1	-	<0.1	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	<0.5	-	-
Allyl chloride	mg/kg	0.1	<0.1	-	<0.1	-	-
Carbon disulfide	mg/kg	0.5	<0.5	-	<0.5	-	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1-dichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
Vinyl acetate	mg/kg	10	<10	-	<10	-	-
MEK (2-butanone)	mg/kg	10	<10	-	<10	-	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	-
Bromochloromethane	mg/kg	0.1	<0.1	-	<0.1	-	-
Chloroform	mg/kg	0.1	<0.1	-	<0.1	-	-
2,2-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	-
Carbon tetrachloride	mg/kg	0.1	<0.1	-	<0.1	-	-
Dibromomethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	<0.1	-	-
2-nitropropane	mg/kg	10	<10	-	<10	-	-
Bromodichloromethane	mg/kg	0.1	<0.1	-	<0.1	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	<1	-	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,3-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
Chlorodibromomethane	mg/kg	0.1	<0.1	-	<0.1	-	-
2-hexanone (MBK)	mg/kg	5	<5	-	<5	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	<0.1	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
Chlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
Bromoform	mg/kg	0.1	<0.1	-	<0.1	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	<1	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	<0.1	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	<1	-	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	<0.1	-	-
Bromobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
n-propylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
2-chlorotoluene	mg/kg	0.1	<0.1	-	<0.1	-	-
4-chlorotoluene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
tert-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
sec-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
p-isopropyltoluene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
n-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	<0.1	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	-
Total VOC*	mg/kg	24	<24	-	<24	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	-	<3.0	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	<1.8	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	<1.8	-	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	<1	-	<1
Chloromethane	mg/kg	1	<1	-	<1	-	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Bromomethane	mg/kg	1	<1	-	<1	-	<1
Chloroethane	mg/kg	1	<1	-	<1	-	<1
Trichlorofluoromethane	mg/kg	1	<1	-	<1	-	<1
Acetone (2-propanone)	mg/kg	10	<10	-	<10	-	<10
Iodomethane	mg/kg	5	<5	-	<5	-	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	<0.5	-	<0.5
Allyl chloride	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	-	<0.5	-	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Vinyl acetate	mg/kg	10	<10	-	<10	-	<10
MEK (2-butanone)	mg/kg	10	<10	-	<10	-	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Chloroform	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Dibromomethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
2-nitropropane	mg/kg	10	<10	-	<10	-	<10
Bromodichloromethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	<1	-	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
2-hexanone (MBK)	mg/kg	5	<5	-	<5	-	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Bromoform	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	<1	-	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	<1	-	<1

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Bromobenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Total VOC*	mg/kg	24	<24	-	<24	-	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	-	<3.0	-	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	<1.8	-	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	<1.8	-	<1.8

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	-	<1	-
Chloromethane	mg/kg	1	<1	-	-	<1	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	-	<0.1	-
Bromomethane	mg/kg	1	<1	-	-	<1	-
Chloroethane	mg/kg	1	<1	-	-	<1	-
Trichlorofluoromethane	mg/kg	1	<1	-	-	<1	-
Acetone (2-propanone)	mg/kg	10	<10	-	-	<10	-
Iodomethane	mg/kg	5	<5	-	-	<5	-
1,1-dichloroethene	mg/kg	0.1	<0.1	-	-	<0.1	-
Acrylonitrile	mg/kg	0.1	<0.1	-	-	<0.1	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	-	<0.5	-
Allyl chloride	mg/kg	0.1	<0.1	-	-	<0.1	-
Carbon disulfide	mg/kg	0.5	<0.5	-	-	<0.5	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	<0.1	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	-	<0.1	-
1,1-dichloroethane	mg/kg	0.1	<0.1	-	-	<0.1	-
Vinyl acetate	mg/kg	10	<10	-	-	<10	-
MEK (2-butanone)	mg/kg	10	<10	-	-	<10	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	<0.1	-
Bromochloromethane	mg/kg	0.1	<0.1	-	-	<0.1	-
Chloroform	mg/kg	0.1	<0.1	-	-	<0.1	-
2,2-dichloropropane	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2-dichloroethane	mg/kg	0.1	<0.1	-	-	<0.1	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	-	<0.1	-
1,1-dichloropropene	mg/kg	0.1	<0.1	-	-	<0.1	-
Carbon tetrachloride	mg/kg	0.1	<0.1	-	-	<0.1	-
Dibromomethane	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2-dichloropropane	mg/kg	0.1	<0.1	-	-	<0.1	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	-	<0.1	-
2-nitropropane	mg/kg	10	<10	-	-	<10	-
Bromodichloromethane	mg/kg	0.1	<0.1	-	-	<0.1	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	-	<1	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	<0.1	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	-	<0.1	-
1,3-dichloropropane	mg/kg	0.1	<0.1	-	-	<0.1	-
Chlorodibromomethane	mg/kg	0.1	<0.1	-	-	<0.1	-
2-hexanone (MBK)	mg/kg	5	<5	-	-	<5	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	-	<0.1	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	-	<0.1	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	<0.1	-
Chlorobenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
Bromoform	mg/kg	0.1	<0.1	-	-	<0.1	-
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	<1	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	-	<0.1	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	-	<0.1	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	<1	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	-	<0.1	-
Bromobenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
n-propylbenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
2-chlorotoluene	mg/kg	0.1	<0.1	-	-	<0.1	-
4-chlorotoluene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
tert-butylbenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
sec-butylbenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
p-isopropyltoluene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
n-butylbenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	-	<0.1	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	-	<0.1	-
Total VOC*	mg/kg	24	<24	-	-	<24	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	-	-	<3.0	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	<1.8	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	<1.8	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	-	-	-	<1
Chloromethane	mg/kg	1	<1	-	-	-	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromomethane	mg/kg	1	<1	-	-	-	<1
Chloroethane	mg/kg	1	<1	-	-	-	<1
Trichlorofluoromethane	mg/kg	1	<1	-	-	-	<1
Acetone (2-propanone)	mg/kg	10	<10	-	-	-	<10
Iodomethane	mg/kg	5	<5	-	-	-	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	-	-	-	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	-	-	-	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	-	-	-	<0.5
Allyl chloride	mg/kg	0.1	<0.1	-	-	-	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	-	-	-	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
Vinyl acetate	mg/kg	10	<10	-	-	-	<10
MEK (2-butanone)	mg/kg	10	<10	-	-	-	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	-	-	-	<0.1
Chloroform	mg/kg	0.1	<0.1	-	-	-	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	-	-	-	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	-	-	-	<0.1
Dibromomethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	-	-	-	<0.1
2-nitropropane	mg/kg	10	<10	-	-	-	<10
Bromodichloromethane	mg/kg	0.1	<0.1	-	-	-	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	-	-	-	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	-	-	-	<0.1
2-hexanone (MBK)	mg/kg	5	<5	-	-	-	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	-	-	-	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromoform	mg/kg	0.1	<0.1	-	-	-	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	-	-	-	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	-	-	-	<1

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	-	-	-	<0.1
Bromobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	-	-	-	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	-	-	-	<0.1
Total VOC*	mg/kg	24	<24	-	-	-	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	-	-	-	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	-	-	-	<1.8

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028	QD1 SOIL - 16/9/2022 SE236890.029	QD2 SOIL - 16/9/2022 SE236890.030	TS SOIL - 15/9/2022 SE236890.032
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[93%]
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[95%]
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[97%]
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	[98%]
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[98%]
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	-
Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	-	-	-
Chloromethane	mg/kg	1	<1	<1	-	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	-	-	-
Bromomethane	mg/kg	1	<1	<1	-	-	-
Chloroethane	mg/kg	1	<1	<1	-	-	-
Trichlorofluoromethane	mg/kg	1	<1	<1	-	-	-
Acetone (2-propanone)	mg/kg	10	<10	<10	-	-	-
Iodomethane	mg/kg	5	<5	<5	-	-	-
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	-	-	-
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	-	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	-	-	-
Allyl chloride	mg/kg	0.1	<0.1	<0.1	-	-	-
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	-	-	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	-	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	-	-	-
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	-	-	-
Vinyl acetate	mg/kg	10	<10	<10	-	-	-
MEK (2-butanone)	mg/kg	10	<10	<10	-	-	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	-	-	-
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	-	-	-
Chloroform	mg/kg	0.1	<0.1	<0.1	-	-	-
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	-	-	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	-	-	-
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	-	-	-
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	-	-	-
Dibromomethane	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	-	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	-	-	-
2-nitropropane	mg/kg	10	<10	<10	-	-	-
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	-	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	-	-	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	-	-	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	-	-	-
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	-	-	-
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	-	-	-
2-hexanone (MBK)	mg/kg	5	<5	<5	-	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	-	-	-
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
Bromoform	mg/kg	0.1	<0.1	<0.1	-	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	-	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	-	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	-	-	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028	QD1 SOIL - 16/9/2022 SE236890.029	QD2 SOIL - 16/9/2022 SE236890.030	TS SOIL - 15/9/2022 SE236890.032
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	-	-	-
Bromobenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	-	-	-
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-	-
Total VOC*	mg/kg	24	<24	<24	-	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	-	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	-	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	-	-	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	TB SOIL - 15/9/2022 SE236890.033
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2
o-xylene	mg/kg	0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6
Naphthalene (VOC)	mg/kg	0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-
Chloromethane	mg/kg	1	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-
Bromomethane	mg/kg	1	-
Chloroethane	mg/kg	1	-
Trichlorofluoromethane	mg/kg	1	-
Acetone (2-propanone)	mg/kg	10	-
Iodomethane	mg/kg	5	-
1,1-dichloroethene	mg/kg	0.1	-
Acrylonitrile	mg/kg	0.1	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-
Allyl chloride	mg/kg	0.1	-
Carbon disulfide	mg/kg	0.5	-
trans-1,2-dichloroethene	mg/kg	0.1	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-
1,1-dichloroethane	mg/kg	0.1	-
Vinyl acetate	mg/kg	10	-
MEK (2-butanone)	mg/kg	10	-
cis-1,2-dichloroethene	mg/kg	0.1	-
Bromochloromethane	mg/kg	0.1	-
Chloroform	mg/kg	0.1	-
2,2-dichloropropane	mg/kg	0.1	-
1,2-dichloroethane	mg/kg	0.1	-
1,1,1-trichloroethane	mg/kg	0.1	-
1,1-dichloropropene	mg/kg	0.1	-
Carbon tetrachloride	mg/kg	0.1	-
Dibromomethane	mg/kg	0.1	-
1,2-dichloropropane	mg/kg	0.1	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-
2-nitropropane	mg/kg	10	-
Bromodichloromethane	mg/kg	0.1	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-
cis-1,3-dichloropropene	mg/kg	0.1	-
trans-1,3-dichloropropene	mg/kg	0.1	-
1,1,2-trichloroethane	mg/kg	0.1	-
1,3-dichloropropane	mg/kg	0.1	-
Chlorodibromomethane	mg/kg	0.1	-
2-hexanone (MBK)	mg/kg	5	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-
Chlorobenzene	mg/kg	0.1	-
Bromoform	mg/kg	0.1	-
cis-1,4-dichloro-2-butene	mg/kg	1	-
Styrene (Vinyl benzene)	mg/kg	0.1	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-
1,2,3-trichloropropane	mg/kg	0.1	-
trans-1,4-dichloro-2-butene	mg/kg	1	-

VOC's in Soil [AN433] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	TB SOIL - 15/9/2022 SE236890.033
Isopropylbenzene (Cumene)	mg/kg	0.1	-
Bromobenzene	mg/kg	0.1	-
n-propylbenzene	mg/kg	0.1	-
2-chlorotoluene	mg/kg	0.1	-
4-chlorotoluene	mg/kg	0.1	-
1,3,5-trimethylbenzene	mg/kg	0.1	-
tert-butylbenzene	mg/kg	0.1	-
1,2,4-trimethylbenzene	mg/kg	0.1	-
sec-butylbenzene	mg/kg	0.1	-
1,3-dichlorobenzene	mg/kg	0.1	-
1,4-dichlorobenzene	mg/kg	0.1	-
p-isopropyltoluene	mg/kg	0.1	-
1,2-dichlorobenzene	mg/kg	0.1	-
n-butylbenzene	mg/kg	0.1	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-
1,2,4-trichlorobenzene	mg/kg	0.1	-
Hexachlorobutadiene	mg/kg	0.1	-
1,2,3-trichlorobenzene	mg/kg	0.1	-
Total VOC*	mg/kg	24	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028	QD1 SOIL - 16/9/2022 SE236890.029	QD2 SOIL - 16/9/2022 SE236890.030
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
TRH C10-C14	mg/kg	20	<20	<20	<20	**20**	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**71**	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	**41**	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	**41**	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
TRH C10-C14	mg/kg	20	<20	<20	**38**	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	**270**	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	**280**	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	**78**	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	**78**	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	**410**	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	**590**	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	**490**	<210	<210

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	**82**	<45	**74**	<45	<45
TRH C29-C36	mg/kg	45	**200**	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	**25**	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	**25**	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	**210**	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**280**	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	**240**	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028	QD1 SOIL - 16/9/2022 SE236890.029	QD2 SOIL - 16/9/2022 SE236890.030
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	**66**	<45	<45	<45
TRH C29-C36	mg/kg	45	**380**	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	**400**	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**450**	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	**400**	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<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	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<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	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<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	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<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	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<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	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028
Naphthalene	mg/kg	0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	**0.2**	**61**	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	**0.1**	**2.3**	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	**0.2**	**24**	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	**3.1**	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	**1.4**	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	**91**	<1	<1
Total OC VIC EPA	mg/kg	1	<1	<1	**67**	<1	<1

OP Pesticides in Soil [AN420] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

OP Pesticides in Soil [AN420] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PCBs in Soil [AN420] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PCBs in Soil [AN420] Tested: 23/9/2022 (continued)

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

Total Phenolics in Soil [AN295] Tested: 26/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008
Total Phenols	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5

PARAMETER	UOM	LOR	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015
Total Phenols	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5

PARAMETER	UOM	LOR	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Total Phenols	mg/kg	0.5	<0.5	<0.5	<0.5	**3.0**	<0.5

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027
Total Phenols	mg/kg	0.5	**4.4**	<0.5	<0.5	<0.5	<0.5

Total Cyanide in soil by Discrete Analyser [AN077/AN287] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022
Total Cyanide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027
Total Cyanide	mg/kg	0.5	<0.5

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 26/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
Arsenic, As	mg/kg	1	4	3	3	3	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	10	9.1	18	13	20
Copper, Cu	mg/kg	0.5	0.5	<0.5	1.7	<0.5	1.6
Lead, Pb	mg/kg	1	4	5	4	15	9
Nickel, Ni	mg/kg	0.5	<0.5	<0.5	3.3	<0.5	4.9
Zinc, Zn	mg/kg	2	2.0	2.6	3.9	<2.0	15

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
Arsenic, As	mg/kg	1	3	3	7	6	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	30	19	40	18	17
Copper, Cu	mg/kg	0.5	1.1	16	3.7	2.3	<0.5
Lead, Pb	mg/kg	1	9	8	11	5	10
Nickel, Ni	mg/kg	0.5	1.9	30	3.7	4.1	<0.5
Zinc, Zn	mg/kg	2	5.2	18	5.7	3.8	2.2

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
Arsenic, As	mg/kg	1	3	2	3	4	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	18	26	18	17	17
Copper, Cu	mg/kg	0.5	<0.5	<0.5	2.9	<0.5	<0.5
Lead, Pb	mg/kg	1	12	10	9	14	13
Nickel, Ni	mg/kg	0.5	0.7	<0.5	0.5	<0.5	0.5
Zinc, Zn	mg/kg	2	2.1	4.3	7.9	4.7	5.3

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Arsenic, As	mg/kg	1	3	3	5	9	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	42	16	19	10	17
Copper, Cu	mg/kg	0.5	<0.5	<0.5	33	<0.5	4.3
Lead, Pb	mg/kg	1	18	14	42	6	29
Nickel, Ni	mg/kg	0.5	0.9	<0.5	8.3	<0.5	1.7
Zinc, Zn	mg/kg	2	10	3.2	1100	<2.0	40

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 26/9/2022

(continued)

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
Arsenic, As	mg/kg	1	6	2	<1	2	6
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	22	3.9	1.5	2.6	5.3
Copper, Cu	mg/kg	0.5	25	6.0	3.4	1.2	1.2
Lead, Pb	mg/kg	1	49	3	1	18	13
Nickel, Ni	mg/kg	0.5	12	1.4	1.5	<0.5	<0.5
Zinc, Zn	mg/kg	2	640	3.2	5.3	<2.0	2.8

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028	QD1 SOIL - 16/9/2022 SE236890.029	QD2 SOIL - 16/9/2022 SE236890.030
Arsenic, As	mg/kg	1	5	7	3	4
Cadmium, Cd	mg/kg	0.3	0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	11	23	31	10
Copper, Cu	mg/kg	0.5	16	<0.5	8.3	<0.5
Lead, Pb	mg/kg	1	100	20	8	7
Nickel, Ni	mg/kg	0.5	2.8	<0.5	22	<0.5
Zinc, Zn	mg/kg	2	250	8.7	26	<2.0

Mercury in Soil [AN312] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
Mercury	mg/kg	0.05	<0.05	<0.05	**0.07**	<0.05	<0.05

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
Mercury	mg/kg	0.05	**0.09**	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028	QD1 SOIL - 16/9/2022 SE236890.029	QD2 SOIL - 16/9/2022 SE236890.030
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05

Moisture Content [AN002] Tested: 23/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH101_1.3-1.4 SOIL - 15/9/2022 SE236890.002	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
% Moisture	%w/w	1	11.1	11.4	10.9	15.4	14.9

PARAMETER	UOM	LOR	BH104M_0.8-0.9 SOIL - 15/9/2022 SE236890.007	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011
% Moisture	%w/w	1	13.4	9.2	8.1	8.0	12.3

PARAMETER	UOM	LOR	BH108M_1.5-1.6 SOIL - 15/9/2022 SE236890.012	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013	BH109_1.4-1.5 SOIL - 15/9/2022 SE236890.014	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016
% Moisture	%w/w	1	10.0	18.4	10.1	13.0	18.1

PARAMETER	UOM	LOR	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019	BH115M_1.3-1.4 SOIL - 16/9/2022 SE236890.020	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021
% Moisture	%w/w	1	23.1	17.2	36.8	9.8	17.7

PARAMETER	UOM	LOR	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025	BH120M_1.4-1.5 SOIL - 16/9/2022 SE236890.026
% Moisture	%w/w	1	21.3	5.6	3.3	21.2	14.9

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027	BH121_1.1-1.2 SOIL - 16/9/2022 SE236890.028	QD1 SOIL - 16/9/2022 SE236890.029	QD2 SOIL - 16/9/2022 SE236890.030	TB SOIL - 15/9/2022 SE236890.033
% Moisture	%w/w	1	15.2	18.0	10.9	11.4	<1.0

Fibre Identification in soil [AN602] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH101_0.3-0.4 SOIL - 15/9/2022 SE236890.001	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH103_0.3-0.4 SOIL - 15/9/2022 SE236890.004	BH103_1.2-1.3 SOIL - 15/9/2022 SE236890.005	BH104M_0.2-0.3 SOIL - 15/9/2022 SE236890.006
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH105_1.0-1.1 SOIL - 15/9/2022 SE236890.008	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH107_0.5-0.6 SOIL - 15/9/2022 SE236890.010	BH108M_0.3-0.4 SOIL - 15/9/2022 SE236890.011	BH109_0.2-0.3 SOIL - 15/9/2022 SE236890.013
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH110_0.2-0.3 SOIL - 15/9/2022 SE236890.015	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH113_0.2-0.3 SOIL - 15/9/2022 SE236890.018	BH114_0.1-0.2 SOIL - 15/9/2022 SE236890.019
Asbestos Detected	No unit	-	No	No	No	No	Yes
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	**>0.01**

PARAMETER	UOM	LOR	BH116_0.3-0.4 SOIL - 16/9/2022 SE236890.021	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022	BH118_0.1-0.2 SOIL - 16/9/2022 SE236890.023	BH119_0.2-0.3 SOIL - 16/9/2022 SE236890.024	BH120M_0.3-0.4 SOIL - 16/9/2022 SE236890.025
Asbestos Detected	No unit	-	No	Yes	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	**>0.01**	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027
Asbestos Detected	No unit	-	No
Estimated Fibres*	%w/w	0.01	<0.01

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523] Tested: 28/9/2022

PARAMETER	UOM	LOR	BH102_0.3-0.4 SOIL - 15/9/2022 SE236890.003	BH106_0.5-0.6 SOIL - 15/9/2022 SE236890.009	BH111_0.2-0.3 SOIL - 15/9/2022 SE236890.016	BH112_0.2-0.3 SOIL - 15/9/2022 SE236890.017	BH117_0.1-0.2 SOIL - 15/9/2022 SE236890.022
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	<0.016	<0.016	<0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples [MA-1523] Tested: 28/9/2022 (continued)

PARAMETER	UOM	LOR	BH121_0.1-0.2 SOIL - 16/9/2022 SE236890.027
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	**0.0019**
Sum PFOS and PFHXS	mg/kg	0.0016	**0.0019**
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016
Perfluoroctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016
N-Methylperfluoroctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008
N-Ethylperfluoroctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008
Total of PFAS (n=30)	mg/kg	0.08	<0.08

VOCs in Water [AN433] Tested: 23/9/2022

PARAMETER	UOM	LOR	QR1 WATER - 16/9/2022 SE236890.031
Benzene	µg/L	0.5	<0.5
Toluene	µg/L	0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5
m/p-xylene	µg/L	1	<1
o-xylene	µg/L	0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5
Total BTEX	µg/L	3	<3
Naphthalene (VOC)	µg/L	0.5	<0.5

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 23/9/2022

PARAMETER	UOM	LOR	QR1 WATER - 16/9/2022 SE236890.031
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 23/9/2022

PARAMETER	UOM	LOR	QR1 WATER - 16/9/2022 SE236890.031
TRH C10-C14	µg/L	50	<50
TRH C15-C28	µg/L	200	<200
TRH C29-C36	µg/L	200	<200
TRH C37-C40	µg/L	200	<200
TRH >C10-C16	µg/L	60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 23/9/2022

PARAMETER	UOM	LOR	QR1 WATER - 16/9/2022 SE236890.031
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	<1
Lead, Pb	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Zinc, Zn	µg/L	5	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 23/9/2022

PARAMETER	UOM	LOR	QR1 WATER - 16/9/2022 SE236890.031
Mercury	mg/L	0.0001	<0.0001

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
AN077	Hydrogen cyanide is liberated from an acidified alkali soil extract by distillation and purging with air. The hydrogen cyanide gas is then collected by passing it through a sodium hydroxide scrubbing solution. The scrubbing solution will then be analysed for cyanide by the appropriate method.
AN287	A buffered distillate or water sample is treated with chloramine/barbituric acid reagents and the intensity of the colour developed is proportional to the cyanide concentration by DA.
AN295	For Soil, a 1:10 NaOH extraction is made and analysed after 16 hours. The soil extract or water sample is distilled in a phosphoric acid stream. Phenolic compounds in the distillate react with a reagent stream of potassium hexacyanoferrate(III) and 4-Amino-2,3-dimethyl-3-pryazolin-5-one in an alkaline medium to form a coloured complex which is analysed spectrophotometrically onboard a continuous flow analyser.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D). Total PAH calculated from individual analyte detections at or above the limit of reporting .
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit (RL) of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.
MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		
***	Indicates that both * and ** apply.				

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Richard Wang
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd, Lane Cove West, NSW**
Order Number	**E25663**
Samples	21

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE236890 R0**
Date Received	16 Sep 2022
Date Reported	28 Sep 2022

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

PFAS subcontracted to SGS Melbourne, Unit 10/585 Blackburn Road Notting Hill VIC 3168, NATA Accreditation Number 2562, Site number 14420. Repoert No. ME329549
PFAS analysed from glass jar, instead of plastic.

No respirable fibres detected in all soil samples using trace analysis technique.
Sample # 19 : Chrysotile, Amosite asbestos found in approx 90x20x4mm cement sheet fragments x3.
Sample # 22 : Chrysotile asbestos found in approx 30x30x4mm cement sheet fragment.
Asbestos analysed by Approved Identifiers Ravee Sivasubramaniam and Yusuf Kuthpudin .

SIGNATORIES

S. Ravensdale

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE236890.001	BH101_0.3-0.4	Soil	263g Clay,Sand,Rocks	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.003	BH102_0.3-0.4	Soil	176g Clay,Sand,Rocks	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.004	BH103_0.3-0.4	Soil	270g Clay,Sand,Rocks	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.005	BH103_1.2-1.3	Soil	174g Clay	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.006	BH104M_0.2-0.3	Soil	202g Clay,Sand,Rocks	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.008	BH105_1.0-1.1	Soil	245g Clay,Sand,Rocks	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.009	BH106_0.5-0.6	Soil	290g Clay,Sand,Rocks	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.010	BH107_0.5-0.6	Soil	190g Clay,Sand,Rocks	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.011	BH108M_0.3-0.4	Soil	313g Clay,Sand	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.013	BH109_0.2-0.3	Soil	156g Clay	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.015	BH110_0.2-0.3	Soil	251g Clay	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.016	BH111_0.2-0.3	Soil	270g Clay	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.017	BH112_0.2-0.3	Soil	186g Clay	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.018	BH113_0.2-0.3	Soil	270g Clay	15 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.019	BH114_0.1-0.2	Soil	78g Sand,Soil,Plant Matter	15 Sep 2022	Amosite & Chrysotile Asbestos Found at RL of 0.1g/kg	>0.01
SE236890.021	BH116_0.3-0.4	Soil	222g Clay	16 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.022	BH117_0.1-0.2	Soil	130g Clay,Sand,Soil,Rocks	15 Sep 2022	Chrysotile Asbestos Found at RL of 0.1g/kg Synthetic Mineral Fibres Detected Organic Fibres Detected	>0.01
SE236890.023	BH118_0.1-0.2	Soil	270g Clay,Sand,Rocks	16 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.024	BH119_0.2-0.3	Soil	180g Clay,Sand	16 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.025	BH120M_0.3-0.4	Soil	310g Clay,Rocks	16 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01
SE236890.027	BH121_0.1-0.2	Soil	214g Clay,Sand,Rocks	16 Sep 2022	No Asbestos Found at RL of 0.1g/kg	<0.01

METHOD	METHODOLOGY SUMMARY
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit (RL) of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service .
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.
			***	-	Indicates that both * and ** apply.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy , including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety .

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ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Huong Crawford
Client	SGS I&E SYDNEY
Address	Unit 16, 33 Maddox Street Alexandria NSW 2015
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Email	au.environmental.sydney@sgs.com
Project	**E25663 67 Mars Rd, Lane Cove West, NSW**
Order Number	**SE236890**
Samples	33

LABORATORY DETAILS

Manager	Adam Atkinson
Laboratory	SGS Melbourne EH&S
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SGS Reference	**ME329549 R0**
Date Received	26 Sep 2022
Date Reported	28 Sep 2022

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(14420).

PFAS analysed from glass jar, instead of plastic. Client advised to proceed

SIGNATORIES

Andrew WRIGHT
Senior Chemist

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.001 Soil 15 Sep 2022 SE236890.001	ME329549.002 Soil 15 Sep 2022 SE236890.002	ME329549.003 Soil 15 Sep 2022 SE236890.003	ME329549.004 Soil 15 Sep 2022 SE236890.004
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 28/9/2022						
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-	<0.0008	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-	<0.0032	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-	<0.0016	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-	<0.0016	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-	<0.0016	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-	<0.0016	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-	<0.0016	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-	<0.0016	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-	<0.008	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-	<0.008	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	<0.016	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	<0.016	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-	<0.008	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-	<0.008	-
Total of PFAS (n=30)	mg/kg	0.08	-	-	<0.08	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	**98**	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	**82**	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	**125**	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	**114**	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	**100**	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	**95**	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	**100**	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	**93**	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	**62**	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	**15**	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	**12**	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	**130**	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	**113**	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	**110**	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	**127**	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	**83**	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	**85**	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	**108**	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	**59**	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	**48**	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	**91**	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	**81**	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	**72**	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	**60**	-

Moisture Content Method: AN002 Tested: 28/9/2022

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.001 Soil 15 Sep 2022 SE236890.001	ME329549.002 Soil 15 Sep 2022 SE236890.002	ME329549.003 Soil 15 Sep 2022 SE236890.003	ME329549.004 Soil 15 Sep 2022 SE236890.004
Moisture Content Method: AN002 Tested: 28/9/2022 (continued)						
% Moisture	%w/w	1	-	-	**11.2**	-

Parameter	Units	LOR	Sample Number: ME329549.005 Sample Matrix: Soil Sample Date: 15 Sep 2022 Sample Name: SE236890.005	ME329549.006 Soil 15 Sep 2022 SE236890.006	ME329549.007 Soil 15 Sep 2022 SE236890.007	ME329549.008 Soil 15 Sep 2022 SE236890.008
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 28/9/2022						
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-	-	-
Total of PFAS (n=30)	mg/kg	0.08	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Moisture Content Method: AN002 Tested: 28/9/2022

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.005 Soil 15 Sep 2022 SE236890.005	ME329549.006 Soil 15 Sep 2022 SE236890.006	ME329549.007 Soil 15 Sep 2022 SE236890.007	ME329549.008 Soil 15 Sep 2022 SE236890.008
Moisture Content Method: AN002 Tested: 28/9/2022 (continued)						
% Moisture	%w/w	1	-	-	-	-

Parameter	Units	LOR	Sample Number: ME329549.009 Sample Matrix: Soil Sample Date: 15 Sep 2022 Sample Name: SE236890.009	ME329549.010 Soil 15 Sep 2022 SE236890.010	ME329549.011 Soil 15 Sep 2022 SE236890.011	ME329549.012 Soil 15 Sep 2022 SE236890.012
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 26/9/2022**				
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	-	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	-	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	-	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	-	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	-	-	-
Total of PFAS (n=30)	mg/kg	0.08	<0.08	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**99**	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**102**	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**109**	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**116**	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**89**	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**86**	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**113**	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**66**	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**60**	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**22**	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**18**	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**105**	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**84**	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**117**	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**92**	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**84**	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**70**	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**99**	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**62**	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**43**	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**103**	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**68**	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**95**	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	**86**	-	-	-
Moisture Content	**Method: AN002**	**Tested: 26/9/2022**				

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.009 Soil 15 Sep 2022 SE236890.009	ME329549.010 Soil 15 Sep 2022 SE236890.010	ME329549.011 Soil 15 Sep 2022 SE236890.011	ME329549.012 Soil 15 Sep 2022 SE236890.012
Moisture Content Method: AN002 Tested: 28/9/2022 (continued)						
% Moisture	%w/w	1	**10.0**	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME329549.013 Soil 15 Sep 2022 SE236890.013	ME329549.014 Soil 15 Sep 2022 SE236890.014	ME329549.015 Soil 15 Sep 2022 SE236890.015	ME329549.016 Soil 15 Sep 2022 SE236890.016
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 28/9/2022							
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008		-	-	-	<0.0008
Perfluorononanoic acid (PFNA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032		-	-	-	<0.0032
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016		-	-	-	<0.0016
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016		-	-	-	<0.0016
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016		-	-	-	<0.0016
Sum PFOS and PFHXS	mg/kg	0.0016		-	-	-	<0.0016
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016		-	-	-	<0.0016
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016		-	-	-	<0.0016
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016		-	-	-	<0.0016
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016		-	-	-	<0.0016
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016		-	-	-	<0.0016
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008		-	-	-	<0.008
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008		-	-	-	<0.008
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016		-	-	-	<0.016
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016		-	-	-	<0.016
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008		-	-	-	<0.008
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008		-	-	-	<0.008
Total of PFAS (n=30)	mg/kg	0.08		-	-	-	<0.08
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**101**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**102**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**105**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**108**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**102**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**117**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**106**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**91**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**77**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**28**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**17**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-		-	-	-	**103**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-		-	-	-	**98**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-		-	-	-	**94**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-		-	-	-	**88**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-		-	-	-	**80**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-		-	-	-	**65**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**78**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**59**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**45**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-		-	-	-	**65**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-		-	-	-	**54**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**84**
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-		-	-	-	**69**
Moisture Content Method: AN002 Tested: 28/9/2022							

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.013 Soil 15 Sep 2022 SE236890.013	ME329549.014 Soil 15 Sep 2022 SE236890.014	ME329549.015 Soil 15 Sep 2022 SE236890.015	ME329549.016 Soil 15 Sep 2022 SE236890.016
Moisture Content Method: AN002 Tested: 26/9/2022 (continued)						
% Moisture	%w/w	1	-	-	-	**19.2**

Parameter	Units	LOR	Sample Number: ME329549.017 Sample Matrix: Soil Sample Date: 15 Sep 2022 Sample Name: SE236890.017	ME329549.018 Soil 15 Sep 2022 SE236890.018	ME329549.019 Soil 15 Sep 2022 SE236890.019	ME329549.020 Soil 16 Sep 2022 SE236890.020
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 26/9/2022**				
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	<0.0008	-	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	<0.0032	-	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	<0.0016	-	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	<0.0016	-	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	<0.0016	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	<0.0016	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	<0.0016	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	<0.0016	-	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	<0.0016	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	<0.008	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	<0.008	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	<0.016	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	<0.008	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	<0.008	-	-	-
Total of PFAS (n=30)	mg/kg	0.08	<0.08	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	**98**	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	**100**	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	**115**	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	**107**	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	**95**	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	**108**	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	**121**	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	**99**	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	**81**	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	**63**	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	**62**	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	**108**	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	**84**	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	**88**	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	**93**	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	**78**	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	**86**	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	**79**	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	**77**	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	**65**	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	**63**	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	**75**	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	**85**	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	**81**	-	-	-
Moisture Content	**Method: AN002**	**Tested: 26/9/2022**				

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.017 Soil 15 Sep 2022 SE236890.017	ME329549.018 Soil 15 Sep 2022 SE236890.018	ME329549.019 Soil 15 Sep 2022 SE236890.019	ME329549.020 Soil 16 Sep 2022 SE236890.020
Moisture Content Method: AN002 Tested: 28/9/2022 (continued)						
% Moisture	%w/w	1	**20.4**	-	-	-

Parameter	Units	LOR	Sample Number ME329549.021 Sample Matrix Soil Sample Date 16 Sep 2022 Sample Name SE236890.021	ME329549.022 Soil 15 Sep 2022 SE236890.022	ME329549.023 Soil 16 Sep 2022 SE236890.023	ME329549.024 Soil 16 Sep 2022 SE236890.024
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 28/9/2022**				
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	<0.0008	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	<0.0032	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	<0.0016	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	<0.0016	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	<0.0016	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	<0.0016	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	<0.0016	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	<0.0016	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	<0.0016	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	<0.0016	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	<0.0016	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	<0.008	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	<0.008	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	<0.016	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	<0.016	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	<0.008	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	<0.008	-	-
Total of PFAS (n=30)	mg/kg	0.08	-	<0.08	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	**100**	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	**104**	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	**112**	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	**109**	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	**99**	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	**89**	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	**120**	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	**94**	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	**88**	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	**54**	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	**30**	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	**110**	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	**99**	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	**94**	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	**88**	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	**78**	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	**70**	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	**65**	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	**67**	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	**58**	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	**55**	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	**57**	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	**62**	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	**57**	-	-

Moisture Content **Method: AN002** **Tested: 28/9/2022**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.021 Soil 16 Sep 2022 SE236890.021	ME329549.022 Soil 15 Sep 2022 SE236890.022	ME329549.023 Soil 16 Sep 2022 SE236890.023	ME329549.024 Soil 16 Sep 2022 SE236890.024
Moisture Content Method: AN002 Tested: 28/9/2022 (continued)						
% Moisture	%w/w	1	-	22.6	-	-

Parameter	Units	LOR	Sample Number ME329549.025 Sample Matrix Soil Sample Date 16 Sep 2022 Sample Name SE236890.025	ME329549.026 Soil 16 Sep 2022 SE236890.026	ME329549.027 Soil 16 Sep 2022 SE236890.027	ME329549.028 Soil 16 Sep 2022 SE236890.028
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 28/9/2022						
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-	<0.0008	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-	<0.0032	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-	**0.0019**	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-	**0.0019**	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-	<0.0016	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-	<0.0016	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-	<0.0016	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-	<0.0016	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-	<0.0016	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-	<0.008	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-	<0.008	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	<0.016	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	<0.016	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-	<0.008	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-	<0.008	-
Total of PFAS (n=30)	mg/kg	0.08	-	-	<0.08	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	**102**	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	**105**	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	**106**	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	**96**	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	**97**	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	**103**	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	**109**	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	**83**	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	**89**	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	**58**	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	**132**	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	**103**	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	**93**	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	**85**	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	**86**	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	**80**	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	**78**	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	**95**	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	**71**	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	**54**	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	**72**	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	**64**	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	**74**	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	**64**	-

Moisture Content Method: AN002 Tested: 28/9/2022

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME329549.025 Soil 16 Sep 2022 SE236890.025	ME329549.026 Soil 16 Sep 2022 SE236890.026	ME329549.027 Soil 16 Sep 2022 SE236890.027	ME329549.028 Soil 16 Sep 2022 SE236890.028
Moisture Content Method: AN002 Tested: 28/9/2022 (continued)							
% Moisture	%w/w	1		-	-	**17.5**	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.029 Soil 16 Sep 2022 SE236890.029	ME329549.030 Soil 16 Sep 2022 SE236890.030	ME329549.031 Water 16 Sep 2022 SE236890.031	ME329549.032 Soil 15 Sep 2022 SE236890.032
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 Tested: 28/9/2022						
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-	-	-	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-	-	-	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-	-	-	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-	-	-	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-	-	-	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-	-	-	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-	-	-	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-	-	-	-
Sum PFOS and PFHXS	mg/kg	0.0016	-	-	-	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-	-	-	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-	-	-	-
Total of PFAS (n=30)	mg/kg	0.08	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

Moisture Content Method: AN002 Tested: 28/9/2022

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329549.029 Soil 16 Sep 2022 SE236890.029	ME329549.030 Soil 16 Sep 2022 SE236890.030	ME329549.031 Water 16 Sep 2022 SE236890.031	ME329549.032 Soil 15 Sep 2022 SE236890.032
Moisture Content Method: AN002 Tested: 28/9/2022 (continued)						
% Moisture	%w/w	1	-	-	-	-

Parameter	Units	LOR	Sample Number ME329549.033 Sample Matrix Soil Sample Date 15 Sep 2022 Sample Name SE236890.033
Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples	**Method: MA-1523**	**Tested: 28/9/2022**	
Perfluorobutanoic acid (PFBA)	mg/kg	0.0016	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0016	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0016	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0016	-
Perfluorooctanoic Acid (PFOA)	mg/kg	0.0008	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0016	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0016	-
Perfluoroundecanoic acid (PFUnA)	mg/kg	0.0016	-
Perfluorododecanoic acid (PFDoA)	mg/kg	0.0016	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0016	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0016	-
Perfluorohexadecanoic acid (PFHxDA)	mg/kg	0.0032	-
Perfluorobutane sulfonate (PFBS)	mg/kg	0.0016	-
Perfluoropentane sulfonate (PFPeS)	mg/kg	0.0016	-
Perfluorohexane sulfonate (PFHxS)	mg/kg	0.0016	-
Perfluoroheptane sulfonate (PFHpS)	mg/kg	0.0016	-
Perfluorooctane sulfonate (PFOS)	mg/kg	0.0016	-
Sum PFOS and PFHXS	mg/kg	0.0016	-
Perfluorononane sulfonate (PFNS)	mg/kg	0.0016	-
Perfluorodecane sulfonate (PFDS)	mg/kg	0.0016	-
Perfluorododecane sulfonate (PFDoS)	mg/kg	0.0016	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	mg/kg	0.0016	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	mg/kg	0.0016	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	mg/kg	0.0016	-
Perfluorooctane sulfonamide (PFOSA)	mg/kg	0.0016	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	mg/kg	0.008	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	mg/kg	0.008	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	mg/kg	0.016	-
N-Methylperfluorooctanesulfonamidoacetic acid	mg/kg	0.008	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	mg/kg	0.008	-
Total of PFAS (n=30)	mg/kg	0.08	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-

Parameter	Units	LOR	Sample Number ME329549.033 Sample Matrix Soil Sample Date 15 Sep 2022 Sample Name SE236890.033
Moisture Content Method: AN002 Tested: 28/9/2022			
% Moisture	%w/w	1	-

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Moisture Content Method: ME-(AU)-[ENV]AN002

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture	LB055250	%w/w	1	36%

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Perfluorobutanoic acid (PFBA)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluoropentanoic acid (PFPeA)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexanoic acid (PFHxA)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluoroheptanoic acid (PFHpA)	LB055249	mg/kg	0.0016	<0.0016	0%	85%
Perfluorooctanoic Acid (PFOA)	LB055249	mg/kg	0.0008	<0.0008	0%	107%
Perfluorononanoic acid (PFNA)	LB055249	mg/kg	0.0016	<0.0016	0%	150%
Perfluorodecanoic acid (PFDA)	LB055249	mg/kg	0.0016	<0.0016	0%	104%
Perfluoroundecanoic acid (PFUnA)	LB055249	mg/kg	0.0016	<0.0016	0%	145%
Perfluorododecanoic acid (PFDoA)	LB055249	mg/kg	0.0016	<0.0016	0%	150%
Perfluorotridecanoic acid (PFTrDA)	LB055249	mg/kg	0.0016	<0.0016	0%	148%
Perfluorotetradecanoic acid (PFTeDA)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexadecanoic acid (PFHxDA)	LB055249	mg/kg	0.0032	<0.0032	0%	NA
Perfluorobutane sulfonate (PFBS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluoropentane sulfonate (PFPeS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluorohexane sulfonate (PFHxS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluoroheptane sulfonate (PFHpS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluorooctane sulfonate (PFOS)	LB055249	mg/kg	0.0016	<0.0016	0%	143%
Sum PFOS and PFHXS	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluorononane sulfonate (PFNS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluorodecane sulfonate (PFDS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluorododecane sulfonate (PFDoS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	LB055249	mg/kg	0.0016	<0.0016	0%	NA
Perfluoroctane sulfonamide (PFOSA)	LB055249	mg/kg	0.0016	<0.0016	0%	65%
N-Methylperfluoroctane sulfonamide (N-MeFOSA)	LB055249	mg/kg	0.008	<0.008	0%	NA
N-Ethylperfluoroctane sulfonamide (N-EtFOSA)	LB055249	mg/kg	0.008	<0.008	0%	NA
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	LB055249	mg/kg	0.016	<0.016	0%	NA
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	LB055249	mg/kg	0.016	<0.016	0%	NA
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	LB055249	mg/kg	0.008	<0.008	0%	NA
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	LB055249	mg/kg	0.008	<0.008	0%	NA
Total of PFAS (n=30)	LB055249	mg/kg	0.08	<0.08	0%	NA
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	101%	2%	100%
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	95%	20%	99%
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	101%	22%	97%
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	95%	11%	100%
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	97%	6%	88%
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	107%	11%	87%
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	109%	22%	132%
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	100%	16%	87%
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	92%	25%	88%
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	66%	56%	57%
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	97%	17%	75%
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	107%	25%	108%
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	101%	12%	95%
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	91%	4%	94%
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	93%	43%	93%
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	86%	2%	88%
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	98%	11%	78%
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	92%	40%	94%
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	83%	20%	53%

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples Method: MA-1523 (continued)

				MB	DUP %RPD	LCS %Recovery
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	68%	15%	44%
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	77%	29%	73%
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	78%	37%	71%
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	91%	7%	70%
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	LB055249	%	-	96%	15%	84%

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
***	Indicates that both * and ** apply.	NVL	Not Validated

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calcuated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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CERTIFICATE OF ANALYSIS 306219

Client Details

Client	EI Australia
Attention	Lab Email, Sharon Li
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	**E25663, 67 Mars Rd Lane Cove West**
Number of Samples	2 Soil
Date samples received	20/09/2022
Date completed instructions received	20/09/2022

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	29/09/2022
Date of Issue	28/09/2022

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

Results Approved By
Hannah Nguyen, Metals Supervisor
Josh Williams, Organics and LC Supervisor
Kyle Gavrily, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		306219-1	306219-2
Your Reference	UNITS	QT1	QT2
Date Sampled		16/09/2022	16/09/2022
Type of sample		Soil	Soil
Date extracted	-	26/09/2022	26/09/2022
Date analysed	-	28/09/2022	28/09/2022
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	101	97

svTRH (C10-C40) in Soil			
Our Reference		306219-1	306219-2
Your Reference	UNITS	QT1	QT2
Date Sampled		16/09/2022	16/09/2022
Type of sample		Soil	Soil
Date extracted	-	26/09/2022	26/09/2022
Date analysed	-	28/09/2022	28/09/2022
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	%	81	80

Acid Extractable metals in soil			
Our Reference		306219-1	306219-2
Your Reference	UNITS	QT1	QT2
Date Sampled		16/09/2022	16/09/2022
Type of sample		Soil	Soil
Date prepared	-	26/09/2022	26/09/2022
Date analysed	-	27/09/2022	27/09/2022
Arsenic	mg/kg	5	6
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	13	12
Copper	mg/kg	2	<1
Lead	mg/kg	12	11
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	3	<1
Zinc	mg/kg	15	2

Moisture			
Our Reference		306219-1	306219-2
Your Reference	UNITS	QT1	QT2
Date Sampled		16/09/2022	16/09/2022
Type of sample		Soil	Soil
Date prepared	-	26/09/2022	26/09/2022
Date analysed	-	27/09/2022	27/09/2022
Moisture	%	8.4	17

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-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	-			26/09/2022	[NT]	[NT]	[NT]	[NT]	26/09/2022	[NT]
Date analysed	-			28/09/2022	[NT]	[NT]	[NT]	[NT]	28/09/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	92	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	96	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	92	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	95	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-19	[NT]
Date extracted	-			26/09/2022	[NT]	[NT]	[NT]	[NT]	26/09/2022	[NT]
Date analysed	-			27/09/2022	[NT]	[NT]	[NT]	[NT]	27/09/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	112	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	112	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	85	[NT]	[NT]	[NT]	[NT]	90	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date prepared	-			26/09/2022	[NT]	[NT]	[NT]	[NT]	26/09/2022	[NT]
Date analysed	-			27/09/2022	[NT]	[NT]	[NT]	[NT]	27/09/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	93	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	94	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	102	[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.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Richard Wang
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
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Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd Lane Cove West**
Order Number	**E25663**
Samples	8

LABORATORY DETAILS

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Laboratory	SGS Alexandria Environmental
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Email	au.environmental.sydney@sgs.com
SGS Reference	**SE237041 R0**
Date Received	23/9/2022
Date Reported	28/9/2022

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

PFAS subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420. Report No. ME329600.

MA-1523: Majority of surrogate and spike recoveries within acceptance criteria.

SIGNATORIES

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Metals/Inorganics Team Leader

Huong CRAWFORD
Production Manager

Ly Kim HA
Organic Section Head

Teresa NGUYEN
Organic Chemist

VOCs in Water [AN433] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004	QD1 WATER - 23/9/2022 SE237041.005
Benzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1	<1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3	<3	<3	<3
Naphthalene (VOC)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	<5	<5	-
Chloromethane	µg/L	5	<5	<5	<5	<5	-
Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	<0.3	<0.3	-
Bromomethane	µg/L	10	<10	<10	<10	<10	-
Chloroethane	µg/L	5	<5	<5	<5	<5	-
Trichlorofluoromethane	µg/L	1	<1	<1	<1	<1	-
Acetone (2-propanone)	µg/L	10	<10	<10	<10	<10	-
Iodomethane	µg/L	5	<5	<5	<5	<5	-
1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Acrylonitrile	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	<5	<5	-
Allyl chloride	µg/L	2	<2	<2	<2	<2	-
Carbon disulfide	µg/L	2	<2	<2	<2	<2	-
trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<2	<2	<2	-
1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Vinyl acetate	µg/L	10	<10	<10	<10	<10	-
MEK (2-butanone)	µg/L	10	<10	<10	<10	<10	-
cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromochloromethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Chloroform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dibromomethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-nitropropane	µg/L	100	<100	<100	<100	<100	-
Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	<5	<5	-
cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-hexanone (MBK)	µg/L	5	<5	<5	<5	<5	-
1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Chlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromoform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	<1	-
Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,3-trichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	<1	-

VOCs in Water [AN433] Tested: 27/9/2022 (continued)

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004	QD1 WATER - 23/9/2022 SE237041.005
Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
n-propylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
4-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
tert-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
sec-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	<0.3	<0.3	-
p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
n-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Total VOC	µg/L	10	<10	<10	<10	<10	-

VOCs in Water [AN433] Tested: 27/9/2022 (continued)

PARAMETER	UOM	LOR	QR1 WATER - 23/9/2022 SE237041.006	TS WATER - 23/9/2022 SE237041.007	TB WATER - 23/9/2022 SE237041.008
Benzene	µg/L	0.5	<0.5	[104%]	<0.5
Toluene	µg/L	0.5	<0.5	[99%]	<0.5
Ethylbenzene	µg/L	0.5	<0.5	[97%]	<0.5
m/p-xylene	µg/L	1	<1	[97%]	<1
o-xylene	µg/L	0.5	<0.5	[97%]	<0.5
Total Xylenes	µg/L	1.5	<1.5	-	<1.5
Total BTEX	µg/L	3	<3	-	<3
Naphthalene (VOC)	µg/L	0.5	<0.5	[97%]	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	-	-	-
Chloromethane	µg/L	5	-	-	-
Vinyl chloride (Chloroethene)	µg/L	0.3	-	-	-
Bromomethane	µg/L	10	-	-	-
Chloroethane	µg/L	5	-	-	-
Trichlorofluoromethane	µg/L	1	-	-	-
Acetone (2-propanone)	µg/L	10	-	-	-
Iodomethane	µg/L	5	-	-	-
1,1-dichloroethene	µg/L	0.5	-	-	-
Acrylonitrile	µg/L	0.5	-	-	-
Dichloromethane (Methylene chloride)	µg/L	5	-	-	-
Allyl chloride	µg/L	2	-	-	-
Carbon disulfide	µg/L	2	-	-	-
trans-1,2-dichloroethene	µg/L	0.5	-	-	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	-	-	-
1,1-dichloroethane	µg/L	0.5	-	-	-
Vinyl acetate	µg/L	10	-	-	-
MEK (2-butanone)	µg/L	10	-	-	-
cis-1,2-dichloroethene	µg/L	0.5	-	-	-
Bromochloromethane	µg/L	0.5	-	-	-
Chloroform (THM)	µg/L	0.5	-	-	-
2,2-dichloropropane	µg/L	0.5	-	-	-
1,2-dichloroethane	µg/L	0.5	-	-	-
1,1,1-trichloroethane	µg/L	0.5	-	-	-
1,1-dichloropropene	µg/L	0.5	-	-	-
Carbon tetrachloride	µg/L	0.5	-	-	-
Dibromomethane	µg/L	0.5	-	-	-
1,2-dichloropropane	µg/L	0.5	-	-	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	-	-	-
2-nitropropane	µg/L	100	-	-	-
Bromodichloromethane (THM)	µg/L	0.5	-	-	-
MIBK (4-methyl-2-pentanone)	µg/L	5	-	-	-
cis-1,3-dichloropropene	µg/L	0.5	-	-	-
trans-1,3-dichloropropene	µg/L	0.5	-	-	-
1,1,2-trichloroethane	µg/L	0.5	-	-	-
1,3-dichloropropane	µg/L	0.5	-	-	-
Dibromochloromethane (THM)	µg/L	0.5	-	-	-
2-hexanone (MBK)	µg/L	5	-	-	-
1,2-dibromoethane (EDB)	µg/L	0.5	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	-	-	-
1,1,1,2-tetrachloroethane	µg/L	0.5	-	-	-
Chlorobenzene	µg/L	0.5	-	-	-
Bromoform (THM)	µg/L	0.5	-	-	-
cis-1,4-dichloro-2-butene	µg/L	1	-	-	-
Styrene (Vinyl benzene)	µg/L	0.5	-	-	-
1,1,2,2-tetrachloroethane	µg/L	0.5	-	-	-
1,2,3-trichloropropane	µg/L	0.5	-	-	-
trans-1,4-dichloro-2-butene	µg/L	1	-	-	-

VOCs in Water [AN433] Tested: 27/9/2022 (continued)

PARAMETER	UOM	LOR	QR1 WATER - 23/9/2022 SE237041.006	TS WATER - 23/9/2022 SE237041.007	TB WATER - 23/9/2022 SE237041.008
Isopropylbenzene (Cumene)	µg/L	0.5	-	-	-
Bromobenzene	µg/L	0.5	-	-	-
n-propylbenzene	µg/L	0.5	-	-	-
2-chlorotoluene	µg/L	0.5	-	-	-
4-chlorotoluene	µg/L	0.5	-	-	-
1,3,5-trimethylbenzene	µg/L	0.5	-	-	-
tert-butylbenzene	µg/L	0.5	-	-	-
1,2,4-trimethylbenzene	µg/L	0.5	-	-	-
sec-butylbenzene	µg/L	0.5	-	-	-
1,3-dichlorobenzene	µg/L	0.5	-	-	-
1,4-dichlorobenzene	µg/L	0.3	-	-	-
p-isopropyltoluene	µg/L	0.5	-	-	-
1,2-dichlorobenzene	µg/L	0.5	-	-	-
n-butylbenzene	µg/L	0.5	-	-	-
1,2-dibromo-3-chloropropane	µg/L	0.5	-	-	-
1,2,4-trichlorobenzene	µg/L	0.5	-	-	-
Hexachlorobutadiene	µg/L	0.5	-	-	-
1,2,3-trichlorobenzene	µg/L	0.5	-	-	-
Total VOC	µg/L	10	-	-	-

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004	QD1 WATER - 23/9/2022 SE237041.005
TRH C6-C9	µg/L	40	<40	<40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50	<50	<50

PARAMETER	UOM	LOR	QR1 WATER - 23/9/2022 SE237041.006
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004	QD1 WATER - 23/9/2022 SE237041.005
TRH C10-C14	µg/L	50	<50	<50	<50	<50	<50
TRH C15-C28	µg/L	200	<200	<200	<200	<200	<200
TRH C29-C36	µg/L	200	<200	<200	<200	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60	<60	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	<60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	<500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500	<500	<500
TRH C10-C40	µg/L	320	<320	<320	<320	<320	<320

PARAMETER	UOM	LOR	QR1 WATER - 23/9/2022 SE237041.006
TRH C10-C14	µg/L	50	<50
TRH C15-C28	µg/L	200	<200
TRH C29-C36	µg/L	200	<200
TRH C37-C40	µg/L	200	<200
TRH >C10-C16	µg/L	60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004
Naphthalene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1	<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)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Total PAH (18)	µg/L	1	<1	<1	<1	<1

OC Pesticides in Water [AN420] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004
Hexachlorobenzene (HCB)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Lindane (gamma BHC)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Gamma Chlordane	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Endrin	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDD	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDD	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Endrin aldehyde	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Endrin ketone	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Mirex	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
Total OC	µg/L	1	<1	<1	<1	<1
Total OC	µg/L	1	<1	<1	<1	<1

OP Pesticides in Water [AN420] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004
Dichlorvos	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	µg/L	0.2	<0.2	<0.2	<0.2	<0.2
Malathion	µg/L	0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	µg/L	0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	µg/L	0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethion	µg/L	0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl	µg/L	0.2	<0.2	<0.2	<0.2	<0.2

Total Phenolics in Water [AN295] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004	QD1 WATER - 23/9/2022 SE237041.005
Total Phenols	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	QR1 WATER - 23/9/2022 SE237041.006
Total Phenols	mg/L	0.05	<0.05

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 26/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004	QD1 WATER - 23/9/2022 SE237041.005
Arsenic, As	µg/L	1	<1	<1	<1	<1	<1
Cadmium, Cd	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium, Cr	µg/L	1	<1	1	<1	<1	<1
Copper, Cu	µg/L	1	4	2	3	6	6
Lead, Pb	µg/L	1	<1	<1	<1	<1	<1
Nickel, Ni	µg/L	1	11	6	<1	5	5
Zinc, Zn	µg/L	5	17	18	15	35	37

PARAMETER	UOM	LOR	QR1 WATER - 23/9/2022 SE237041.006
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	1
Lead, Pb	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Zinc, Zn	µg/L	5	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 27/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004	QD1 WATER - 23/9/2022 SE237041.005
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

PARAMETER	UOM	LOR	QR1 WATER - 23/9/2022 SE237041.006
Mercury	mg/L	0.0001	<0.0001

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples [MA-1523] Tested: 28/9/2022

PARAMETER	UOM	LOR	BH104M WATER - 23/9/2022 SE237041.001	BH108M WATER - 23/9/2022 SE237041.002	BH115M WATER - 23/9/2022 SE237041.003	BH120M WATER - 23/9/2022 SE237041.004
Perfluorobutanoic acid (PFBA)	µg/L	0.002	**0.017**	**0.013**	**0.006**	<0.002
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	**0.042**	**0.004**	**0.005**	<0.002
Perfluorohexanoic acid (PFHxA)	µg/L	0.002	**0.043**	<0.002	<0.002	<0.002
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002	**0.030**	**0.002**	**0.002**	<0.002
Perfluorooctanoic Acid (PFOA)	µg/L	0.002	**0.050**	<0.002	**0.004**	<0.002
Perfluorononanoic acid (PFNA)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluorodecanoic acid (PFDA)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluorododecanoic acid (PFDoA)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008	<0.008	<0.008	<0.008	<0.008
Perfluorobutane sulfonate (PFBS)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004	<0.004	<0.004	<0.004	<0.004
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002	**0.008**	<0.002	<0.002	<0.002
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonate (PFOS)	µg/L	0.002	<0.002	<0.002	**0.019**	<0.002
Sum of PFHxS and PFOS	µg/L	0.002	**0.008**	<0.002	**0.019**	<0.002
Perfluorononane sulfonate (PFNS)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002
Perfluorodecane sulfonate (PFDS)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008	<0.008	<0.008	<0.008	<0.008
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
Total of PFAS (n=30)	µg/L	0.04	**0.19**	<0.04	<0.04	<0.04

METHOD	METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN295	The water sample or extract of sample is distilled in a phosphoric acid stream. Phenolic compounds in the distillate react with a reagent stream of potassium hexacyanoferrate(III) and 4-Amino-2,3-dimethyl-3-pryazolin-5-one in an alkaline medium to form a coloured complex which is analysed spectrophotometrically onboard a continuous flow analyser.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.
AN403	Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoveerable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D). Total PAH calculated from individual analyte detections at or above the limit of reporting .
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		
***	Indicates that both * and ** apply.				

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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ANALYTICAL REPORT

Accreditation No. 2562

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Order Number	**SE237041**
Samples	8

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SGS Reference	**ME329600 R0**
Date Received	26 Sep 2022
Date Reported	28 Sep 2022

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(14420).

MA-1523: Majority of surrogate and spike recoveries within acceptance criteria.

SIGNATORIES

Andrew WRIGHT
Senior Chemist

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME329600.001 Water 23 Sep 2022 SE237041.001	ME329600.002 Water 23 Sep 2022 SE237041.002	ME329600.003 Water 23 Sep 2022 SE237041.003	ME329600.004 Water 23 Sep 2022 SE237041.004
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples	**Method: MA-1523**	**Tested: 27/9/2022**					
Perfluorobutanoic acid (PFBA)	µg/L	0.002		**0.017**	**0.013**	**0.006**	<0.002
Perfluoropentanoic acid (PFPeA)	µg/L	0.002		**0.042**	**0.004**	**0.005**	<0.002
Perfluorohexanoic acid (PFHxA)	µg/L	0.002		**0.043**	<0.002	<0.002	<0.002
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002		**0.030**	**0.002**	**0.002**	<0.002
Perfluorooctanoic Acid (PFOA)	µg/L	0.002		**0.050**	<0.002	**0.004**	<0.002
Perfluorononanoic acid (PFNA)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluorodecanoic acid (PFDA)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluorododecanoic acid (PFDoA)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008		<0.008	<0.008	<0.008	<0.008
Perfluorobutane sulfonate (PFBS)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004		<0.004	<0.004	<0.004	<0.004
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002		**0.008**	<0.002	<0.002	<0.002
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonate (PFOS)	µg/L	0.002		<0.002	<0.002	**0.019**	<0.002
Sum of PFHxS and PFOS	µg/L	0.002		**0.008**	<0.002	**0.019**	<0.002
Perfluorononane sulfonate (PFNS)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
Perfluorodecane sulfonate (PFDS)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002		<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008		<0.008	<0.008	<0.008	<0.008
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01		<0.01	<0.01	<0.01	<0.01
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01		<0.01	<0.01	<0.01	<0.01
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01		<0.01	<0.01	<0.01	<0.01
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01		<0.01	<0.01	<0.01	<0.01
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01		<0.01	<0.01	<0.01	<0.01
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01		<0.01	<0.01	<0.01	<0.01
Total of PFAS (n=30)	µg/L	0.04		**0.19**	<0.04	<0.04	<0.04
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-		**100**	**100**	**99**	**101**
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-		**103**	**103**	**98**	**94**
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-		**140**	**120**	**133**	**144**
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-		**127**	**106**	**108**	**122**
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-		**98**	**90**	**92**	**99**
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-		**84**	**111**	**93**	**90**
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-		**101**	**87**	**88**	**133**
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-		**75**	**85**	**65**	**104**
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-		**58**	**79**	**66**	**118**
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-		**61**	**83**	**89**	**120**
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-		**60**	**79**	**90**	**130**
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-		**134**	**132**	**128**	**132**
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-		**118**	**108**	**87**	**104**
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-		**112**	**143**	**104**	**89**
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-		**115**	**108**	**116**	**115**
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-		**93**	**92**	**87**	**98**
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-		**94**	**89**	**75**	**88**
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-		**131**	**128**	**146**	**102**
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-		**123**	**134**	**123**	**110**
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-		**102**	**144**	**128**	**110**
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-		**150**	**144**	**130**	**111**
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-		**116**	**127**	**126**	**144**
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-		**88**	**100**	**87**	**76**
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-		**61**	**100**	**88**	**81**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name ME329600.005 Water 23 Sep 2022 SE237041.005	ME329600.006 Water 23 Sep 2022 SE237041.006	ME329600.007 Water 23 Sep 2022 SE237041.007	ME329600.008 Water 23 Sep 2022 SE237041.008
Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523 Tested: 28/9/2022						
Perfluorobutanoic acid (PFBA)	µg/L	0.002	-	-	-	-
Perfluoropentanoic acid (PFPeA)	µg/L	0.002	-	-	-	-
Perfluorohexanoic acid (PFHxA)	µg/L	0.002	-	-	-	-
Perfluoroheptanoic acid (PFHpA)	µg/L	0.002	-	-	-	-
Perfluorooctanoic Acid (PFOA)	µg/L	0.002	-	-	-	-
Perfluorononanoic acid (PFNA)	µg/L	0.004	-	-	-	-
Perfluorodecanoic acid (PFDA)	µg/L	0.004	-	-	-	-
Perfluoroundecanoic acid (PFUnA)	µg/L	0.004	-	-	-	-
Perfluorododecanoic acid (PFDoA)	µg/L	0.004	-	-	-	-
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.004	-	-	-	-
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.004	-	-	-	-
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.008	-	-	-	-
Perfluorobutane sulfonate (PFBS)	µg/L	0.004	-	-	-	-
Perfluoropentane sulfonate (PFPeS)	µg/L	0.004	-	-	-	-
Perfluorohexane sulfonate (PFHxS)	µg/L	0.002	-	-	-	-
Perfluoroheptane sulfonate (PFHpS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonate (PFOS)	µg/L	0.002	-	-	-	-
Sum of PFHxS and PFOS	µg/L	0.002	-	-	-	-
Perfluorononane sulfonate (PFNS)	µg/L	0.002	-	-	-	-
Perfluorodecane sulfonate (PFDS)	µg/L	0.002	-	-	-	-
Perfluorododecane sulfonate (PFDoS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	µg/L	0.002	-	-	-	-
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	µg/L	0.002	-	-	-	-
Perfluorooctane sulfonamide (PFOSA)	µg/L	0.008	-	-	-	-
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.01	-	-	-	-
2-(N-Methylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
2-(N-Ethylperfluorooctane sulfonamido)-ethanol	µg/L	0.01	-	-	-	-
N-Methylperfluorooctanesulfonamidoacetic acid	µg/L	0.01	-	-	-	-
N-Ethylperfluorooctanesulfonamidoacetic Acid	µg/L	0.01	-	-	-	-
Total of PFAS (n=30)	µg/L	0.04	-	-	-	-
(13C4-PFBA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFPeA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C5-PFHxA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4-PFHpA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C4_PFOA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C9-PFNA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C6-PFDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C7-PFUdA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFDoA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2_PFTeDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-PFHxDA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFBS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C3-PFHxS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(13C8-PFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery	%	-	-	-	-	-

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples Method: MA-1523

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Perfluorobutanoic acid (PFBA)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluoropentanoic acid (PFPeA)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluorohexanoic acid (PFHxA)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluoroheptanoic acid (PFHpA)	LB055276	µg/L	0.002	<0.002	0%	86%
Perfluorooctanoic Acid (PFOA)	LB055276	µg/L	0.002	<0.002	0%	104%
Perfluorononanoic acid (PFNA)	LB055276	µg/L	0.004	<0.004	0%	110%
Perfluorodecanoic acid (PFDA)	LB055276	µg/L	0.004	<0.004	0%	110%
Perfluoroundecanoic acid (PFUnA)	LB055276	µg/L	0.004	<0.004	0%	145%
Perfluorododecanoic acid (PFDoA)	LB055276	µg/L	0.004	<0.004	0%	148%
Perfluorotridecanoic acid (PFTrDA)	LB055276	µg/L	0.004	<0.004	0%	203%
Perfluorotetradecanoic acid (PFTeDA)	LB055276	µg/L	0.004	<0.004	0%	145%
Perfluorohexadecanoic acid (PFHxDA)	LB055276	µg/L	0.008	<0.008	0%	NA
Perfluorobutane sulfonate (PFBS)	LB055276	µg/L	0.004	<0.004	0%	NA
Perfluoropentane sulfonate (PFPeS)	LB055276	µg/L	0.004	<0.004	0%	NA
Perfluorohexane sulfonate (PFHxS)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluoroheptane sulfonate (PFHpS)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluorooctane sulfonate (PFOS)	LB055276	µg/L	0.002	<0.002	0%	93%
Sum of PFHxS and PFOS	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluorononane sulfonate (PFNS)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluorodecane sulfonate (PFDS)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluorododecane sulfonate (PFDoS)	LB055276	µg/L	0.002	<0.002	0%	NA
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2) (4:2 FTS)	LB055276	µg/L	0.002	<0.002	0%	NA
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2) (6:2 FTS)	LB055276	µg/L	0.002	<0.002	0%	NA
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2) (8:2 FTS)	LB055276	µg/L	0.002	<0.002	0%	NA
Perfluorooctane sulfonamide (PFOSA)	LB055276	µg/L	0.008	<0.008	0%	46%
N-Methylperfluorooctane sulfonamide (N-MeFOSA)	LB055276	µg/L	0.01	<0.01	0%	NA
N-Ethylperfluorooctane sulfonamide (N-EtFOSA)	LB055276	µg/L	0.01	<0.01	0%	NA
2-(N-Methylperfluorooctane sulfonamido)-ethanol (N-MeFOSE)	LB055276	µg/L	0.01	<0.01	0%	NA
2-(N-Ethylperfluorooctane sulfonamido)-ethanol (N-EtFOSE)	LB055276	µg/L	0.01	<0.01	0%	NA
N-Methylperfluorooctanesulfonamidoacetic acid (N_MeFOSAA)	LB055276	µg/L	0.01	<0.01	0%	NA
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA)	LB055276	µg/L	0.01	<0.01	0%	NA
Total of PFAS (n=30)	LB055276	µg/L	0.04	<0.04	0%	NA
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	98%	1%	100%
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	73%	25%	90%
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	92%	4%	109%
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	84%	17%	111%
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	99%	13%	83%
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	98%	13%	101%
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	130%	6%	87%
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	113%	13%	85%
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	93%	15%	80%
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	91%	2%	76%
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	73%	3%	142%
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	120%	11%	130%
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	119%	5%	95%
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	113%	13%	132%
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	121%	7%	117%
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	101%	11%	101%
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	62%	25%	65%
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	95%	32%	146%
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	120%	61%	140%
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	103%	62%	109%
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	111%	22%	136%
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	123%	49%	147%
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	79%	25%	89%
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	LB055276	%	-	85%	39%	87%

METHOD	METHODOLOGY SUMMARY
MA-1523	This method covers the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labelled quantification surrogates and clean-up via SPE cartridges sample extracts are analysed by liquid chromatography/mass spectrometry (LC-MS/MS). PFAS concentrations are determined by isotope dilution quantification.

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
***	Indicates that both * and ** apply.	NVL	Not Validated

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calcuated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

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Facsimile	(Not specified)
Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd Lane Cove West-Add**
Order Number	**E25663**
Samples	9

LABORATORY DETAILS

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SGS Reference	**SE237041A R0**
Date Received	4/10/2022
Date Reported	6/10/2022

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES

Dong LIANG
Metals/Inorganics Team Leader

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 5/10/2022

PARAMETER	UOM	LOR	QRB1 WATER - 23/9/2022 SE237041A.009
Copper	µg/L	1	1

METHOD	METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-qb/environment-health-and-safety.

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CERTIFICATE OF ANALYSIS 306491

Client Details

Client	EI Australia
Attention	Lab Email
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	**E25663, Lane Cove West**
Number of Samples	1 Water
Date samples received	23/09/2022
Date completed instructions received	23/09/2022

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	28/09/2022
Date of Issue	28/09/2022

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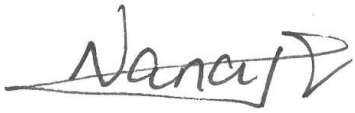
Results Approved By
Giovanni Agosti, Group Technical Manager
Josh Williams, Organics and LC Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water		
Our Reference		306491-1
Your Reference	UNITS	QT1
Date Sampled		23/09/2022
Type of sample		Water
Date extracted	-	27/09/2022
Date analysed	-	27/09/2022
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	112
Surrogate toluene-d8	%	103
Surrogate 4-BFB	%	102

svTRH (C10-C40) in Water		
Our Reference		306491-1
Your Reference	UNITS	QT1
Date Sampled		23/09/2022
Type of sample		Water
Date extracted	-	26/09/2022
Date analysed	-	27/09/2022
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	<50
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	<50
Surrogate o-Terphenyl	%	83

HM in water - dissolved		
Our Reference		306491-1
Your Reference	UNITS	QT1
Date Sampled		23/09/2022
Type of sample		Water
Date prepared	-	26/09/2022
Date analysed	-	26/09/2022
Arsenic-Dissolved	µg/L	<1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	6
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	5
Zinc-Dissolved	µg/L	26

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
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-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: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			27/09/2022	[NT]	[NT]	[NT]	[NT]	27/09/2022	[NT]
Date analysed	-			27/09/2022	[NT]	[NT]	[NT]	[NT]	27/09/2022	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	120	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	120	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	119	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	122	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	120	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	111	[NT]	[NT]	[NT]	[NT]	91	[NT]
Surrogate toluene-d8	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate 4-BFB	%		Org-023	102	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			26/09/2022	[NT]	[NT]	[NT]	[NT]	26/09/2022	[NT]
Date analysed	-			27/09/2022	[NT]	[NT]	[NT]	[NT]	27/09/2022	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	70	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	74	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	82	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	70	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	74	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	82	[NT]
Surrogate o-Terphenyl	%		Org-020	70	[NT]	[NT]	[NT]	[NT]	72	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			26/09/2022	[NT]	[NT]	[NT]	[NT]	26/09/2022	[NT]
Date analysed	-			26/09/2022	[NT]	[NT]	[NT]	[NT]	26/09/2022	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	116	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	94	[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

Dissolved Metals: no filtered, preserved sample was received, therefore the unpreserved sample was filtered through 0.45µm filter at the lab.
Note: there is a possibility some elements may be underestimated.

Appendix I – QA/QC Assessment

Quality Assurance / Quality Control Program

Quality assurance comprises an assessment of the reliability of the field procedures and laboratory results against standard industry practices and the SAQP. A summary of the project QA/QC measures incorporated into this DSI is presented in **Table I-1**.

Table I-1 Project QC Measures

Task	Description	Project
Field QA/QC		
General	Work was to be undertaken following standard field procedures which are based on industry accepted standard practice.	Soil samples were collected directly from the auger flights / bucket. Soil samples were placed in 250 gram glass jars and plastic bags, which were filled to minimise headspace, and sealed using Teflon-coated lids. PFAS samples were placed in a dedicated Teflon free soil jar provided by the laboratory. Groundwater samples were obtained using sample bottles/vials provided by the laboratory.
	All fieldwork was supervised by a suitably qualified and experienced scientist or engineer.	Yes
Soil Screening with PID	The PID was serviced and calibrated as per manufacturer requirements. PID calibrated at the beginning of each day of fieldwork.	Yes
Equipment Decontamination	Sampling equipment to be decontaminated after the collection of each soil sample by washing with phosphate-free detergent and potable water, followed by a final distilled water rinse. One rinsate blank would be collected and analysed for the primary contaminants. All results should be non-detect.	Yes Two rinsate samples were collected in total. One was collected during the soil investigation on 16 September 2022 and the other was collected during the groundwater monitoring event on 23 September 2022. All results were reported as below the detection limits, except for copper (1 µg/L) in QR1 during the GME of 23 September 2022. Copper (1 µg/L) was also detected in rinsate blank (QRB1). Both QR1 and QRB1 were from the same batch, prepared by the laboratory. As such, it is considered that the detection of copper in sample QR1 and QRB1 was not caused by any equipment decontamination.
Transport	Samples stored in a chilled cooler box and transported to the laboratories. To ensure the integrity of the samples from collection to receipt by the analytical laboratory, samples were sent by courier to the laboratories under ‘chain of custody’ describing sample preservation and transport duration.	Yes

Task	Description	Project
Trip Blanks	Trip blank samples were to be prepared and analysed by the primary laboratory for BTEX. Analytical results to be below the laboratory LOR, indicating satisfactory sample transport and handling conditions were achieved.	Two trip blank samples prepared by the primary laboratory were analysed for BTEX during soil and groundwater testing. All results were reported below the laboratory LOR, indicating that ideal sample transport and handling conditions were achieved (i.e. no cross-contamination of volatiles during sample transport and subsequent handling).
Trip Spikes	Trip spike samples were to be prepared and analysed by the primary laboratory for BTEX. Analytical results to be within 80-120% recovery, indicating satisfactory sample transport and handling conditions were achieved.	Two trip spike samples prepared by the primary laboratory were analysed for BTEX during soil and groundwater testing. All results were within the recovery acceptance levels, indicating that satisfactory sample transport and handling conditions were achieved (i.e. no loss of volatiles during sample transport and subsequent handling).
Duplicates	Field duplicate samples were to be analysed as follows (as per NEPM): ▪ intra-laboratory duplicates at a rate of 1 in 20 primary samples; and ▪ inter-laboratory duplicates at a rate of 1 in 20 primary samples. Field and laboratory acceptable limits between 30-50% RPD as stated by AS4482.1–2005. RPDs that exceed this range may be considered acceptable where: ▪ Results are less than 10 times the limits of reporting (LOR); ▪ Results are less than 20 times the LOR and the RPD is less than 50%; or ▪ Heterogeneous materials or volatile compounds are encountered. Non-compliance is to be documented in the report and the sample re-analysed or a higher level conservatively adopted.	The required sampling density of 1 per 20 duplicated primary samples was achieved and sufficient for the investigation. Laboratory duplicates prepared and analysed. Minor non-conformance, with negligible effects on data use for interpretative purposes. Field QC samples and calculated RPD values are presented in **Table I-5**. Copies of laboratory reports are included in **Appendix H**.
Laboratory QA/QC		
Laboratory Analysis	The laboratories selected are NATA accredited for the analytes selected and perform their own internal QA/QC programs.	Yes SGS - primary laboratory Envirolab - secondary laboratory Laboratory QA/QC analyses are included in **Appendix H.**
	Appropriate detection limits were used for the analyses to be undertaken.	Practical Quantitation Limits for all tested parameters during the DSI are presented in laboratory analytical reports in **Appendix H.**
Holding Times	Holding times are the maximum permissible elapsed time in days from the collection of the sample to its extraction and/or analysis. All extraction and analyses should be completed within standard guidelines.	All samples were analysed within the holding times.

Task	Description	Project
Method Blanks	A method blank contains the reagents used to prepare the sample for final analysis. The purpose of this procedure is to identify contamination in the reagent materials and assess potential bias in the sample analysis due to contaminated reagents. The QC criterion aims to find no detectable contamination in the reagents. Each analysis procedure should be subject to a method blank analysis. The results of each should indicate that contaminants were not detected.	Yes
Laboratory Duplicates	Laboratory duplicates are field samples that are split in the laboratory and subsequently analysed a number of times in the same batch. These sub-samples are selected by the laboratory to assess the accuracy and precision of the analytical method. The selected laboratories should undertake QA/QC procedures such as calibration standards, laboratory control samples, surrogates, reference materials, sample duplicates and matrix spikes. Intra-laboratory duplicates should be performed at a frequency of 1 per 10 samples.	Assessment of laboratory duplicates has been undertaken by the laboratory. All data quality objectives were met.
Laboratory Control Standard	A laboratory control standard is a standard reference material used in preparing primary standards. The concentration should be equivalent to a mid-range standard to confirm the primary calibration. Laboratory control samples should be performed on a frequency of 1 per 20 samples or at least one per analytical run.	Assessment of laboratory control standard has been undertaken by the laboratory. All laboratory control standards were within acceptable ranges.
Matrix Spikes	Matric spikes are field samples to which a predetermined stock solution of known concentration has been added. The samples are then analysed for recovery of the known addition. Recoveries should be within the stated laboratory control limits of 70 to 130% and duplicates should have RPDs of less than 50%.	Assessment of matrix spikes has been undertaken by the laboratory. All data quality objectives were met.
Surrogate Spikes	Surrogate spikes provide a means of checking, for every analysis that no gross errors have occurred at any stage of the procedure leading to significant analyte loss. Recoveries should be within the stated laboratory control limits of 70 to 130%.	Assessment of surrogate spikes has been undertaken by the laboratory. All data quality objectives were met.
Conclusion	The QA/QC indicators should either all comply with the required standards or showed no variations that would have no significant effect on the quality of the data.	Assessment of the investigation QA/QC is presented in the following sections.

Calculation of Relative Percentage Difference (RPD)

The RPD values were calculated using the following equation:

$$RPD = \frac{|C_O - C_R|}{[(C_O + C_R)/2]} \times 100$$

Where:

C_O = Concentration obtained for the primary sample; and

C_R = Concentration obtained for the blind replicate or split duplicate sample.

Field QA/QC

Field QC Samples

The field (intra- / inter- laboratory) duplicate samples collected during the investigation are summarised in **Table I-2**. Inter-laboratory duplicates were analysed by the secondary laboratory, Envirolab.

Table I-2 Field QC Sampling Program

Matrix	Primary QA Sample	Duplicate (Primary Lab)	Triplicate (Secondary Lab)	Total Duplicates
Soil	BH104M_0.2-0.3	QD1	QT1	2
	BH115M_1.3-1.4	QD2	QT2	2
Groundwater	BH120M	QD1	QT1	2

Field QC Summary

Review of the field data quality indicators is presented in **Table I-3** below.

Table I-3 Field Data Quality Indicators

QA Component	Data Quality Indicator(s)	Conformance
Accuracy – a quantitative measure of the closeness of reported data to the "true" value	SOPs appropriate and complied with	Yes
	Results for inter-laboratory (split field) duplicates acceptable	Yes
Precision – A quantitative measure of the variability (or reproducibility) of data	SOPs appropriate and complied with	Yes
	Results for intra-laboratory (blind field) duplicates acceptable	Yes
Completeness – A measure of the amount of useable data from a data collection activity	Each critical location sampled	Yes
	Samples collected at targeted locations and depth	Yes
	SAQP appropriate and complied with	Yes
	Experienced sampler	Yes
	Field documentation correct	Yes
Comparability – The	Same sampling method used on each occasion/location	Yes

QA Component	Data Quality Indicator(s)	Conformance
	Experienced sampler	Yes
	Same type of samples collected (filtered, size, fractions)	Yes
Representativeness – The confidence (expressed qualitatively) that data are representative of each medium present onsite	Appropriate media sampled according to SAQP	Yes
	Each media identified in SAQP sampled	Yes
	Appropriate sample collection methodologies, handling, storage and preservation techniques used	Yes

Conclusion for the Field QA/QC

All field work, including equipment decontamination and sample preservation and transport, was conducted in accordance with the SAQP, which were devised with reference to industry-approved guidelines. Appropriate QC measures were integrated into each sampling event and the DQIs were met.

All samples, including field QC samples, were transported to the primary and secondary laboratories under refrigerated conditions, using strict COC procedures. Relevant documents (COC forms) were presented with the samples at the times of delivery. All supporting documents (COCs and SRAs) were completed in full and signed, where appropriate. EI considered the field QA/QC program carried out during the DSI to be appropriate.

Laboratory QA/QC

Laboratory Accreditation

Primary and intra-laboratory duplicate samples were analysed by SGS (located in Alexandria NSW), with inter-laboratory duplicate samples analysed by Envirolab (located in Chatswood NSW). All laboratories are accredited by NATA for the analyses undertaken.

Laboratory QC Summary

Review of the laboratory data quality indicators is presented in **Table I-4** below.

Table I-4 Laboratory Data Quality Indicators

QA/QC Measure	Data Quality Indicator(s)	Conformance
Accuracy – A quantitative measure of the closeness of reported data to the “true” value	Analysis of method blanks	Yes
	Analysis of matrix spikes	Yes
	Analysis of surrogate spikes	Yes
	Analysis of laboratory control samples	Yes
Precision – A quantitative measure of the variability (or reproducibility) of data	Analysis of laboratory duplicates	Yes
Completeness – A measure of the amount of useable data from a data collection activity	All critical samples analysed according to SAQP	Yes
	All analytes analysed according to SAQP	Yes
	Appropriate methods and PQLs	Yes
	Sample documentation complete	Yes

QA/QC Measure	Data Quality Indicator(s)	Conformance
	Sample holding times complied with	Yes
Comparability – The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event	Same analytical methods used (including clean-up)	Yes
	Same PQLs	Yes
	Same laboratories (NATA-accredited)	Yes
	Same units	Yes
Representativeness – The confidence (expressed qualitatively) that data are representative of each medium present onsite	All key samples analysed according to SAQP	Yes
	Analysis of laboratory-prepared trip spikes and blanks	Yes

Conclusion for the Laboratory QA/QC

All contracted laboratories (SGS and Envirolab) were accredited by NATA for the analyses undertaken. All analytical procedures used were industry recognised and endorsed standard methods. Appropriate QC measures were integrated into each testing batch and the DQIs were met, or if not, the variability was suitably justified.

All final reports were submitted in full and included all requested analyses, as per the signed COC forms. EI considered the laboratory QA/QC programs carried out during the DSI to be appropriate.

Summary of Project QA/QC

The sampling (including sample preservation, transport and decontamination procedures) and laboratory methods followed during this investigation were consistent with EI protocols. The project DQOs specified in **Section 5.2**, **Table 5-1** were considered to have been achieved. The adopted QA/QC program ensured that the data collated during the DSI were accurate, precise and representative of the site condition. It was therefore considered that the data were sufficiently precise and accurate and that the results could be used for DSI interpretative purposes.

Table I-5 Summary of Results for the Field QA/QC samples

Sample identification	Sampled Date	Description	TRH				BTEX				Heavy Metals							
			F1*	F2**	F3 (>C_{16} - C_{34})	F4 (>C_{34} - C_{40})	Benzene	Toluene	Ethylbenzene	Xylene (total)	Arsenic	Cadmium	Chromium (Total)	Copper	Lead	Mercury	Nickel	Zinc
Intra-laboratory Duplicate																		
BH104M_0.2-0.3	15/9/2022	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	3	<0.3	20	1.6	9	<0.05	4.9	15
QD1		Duplicate of BH104M_0.2-0.3	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	3	<0.3	31	8.3	8	<0.05	22	26
RPD (%)			***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***43.1***	**135.4**	***11.8***	***0.0***	**127.1**	**53.7**
BH115M_1.3-1.4	16/9/2022	Natural	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	9	<0.3	10	<0.5	6	<0.05	<0.5	<2
QD2		Duplicate of BH15_0.2-0.3	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	4	<0.3	10	<0.5	7	<0.05	<0.5	<2
RPD (%)			***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	**76.9**	***0.0***	***0.0***	***0.0***	***15.4***	***0.0***	***0.0***	***0.0***
BH120M	23/9/2022	Groundwater	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	6	<1	<0.1	5	35
QD1		Duplicate of BH120M	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	6	<1	<0.1	5	37
RPD (%)			***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***5.6***
Inter-laboratory Duplicate																		
BH104M_0.2-0.3	15/9/2022	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	3	<0.3	20	1.6	9	<0.05	4.9	15
QT1		Duplicate of BH104M_0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	5	<0.4	13	2	12	<0.1	3	15
RPD (%)			***0.0***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***50.0***	***NA***	***42.4***	***22.2***	***28.6***	***NA***	***48.1***	***0.0***
BH115M_1.3-1.4	16/9/2022	Natural	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	9	<0.3	10	<0.5	6	<0.05	<0.5	<2
QT2		Duplicate of BH15_0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	6	<0.4	12	<1	11	<0.1	<1	2
RPD (%)			***0.0***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***40.0***	***NA***	***18.2***	***NA***	**58.8**	***NA***	***NA***	***0.0***
BH120M	23/9/2022	Groundwater	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	6	<1	<0.1	5	35
QT1		Duplicate of BH120M	<10	<50	<100	<100	<1	<1	<1	<3	<1	<0.1	<1	6	<1	<0.05	5	26
RPD (%)			***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***NA***	***0.0***	***29.5***
Soil																		
TB	15/09/2022	Trip blank	-	-	-	-	<0.1	<0.1	<0.1	<0.3	-	-	-	-	-	-	-	-
TS		Trip spike	-	-	-	-	[93%]	[95%]	[97%]	[98%]	-	-	-	-	-	-	-	-
QR1	16/09/2022	Rinsate	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	<1	<1	<0.1	<1	<5
Groundwater																		
TB	23/09/2022	Trip blank	-	-	-	-	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-	-
TS		Trip spike	-	-	-	-	[104%]	[99%]	[97%]	[97%]	-	-	-	-	-	-	-	-
QR1		Rinsate	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	1	<1	<0.1	<1	<5
QRB1		Rinsate blank	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-

Indicates values where a single result is found to be less than detection, with the duplicate sample found to be over the detection limit.

RPD exceeds 30-50% range referenced from AS4482.1 (2005)

NOTE:

All soil results are reported in mg/kg . All water results are reported in µg/L.

* - to obtain F1 subtract the sum of BTEX concentrations from the C_6-C_{10} fraction

** - to obtain F2 subtract naphthalene from the > C_{10}-C_{16} fraction

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Appendix J – Laboratory QA/QC and DQOs

STATEMENT OF QA/QC PERFORMANCE

SE236890 R0

CLIENT DETAILS

Contact	Richard Wang
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	richard.wang@eiaustralia.com.au
Project	**E25663 67 Mars Rd, Lane Cove West, NSW**
Order Number	**E25663**
Samples	33

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE236890 R0**
Date Received	16 Sep 2022
Date Reported	28 Sep 2022

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	32 Soil, 1 Water
Date documentation received	19/9/2022 @3:16PM	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	13.5°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE236890 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Fibre Identification in soil

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH103_0.3-0.4	SE236890.004	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259156	16 Sep 2022	16 Sep 2022	16 Sep 2023	27 Sep 2022	16 Sep 2023	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259156	15 Sep 2022	16 Sep 2022	15 Sep 2023	27 Sep 2022	15 Sep 2023	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259156	16 Sep 2022	16 Sep 2022	16 Sep 2023	27 Sep 2022	16 Sep 2023	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259156	16 Sep 2022	16 Sep 2022	16 Sep 2023	27 Sep 2022	16 Sep 2023	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259156	16 Sep 2022	16 Sep 2022	16 Sep 2023	27 Sep 2022	16 Sep 2023	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259156	16 Sep 2022	16 Sep 2022	16 Sep 2023	27 Sep 2022	16 Sep 2023	27 Sep 2022

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE236890.031	LB258969	16 Sep 2022	16 Sep 2022	14 Oct 2022	23 Sep 2022	14 Oct 2022	26 Sep 2022

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259303	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259303	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259304	15 Sep 2022	16 Sep 2022	13 Oct 2022	27 Sep 2022	13 Oct 2022	28 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
QD1	SE236890.029	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022
QD2	SE236890.030	LB259304	16 Sep 2022	16 Sep 2022	14 Oct 2022	27 Sep 2022	14 Oct 2022	28 Sep 2022

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref

HOLDING TIME SUMMARY

SE236890 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Moisture Content (continued)

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259040	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259040	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259041	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
QD1	SE236890.029	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
QD2	SE236890.030	LB259041	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022
TB	SE236890.033	LB259041	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	28 Sep 2022	27 Sep 2022

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259027	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259030	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

HOLDING TIME SUMMARY

SE236890 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QD1	SE236890.029	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD2	SE236890.030	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259027	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259030	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD1	SE236890.029	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD2	SE236890.030	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259027	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259030	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH120M_1.4-1.5	SE236890.026	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD1	SE236890.029	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD2	SE236890.030	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259027	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259030	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD1	SE236890.029	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD2	SE236890.030	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

Total Cyanide in soil by Discrete Analyser

Method: ME-(AU)-[ENV]AN077/AN287

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH102_0.3-0.4	SE236890.003	LB259284	15 Sep 2022	16 Sep 2022	29 Sep 2022	27 Sep 2022	29 Sep 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259284	15 Sep 2022	16 Sep 2022	29 Sep 2022	27 Sep 2022	29 Sep 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259284	15 Sep 2022	16 Sep 2022	29 Sep 2022	27 Sep 2022	29 Sep 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259284	15 Sep 2022	16 Sep 2022	29 Sep 2022	27 Sep 2022	29 Sep 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259284	15 Sep 2022	16 Sep 2022	29 Sep 2022	27 Sep 2022	29 Sep 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259284	16 Sep 2022	16 Sep 2022	30 Sep 2022	27 Sep 2022	30 Sep 2022	27 Sep 2022

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN295

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Total Phenolics in Soil (continued)

Method: ME-(AU)-[ENV]AN295

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH113_0.2-0.3	SE236890.018	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259140	16 Sep 2022	16 Sep 2022	30 Sep 2022	26 Sep 2022	30 Sep 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259140	15 Sep 2022	16 Sep 2022	29 Sep 2022	26 Sep 2022	29 Sep 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259140	16 Sep 2022	16 Sep 2022	30 Sep 2022	26 Sep 2022	30 Sep 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259140	16 Sep 2022	16 Sep 2022	30 Sep 2022	26 Sep 2022	30 Sep 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259140	16 Sep 2022	16 Sep 2022	30 Sep 2022	26 Sep 2022	30 Sep 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259140	16 Sep 2022	16 Sep 2022	30 Sep 2022	26 Sep 2022	30 Sep 2022	27 Sep 2022

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259166	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259166	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259210	15 Sep 2022	16 Sep 2022	14 Mar 2023	26 Sep 2022	14 Mar 2023	28 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
QD1	SE236890.029	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022
QD2	SE236890.030	LB259210	16 Sep 2022	16 Sep 2022	15 Mar 2023	26 Sep 2022	15 Mar 2023	28 Sep 2022

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE236890.031	LB258987	16 Sep 2022	16 Sep 2022	15 Mar 2023	23 Sep 2022	15 Mar 2023	23 Sep 2022

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH110_0.2-0.3	SE236890.015	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259027	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259027	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259030	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD1	SE236890.029	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022
QD2	SE236890.030	LB259030	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE236890.031	LB258984	16 Sep 2022	16 Sep 2022	23 Sep 2022	23 Sep 2022	02 Nov 2022	27 Sep 2022

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259032	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259037	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
QD1	SE236890.029	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
QD2	SE236890.030	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
TS	SE236890.032	LB259037	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
TB	SE236890.033	LB259037	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE236890.031	LB259004	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	26 Sep 2022

HOLDING TIME SUMMARY

SE236890 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Volatile Petroleum Hydrocarbons in Soil — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.3-0.4	SE236890.001	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH101_1.3-1.4	SE236890.002	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH102_0.3-0.4	SE236890.003	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH103_1.2-1.3	SE236890.005	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH104M_0.2-0.3	SE236890.006	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH104M_0.8-0.9	SE236890.007	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH105_1.0-1.1	SE236890.008	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH106_0.5-0.6	SE236890.009	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH107_0.5-0.6	SE236890.010	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH108M_0.3-0.4	SE236890.011	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH108M_1.5-1.6	SE236890.012	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH109_0.2-0.3	SE236890.013	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH109_1.4-1.5	SE236890.014	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH110_0.2-0.3	SE236890.015	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH111_0.2-0.3	SE236890.016	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH112_0.2-0.3	SE236890.017	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH113_0.2-0.3	SE236890.018	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH114_0.1-0.2	SE236890.019	LB259032	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH115M_1.3-1.4	SE236890.020	LB259032	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH116_0.3-0.4	SE236890.021	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH117_0.1-0.2	SE236890.022	LB259037	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
BH118_0.1-0.2	SE236890.023	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH119_0.2-0.3	SE236890.024	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH120M_0.3-0.4	SE236890.025	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH120M_1.4-1.5	SE236890.026	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH121_0.1-0.2	SE236890.027	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
BH121_1.1-1.2	SE236890.028	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
QD1	SE236890.029	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
QD2	SE236890.030	LB259037	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022
TS	SE236890.032	LB259037	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022
TB	SE236890.033	LB259037	15 Sep 2022	16 Sep 2022	29 Sep 2022	23 Sep 2022	29 Sep 2022	27 Sep 2022

Volatile Petroleum Hydrocarbons in Water — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE236890.031	LB259004	16 Sep 2022	16 Sep 2022	30 Sep 2022	23 Sep 2022	30 Sep 2022	26 Sep 2022

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	105
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	99
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	98
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	94
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	102
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	98
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	96
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	103
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	102
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	102
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	98
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	105
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	102
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	110
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	95
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	88
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	92
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	90
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	88
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	89

OP Pesticides in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	92
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	91
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	95
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	93
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	90
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	88
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	91
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	92
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	91
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	93
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	93
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	93
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	95
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	98
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	89
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	94
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	92
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	98
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	94
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	94
d14-p-terphenyl (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	96
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	93
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	97
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	97
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	95
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	87
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	96
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	94
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	97
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	96
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	95
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	98
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	98
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	99
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	92
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	94
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	93
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	96

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	95
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	94

PAH (Polynuclear Aromatic Hydrocarbons) in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH101_0.3-0.4	SE236890.001	%	70 - 130%	92
	BH101_1.3-1.4	SE236890.002	%	70 - 130%	93
	BH102_0.3-0.4	SE236890.003	%	70 - 130%	91
	BH103_1.2-1.3	SE236890.005	%	70 - 130%	95
	BH104M_0.2-0.3	SE236890.006	%	70 - 130%	93
	BH104M_0.8-0.9	SE236890.007	%	70 - 130%	89
	BH105_1.0-1.1	SE236890.008	%	70 - 130%	90
	BH106_0.5-0.6	SE236890.009	%	70 - 130%	88
	BH107_0.5-0.6	SE236890.010	%	70 - 130%	91
	BH108M_0.3-0.4	SE236890.011	%	70 - 130%	92
	BH108M_1.5-1.6	SE236890.012	%	70 - 130%	91
	BH109_0.2-0.3	SE236890.013	%	70 - 130%	91
	BH109_1.4-1.5	SE236890.014	%	70 - 130%	93
	BH110_0.2-0.3	SE236890.015	%	70 - 130%	93
	BH111_0.2-0.3	SE236890.016	%	70 - 130%	93
	BH112_0.2-0.3	SE236890.017	%	70 - 130%	93
	BH113_0.2-0.3	SE236890.018	%	70 - 130%	95
	BH114_0.1-0.2	SE236890.019	%	70 - 130%	98
	BH115M_1.3-1.4	SE236890.020	%	70 - 130%	97
	BH116_0.3-0.4	SE236890.021	%	70 - 130%	89
	BH117_0.1-0.2	SE236890.022	%	70 - 130%	94
	BH118_0.1-0.2	SE236890.023	%	70 - 130%	92
	BH119_0.2-0.3	SE236890.024	%	70 - 130%	98
	BH120M_0.3-0.4	SE236890.025	%	70 - 130%	94
	BH120M_1.4-1.5	SE236890.026	%	70 - 130%	95
	BH121_0.1-0.2	SE236890.027	%	70 - 130%	94
	BH121_1.1-1.2	SE236890.028	%	70 - 130%	95
d14-p-terphenyl (Surrogate)	BH101_0.3-0.4	SE236890.001	%	70 - 130%	96
	BH101_1.3-1.4	SE236890.002	%	70 - 130%	96
	BH102_0.3-0.4	SE236890.003	%	70 - 130%	93
	BH103_1.2-1.3	SE236890.005	%	70 - 130%	97
	BH104M_0.2-0.3	SE236890.006	%	70 - 130%	97
	BH104M_0.8-0.9	SE236890.007	%	70 - 130%	92
	BH105_1.0-1.1	SE236890.008	%	70 - 130%	95
	BH106_0.5-0.6	SE236890.009	%	70 - 130%	87
	BH107_0.5-0.6	SE236890.010	%	70 - 130%	96
	BH108M_0.3-0.4	SE236890.011	%	70 - 130%	94
	BH108M_1.5-1.6	SE236890.012	%	70 - 130%	95
	BH109_0.2-0.3	SE236890.013	%	70 - 130%	97
	BH109_1.4-1.5	SE236890.014	%	70 - 130%	96
	BH110_0.2-0.3	SE236890.015	%	70 - 130%	96
	BH111_0.2-0.3	SE236890.016	%	70 - 130%	95
	BH112_0.2-0.3	SE236890.017	%	70 - 130%	98
	BH113_0.2-0.3	SE236890.018	%	70 - 130%	98
	BH114_0.1-0.2	SE236890.019	%	70 - 130%	99
	BH115M_1.3-1.4	SE236890.020	%	70 - 130%	98
	BH116_0.3-0.4	SE236890.021	%	70 - 130%	92
	BH117_0.1-0.2	SE236890.022	%	70 - 130%	94
	BH118_0.1-0.2	SE236890.023	%	70 - 130%	93
	BH119_0.2-0.3	SE236890.024	%	70 - 130%	96
	BH120M_0.3-0.4	SE236890.025	%	70 - 130%	95
	BH120M_1.4-1.5	SE236890.026	%	70 - 130%	97
	BH121_0.1-0.2	SE236890.027	%	70 - 130%	94
	BH121_1.1-1.2	SE236890.028	%	70 - 130%	98
d5-nitrobenzene (Surrogate)	BH101_0.3-0.4	SE236890.001	%	70 - 130%	107
	BH101_1.3-1.4	SE236890.002	%	70 - 130%	107

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	BH102_0.3-0.4	SE236890.003	%	70 - 130%	105
	BH103_1.2-1.3	SE236890.005	%	70 - 130%	110
	BH104M_0.2-0.3	SE236890.006	%	70 - 130%	110
	BH104M_0.8-0.9	SE236890.007	%	70 - 130%	106
	BH105_1.0-1.1	SE236890.008	%	70 - 130%	106
	BH106_0.5-0.6	SE236890.009	%	70 - 130%	104
	BH107_0.5-0.6	SE236890.010	%	70 - 130%	109
	BH108M_0.3-0.4	SE236890.011	%	70 - 130%	108
	BH108M_1.5-1.6	SE236890.012	%	70 - 130%	108
	BH109_0.2-0.3	SE236890.013	%	70 - 130%	108
	BH109_1.4-1.5	SE236890.014	%	70 - 130%	109
	BH110_0.2-0.3	SE236890.015	%	70 - 130%	109
	BH111_0.2-0.3	SE236890.016	%	70 - 130%	108
	BH112_0.2-0.3	SE236890.017	%	70 - 130%	110
	BH113_0.2-0.3	SE236890.018	%	70 - 130%	110
	BH114_0.1-0.2	SE236890.019	%	70 - 130%	114
	BH115M_1.3-1.4	SE236890.020	%	70 - 130%	117
	BH116_0.3-0.4	SE236890.021	%	70 - 130%	105
	BH117_0.1-0.2	SE236890.022	%	70 - 130%	110
	BH118_0.1-0.2	SE236890.023	%	70 - 130%	108
	BH119_0.2-0.3	SE236890.024	%	70 - 130%	115
	BH120M_0.3-0.4	SE236890.025	%	70 - 130%	109
	BH120M_1.4-1.5	SE236890.026	%	70 - 130%	111
	BH121_0.1-0.2	SE236890.027	%	70 - 130%	110
	BH121_1.1-1.2	SE236890.028	%	70 - 130%	114

PCBs in Soil — Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	105
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	99
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	98
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	94
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	102
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	98
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	96
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	103
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	102
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	102
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	98
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	105
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	102
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	110
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	95
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	88
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	92
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	90
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	88
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	89

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples — Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 130%	15
	BH106_0.5-0.6	SE236890.009	%	0 - 130%	22
	BH111_0.2-0.3	SE236890.016	%	0 - 130%	28
	BH112_0.2-0.3	SE236890.017	%	0 - 130%	63
	BH117_0.1-0.2	SE236890.022	%	0 - 130%	54
	BH121_0.1-0.2	SE236890.027	%	0 - 130%	58
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	127
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	92
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	88
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	93
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	88

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	BH121_0.1-0.2	SE236890.027	%	0 - 150%	86
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	83
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	84
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	80
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	78
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	78
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	80
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	85
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	70
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	65
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	86
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	70
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	78
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	62
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	60
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	77
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	81
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	88
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	89
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	12
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	18
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	17
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	62
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	30
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	132
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	130
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	105
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	103
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	108
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	110
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	103
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	113
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	84
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	98
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	84
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	99
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	93
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	100
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	89
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	102
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	95
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	99
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	97
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	98
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	99
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	101
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	98
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	100
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	102
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	114
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	116
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	108
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	107
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	109
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	96
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	125
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	109
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	105
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	115
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	112
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	106

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) — **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	82
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	102
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	102
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	100
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	104
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	105
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	100
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	113
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	106
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	121
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	120
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	109
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	93
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	66
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	91
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	99
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	94
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	83
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	110
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	117
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	94
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	88
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	94
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	85
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	108
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	99
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	78
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	79
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	65
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	95
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	95
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	86
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	117
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	108
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	89
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	103
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	59
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	62
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	59
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	77
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	67
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	71
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	72
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	95
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	84
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	85
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	62
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	74
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	48
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	43
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	45
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	65
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	58
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	54
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	60
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	86
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	69
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	81
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	57
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	64
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	91

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Solid Samples (continued) — Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	BH106_0.5-0.6	SE236890.009	%	0 - 150%	103
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	65
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	63
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	55
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	72
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	BH102_0.3-0.4	SE236890.003	%	0 - 150%	81
	BH106_0.5-0.6	SE236890.009	%	0 - 150%	68
	BH111_0.2-0.3	SE236890.016	%	0 - 150%	54
	BH112_0.2-0.3	SE236890.017	%	0 - 150%	75
	BH117_0.1-0.2	SE236890.022	%	0 - 150%	57
	BH121_0.1-0.2	SE236890.027	%	0 - 150%	64

VOC's in Soil — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	87
	BH101_1.3-1.4	SE236890.002	%	60 - 130%	84
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	89
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	105
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	89
	BH104M_0.8-0.9	SE236890.007	%	60 - 130%	95
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	95
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	97
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	93
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	90
	BH108M_1.5-1.6	SE236890.012	%	60 - 130%	94
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	93
	BH109_1.4-1.5	SE236890.014	%	60 - 130%	91
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	89
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	91
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	93
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	93
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	86
	BH115M_1.3-1.4	SE236890.020	%	60 - 130%	86
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	91
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	86
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	86
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	91
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	81
	BH120M_1.4-1.5	SE236890.026	%	60 - 130%	87
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	89
	BH121_1.1-1.2	SE236890.028	%	60 - 130%	84
	QD1	SE236890.029	%	60 - 130%	88
	QD2	SE236890.030	%	60 - 130%	88
	TS	SE236890.032	%	60 - 130%	82
	TB	SE236890.033	%	60 - 130%	81
d4-1,2-dichloroethane (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	79
	BH101_1.3-1.4	SE236890.002	%	60 - 130%	81
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	82
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	100
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	79
	BH104M_0.8-0.9	SE236890.007	%	60 - 130%	92
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	90
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	92
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	91
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	86
	BH108M_1.5-1.6	SE236890.012	%	60 - 130%	86
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	85
	BH109_1.4-1.5	SE236890.014	%	60 - 130%	84
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	81
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	81
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	84

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d4-1,2-dichloroethane (Surrogate)	BH113_0.2-0.3	SE236890.018	%	60 - 130%	84
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	82
	BH115M_1.3-1.4	SE236890.020	%	60 - 130%	84
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	90
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	82
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	81
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	88
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	80
	BH120M_1.4-1.5	SE236890.026	%	60 - 130%	87
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	88
	BH121_1.1-1.2	SE236890.028	%	60 - 130%	78
	QD1	SE236890.029	%	60 - 130%	85
	QD2	SE236890.030	%	60 - 130%	82
	TS	SE236890.032	%	60 - 130%	90
	TB	SE236890.033	%	60 - 130%	79
d8-toluene (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	75
	BH101_1.3-1.4	SE236890.002	%	60 - 130%	76
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	76
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	98
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	78
	BH104M_0.8-0.9	SE236890.007	%	60 - 130%	89
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	88
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	92
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	89
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	84
	BH108M_1.5-1.6	SE236890.012	%	60 - 130%	83
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	82
	BH109_1.4-1.5	SE236890.014	%	60 - 130%	81
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	78
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	79
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	80
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	80
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	76
	BH115M_1.3-1.4	SE236890.020	%	60 - 130%	78
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	87
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	78
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	77
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	82
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	76
	BH120M_1.4-1.5	SE236890.026	%	60 - 130%	83
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	85
	BH121_1.1-1.2	SE236890.028	%	60 - 130%	74
	QD1	SE236890.029	%	60 - 130%	83
	QD2	SE236890.030	%	60 - 130%	78
	TS	SE236890.032	%	60 - 130%	85
	TB	SE236890.033	%	60 - 130%	77

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR1	SE236890.031	%	40 - 130%	110
d4-1,2-dichloroethane (Surrogate)	QR1	SE236890.031	%	40 - 130%	102
d8-toluene (Surrogate)	QR1	SE236890.031	%	40 - 130%	107

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	87
	BH101_1.3-1.4	SE236890.002	%	60 - 130%	84
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	89
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	105
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	89
	BH104M_0.8-0.9	SE236890.007	%	60 - 130%	95
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	95

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH106_0.5-0.6	SE236890.009	%	60 - 130%	97
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	93
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	90
	BH108M_1.5-1.6	SE236890.012	%	60 - 130%	94
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	93
	BH109_1.4-1.5	SE236890.014	%	60 - 130%	91
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	89
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	91
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	93
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	93
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	86
	BH115M_1.3-1.4	SE236890.020	%	60 - 130%	86
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	91
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	86
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	86
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	91
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	81
	BH120M_1.4-1.5	SE236890.026	%	60 - 130%	87
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	89
	BH121_1.1-1.2	SE236890.028	%	60 - 130%	84
	QD1	SE236890.029	%	60 - 130%	88
	QD2	SE236890.030	%	60 - 130%	88
d4-1,2-dichloroethane (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	79
	BH101_1.3-1.4	SE236890.002	%	60 - 130%	81
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	82
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	100
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	79
	BH104M_0.8-0.9	SE236890.007	%	60 - 130%	92
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	90
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	92
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	91
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	86
	BH108M_1.5-1.6	SE236890.012	%	60 - 130%	86
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	85
	BH109_1.4-1.5	SE236890.014	%	60 - 130%	84
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	81
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	81
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	84
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	84
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	82
	BH115M_1.3-1.4	SE236890.020	%	60 - 130%	84
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	90
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	82
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	81
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	88
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	80
	BH120M_1.4-1.5	SE236890.026	%	60 - 130%	87
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	88
	BH121_1.1-1.2	SE236890.028	%	60 - 130%	78
	QD1	SE236890.029	%	60 - 130%	85
	QD2	SE236890.030	%	60 - 130%	82
d8-toluene (Surrogate)	BH101_0.3-0.4	SE236890.001	%	60 - 130%	75
	BH101_1.3-1.4	SE236890.002	%	60 - 130%	76
	BH102_0.3-0.4	SE236890.003	%	60 - 130%	76
	BH103_1.2-1.3	SE236890.005	%	60 - 130%	98
	BH104M_0.2-0.3	SE236890.006	%	60 - 130%	78
	BH104M_0.8-0.9	SE236890.007	%	60 - 130%	89
	BH105_1.0-1.1	SE236890.008	%	60 - 130%	88
	BH106_0.5-0.6	SE236890.009	%	60 - 130%	92
	BH107_0.5-0.6	SE236890.010	%	60 - 130%	89
	BH108M_0.3-0.4	SE236890.011	%	60 - 130%	84

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued) — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	BH108M_1.5-1.6	SE236890.012	%	60 - 130%	83
	BH109_0.2-0.3	SE236890.013	%	60 - 130%	82
	BH109_1.4-1.5	SE236890.014	%	60 - 130%	81
	BH110_0.2-0.3	SE236890.015	%	60 - 130%	78
	BH111_0.2-0.3	SE236890.016	%	60 - 130%	79
	BH112_0.2-0.3	SE236890.017	%	60 - 130%	80
	BH113_0.2-0.3	SE236890.018	%	60 - 130%	80
	BH114_0.1-0.2	SE236890.019	%	60 - 130%	76
	BH115M_1.3-1.4	SE236890.020	%	60 - 130%	78
	BH116_0.3-0.4	SE236890.021	%	60 - 130%	87
	BH117_0.1-0.2	SE236890.022	%	60 - 130%	78
	BH118_0.1-0.2	SE236890.023	%	60 - 130%	77
	BH119_0.2-0.3	SE236890.024	%	60 - 130%	82
	BH120M_0.3-0.4	SE236890.025	%	60 - 130%	76
	BH120M_1.4-1.5	SE236890.026	%	60 - 130%	83
	BH121_0.1-0.2	SE236890.027	%	60 - 130%	85
	BH121_1.1-1.2	SE236890.028	%	60 - 130%	74
	QD1	SE236890.029	%	60 - 130%	83
	QD2	SE236890.030	%	60 - 130%	78

Volatile Petroleum Hydrocarbons in Water — Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR1	SE236890.031	%	40 - 130%	110
d4-1,2-dichloroethane (Surrogate)	QR1	SE236890.031	%	60 - 130%	102
d8-toluene (Surrogate)	QR1	SE236890.031	%	40 - 130%	107

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB258969.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB259303.001	Mercury	mg/kg	0.05	<0.05
LB259304.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259027.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	90
LB259030.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	84

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259027.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	96
		d14-p-terphenyl (Surrogate)	%	-	98
LB259030.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	94
		d14-p-terphenyl (Surrogate)	%	-	95

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259027.001		Naphthalene	mg/kg	0.1	<0.1
		2-methylnaphthalene	mg/kg	0.1	<0.1
		1-methylnaphthalene	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	0.1	<0.1
		Pyrene	mg/kg	0.1	<0.1
		Benzo(a)anthracene	mg/kg	0.1	<0.1
		Chrysene	mg/kg	0.1	<0.1
		Benzo(a)pyrene	mg/kg	0.1	<0.1
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
		Benzo(ghi)perylene	mg/kg	0.1	<0.1
		Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	114
		2-fluorobiphenyl (Surrogate)	%	-	96
		d14-p-terphenyl (Surrogate)	%	-	98
LB259030.001		Naphthalene	mg/kg	0.1	<0.1
		2-methylnaphthalene	mg/kg	0.1	<0.1
		1-methylnaphthalene	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	0.1	<0.1
		Pyrene	mg/kg	0.1	<0.1
		Benzo(a)anthracene	mg/kg	0.1	<0.1
		Chrysene	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259030.001		Benzo(a)pyrene	mg/kg	0.1	<0.1
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
		Benzo(ghi)perylene	mg/kg	0.1	<0.1
		Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	109
		2-fluorobiphenyl (Surrogate)	%	-	94
		d14-p-terphenyl (Surrogate)	%	-	95

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259027.001		Arochlor 1016	mg/kg	0.2	<0.2
		Arochlor 1221	mg/kg	0.2	<0.2
		Arochlor 1232	mg/kg	0.2	<0.2
		Arochlor 1242	mg/kg	0.2	<0.2
		Arochlor 1248	mg/kg	0.2	<0.2
		Arochlor 1254	mg/kg	0.2	<0.2
		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	90
LB259030.001		Arochlor 1016	mg/kg	0.2	<0.2
		Arochlor 1221	mg/kg	0.2	<0.2
		Arochlor 1232	mg/kg	0.2	<0.2
		Arochlor 1242	mg/kg	0.2	<0.2
		Arochlor 1248	mg/kg	0.2	<0.2
		Arochlor 1254	mg/kg	0.2	<0.2
		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	84

Total Cyanide in soil by Discrete Analyser

Method: ME-(AU)-[ENV]AN077/AN287

Sample Number	Parameter	Units	LOR	Result
LB259284.001	Total Cyanide	mg/kg	0.5	<0.5

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN295

Sample Number	Parameter	Units	LOR	Result
LB259140.001	Total Phenols	mg/kg	0.5	<0.5

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB259166.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0
LB259210.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2.0

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Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB258987.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB259027.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110
LB259030.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB258984.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259032.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1
		1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued) Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259032.001	Halogenated Aliphatics	trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene (VOC)	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	96
		d8-toluene (Surrogate)	%	-	94
		Bromofluorobenzene (Surrogate)	%	-	98
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1
LB259037.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued) Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259037.001	Halogenated Aliphatics	trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1
		1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene (VOC)	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89
		d8-toluene (Surrogate)	%	-	86
		Bromofluorobenzene (Surrogate)	%	-	94
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259037.001	Trihalomethanes	Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259004.001	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5
	Hydrocarbons	Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene (VOC)	µg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	84
		d8-toluene (Surrogate)	%	-	87
		Bromofluorobenzene (Surrogate)	%	-	102

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259032.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	96
LB259037.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259004.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	84
		d8-toluene (Surrogate)	%	-	87
		Bromofluorobenzene (Surrogate)	%	-	102

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236954.001	LB258969.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	67
SE236954.009	LB258969.023	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	195

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236782.027	LB259304.023	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE236890.011	LB259303.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE236890.020	LB259303.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE236890.030	LB259304.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259040.011	% Moisture	%w/w	1	12.3	10.6	39	15
SE236890.020	LB259040.021	% Moisture	%w/w	1	9.8	10.5	40	7
SE236890.030	LB259041.011	% Moisture	%w/w	1	11.4	12.1	38	6
SE236980.003	LB259041.022	% Moisture	%w/w	1	13.5	14.5	37	7

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259027.014		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
			Total OC VIC EPA	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	30	2
SE236890.019	LB259027.026		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OC Pesticides in Soil (continued) — Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.019	LB259027.026		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
			Total OC VIC EPA	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.18	30	6
SE236980.003	LB259030.024		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
			Total OC VIC EPA	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.13	0.13	30	0

OP Pesticides in Soil — Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259027.014	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
		Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259027.014		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE236939.001	LB259030.026		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
SE236980.003	LB259030.024		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	3
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259027.014		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	1
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE236890.020	LB259027.024		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued) — **Method: ME-(AU)-[ENV]AN420**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.020	LB259027.024		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	3
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	3
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
SE236939.001	LB259030.026		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.6	30	1
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0
SE236980.003	LB259030.024		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236980.003	LB259030.024		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	3
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	3
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259027.014		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	2
SE236890.019	LB259027.026		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	6
SE236980.003	LB259030.024		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	0

Total Cyanide in soil by Discrete Analyser

Method: ME-(AU)-[ENV]AN077/AN287

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.027	LB259284.014	Total Cyanide	mg/kg	0.5	<0.5	<0.5	200	0

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN295

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.015	LB259140.014	Total Phenols	mg/kg	0.5	<0.5	<0.5	200	0
SE236890.027	LB259140.026	Total Phenols	mg/kg	0.5	<0.5	<0.5	200	0
SE236946A.030	LB259140.031	Total Phenols	mg/kg	0.5	0.6	<0.5	112	10

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236782.027	LB259210.023	Arsenic, As	mg/kg	1	2	1	93	19
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	64	63	31	2
		Copper, Cu	mg/kg	0.5	8.0	7.7	36	4
		Nickel, Ni	mg/kg	0.5	15	14	33	12
		Lead, Pb	mg/kg	1	6	6	46	5
		Zinc, Zn	mg/kg	2	9.9	8.7	51	13
SE236890.011	LB259166.014	Arsenic, As	mg/kg	1	4	4	56	5
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	17	18	33	7
		Copper, Cu	mg/kg	0.5	<0.5	<0.5	200	0
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	158	0
		Lead, Pb	mg/kg	1	10	11	39	7
		Zinc, Zn	mg/kg	2	2.2	2.4	117	11
SE236890.020	LB259166.024	Arsenic, As	mg/kg	1	9	7	42	29
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	10	8.4	35	18
		Copper, Cu	mg/kg	0.5	<0.5	<0.5	200	0
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	200	0
		Lead, Pb	mg/kg	1	6	5	48	6
		Zinc, Zn	mg/kg	2	<2	<2	170	0
SE236890.030	LB259210.014	Arsenic, As	mg/kg	1	4	6	49	32
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	10	11	35	7
		Copper, Cu	mg/kg	0.5	<0.5	<0.5	200	0
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	200	0
		Lead, Pb	mg/kg	1	7	7	45	2
		Zinc, Zn	mg/kg	2	<2	<2	160	0

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236954.009	LB258987.014	Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	168	0
		Copper, Cu	µg/L	1	9	9	26	1
		Lead, Pb	µg/L	1	2	2	62	4
		Nickel, Ni	µg/L	1	5	5	34	1
		Zinc, Zn	µg/L	5	1500	1400	15	3

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259027.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE236890.019	LB259027.026		TRH C10-C14	mg/kg	20	38	37	83	3
			TRH C15-C28	mg/kg	45	270	260	47	3
			TRH C29-C36	mg/kg	45	280	290	46	1
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	590	580	49	1
			TRH >C10-C40 Total (F bands)	mg/kg	210	490	480	73	3
		TRH F Bands	TRH >C10-C16	mg/kg	25	78	73	63	7
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	78	73	63	7
			TRH >C16-C34 (F3)	mg/kg	90	410	410	52	2
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	141	0
SE236939.001	LB259030.026		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236939.001	LB259030.026		TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE236980.003	LB259030.024		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236804.001	LB258984.028		TRH C10-C14	µg/L	50	73	94	90	25
			TRH C15-C28	µg/L	200	5500	6300	33	14
			TRH C29-C36	µg/L	200	330	380	86	16
			TRH C37-C40	µg/L	200	<200	<200	200	0
			TRH C10-C40	µg/L	320	5900	6800	35	15
		TRH F Bands	TRH >C10-C16	µg/L	60	260	300	52	16
			TRH >C10-C16 - Naphthalene (F2)	µg/L	60	260	300	52	17
			TRH >C16-C34 (F3)	µg/L	500	5600	6500	38	15
			TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0
SE236822.001	LB258984.029		TRH C10-C14	µg/L	50	<50	<50	200	0
			TRH C15-C28	µg/L	200	<200	<200	200	0
			TRH C29-C36	µg/L	200	<200	<200	200	0
			TRH C37-C40	µg/L	200	<200	<200	200	0
			TRH C10-C40	µg/L	320	<320	<320	200	0
		TRH F Bands	TRH >C10-C16	µg/L	60	<60	<60	200	0
			TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
			TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
			TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259032.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
		Hydrocarbons	Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	9.3	50	8
			d8-toluene (Surrogate)	mg/kg	-	8.4	9.0	50	7
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.0	9.6	50	6
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE236890.020	LB259032.024	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	200	0
		Halogenated	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	200	0
		Aliphatics	Chloromethane	mg/kg	1	<1	<1	200	0
			Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	200	0
			Bromomethane	mg/kg	1	<1	<1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOC's in Soil (continued) **Method: ME-(AU)-[ENV]AN433**

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.020	LB259032.024	Halogenated Aliphatics	Chloroethane	mg/kg	1	<1	<1	200	0
			Trichlorofluoromethane	mg/kg	1	<1	<1	200	0
			Iodomethane	mg/kg	5	<5	<5	200	0
			1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	200	0
			Allyl chloride	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Bromochloromethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	200	0
			Dibromomethane	mg/kg	0.1	<0.1	<0.1	200	0
			Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	200	0
		Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			Bromobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
			Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	200	0
			Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	200	0
			n-propylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	200	0
			n-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1	<0.1	200	0
			2-nitropropane	mg/kg	10	<10	<10	200	0
		Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10	<10	200	0
			MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	200	0
			Vinyl acetate	mg/kg	10	<10	<10	200	0
			MEK (2-butanone)	mg/kg	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	200	0
			2-hexanone (MBK)	mg/kg	5	<5	<5	200	0
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	200	0
		Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.4	8.8	50	5
			d8-toluene (Surrogate)	mg/kg	-	7.8	8.5	50	8

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.020	LB259032.024	Surrogates	Bromofluorobenzene (Surrogate)	mg/kg	-	8.6	9.3	50	8
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
			Total VOC*	mg/kg	24	<24	<24	200	0
			Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3	<3	200	0
			Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0
			Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0
		Trihalomethanes	Chloroform	mg/kg	0.1	<0.1	<0.1	200	0
			Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	200	0
			Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	200	0
			Bromoform	mg/kg	0.1	<0.1	<0.1	200	0
SE236939.001	LB259037.031	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Toluene	mg/kg	0.1	<0.1	<0.1	172	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	10.5	50	1
			d8-toluene (Surrogate)	mg/kg	-	10.6	10.3	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.1	50	2
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE236980.003	LB259037.034	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Toluene	mg/kg	0.1	<0.1	<0.1	186	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.8	10.8	50	0
			d8-toluene (Surrogate)	mg/kg	-	10.6	10.3	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.3	50	9
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236871.010	LB259004.030	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene (VOC)	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.4	9.1	30	8
			d8-toluene (Surrogate)	µg/L	-	8.9	9.5	30	7
			Bromofluorobenzene (Surrogate)	µg/L	-	10.5	10.2	30	3
SE236871.014	LB259004.031	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene (VOC)	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.9	9.2	30	3
			d8-toluene (Surrogate)	µg/L	-	8.9	9.3	30	4
			Bromofluorobenzene (Surrogate)	µg/L	-	10.7	10.5	30	1

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259032.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	9.3	30	8
			d8-toluene (Surrogate)	mg/kg	-	8.4	9.0	30	7
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.0	9.6	30	6

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Volatile Petroleum Hydrocarbons in Soil (continued) — Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236890.011	LB259032.014	VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE236890.020	LB259032.024		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.4	8.8	30	5
			d8-toluene (Surrogate)	mg/kg	-	7.8	8.5	30	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.6	9.3	30	8
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE236939.001	LB259037.031		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	10.5	30	1
			d8-toluene (Surrogate)	mg/kg	-	10.6	10.3	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.1	30	2
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE236980.003	LB259037.032		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.8	10.8	30	0
			d8-toluene (Surrogate)	mg/kg	-	10.6	10.3	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.3	30	9
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0

Volatile Petroleum Hydrocarbons in Water — Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236871.010	LB259004.024		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.4	9.1	30	8
			d8-toluene (Surrogate)	µg/L	-	8.9	9.5	30	7
			Bromofluorobenzene (Surrogate)	µg/L	-	10.5	10.2	30	3
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE236871.014	LB259004.025		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.9	9.2	30	3
			d8-toluene (Surrogate)	µg/L	-	8.9	9.3	30	4
			Bromofluorobenzene (Surrogate)	µg/L	-	10.7	10.5	30	1
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259303.002	Mercury	mg/kg	0.05	0.21	0.2	70 - 130	107
LB259304.002	Mercury	mg/kg	0.05	0.17	0.2	70 - 130	87

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259027.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	120
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	118
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	115
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	115
		Endrin	mg/kg	0.2	0.3	0.2	60 - 140	140
		p,p'-DDT	mg/kg	0.1	0.3	0.2	60 - 140	130
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	40 - 130	97
LB259030.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	102
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	100
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	102
		Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	99
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	108
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	92
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.12	0.15	40 - 130	83

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259027.002		Dichlorvos	mg/kg	0.5	1.8	2	60 - 140	88
		Diazinon (Dimpylate)	mg/kg	0.5	2.1	2	60 - 140	107
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.1	2	60 - 140	103
		Ethion	mg/kg	0.2	1.7	2	60 - 140	87
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	98
LB259030.002		Dichlorvos	mg/kg	0.5	1.8	2	60 - 140	88
		Diazinon (Dimpylate)	mg/kg	0.5	2.0	2	60 - 140	99
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.9	2	60 - 140	95
		Ethion	mg/kg	0.2	1.7	2	60 - 140	84
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	107
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	101

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259027.002		Naphthalene	mg/kg	0.1	4.5	4	60 - 140	113
		Acenaphthylene	mg/kg	0.1	4.2	4	60 - 140	106
		Acenaphthene	mg/kg	0.1	4.5	4	60 - 140	112
		Phenanthrene	mg/kg	0.1	4.5	4	60 - 140	112
		Anthracene	mg/kg	0.1	4.4	4	60 - 140	110
		Fluoranthene	mg/kg	0.1	4.4	4	60 - 140	109
		Pyrene	mg/kg	0.1	4.4	4	60 - 140	110
		Benzo(a)pyrene	mg/kg	0.1	4.0	4	60 - 140	99
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	109
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	98
LB259030.002		Naphthalene	mg/kg	0.1	4.5	4	60 - 140	113
		Acenaphthylene	mg/kg	0.1	4.3	4	60 - 140	108
		Acenaphthene	mg/kg	0.1	4.5	4	60 - 140	112
		Phenanthrene	mg/kg	0.1	4.5	4	60 - 140	112
		Anthracene	mg/kg	0.1	4.4	4	60 - 140	110
		Fluoranthene	mg/kg	0.1	4.3	4	60 - 140	108
		Pyrene	mg/kg	0.1	4.2	4	60 - 140	105
		Benzo(a)pyrene	mg/kg	0.1	4.1	4	60 - 140	104
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	40 - 130	119
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	107
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	101

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259027.002	Arochlor 1260	mg/kg	0.2	0.5	0.4	60 - 140	137
LB259030.002	Arochlor 1260	mg/kg	0.2	0.5	0.4	60 - 140	127

Total Cyanide in soil by Discrete Analyser

Method: ME-(AU)-[ENV]AN077/AN287

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259284.002	Total Cyanide	mg/kg	0.5	<0.5	0.25	70 - 130	110

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN295

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259140.002	Total Phenols	mg/kg	0.5	19	20	80 - 120	94

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259166.002	Arsenic, As	mg/kg	1	350	318.22	80 - 120	109
	Cadmium, Cd	mg/kg	0.3	4.0	4.81	70 - 130	84
	Chromium, Cr	mg/kg	0.5	39	38.31	80 - 120	102
	Copper, Cu	mg/kg	0.5	320	290	80 - 120	111
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	104
	Lead, Pb	mg/kg	1	93	89.9	80 - 120	104
	Zinc, Zn	mg/kg	2	290	273	80 - 120	107
LB259210.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	104
	Cadmium, Cd	mg/kg	0.3	3.9	4.81	70 - 130	82
	Chromium, Cr	mg/kg	0.5	36	38.31	80 - 120	95
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	100
	Lead, Pb	mg/kg	1	91	89.9	80 - 120	102
	Zinc, Zn	mg/kg	2	280	273	80 - 120	103

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB258987.002	Arsenic, As	µg/L	1	20	20	80 - 120	102
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	105
	Chromium, Cr	µg/L	1	21	20	80 - 120	104
	Copper, Cu	µg/L	1	21	20	80 - 120	104
	Lead, Pb	µg/L	1	21	20	80 - 120	103
	Nickel, Ni	µg/L	1	21	20	80 - 120	106
	Zinc, Zn	µg/L	5	21	20	80 - 120	106

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259027.002		TRH C10-C14	mg/kg	20	42	40	60 - 140	105
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	100
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	80
	TRH F Bands	TRH >C10-C16	mg/kg	25	42	40	60 - 140	105
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	85
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	85
LB259030.002		TRH C10-C14	mg/kg	20	40	40	60 - 140	100
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	105
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	88
	TRH F Bands	TRH >C10-C16	mg/kg	25	41	40	60 - 140	103
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	95
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	80

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB258984.002		TRH C10-C14	µg/L	50	1300	1200	60 - 140	110
		TRH C15-C28	µg/L	200	1500	1200	60 - 140	125
		TRH C29-C36	µg/L	200	1400	1200	60 - 140	119
	TRH F Bands	TRH >C10-C16	µg/L	60	1400	1200	60 - 140	117

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH (Total Recoverable Hydrocarbons) in Water (continued)

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB258984.002	TRH F Bands	TRH >C16-C34 (F3)	µg/L	500	1500	1200	60 - 140	123
		TRH >C34-C40 (F4)	µg/L	500	730	600	60 - 140	122

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259032.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	3.9	5	60 - 140	78
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	4.8	5	60 - 140	96
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	4.2	5	60 - 140	83
	Halogenated	Chlorobenzene	mg/kg	0.1	4.7	5	60 - 140	94
	Monocyclic	Benzene	mg/kg	0.1	4.8	5	60 - 140	96
	Aromatic	Toluene	mg/kg	0.1	4.6	5	60 - 140	92
	Hydrocarbons	Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	89
		m/p-xylene	mg/kg	0.2	8.8	10	60 - 140	88
		o-xylene	mg/kg	0.1	4.7	5	60 - 140	93
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.2	10	70 - 130	102
		d8-toluene (Surrogate)	mg/kg	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	10	70 - 130	91
	Trihalomethan	Chloroform	mg/kg	0.1	5.1	5	60 - 140	101
LB259037.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	3.4	5	60 - 140	68
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	4.3	5	60 - 140	85
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	3.7	5	60 - 140	73
	Halogenated	Chlorobenzene	mg/kg	0.1	4.5	5	60 - 140	91
	Monocyclic	Benzene	mg/kg	0.1	4.0	5	60 - 140	80
	Aromatic	Toluene	mg/kg	0.1	3.8	5	60 - 140	77
	Hydrocarbons	Ethylbenzene	mg/kg	0.1	4.0	5	60 - 140	80
		m/p-xylene	mg/kg	0.2	7.8	10	60 - 140	78
		o-xylene	mg/kg	0.1	4.4	5	60 - 140	88
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.5	10	70 - 130	85
		d8-toluene (Surrogate)	mg/kg	-	8.0	10	70 - 130	80
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	10	70 - 130	80
	Trihalomethan	Chloroform	mg/kg	0.1	4.5	5	60 - 140	89

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259004.002	Monocyclic	Benzene	µg/L	0.5	53	45.45	60 - 140	117
	Aromatic	Toluene	µg/L	0.5	52	45.45	60 - 140	115
	Hydrocarbons	Ethylbenzene	µg/L	0.5	51	45.45	60 - 140	112
		m/p-xylene	µg/L	1	100	90.9	60 - 140	111
		o-xylene	µg/L	0.5	51	45.45	60 - 140	113
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.2	10	60 - 140	92
		d8-toluene (Surrogate)	µg/L	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	µg/L	-	9.8	10	70 - 130	98

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259032.002		TRH C6-C10	mg/kg	25	72	92.5	60 - 140	78
		TRH C6-C9	mg/kg	20	65	80	60 - 140	81
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	10	70 - 130	91
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	45	62.5	60 - 140	72
LB259037.002		TRH C6-C10	mg/kg	25	71	92.5	60 - 140	76
		TRH C6-C9	mg/kg	20	56	80	60 - 140	70
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.5	10	70 - 130	85
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	10	70 - 130	80
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	46	62.5	60 - 140	74

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259004.002		TRH C6-C10	µg/L	50	720	946.63	60 - 140	76
		TRH C6-C9	µg/L	40	620	818.71	60 - 140	76
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.2	10	60 - 140	92
		d8-toluene (Surrogate)	µg/L	-	9.8	10	70 - 130	98
		Bromofluorobenzene (Surrogate)	µg/L	-	9.8	10	70 - 130	98

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Volatile Petroleum Hydrocarbons in Water (continued) **Method: ME-(AU)-[ENV]AN433**

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259004.002	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	420	639.67	60 - 140	65

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.031	LB258969.004	Mercury	mg/L	0.0001	0.0018	<0.0001	0.008	90

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259303.004	Mercury	mg/kg	0.05	0.19	<0.05	0.2	92
SE236890.021	LB259304.004	Mercury	mg/kg	0.05	0.19	<0.05	0.2	78

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259027.004		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	118
			Aldrin	mg/kg	0.1	0.2	<0.1	0.2	115
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	114
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	116
			Endrin	mg/kg	0.2	0.3	<0.2	0.2	136
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	123
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
			Total OC VIC EPA	mg/kg	1	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.16	-	95
SE236890.021	LB259030.004		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	108
			Aldrin	mg/kg	0.1	0.2	<0.1	0.2	105
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	108
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	106
			Endrin	mg/kg	0.2	0.2	<0.2	0.2	114
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.021	LB259030.004		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	99
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
			Total OC VIC EPA	mg/kg	1	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.13	0.14	-	89

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259027.004		Dichlorvos	mg/kg	0.5	1.7	<0.5	2	87
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	2.0	<0.5	2	102
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.0	<0.2	2	100
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
			Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
			Ethion	mg/kg	0.2	1.7	<0.2	2	86
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	7.5	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	92
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	94
SE236890.021	LB259030.004		Dichlorvos	mg/kg	0.5	1.8	<0.5	2	88
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	2.0	<0.5	2	98
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.9	<0.2	2	95
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
			Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
			Ethion	mg/kg	0.2	1.7	<0.2	2	85
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	7.3	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	-	91
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	86

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259027.004	Naphthalene	mg/kg	0.1	4.4	<0.1	4	110
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Acenaphthylene	mg/kg	0.1	4.2	<0.1	4	105
		Acenaphthene	mg/kg	0.1	4.4	<0.1	4	110
		Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
		Phenanthrene	mg/kg	0.1	4.4	<0.1	4	110
		Anthracene	mg/kg	0.1	4.3	<0.1	4	107
		Fluoranthene	mg/kg	0.1	4.3	<0.1	4	107
		Pyrene	mg/kg	0.1	4.3	<0.1	4	107
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
		Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(a)pyrene	mg/kg	0.1	3.9	<0.1	4	98
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

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PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259027.004		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	3.9	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.1	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.0	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	34	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	103
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	92
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	94
SE236890.021	LB259030.004		Naphthalene	mg/kg	0.1	4.5	<0.1	4	111
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	4.2	<0.1	4	105
			Acenaphthene	mg/kg	0.1	4.4	<0.1	4	110
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.4	<0.1	4	110
			Anthracene	mg/kg	0.1	4.4	<0.1	4	109
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	106
			Pyrene	mg/kg	0.1	4.1	<0.1	4	103
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Chrysene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	4.0	<0.1	4	101
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	4.0	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.2	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.1	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	34	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	102
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	-	91
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	86

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259027.004		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1260	mg/kg	0.2	0.5	<0.2	0.4	131
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	95
SE236890.021	LB259030.004		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1260	mg/kg	0.2	0.5	<0.2	0.4	130
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	89

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN295

QC Sample	Sample Number	Parameter	Units	LOR

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

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Total Phenolics in Soil (continued)

Method: ME-(AU)-[ENV]AN295

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259140.004	Total Phenols	mg/kg	0.5	19	<0.5	20	97

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259166.004	Arsenic, As	mg/kg	1	52	4	50	97
		Cadmium, Cd	mg/kg	0.3	47	<0.3	50	94
		Chromium, Cr	mg/kg	0.5	62	10	50	103
		Copper, Cu	mg/kg	0.5	50	0.5	50	99
		Nickel, Ni	mg/kg	0.5	49	<0.5	50	97
		Lead, Pb	mg/kg	1	53	4	50	97
		Zinc, Zn	mg/kg	2	53	2.0	50	101
SE236890.021	LB259210.004	Arsenic, As	mg/kg	1	49	4	50	90
		Cadmium, Cd	mg/kg	0.3	45	<0.3	50	89
		Chromium, Cr	mg/kg	0.5	63	17	50	91
		Copper, Cu	mg/kg	0.5	51	4.3	50	93
		Nickel, Ni	mg/kg	0.5	47	1.7	50	90
		Lead, Pb	mg/kg	1	70	29	50	82
		Zinc, Zn	mg/kg	2	89	40	50	98

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.031	LB258987.004	Arsenic, As	µg/L	1	20	<1	20	102
		Cadmium, Cd	µg/L	0.1	21	<0.1	20	104
		Chromium, Cr	µg/L	1	21	<1	20	105
		Copper, Cu	µg/L	1	21	<1	20	104
		Lead, Pb	µg/L	1	21	<1	20	105
		Nickel, Ni	µg/L	1	22	<1	20	109
		Zinc, Zn	µg/L	5	22	<5	20	109

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259027.004		TRH C10-C14	mg/kg	20	36	<20	40	90
			TRH C15-C28	mg/kg	45	<45	<45	40	98
			TRH C29-C36	mg/kg	45	<45	<45	40	83
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	38	<25	40	95
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	38	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	90
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE236890.021	LB259030.004		TRH C10-C14	mg/kg	20	38	<20	40	95
			TRH C15-C28	mg/kg	45	<45	<45	40	93
			TRH C29-C36	mg/kg	45	<45	<45	40	95
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	38	<25	40	95
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	38	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	95
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259032.004	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	4.7	<0.1	5	93
			Toluene	mg/kg	0.1	4.4	<0.1	5	88
			Ethylbenzene	mg/kg	0.1	4.4	<0.1	5	87
			m/p-xylene	mg/kg	0.2	8.5	<0.2	10	85
			o-xylene	mg/kg	0.1	4.5	<0.1	5	90
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259032.004	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	7.9	10	93
			d8-toluene (Surrogate)	mg/kg	-	8.7	7.5	10	87
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.6	8.7	10	86
		Totals	Total Xylenes	mg/kg	0.3	13	<0.3	-	-
			Total BTEX	mg/kg	0.6	27	<0.6	-	-
SE236890.021	LB259037.004	Monocyclic	Benzene	mg/kg	0.1	4.1	<0.1	5	83
		Aromatic	Toluene	mg/kg	0.1	4.0	<0.1	5	80
		Hydrocarbons	Ethylbenzene	mg/kg	0.1	4.2	<0.1	5	84
			m/p-xylene	mg/kg	0.2	8.2	<0.2	10	81
			o-xylene	mg/kg	0.1	4.5	<0.1	5	89
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	9.0	10	86
			d8-toluene (Surrogate)	mg/kg	-	8.3	8.7	10	83
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.2	9.1	10	82
		Totals	Total Xylenes	mg/kg	0.3	13	<0.3	-	-
			Total BTEX	mg/kg	0.6	25	<0.6	-	-

VOCs in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE236871.001	LB259004.029	Monocyclic	Benzene	µg/L	0.5	<0.5	45.45	114
		Aromatic	Toluene	µg/L	0.5	<0.5	45.45	116
		Hydrocarbons	Ethylbenzene	µg/L	0.5	<0.5	45.45	99
			m/p-xylene	µg/L	1	<1	90.9	101
			o-xylene	µg/L	0.5	<0.5	45.45	108
		Polycyclic	Naphthalene (VOC)	µg/L	0.5	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.8	-	94
			d8-toluene (Surrogate)	µg/L	-	8.9	-	106
			Bromofluorobenzene (Surrogate)	µg/L	-	10.6	-	94

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236890.001	LB259032.004		TRH C6-C10	mg/kg	25	70	<25	92.5	76
			TRH C6-C9	mg/kg	20	63	<20	80	78
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	7.9	10	93
			d8-toluene (Surrogate)	mg/kg	-	8.7	7.5	10	87
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.6	8.7	-	86
		VPH F	Benzene (F0)	mg/kg	0.1	4.7	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	44	<25	62.5	70
SE236890.021	LB259037.004		TRH C6-C10	mg/kg	25	64	<25	92.5	69
			TRH C6-C9	mg/kg	20	59	<20	80	74
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	9.0	10	86
			d8-toluene (Surrogate)	mg/kg	-	8.3	8.7	10	83
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.2	9.1	-	82
		VPH F	Benzene (F0)	mg/kg	0.1	4.1	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	39	<25	62.5	62

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE236871.001	LB259004.023		TRH C6-C10	µg/L	50	<50	946.63	79
			TRH C6-C9	µg/L	40	<40	818.71	65
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.8	-	94
			d8-toluene (Surrogate)	µg/L	-	8.9	-	106
			Bromofluorobenzene (Surrogate)	µg/L	-	10.6	-	94
		VPH F	Benzene (F0)	µg/L	0.5	<0.5	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	639.67	72

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

QC Sample	Sample Number	Parameter	Units	LOR

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
***	Indicates that both * and ** apply.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.
①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

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STATEMENT OF QA/QC PERFORMANCE

SE237041 R0

CLIENT DETAILS

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Project	**E25663 67 Mars Rd Lane Cove West**
Order Number	**E25663**
Samples	8

LABORATORY DETAILS

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SGS Reference	**SE237041 R0**
Date Received	23 Sep 2022
Date Reported	28 Sep 2022

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	8 Water
Date documentation received	23/9/2022	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	17°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three Days		

HOLDING TIME SUMMARY

SE237041 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259264	23 Sep 2022	23 Sep 2022	21 Oct 2022	27 Sep 2022	21 Oct 2022	28 Sep 2022
BH108M	SE237041.002	LB259264	23 Sep 2022	23 Sep 2022	21 Oct 2022	27 Sep 2022	21 Oct 2022	28 Sep 2022
BH115M	SE237041.003	LB259264	23 Sep 2022	23 Sep 2022	21 Oct 2022	27 Sep 2022	21 Oct 2022	28 Sep 2022
BH120M	SE237041.004	LB259264	23 Sep 2022	23 Sep 2022	21 Oct 2022	27 Sep 2022	21 Oct 2022	28 Sep 2022
QD1	SE237041.005	LB259264	23 Sep 2022	23 Sep 2022	21 Oct 2022	27 Sep 2022	21 Oct 2022	28 Sep 2022
QR1	SE237041.006	LB259264	23 Sep 2022	23 Sep 2022	21 Oct 2022	27 Sep 2022	21 Oct 2022	28 Sep 2022

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
BH108M	SE237041.002	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
BH115M	SE237041.003	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
BH120M	SE237041.004	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
QD1	SE237041.005	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
QR1	SE237041.006	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
BH108M	SE237041.002	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
BH115M	SE237041.003	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
BH120M	SE237041.004	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
QD1	SE237041.005	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
QR1	SE237041.006	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
BH108M	SE237041.002	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
BH115M	SE237041.003	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
BH120M	SE237041.004	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	27 Sep 2022
QD1	SE237041.005	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
QR1	SE237041.006	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN295

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259268	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	27 Sep 2022
BH108M	SE237041.002	LB259268	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	27 Sep 2022
BH115M	SE237041.003	LB259268	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	27 Sep 2022
BH120M	SE237041.004	LB259268	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	27 Sep 2022
QD1	SE237041.005	LB259268	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	27 Sep 2022
QR1	SE237041.006	LB259268	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	27 Sep 2022

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259122	23 Sep 2022	23 Sep 2022	22 Mar 2023	26 Sep 2022	22 Mar 2023	26 Sep 2022
BH108M	SE237041.002	LB259122	23 Sep 2022	23 Sep 2022	22 Mar 2023	26 Sep 2022	22 Mar 2023	26 Sep 2022
BH115M	SE237041.003	LB259122	23 Sep 2022	23 Sep 2022	22 Mar 2023	26 Sep 2022	22 Mar 2023	26 Sep 2022
BH120M	SE237041.004	LB259122	23 Sep 2022	23 Sep 2022	22 Mar 2023	26 Sep 2022	22 Mar 2023	26 Sep 2022
QD1	SE237041.005	LB259122	23 Sep 2022	23 Sep 2022	22 Mar 2023	26 Sep 2022	22 Mar 2023	26 Sep 2022
QR1	SE237041.006	LB259122	23 Sep 2022	23 Sep 2022	22 Mar 2023	26 Sep 2022	22 Mar 2023	26 Sep 2022

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
BH108M	SE237041.002	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
BH115M	SE237041.003	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
BH120M	SE237041.004	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
QD1	SE237041.005	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022
QR1	SE237041.006	LB259273	23 Sep 2022	23 Sep 2022	30 Sep 2022	27 Sep 2022	06 Nov 2022	28 Sep 2022

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref

HOLDING TIME SUMMARY

SE237041 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

VOCs in Water (continued) — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
BH108M	SE237041.002	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
BH115M	SE237041.003	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
BH120M	SE237041.004	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
QD1	SE237041.005	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
QR1	SE237041.006	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
TS	SE237041.007	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
TB	SE237041.008	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022

Volatile Petroleum Hydrocarbons in Water — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH104M	SE237041.001	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
BH108M	SE237041.002	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
BH115M	SE237041.003	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
BH120M	SE237041.004	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
QD1	SE237041.005	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
QR1	SE237041.006	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
TS	SE237041.007	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022
TB	SE237041.008	LB259277	23 Sep 2022	23 Sep 2022	07 Oct 2022	27 Sep 2022	07 Oct 2022	28 Sep 2022

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH104M	SE237041.001	%	40 - 130%	84
	BH108M	SE237041.002	%	40 - 130%	81
	BH115M	SE237041.003	%	40 - 130%	83
	BH120M	SE237041.004	%	40 - 130%	82

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH104M	SE237041.001	%	40 - 130%	66
	BH108M	SE237041.002	%	40 - 130%	74
	BH115M	SE237041.003	%	40 - 130%	58
	BH120M	SE237041.004	%	40 - 130%	68
d14-p-terphenyl (Surrogate)	BH104M	SE237041.001	%	40 - 130%	76
	BH108M	SE237041.002	%	40 - 130%	80
	BH115M	SE237041.003	%	40 - 130%	78
	BH120M	SE237041.004	%	40 - 130%	82

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH104M	SE237041.001	%	40 - 130%	66
	BH108M	SE237041.002	%	40 - 130%	74
	BH115M	SE237041.003	%	40 - 130%	58
	BH120M	SE237041.004	%	40 - 130%	68
d14-p-terphenyl (Surrogate)	BH104M	SE237041.001	%	40 - 130%	76
	BH108M	SE237041.002	%	40 - 130%	80
	BH115M	SE237041.003	%	40 - 130%	78
	BH120M	SE237041.004	%	40 - 130%	82
d5-nitrobenzene (Surrogate)	BH104M	SE237041.001	%	40 - 130%	62
	BH108M	SE237041.002	%	40 - 130%	72
	BH115M	SE237041.003	%	40 - 130%	52
	BH120M	SE237041.004	%	40 - 130%	60

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples

Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C2_PFTeDA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	61
	BH108M	SE237041.002	%	10 - 150%	83
	BH115M	SE237041.003	%	10 - 150%	89
	BH120M	SE237041.004	%	10 - 150%	120
(13C2-4:2 FTS) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	115
	BH108M	SE237041.002	%	10 - 150%	108
	BH115M	SE237041.003	%	10 - 150%	116
	BH120M	SE237041.004	%	10 - 150%	115
(13C2-6:2 FTS) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	93
	BH108M	SE237041.002	%	10 - 150%	92
	BH115M	SE237041.003	%	10 - 150%	87
	BH120M	SE237041.004	%	10 - 150%	98
(13C2-8:2 FTS) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	94
	BH108M	SE237041.002	%	10 - 150%	89
	BH115M	SE237041.003	%	10 - 150%	75
	BH120M	SE237041.004	%	10 - 150%	88
(13C2-PFDoA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	58
	BH108M	SE237041.002	%	10 - 150%	79
	BH115M	SE237041.003	%	10 - 150%	66
	BH120M	SE237041.004	%	10 - 150%	118
(13C2-PFHxDA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	60
	BH108M	SE237041.002	%	10 - 150%	79
	BH115M	SE237041.003	%	10 - 150%	90
	BH120M	SE237041.004	%	10 - 150%	130
(13C3-PFBS) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	134
	BH108M	SE237041.002	%	10 - 150%	132
	BH115M	SE237041.003	%	10 - 150%	128
	BH120M	SE237041.004	%	10 - 150%	132
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	118

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples (continued) — **Method: MA-1523**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(13C3-PFHxS) Isotopically Labelled Internal Recovery Standard	BH108M	SE237041.002	%	10 - 150%	108
	BH115M	SE237041.003	%	10 - 150%	87
	BH120M	SE237041.004	%	10 - 150%	104
(13C4_PFOA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	98
	BH108M	SE237041.002	%	10 - 150%	90
	BH115M	SE237041.003	%	10 - 150%	92
	BH120M	SE237041.004	%	10 - 150%	99
(13C4-PFBA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	100
	BH108M	SE237041.002	%	10 - 150%	100
	BH115M	SE237041.003	%	10 - 150%	99
	BH120M	SE237041.004	%	10 - 150%	101
(13C4-PFHpA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	127
	BH108M	SE237041.002	%	10 - 150%	106
	BH115M	SE237041.003	%	10 - 150%	108
	BH120M	SE237041.004	%	10 - 150%	122
(13C5-PFHxA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	140
	BH108M	SE237041.002	%	10 - 150%	120
	BH115M	SE237041.003	%	10 - 150%	133
	BH120M	SE237041.004	%	10 - 150%	144
(13C5-PFPeA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	103
	BH108M	SE237041.002	%	10 - 150%	103
	BH115M	SE237041.003	%	10 - 150%	98
	BH120M	SE237041.004	%	10 - 150%	94
(13C6-PFDA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	101
	BH108M	SE237041.002	%	10 - 150%	87
	BH115M	SE237041.003	%	10 - 150%	88
	BH120M	SE237041.004	%	10 - 150%	133
(13C7-PFUdA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	75
	BH108M	SE237041.002	%	10 - 150%	85
	BH115M	SE237041.003	%	10 - 150%	65
	BH120M	SE237041.004	%	10 - 150%	104
(13C8-PFOS) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	112
	BH108M	SE237041.002	%	10 - 150%	143
	BH115M	SE237041.003	%	10 - 150%	104
	BH120M	SE237041.004	%	10 - 150%	89
(13C8-PFOSA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	131
	BH108M	SE237041.002	%	10 - 150%	128
	BH115M	SE237041.003	%	10 - 150%	146
	BH120M	SE237041.004	%	10 - 150%	102
(13C9-PFNA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	84
	BH108M	SE237041.002	%	10 - 150%	111
	BH115M	SE237041.003	%	10 - 150%	93
	BH120M	SE237041.004	%	10 - 150%	90
(D3-N-MeFOSA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	123
	BH108M	SE237041.002	%	10 - 150%	134
	BH115M	SE237041.003	%	10 - 150%	123
	BH120M	SE237041.004	%	10 - 150%	110
(D3-N-MeFOSAA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	88
	BH108M	SE237041.002	%	10 - 150%	100
	BH115M	SE237041.003	%	10 - 150%	87
	BH120M	SE237041.004	%	10 - 150%	76
(D5-N-EtFOSA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	102
	BH108M	SE237041.002	%	10 - 150%	144
	BH115M	SE237041.003	%	10 - 150%	128
	BH120M	SE237041.004	%	10 - 150%	110
(D5-N-EtFOSAA) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	61
	BH108M	SE237041.002	%	10 - 150%	100
	BH115M	SE237041.003	%	10 - 150%	88
	BH120M	SE237041.004	%	10 - 150%	81
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	150
	BH108M	SE237041.002	%	10 - 150%	144

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples (continued)

Method: MA-1523

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
(D7-N-MeFOSE) Isotopically Labelled Internal Recovery Standard	BH115M	SE237041.003	%	10 - 150%	130
	BH120M	SE237041.004	%	10 - 150%	111
(D9-N-EtFOSE) Isotopically Labelled Internal Recovery Standard	BH104M	SE237041.001	%	10 - 150%	116
	BH108M	SE237041.002	%	10 - 150%	127
	BH115M	SE237041.003	%	10 - 150%	126
	BH120M	SE237041.004	%	10 - 150%	144

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH104M	SE237041.001	%	40 - 130%	105
	BH108M	SE237041.002	%	40 - 130%	110
	BH115M	SE237041.003	%	40 - 130%	108
	BH120M	SE237041.004	%	40 - 130%	110
	QD1	SE237041.005	%	40 - 130%	109
	QR1	SE237041.006	%	40 - 130%	109
	TS	SE237041.007	%	40 - 130%	105
	TB	SE237041.008	%	40 - 130%	108
d4-1,2-dichloroethane (Surrogate)	BH104M	SE237041.001	%	40 - 130%	95
	BH108M	SE237041.002	%	40 - 130%	91
	BH115M	SE237041.003	%	40 - 130%	94
	BH120M	SE237041.004	%	40 - 130%	94
	QD1	SE237041.005	%	40 - 130%	90
	QR1	SE237041.006	%	40 - 130%	97
	TS	SE237041.007	%	40 - 130%	105
	TB	SE237041.008	%	40 - 130%	92
d8-toluene (Surrogate)	BH104M	SE237041.001	%	40 - 130%	93
	BH108M	SE237041.002	%	40 - 130%	94
	BH115M	SE237041.003	%	40 - 130%	94
	BH120M	SE237041.004	%	40 - 130%	93
	QD1	SE237041.005	%	40 - 130%	95
	QR1	SE237041.006	%	40 - 130%	99
	TS	SE237041.007	%	40 - 130%	100
	TB	SE237041.008	%	40 - 130%	93

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH104M	SE237041.001	%	40 - 130%	105
	BH108M	SE237041.002	%	40 - 130%	110
	BH115M	SE237041.003	%	40 - 130%	108
	BH120M	SE237041.004	%	40 - 130%	110
	QD1	SE237041.005	%	40 - 130%	109
	QR1	SE237041.006	%	40 - 130%	109
d4-1,2-dichloroethane (Surrogate)	BH104M	SE237041.001	%	60 - 130%	95
	BH108M	SE237041.002	%	60 - 130%	91
	BH115M	SE237041.003	%	60 - 130%	94
	BH120M	SE237041.004	%	60 - 130%	94
	QD1	SE237041.005	%	60 - 130%	90
	QR1	SE237041.006	%	60 - 130%	97
d8-toluene (Surrogate)	BH104M	SE237041.001	%	40 - 130%	93
	BH108M	SE237041.002	%	40 - 130%	94
	BH115M	SE237041.003	%	40 - 130%	94
	BH120M	SE237041.004	%	40 - 130%	93
	QD1	SE237041.005	%	40 - 130%	95
	QR1	SE237041.006	%	40 - 130%	99

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB259264.001	Mercury	mg/L	0.0001	<0.0001

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259273.001		Hexachlorobenzene (HCB)	µg/L	0.1	<0.1
		Alpha BHC	µg/L	0.1	<0.1
		Lindane (gamma BHC)	µg/L	0.1	<0.1
		Heptachlor	µg/L	0.1	<0.1
		Aldrin	µg/L	0.1	<0.1
		Beta BHC	µg/L	0.1	<0.1
		Delta BHC	µg/L	0.1	<0.1
		Heptachlor epoxide	µg/L	0.1	<0.1
		Alpha Endosulfan	µg/L	0.1	<0.1
		Gamma Chlordane	µg/L	0.1	<0.1
		Alpha Chlordane	µg/L	0.1	<0.1
		p,p'-DDE	µg/L	0.1	<0.1
		Dieldrin	µg/L	0.1	<0.1
		Endrin	µg/L	0.1	<0.1
		Beta Endosulfan	µg/L	0.1	<0.1
		p,p'-DDD	µg/L	0.1	<0.1
		p,p'-DDT	µg/L	0.1	<0.1
		Endosulfan sulphate	µg/L	0.1	<0.1
		Endrin aldehyde	µg/L	0.1	<0.1
		Methoxychlor	µg/L	0.1	<0.1
		Endrin ketone	µg/L	0.1	<0.1
		Isodrin	µg/L	0.1	<0.1
		Mirex	µg/L	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	103

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259273.001		Dichlorvos	µg/L	0.5	<0.5
		Dimethoate	µg/L	0.5	<0.5
		Diazinon (Dimpylate)	µg/L	0.5	<0.5
		Fenitrothion	µg/L	0.2	<0.2
		Malathion	µg/L	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	<0.2
		Parathion-ethyl (Parathion)	µg/L	0.2	<0.2
		Bromophos Ethyl	µg/L	0.2	<0.2
		Methidathion	µg/L	0.5	<0.5
		Ethion	µg/L	0.2	<0.2
		Azinphos-methyl	µg/L	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	68
		d14-p-terphenyl (Surrogate)	%	-	72

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB259273.001	Naphthalene	µg/L	0.1	<0.1
	2-methylnaphthalene	µg/L	0.1	<0.1
	1-methylnaphthalene	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(a)pyrene	µg/L	0.1	<0.1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

PAH (Polynuclear Aromatic Hydrocarbons) in Water (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB259273.001		Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1
		Dibenzo(ah)anthracene	µg/L	0.1	<0.1
		Benzo(ghi)perylene	µg/L	0.1	<0.1
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	68
		2-fluorobiphenyl (Surrogate)	%	-	68
		d14-p-terphenyl (Surrogate)	%	-	72

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN295

Sample Number	Parameter	Units	LOR	Result
LB259268.001	Total Phenols	mg/L	0.05	<0.05

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB259122.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5
LB259122.025	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB259273.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259277.001	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5
		1,2-dichloropropane	µg/L	0.5	<0.5
		cis-1,3-dichloropropene	µg/L	0.5	<0.5
		trans-1,3-dichloropropene	µg/L	0.5	<0.5
		1,2-dibromoethane (EDB)	µg/L	0.5	<0.5
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5
		Chloromethane	µg/L	5	<5
		Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3
		Bromomethane	µg/L	10	<10
		Chloroethane	µg/L	5	<5
		Trichlorofluoromethane	µg/L	1	<1
		Iodomethane	µg/L	5	<5
		1,1-dichloroethene	µg/L	0.5	<0.5
		Dichloromethane (Methylene chloride)	µg/L	5	<5
		Allyl chloride	µg/L	2	<2
		trans-1,2-dichloroethene	µg/L	0.5	<0.5
		1,1-dichloroethane	µg/L	0.5	<0.5
		cis-1,2-dichloroethene	µg/L	0.5	<0.5
		Bromochloromethane	µg/L	0.5	<0.5
		1,2-dichloroethane	µg/L	0.5	<0.5
		1,1,1-trichloroethane	µg/L	0.5	<0.5
		1,1-dichloropropene	µg/L	0.5	<0.5
		Carbon tetrachloride	µg/L	0.5	<0.5
		Dibromomethane	µg/L	0.5	<0.5

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259277.001	Halogenated Aliphatics	Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5
		1,1,2-trichloroethane	µg/L	0.5	<0.5
		1,3-dichloropropane	µg/L	0.5	<0.5
		Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5
		1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5
		cis-1,4-dichloro-2-butene	µg/L	1	<1
		1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5
		1,2,3-trichloropropane	µg/L	0.5	<0.5
		trans-1,4-dichloro-2-butene	µg/L	1	<1
		1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5
		Hexachlorobutadiene	µg/L	0.5	<0.5
	Halogenated Aromatics	Chlorobenzene	µg/L	0.5	<0.5
		Bromobenzene	µg/L	0.5	<0.5
		2-chlorotoluene	µg/L	0.5	<0.5
		4-chlorotoluene	µg/L	0.5	<0.5
		1,3-dichlorobenzene	µg/L	0.5	<0.5
		1,4-dichlorobenzene	µg/L	0.3	<0.3
		1,2-dichlorobenzene	µg/L	0.5	<0.5
		1,2,4-trichlorobenzene	µg/L	0.5	<0.5
		1,2,3-trichlorobenzene	µg/L	0.5	<0.5
	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
		Styrene (Vinyl benzene)	µg/L	0.5	<0.5
		Isopropylbenzene (Cumene)	µg/L	0.5	<0.5
		n-propylbenzene	µg/L	0.5	<0.5
		1,3,5-trimethylbenzene	µg/L	0.5	<0.5
		tert-butylbenzene	µg/L	0.5	<0.5
		1,2,4-trimethylbenzene	µg/L	0.5	<0.5
		sec-butylbenzene	µg/L	0.5	<0.5
		p-isopropyltoluene	µg/L	0.5	<0.5
		n-butylbenzene	µg/L	0.5	<0.5
	Nitrogenous Compounds	Acrylonitrile	µg/L	0.5	<0.5
	Oxygenated Compounds	Acetone (2-propanone)	µg/L	10	<10
		MtBE (Methyl-tert-butyl ether)	µg/L	2	<1
		Vinyl acetate	µg/L	10	<10
		MEK (2-butanone)	µg/L	10	<10
		MIBK (4-methyl-2-pentanone)	µg/L	5	<5
		2-hexanone (MBK)	µg/L	5	<5
	Polycyclic VOCs	Naphthalene (VOC)	µg/L	0.5	<0.5
	Sulphonated	Carbon disulfide	µg/L	2	<2
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	95
		d8-toluene (Surrogate)	%	-	96
		Bromofluorobenzene (Surrogate)	%	-	105
	Trihalomethanes	Chloroform (THM)	µg/L	0.5	<0.5
		Bromodichloromethane (THM)	µg/L	0.5	<0.5
		Dibromochloromethane (THM)	µg/L	0.5	<0.5
		Bromoform (THM)	µg/L	0.5	<0.5

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB259277.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	95
		d8-toluene (Surrogate)	%	-	96
		Bromofluorobenzene (Surrogate)	%	-	105

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE237041.004	LB259264.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	0
SE237041.006	LB259264.017	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	195

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN295

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236960.001	LB259268.024	Total Phenols	mg/L	0.05	0.45	0.45	26	1
SE237041.004	LB259268.014	Total Phenols	mg/L	0.05	<0.05	<0.05	200	0

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE237002.003	LB259122.014	Arsenic, As	µg/L	1	4	4	42	4
		Cadmium, Cd	µg/L	0.1	1.9	1.9	20	2
		Chromium, Cr	µg/L	1	35	34	18	2
		Copper, Cu	µg/L	1	40	40	17	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	70	68	16	2
		Zinc, Zn	µg/L	5	460	450	16	2
SE237041.002	LB259122.028	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	1	2	80	6
		Copper, Cu	µg/L	1	2	3	56	9
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	6	7	30	8
		Zinc, Zn	µg/L	5	18	18	43	2
SE237041.006	LB259122.033	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	1	1	109	3
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	<5	<5	200	0

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE237041.006	LB259273.027		TRH C10-C14	µg/L	50	<50	<50	200	0
			TRH C15-C28	µg/L	200	<200	<200	200	0
			TRH C29-C36	µg/L	200	<200	<200	200	0
			TRH C37-C40	µg/L	200	<200	<200	200	0
			TRH C10-C40	µg/L	320	<320	<320	200	0
		TRH F Bands	TRH >C10-C16	µg/L	60	<60	<60	200	0
			TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
			TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
			TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236943.001	LB259277.024	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene (VOC)	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.7	9.3	30	5
			d8-toluene (Surrogate)	µg/L	-	9.6	9.2	30	5
			Bromofluorobenzene (Surrogate)	µg/L	-	10.7	10.8	30	1
SE237062.007	LB259277.025	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOCs in Water (continued)

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE237062.007	LB259277.025	Polycyclic	Naphthalene (VOC)	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.4	8.8	30	17
			d8-toluene (Surrogate)	µg/L	-	10.6	9.4	30	12
			Bromofluorobenzene (Surrogate)	µg/L	-	11.1	10.8	30	2

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE236943.001	LB259277.024		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.7	9.3	30	5
			d8-toluene (Surrogate)	µg/L	-	9.6	9.2	30	5
			Bromofluorobenzene (Surrogate)	µg/L	-	10.7	10.8	30	1
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE237062.007	LB259277.025		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.4	8.8	30	17
			d8-toluene (Surrogate)	µg/L	-	10.6	9.4	30	12
			Bromofluorobenzene (Surrogate)	µg/L	-	11.1	10.8	30	2
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OC Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259273.002		Heptachlor	µg/L	0.1	0.2	0.2	60 - 140	116
		Aldrin	µg/L	0.1	0.2	0.2	60 - 140	101
		Delta BHC	µg/L	0.1	0.2	0.2	60 - 140	116
		Dieldrin	µg/L	0.1	0.2	0.2	60 - 140	121
		Endrin	µg/L	0.1	0.3	0.2	60 - 140	136
		p,p'-DDT	µg/L	0.1	0.3	0.2	60 - 140	132
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	µg/L	-	0.11	0.15	40 - 130	76

OP Pesticides in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259273.002		Dichlorvos	µg/L	0.5	8.0	8	60 - 140	100
		Diazinon (Dimpylate)	µg/L	0.5	9.5	8	60 - 140	119
		Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	8.4	8	60 - 140	105
		Ethion	µg/L	0.2	8.3	8	60 - 140	104
	Surrogates	2-fluorobiphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	70
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	80

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259273.002		Naphthalene	µg/L	0.1	33	40	60 - 140	82
		Acenaphthylene	µg/L	0.1	34	40	60 - 140	86
		Acenaphthene	µg/L	0.1	34	40	60 - 140	85
		Phenanthrene	µg/L	0.1	34	40	60 - 140	86
		Anthracene	µg/L	0.1	34	40	60 - 140	84
		Fluoranthene	µg/L	0.1	34	40	60 - 140	85
		Pyrene	µg/L	0.1	34	40	60 - 140	84
		Benzo(a)pyrene	µg/L	0.1	33	40	60 - 140	82
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.5	40 - 130	68
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	70
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	80

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN295

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259268.002	Total Phenols	mg/L	0.05	0.19	0.2	80 - 120	94

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259122.002	Arsenic, As	µg/L	1	21	20	80 - 120	103
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	104
	Chromium, Cr	µg/L	1	20	20	80 - 120	101
	Copper, Cu	µg/L	1	20	20	80 - 120	102
	Lead, Pb	µg/L	1	22	20	80 - 120	110
	Nickel, Ni	µg/L	1	20	20	80 - 120	102
	Zinc, Zn	µg/L	5	21	20	80 - 120	107
LB259122.026	Arsenic, As	µg/L	1	23	20	80 - 120	113
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	107
	Chromium, Cr	µg/L	1	20	20	80 - 120	102
	Copper, Cu	µg/L	1	20	20	80 - 120	98
	Lead, Pb	µg/L	1	22	20	80 - 120	110
	Nickel, Ni	µg/L	1	20	20	80 - 120	100
	Zinc, Zn	µg/L	5	21	20	80 - 120	103

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259273.002		TRH C10-C14	µg/L	50	1200	1200	60 - 140	98
		TRH C15-C28	µg/L	200	1400	1200	60 - 140	113
		TRH C29-C36	µg/L	200	1200	1200	60 - 140	99
	TRH F Bands	TRH >C10-C16	µg/L	60	1200	1200	60 - 140	104
		TRH >C16-C34 (F3)	µg/L	500	1300	1200	60 - 140	110
		TRH >C34-C40 (F4)	µg/L	500	590	600	60 - 140	98

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259277.002	Halogenated	1,1-dichloroethene	µg/L	0.5	51	45.45	60 - 140	113
	Aliphatics	1,2-dichloroethane	µg/L	0.5	56	45.45	60 - 140	123
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	49	45.45	60 - 140	108
	Halogenated	Chlorobenzene	µg/L	0.5	54	45.45	60 - 140	118
	Monocyclic	Benzene	µg/L	0.5	52	45.45	60 - 140	113
	Aromatic	Toluene	µg/L	0.5	52	45.45	60 - 140	114
	Hydrocarbons	Ethylbenzene	µg/L	0.5	51	45.45	60 - 140	113
		m/p-xylene	µg/L	1	100	90.9	60 - 140	113
		o-xylene	µg/L	0.5	51	45.45	60 - 140	112
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.7	10	60 - 140	97
		d8-toluene (Surrogate)	µg/L	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	9.9	10	70 - 130	99
	Trihalomethan	Chloroform (THM)	µg/L	0.5	62	45.45	60 - 140	137

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259277.002		TRH C6-C10	µg/L	50	900	946.63	60 - 140	96
		TRH C6-C9	µg/L	40	780	818.71	60 - 140	96
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.7	10	60 - 140	97
		d8-toluene (Surrogate)	µg/L	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	9.9	10	70 - 130	99
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	600	639.67	60 - 140	93

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE237002.001	LB259264.004	Mercury	mg/L	0.0001	0.0017	<0.0001	0.008	84

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN295

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE237048.001	LB259268.004	Total Phenols	mg/L	0.05	0.21	<0.05	0.2	97

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE236927.031	LB259122.004	Arsenic, As	µg/L	1	22	-0.00265675	20	109
		Cadmium, Cd	µg/L	0.1	22	-0.00257274	20	108
		Chromium, Cr	µg/L	1	21	0.0804491	20	105
		Copper, Cu	µg/L	1	21	0.0755118	20	106
		Lead, Pb	µg/L	1	23	-0.01409527	20	114
		Nickel, Ni	µg/L	1	21	0.04057323	20	107
		Zinc, Zn	µg/L	5	24	1.07713784	20	113
SE237041.004	LB259122.030	Arsenic, As	µg/L	1	25	<1	20	122
		Cadmium, Cd	µg/L	0.1	22	<0.1	20	109
		Chromium, Cr	µg/L	1	21	<1	20	101
		Copper, Cu	µg/L	1	25	6	20	96
		Lead, Pb	µg/L	1	23	<1	20	111
		Nickel, Ni	µg/L	1	25	5	20	98
		Zinc, Zn	µg/L	5	56	35	20	107

VOCs in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE237095.004	LB259277.023	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	52	0	45.45	115
			Toluene	µg/L	0.5	53	0.032864786	45.45	116
			Ethylbenzene	µg/L	0.5	53	0.010750448	45.45	115
			m/p-xylene	µg/L	1	110	0.021500896	90.9	117
			o-xylene	µg/L	0.5	52	0.009879890	45.45	115
		Polycyclic	Naphthalene (VOC)	µg/L	0.5	49	0.072376335	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.5	10.50736497	-	95
			d8-toluene (Surrogate)	µg/L	-	10.3	10.79166033	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.9	11.12222517	-	99

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE237095.004	LB259277.023		TRH C6-C10	µg/L	50	930	4.754779572	946.63	98
			TRH C6-C9	µg/L	40	810	0.643058516	818.71	98
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.5	10.50736497	-	95
			d8-toluene (Surrogate)	µg/L	-	10.3	10.79166033	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.9	11.12222517	-	99
		VPH F Bands	Benzene (F0)	µg/L	0.5		0	-	-
			TRH C6-C10 minus BTEX (F1)	µg/L	50	620	4.754779572	639.67	96

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
***	Indicates that both * and ** apply.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.
①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

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STATEMENT OF QA/QC PERFORMANCE

SE237041A R0

CLIENT DETAILS

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Order Number	**E25663**
Samples	9

LABORATORY DETAILS

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SGS Reference	**SE237041A R0**
Date Received	04 Oct 2022
Date Reported	06 Oct 2022

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	1 Water
Date documentation received	4/10/2022@2:51PM	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	17°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three Days		

HOLDING TIME SUMMARY

SE237041A R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Trace Metals (Dissolved) in Water by ICPMS — **Method: ME-(AU)-[ENV]AN318**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QRB1	SE237041A.009	LB259882	23 Sep 2022	04 Oct 2022	22 Mar 2023	05 Oct 2022	22 Mar 2023	05 Oct 2022

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Trace Metals (Dissolved) in Water by ICPMS — **Method: ME-(AU)-[ENV]AN318**

Sample Number	Parameter	Units	LOR	Result
LB259882.001	Copper	µg/L	1	<1

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Trace Metals (Dissolved) in Water by ICPMS — **Method: ME-(AU)-[ENV]AN318**

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE237239.006	LB259882.014	Copper	µg/L	1	<1	<1	200	0
SE237345.008	LB259882.021	Copper	µg/L	1	<1	<1	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Trace Metals (Dissolved) in Water by ICPMS — **Method: ME-(AU)-[ENV]AN318**

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB259882.002	Copper	µg/L	1	21	20	80 - 120	106

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

QC Sample	Sample Number	Parameter	Units	LOR

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
***	Indicates that both * and ** apply.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.
①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

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