

APPENDIX H

DETAILED SITE INVESTIGATION

New Chlorine Liquefaction Plant
Denison Street, Banksmeadow, NSW

Ixom Operations Pty Ltd

Detailed Site Investigation

JBS&G 67817 | 163,415 Rev 1

17 February 2025



We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.



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Abbreviations

Term	Definition
bgs	below ground surface
BIP	Botany Industrial Park
BGC	Botany Groundwater Cleanup
CFM	Chloroform
CHC	Chlorinated Hydrocarbons
cis-1,2-DCE	cis-1,2-dichloroethene
CLM Act	Contaminated Lands Management Act 1997
COPC	Constituent of Potential Concern
CSM	Conceptual site model
CTC	Carbon tetrachloride
1,2-DCA	1,2-dichloroethane
DCM	Methylene chloride
DNAPL	Dense non-aqueous phase liquid
DO	Dissolved oxygen
DQIs	Data Quality Indicators
EDC	Ethylene dichloride
Eh	redox potential
ESA	Environmental Site Assessment
EtO	Ethylene Oxide
GRAMP	Groundwater Remediation and Management Plan
GTP	Groundwater Treatment Plant
HCB	Hexachlorobenzene
HCBD	Hexachlorobutadiene
HCE	Hexachloroethane
LNAPL	Light Non-Aqueous Phase Liquid
MAHs	Monocyclic aromatic hydrocarbons
NSW DPE	Department of Planning and Environment
NSW EPA	NSW Environment Protection Authority
PCE	Tetrachloroethene
PFAS	Per- and poly-fluoroalkyl substances
PAHs	Polycyclic aromatic hydrocarbons
RAP	Remedial Action Plan
SAQP	Sampling, Analysis and Quality Plan
SVOC	Semi volatile organic compounds
1,1,1-TCA	1,1,1-trichloroethane
1,1,2-TCA	1,1,2-trichloroethane
TDS	Total dissolved solids
TRH	Total recoverable hydrocarbons

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Term	Definition
TCE	Trichloroethene
TeCA	1,1,2.2-Tetrachloroethane
trans-1,2-DCE	trans-1,2-dichloroethene
US EPA RSL	US EPA Region 9 Regional Screening Levels
VC	Vinyl chloride
VCM	Vinyl chloride monomer
VOCs	Volatile organic compounds
VMP	Voluntary Management Proposal

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Ixom Operations Pty Ltd (Ixom, the "client") to complete a Detailed Site Investigation (DSI) for the area of a proposed New Chlorine Liquefaction Plant located at Denison Street, Banksmeadow, NSW (the site). The site comprises an approximate 0.15 Hectare (Ha) parcel of land, formally identified as part Lot 1101 in DP 1227173 and is shown on **Figure 1**.

The site is located within the Botany Industrial Park (BIP) and has a long history of chemical manufacturing, which began in 1944 with the production of chlorine, caustic soda, hydrochloric acid, sodium hypochlorite and ferric chloride from brine solution by ICI Australia (now Orica). The former ChlorAlkali Plant (FCAP) utilised mercury cells from 1944 until 2001 when it was replaced with a membrane cell process. There were four key areas associated with the FCAP that included; the Cell Block (Block G), Chlorine Liquefaction and Chlorine Storage Area (Block L), Hydrogen and Brine Treatment Area (Block M) and Caustic Soda Filtration and Storage (Block A) as shown on **Figure 2a**. The site largely falls within Block L (refer to **Figure 2c**), where gaseous chlorine was previously liquefied and placed into cylinders and drums.

More recently, the site has been used as a Sodium Hypochlorite (Hypo) Tanker Loading Bay. It is understood that the client is proposing to establish a new Chlorine Liquefaction Plant on the site, which will comprise the construction of a new plant within an enclosed warehouse structure in the area of the current Hypo Tanker Loading Bay and relocating the tanker loading to the north (refer to **Appendix H**). The DSI was required in response to the Secretary's Environmental Assessment Requirements (SEARs) and to support the State Significant Development Application (SSDA).

An environmental assessment was undertaken comprising grid based soil and soil vapour assessment across the extent of the site. An assessment of quality assurance / quality control (QA/QC) has confirmed that the data collected during the assessment can be considered to be appropriately reliable for use in characterising the site.

Based on the findings of this investigation and subject to the limitations presented in **Section 14**, JBS&G concludes the following:

- Asbestos containing material (ACM) impacts have been identified in surface soils and are potentially present at surface / near surface depths across the extent of the site;
- The maximum levels of mercury and a range of chlorinated hydrocarbons present in soil vapour will pose a potential vapour intrusion risk to potential occupants of a building constructed on the site in the future; and
- A Remedial Action Plan (RAP) is required to be prepared for the site to address the following:
    - Asbestos impacts on the site surface posing a potential aesthetic and occupational safety issue; and
    - Mercury and chlorinated hydrocarbon impacts in soil vapour posing a potentially unacceptable health risk (via vapour intrusion) to future site users.

1. Introduction

JBS&G Australia Pty Ltd (JBS&G) was engaged by Ixom Operations Pty Ltd (Ixom, the "client") to complete a Detailed Site Investigation (DSI) for the area of a proposed New Chlorine Liquefaction Plant located at Denison Street, Banksmeadow, NSW (the site). The site comprises an approximate 0.15 Hectare (Ha) parcel of land, formally identified as part Lot 1101 in DP 1227173 and is shown on **Figure 1**.

The site is located within the Botany Industrial Park (BIP) and has a long history of chemical manufacturing, which began in 1944 with the production of chlorine, caustic soda, hydrochloric acid, sodium hypochlorite and ferric chloride from brine solution by ICI Australia (now Orica). The former ChlorAlkali Plant (FCAP) completed these manufacturing processes with mercury cells from 1944 until 2001 when it was replaced with a membrane cell process. There were four key areas associated with the FCAP that included; the Cell Block (Block G), Chlorine Liquefaction and Chlorine Storage Area (Black L), Hydrogen and Brine Treatment Area (Block M) and Caustic Soda Filtration and Storage (Black A) as shown on **Figure 2a**. The site largely falls within Block L (refer to **Figure 2c**), where gaseous chlorine was previously liquefied and placed into cylinders and drums.

After the new ChlorAlkali Plant was constructed and commissioned in 2002, the FCAP was decommissioned and then demolished in two stages between 2004 and 2007. Investigations completed from 2006, identified elemental and inorganic mercury in soil as well as dissolved inorganic and methyl mercury impacts in groundwater beneath and downgradient of the FCAP. Remediation works were subsequently conducted on Blocks A, G and M that primarily comprised of excavation and offsite disposal of mercury impacted soils to the extent practicable along with containment of residual impacts following source removal works.

More recently, the site has been used as a Sodium Hypochlorite (Hypo) Tanker Loading Bay. It is understood that the client is proposing to establish a new Chlorine Liquefaction Plant on the site, which will comprise the construction of a new plant within an enclosed warehouse structure in the area of the current Hypo Tanker Loading Bay and relocating this service to the north. As such, the DSI is required to be prepared in accordance with the technical requirements of the Secretary's Environmental Assessment Requirements (SEARs), and in support of the State Significant Development Application (SSDA).

The DSI assessment was conducted in general accordance with NEPC (2013[1]) and guidelines made or approved by the NSW Environment Protection Authority (EPA) and relevant Australian Standards.

1.1 Objectives

The objectives of the DSI are to characterise potential contamination at the site, assess the suitability of the site for the proposed land-use, or to otherwise to provide sufficient data to allow recommendations to enable such assessments to be made in the future.

[1] *National Environmental Protection (Assessment of Site Contamination) Measure 2013*. National Environment Protection Council, 2013 (NEPC 2013).

1.2 Scope of Work

The following scope of works were undertaken as part of the assessment:

- A desktop review of site history and background information, to identify potential areas of environmental concern (AECs) and associated contaminants of potential concern (COPCs), including;
    - Review of publicly available previous investigations completed in proximity of the site (refer to **Section 1.3**);
    - Historical aerial photographs;
    - Records of environmental records for the site and immediate surrounds as held by NSW EPA; and
    - Review of the environmental setting of the site and surrounding areas, including topography, geology and hydrogeology.
- A detailed inspection of the site to confirm the desktop findings and identify the presence of additional AECs;
- A systematic soil investigation comprising the installation of 8 boreholes to characterise site soils for the COPCs;
- A grid based soil vapour investigation to assess potential risks to future site receptors from potential volatile impacts across the site;
- Laboratory analysis program for representative soil and vapour samples for COPCs, with subsequent data evaluation against NSW EPA endorsed guideline values;
- Development and documentation of a conceptual site model (CSM) based on the available information; and
- Preparation of this report documenting the methods and results of the investigation.

1.3 Previous Assessments

A range of previous assessments have historically been completed for the site or within surrounding BIP land. It is understood that URS completed investigations with Block L in 2007 on behalf of the site owner (Orica) which were not provided to JBS&G for review herein. As such, background information as applicable to the site is limited to resources that are publicly available and/or listed following:

- Former ChlorAlkali Plant, Human Health and Environmental Risk Assessment – 2013, Environmental Risk Sciences Pty Ltd, 20 June 2013 (EnRisks 2013).
- Site Audit, Blocks A and M, Former ChlorAlkali Plant, Botany Industrial Park, C. M. Jewell & Associates Pty Ltd, 19 December 2013 (SA 2013).
- Site Audit, Block G, Excavation of Shallow Impacted Soils, Block G, Former ChlorAlkali Plant, Botany Industrial Park, C. M. Jewell & Associates Pty Ltd, January 2014 (SA 2014).
- Conceptual Site Model Orica Botany, 2022, Orica Australia Pty Ltd (Orica 2022).
- Post-Remediation Biennial Groundwater Monitoring Event: December 2022, Former ChlorAlkali Plant, Botany Industrial Park, WSP Golder Associates Pty Ltd, 30 March 2023 (WSP 2023).

1.4 Proposed Development

As noted above, the client is proposing to establish a new Chlorine Liquefaction Plant on the site, which will include construction of the new plant within an enclosed warehouse structure in the area of the current Hypo Tanker Loading Bay. It is noted that Loading Bay will be relocated to the north as part of the development in which no enclosed spaces are proposed in this portion.

The design plans are provided in **Appendix H**. Hardstand will be established across the extent of the site and no underground structures (excluding utilities such as power etc) are proposed. As such, consideration has been given to the relevant land-use of "HIL D - Commercial/industrial, includes premises such as shops, offices, factories and industrial sites" as detailed in *National Environment Protection (Assessment of Site Contamination) Measure*, 1999 (as amended 2013), National Environment Protection Council (NEPC 2013).

2. Site Condition and Surrounding Environment

2.1 Site Identification

The site location is shown on **Figure 1** and the site extent / layout are shown on **Figure 2**. The extent of the site is summarised in **Table 2.1** following.

Table 2-1: Site Identification

Site Feature	Description
Address	Denison Street Banksmeadow
Lot and DP	Part Lot 1101 in DP 1227173
Approximate Site Area	0.15 ha
Zoning	Industrial
Local Government Area	Bayside City Council
Approximate Coordinates (GDA94-MGA56)	335601.2 E; 6241246.9 N (centre of main portion)

2.2 Site Inspection and Current Operations

A detailed site inspection was conducted on 23 October 2024 by an appropriately qualified and experienced JBS&G environmental consultant. The site comprises two distinct areas as comprising of the current Hypo Tanker Loading Bay in the southern portion and a small vacant parcel of land within the location of the proposed new Loading Bay in the northern portion. Key site features within each area are displayed on **Figure 2c**, shown in the photographic log (**Appendix C**) and discussed below:

- The eastern portion of the Hypo Tanker Loading Bay area comprised of a raised concrete slab (approximately 1-1.5 m above surrounding ground levels) that formed the ground floor slab of a former warehouse structure. At the time of the inspection, the area was primarily used for storage of disused equipment that included steel storage tanks, shipping containers, metal pipes, cylinders pumps etc. Asbestos containing materials (ACM) in the form of bonded cement fragments were observed on exposed surface soils to the south of the raised slab.
- In the western portion of the site, there was a 2-laned concrete driveway that serviced the Hypo Tanker Loading Bay. All associated infrastructure (pipes, bowers etc) appeared to be aboveground and were fed from the new ChlorAlkali Plant located to the south of the site.
- The balance of the ground surface across the site comprised of road base gravels and igneous cobbles. There were no obvious signs of contamination (ACM, odours, staining of the ground surface) in these materials.
- To the north of the Hypo Tanker Loading Bay Area was a concrete lined pit. The pit was secured by chain link fencing and the base was sediment laden and covered with weeds.

It is noted that the modern operations at the site are typically storing / handling products that are generally found to be non-hazardous (sodium hypochlorite) within the environment. The most significant potential contaminants are identified through a review of the site history which is detailed in **Section 3**.

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2.3 Surrounding Land-Uses

Adjacent uses of potential significance are summarised in **Table 2.2** following and shown on **Figure 2c**.

Table 2-2: Adjoining Land Uses

Identification	Location	Description
Orica Australia	Surrounding site	Orica owns the land immediately surrounding the site within BIP. Facilities that are located nearby or adjacent to the site include: • ChlorAlkali Plant – the new ChlorAlkali Plant is located to the south of the site. While the land in this area is owned by Orica, the plant has been owned and operated by Ixom Operations Pty Ltd since 2015. • Groundwater Treatment Plant (GTP) - located 200 m to the north of the main portion of site. Used for the processing and treatment of contaminated groundwater recovered as part of large-scale groundwater extraction/remediation (Botany Groundwater Cleanup (BGC) Project)
Indorama Ventures Oxides Australia Pty Ltd	North of site (approximately 100 m from main portion)	This property has a long history of chemical manufacturing, which began in 1942 with the production of carbon bisulphide by ICI Australia. Throughout the 1940s and 1950s, additional chemical plants were commissioned, including a rubber chemical plant, a herbicide plant, a formaldehyde plant, and an acetylene wet generation plant (refer to Figure 2a). These chemical manufacturing plants were decommissioned in the 1960s, after which the property was used to manufacture surfactants. The property was acquired from Orica (formerly ICI) by Huntsman in 1998 and then by Indorama in 2019. Until recently, ethylene oxide (EtO) and its derivatives, including glycols, glycol ethers, and non-ionic surfactants, were manufactured at the site using primary raw materials supplied by the Olefines plant operated by Qenos, located to the north of the site within the BIP. It is understood that since Qenos has ceased operations, Indorama intends to shut down and decommission the manufacturing facility.
Former Qenos Facility	North and North-west of Site	The former Qenos manufacturing facility is also located within BIP, with key features that are located nearby to the site include: • Alkathene - Until recently this area was used for the production of low density polyethylene (LDPE) products from ethylene (produced at Olefines II). The area contains the Alkathene plant (high and low pressure reactors, compressors, cooling towers, product extrusion machines, and a number of electrical substations), workshops, offices, bulk liquid (petroleum based) storage areas, product silos and warehouses • Alkatuff - Until recently this area was used for production of linear low density polyethylene (LLDPE) products from ethylene (Olefines II), hexene, nitrogen, hydrogen and TEAL (triethyl aluminium). The area also produced high density polyethylene (HDPE). The area comprises the Alkatuff plant, workshops, offices, additive store, catalyst store,

Identification	Location	Description
		hexene bulk storage tank, cooling towers, laboratory and two electrical substations • Site Utilities - The site utilities area includes steam generation, demineralisation of water, effluent treatment, cooling towers, and instrument air plant. Coal unloading and storage bay adjacent to the steam plant. By-product boiler ash hoppers and loading bay. Site utilities provides services to the broader BIP and as a result the majority of operations are ongoing
Southlands	West	Southlands is located to the west of the site beyond the extent shown on **Figure 2c**. The area has been remediated and divested by Orica. A range of contaminants were present inclusive of chlorinated hydrocarbons and asbestos.
Sydenham to Botany goods railway line	West	Operational freight rail line adjacent to southwestern boundary of BIP.
Residential Properties on Denison Street	East	To the east of the site (beyond the Orica owned land) is Denison Street. A variety of residential dwellings are located beyond.

There are no potentially sensitive ecosystems identified within the extent of the site (or the BIP in general) and are not anticipated with the proposed redevelopment. The nearest potentially sensitive ecological receptor is identified as Penrhyn Estuary located approximately 1 km to the south-west of the site.

The estuary is considered to be a functioning ecosystem providing a valued wading bird habitat. This has developed over a relatively short time frame (aerial photos from the early 1980s show the estuary to be barren sand dunes). Springvale Drain discharges at the eastern extent of Penrhyn Estuary.

2.4 Geology

Previous soil investigations from surrounding BIP land, reported that the geology of the area comprises of Botany Sands, a sequence of predominantly unconsolidated to semi-consolidated permeable sands. These sands are interspersed with lenses and layers of peat, peaty sands, silts, and clay, which become more prevalent in the lower part of the sequence. The sand layer varies in thickness across BIP from less than 20 m to over 80 m and is underlain by the Hawkesbury Sandstone, a rock formation with significantly lower permeability compared to the overlying Botany Sands.

Borehole logs from previous soil investigations within the site or surrounding FCAP land were not provided by the site owner for review herein. However, EnRisks (2013) provides a description of the soils encountered across Block L during previous investigations as follows:

- Fill ranged in depths from 0 to 1.0 m and comprised of grey and brown sands that were medium to coarse grained with 20-50 mm gravels.
- Natural soils were reported to underly the fill materials (to 17 m as consistent with maximum depth of investigations in this area) and comprised of grey/brown to white sands that are medium to coarse grained.

The site geology is largely consistent with that described across the broader BIP area in Orica (2022). Orica (2022) further reports that the fraction of organic carbon (f_{oc}) in soils across BIP range from low in sandy

materials (<1%) to high in peat (4-20%) and occasionally in sands with a "brown" coloration (up to 22%) which influence contaminant mobility.

2.5 Hydrogeology

Historical groundwater levels as collected in proximity of the site within BIP land have confirmed that the regional groundwater flow direction in the vicinity of the site is south-westerly towards Botany Bay (Orica 2022). The presence of three hydraulic containment lines at: the southwestern boundary of BIP; south (down-gradient) of the Nant Street Tank Farm, adjacent to McPherson Street; and further south on Foreshore Road, immediately prior to Botany Bay, induces groundwater flow towards the three containment lines and results in the hydraulic containment of groundwater flowing from the BIP. Shallow groundwater within BIP is generally characterised as slightly acidic with low salinity (<1000 µS/cm).

In the area of the site, WSP (2023) reports that the inferred groundwater flow direction is to the south-west consistent with the above.

2.6 Topography and Hydrology

The site is characterised as being generally level over the site area, with a slight fall towards Springvale Drain. The south-western part of the site is located at a slightly lower level than the northern portions of the site as consistent with this fall. Noting that a significant portion of the site is not covered in hardstand (i.e. roadbase and cobbles), it is expected that the majority of rainfall will result in groundwater recharge.

2.7 Meteorology

A review of climatic data for the nearest Bureau of Meteorology monitoring location (Sydney Airport AMO) indicates the Site is located within the following meteorological setting:

- Average maximum temperatures range from 17.2°C in July to 26.7°C in January;
- Average minimum temperatures range from 7.4°C in July to 19.1°C in February;
- The average annual rainfall is approximately 1093.4 mm with rainfall greater than 1 mm occurring on an average of 96 days per year; and
- Monthly rainfall varies from 59.8 mm in September to 124.7 mm in March, with the wettest periods on average occurring between the months of January to June.

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3. Site History and Regulatory Aspects

3.1 Summary Site History

A review of site history has been undertaken by reference to previous assessments (**Section 1.3**) and historical aerial photographs provided as **Appendix B**. A summarised site history is provided as **Table 3.1** following.

Table 3-1: Site History Summary

Timing	Historical Records
On-Site History	
Prior to 1943	**Site Wide** Based on the review of aerial photographs, the site's uses prior to 1943 may have included agricultural activities (market gardens) as based on surrounding land-uses within BIP. Potential sand mining is also evident in surrounding land within the BIP. Sand mining was a common practice in the Botany area during this period, where optimal materials were extracted for glass making and potentially replaced with fill sourced from elsewhere.
1948-1977	**TCE and PCE Plant Within Northern Portion of Site** Trichloroethene (TCE) and tetrachloroethene (PCE) were produced by chlorination of acetylene to produce PCE; yielding TCE on dehydrochlorination within the plant. The site of the proposed New Hypo Tanker Loading Bay is within the footprint of this plant where an above ground storage tank (AST) is visible in the 1961 aerial overlying the northern portion of the site.
1944 to 2002	**FCAP Within Southern Portion of Site** The FCAP was commissioned in 1944. The southern portion of the site was located within Block L of the FCAP. This was the Chlorine Liquefaction Area, where gaseous chlorine (Cl_2) was liquefied and placed into cylinders and drums. Elemental mercury (Hg^0) was not reported to be handled in this area; however, mercury may have been present as a trace impurity in the chlorine gas. Aerial photographs from 1962 indicate that there was a coal-fired boiler house present on Block L to the north of the site with associated cooling tower basin. A 200 tonne chlorine storage bullet (tank) was subsequently constructed over the location of the cooling tower basin and was present until 2001 when it was removed. When the chlorine bullet was removed in 2001 the pit was reportedly filled with mercury contaminated process wastes and demolition wastes from the FCAP (approximately 300 m^3), and was registered as a licensed waste storage area (labelled Depot 60). These wastes, which were subsequently removed from the pit early in 2007 (following assessment and disposal to a licenced landfill), reportedly included denuder balls, denuder pot steel, concrete and bricks.
2004-current	The warehouse structure was demolished and replaced with the Hypo Tanker Loading Bay.
Nearby Surrounding Land Use History	
1944-2002	The FCAP extended into land surrounding the site as described below. Block G - consisted of three major cell rooms; H Cell Room (1944–1998); Mk1 Cell Room (1952–1998); and B1 Cell Room (1965–2001) as well as the brine purification and chlorine drying sections. These cells primarily produced chlorine, hydrogen, and sodium hydroxide from brine using mercury as a liquid cathode. Historical records show the salt stockpile, initially stored near the Mk1 Cell Room, was relocated multiple times before settling east of the former B1 Cell Room. The cell rooms, particularly Block G, are identified as the main source of mercury contamination at the FCAP site due to the high volume of mercury used.

Timing	Historical Records
	Block M - The southern half of Block M was used by the FCAP operations and housed various processes. The southeast portion included stripped brine tanks on an unpaved surface, a mercury recovery retort operation (1972–1986), and a sludge filtration process (from 1990). This area also contained sulphuric acid loading bays and bulk storage, still in use today. The southwest portion supported hydrogen compression, purification (mercury removal via activated carbon), storage, and, since 1990, the FCAP cooling tower. Mercury contamination is linked to the hydrogen compression area (due to mercury vapour impurities), brine tank area (potential mercury and chloride sources), sludge filtration area (mercury precipitation in brine sludge), and mercury retort area, including nearby equipment storage. Block A - Part of Block A was used to remove mercury from caustic soda, with large storage tanks constructed between 1963 and 1966. Mercury was primarily present in unfiltered caustic soda as colloidal micro-droplets, potentially stabilized by oxide or hydroxide coatings, and possibly as dissolved oxy-hydroxide complexes. Filtration methods evolved from Stellar™ (carbon) filters in the 1960s to Memtec™ (microfiltration) filters in the 1990s. Mercury contamination in Block A is linked to its presence in caustic soda from the Chlor-Alkali process, with anecdotal reports suggesting possible losses of mercury-contaminated caustic soda.
1945-1959	Carbon tetrachloride (CTC) was produced by reaction of carbon bisulphide and chlorine in the plant located to the east of the site (**Figure 2a**). The byproduct sulphur chloride was decomposed with water.
1963-1996	The Solvents Plant (**Figure 2a**) produced CTC and PCE from propane and chloride. Propane was replaced by propylene and the plant also used byproducts from the VCM plant.
1960s-Current	All the above plants present within the footprint of the Indorama boundary (refer to **Figure 2c**) were decommissioned and replaced with the surfactants plant in the 1960s. The layout and manufacturing processes remained largely the same throughout this period until recently when operations ceased.

3.2 Environmental Protection Licence

The current site activities operate subject to an Environmental Protection License (EPL 20547) that allows for chemical production (>25,000 T annual production), general chemical storage (5,000-100,000 kL storage capacity) and non-thermal waste processing and storage. There are conditions of the EPL related to air (related to HCl emissions), water and noise emissions as well as monitoring records including any pollution incidences. There were no notable (i.e. potentially consequential relative to the contamination status of the site) non-compliances identified following review of the publicly available monitoring reports.

3.3 EPA Regulation

3.3.1 Botany Groundwater Cleanup

As discussed in **Section 3.1** the BIP site has a long industrial history (since the early 1940s) and was formerly owned and operated by ICI Australia Ltd (ICI). Historical operations at BIP have resulted in soil and groundwater contamination on and adjacent to the site which have resulted in a range of environmental regulatory actions being applied to the site.

The NSW EPA issued Orica with Notice of Clean Up Action (NCUA) No. 1030236 on 26 September 2003, under the *Protection of the Environment Operations Act 1997* (POEO Act) which applied to the BIP, inclusive of the site subject of this assessment. The NSW EPA also declared on 9 February 2005 (No. 21074) the land to be a remediation site under the *Contaminated Lands Management Act 1997* (CLM Act), with subsequent notices repealing the declaration on portions of the land surrounding BIP as they have been remediated and developed.

Following effective completion of the principal NCUA actions, and consultation with the community and Orica, the NSW EPA determined that the project would be best managed by a Voluntary Management Proposal (VMP) under the CLM Act 1997. An initial VMP was approved on 5 November 2010 (Approval No. 20101714), which was subsequently revised on 13 August 2015 (Approval No. 20151711) and 29 April 2020 (Approval No. 20201704). The VMP is the current regulatory tool requiring effective operation of the 'Botany Groundwater Cleanup' (BGC).

The VMP applies to a range of constituents inclusive of volatile chlorinated hydrocarbons (CTC, DCM, chloroform, chloromethane, 1,1,1,2-tetrachloroethane, 1,1,1-trichloroethane [1,1,1-TCA], 1,1,2-trichloroethane [1,1,2-TCA], 1,1,2,2-tetrachloroethane, 1,2-DCA, chloroethane, cis-1,2-dichloroethene [cis-1,2-DCE], PCE, trans-1,2-dichloroethene [trans-1,2-DCE], TCE and VC) and semi-volatile chlorinated hydrocarbons (1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, 1,3,5-trichlorobenzene, 1,2,4,5-tetrachlorobenzene, pentachlorobenzene, HCB, HCBD, hexachlorocyclopentadiene, HCE and hexachloroproperylene)

The BGC Project addresses BIP-related chlorinated hydrocarbon contamination issues. The overall remediation strategy, as required by various regulatory mechanisms discussed briefly above, has been a risk-based approach to:

- Protect human health and environmental receptors via hydraulic containment of the CHC plumes and source areas and administrative measures;
- Monitor the nature and extent of contamination to identify potential exposure pathways that require management; and
- Investigate potential technologies to remediate chlorinated hydrocarbon source zones and plumes (though periodic reviews and independent workshops with international experts have not identified practicable remediation alternatives).

A revised Groundwater Remediation and Management Plan (GRAMP) (Orica, 2020) was submitted as an attachment to the VMP; it outlines surface water and groundwater monitoring requirements.

Botany Groundwater Cleanup

Orica's approach for remediation of BIP-related contamination, as per the requirements of the NCUA and its subsequent variation notices, currently comprises:

- Containment of dissolved phase chlorinated hydrocarbon plumes on- and off-site to ensure risks to human health and the environment remain acceptable;
- Continual optimisation of operation of the hydraulic containment lines and GTP for protection of critical human health and environmental exposures and for gradual cleanup of contamination in areas;
- Improvements to the hydraulic containment system and GTP to further reduce impacts on Springvale Drain and Penrhyn Estuary/Botany Bay; and
- Ongoing review of developments in remediation technologies and experience for dense non-aqueous phase liquid (DNAPL), soil and groundwater phase CHCs, and their practical application to the BGC Project.

Containment of dissolved phase chlorinated hydrocarbon plumes on- and off-site achieved by:

- Groundwater extraction (with ex situ treatment) from the Botany Sands aquifer along the southwestern boundary of BIP (1st and 2nd Streets), the southern boundary of former Orica Southlands along McPherson Street and along Foreshore Road;
- Groundwater extracted is pumped to a purpose-built (GTP) located on the Orica owned portion of BIP; and

- Performance monitoring at the GTP and of water levels and water quality within the aquifer is ongoing.

This system is often collectively referred to as the 'GTP system' or 'hydraulic containment system'. The effectiveness of hydraulic containment is reviewed on a quarterly (and biannually since 2017) basis as part of compliance monitoring under the GTP monitoring program. A range of remedial options have been considered to address DNAPL impacted areas though none have been found to be effective or appropriate for full scale implementation.

3.3.2 FCAP Remediation

The Site Audits (SA 2013 and 2014) provide a detailed history of the remediation of mercury impacts at the FCAP with associated NSW Environment Protection Authority (EPA) regulatory requirements as summarised below.

Operational History (1942–2002):

- Orica, previously ICI Australia, operated a chemical manufacturing plant at the BIP since 1942.
- The FCAP used elemental mercury in its electrolytic process from 1944 until 2002, when it transitioned to membrane technology.
- The FCAP's above-ground structures were demolished between 2004 and 2007.

Contamination Identified (2005–2009):

- On February 9, 2005, the NSW EPA declared the BIP and surrounding land a Remediation Site (Notice No. 21074) under the Contaminated Land Management Act 1997 (CLM Act).
- Investigations (2006–2009) revealed elemental and inorganic mercury in soil and groundwater beneath and downgradient of the FCAP.
- On July 10, 2009, the EPA confirmed the contamination warranted regulation under the CLM Act. Orica committed to remediation through a Voluntary Management Proposal (VMP).

Voluntary Management Proposal (2011):

- Orica submitted a VMP on April 11, 2011, focusing on remediation of Blocks M and G of the former CAP. It is noted that no potential mercury contamination issues were identified as part of environmental investigations on Block L.
- Initial remediation efforts began in May 2011 with soil excavation and on-site soil washing being trialled on Block G. However, the process did not meet remediation objectives, leading Orica to suspend works in August 2011.

Management Order Issued (2012):

- On January 6, 2012, the EPA revoked the VMP and issued Management Order No. 20111406, requiring a new remediation framework.
- Golder Associates prepared a Remedial Options Appraisal Report (April 2012) recommending capping and containment of mercury impacted soils on Block G and excavation and off-site disposal for mercury "hotspots" in Blocks A and M.

Completion of Remediation for Blocks A and M (2013)

- Excavation and off-site disposal of mercury-impacted soils to the extent practicable was completed in accordance with the RAP on Blocks A and M.

Completion of Soil Source Removal Works for Block G (2013)

- A new Management Order (20131406) set objectives for implementing the RAP on Block G, requiring excavation and off-site disposal of mercury impacts in shallow soils on Block G. These remedial works were completed to the extent practicable between September and November 2013.

Construction of cut-off wall and installation of Capping System (2015-2016)

- Residual mercury impacted soils on Block G were managed through a cap and contain system, that included the construction a slurry-wall extending to bedrock, around the whole of Block G.

Ongoing Maintenance Order (2017)

- At the completion of remediation works in accordance with the MO (20131406), the NSW EPA issued an Ongoing Maintenance Order (20172802) in accordance with Section 28 of the CLM Act. The order requires:

  a) Maintain the ground surface of Blocks A and M in accordance with the Orica Former ChlorAlkali Plant Remediation Project, Blocks A & M Long Term Site Environmental Management Plan, 20 December 2013;

  b) Maintain the encapsulation cell on Block G of the Botany Industrial Park in accordance with the Orica Australia Pty Ltd, Block G Long-Term Site Environmental Management Plan, 31 January 2017;

  c) Monitor the mercury vapours within Block G in accordance with Orica Australia Pty Ltd, Block G Air Monitoring Plan, 31 January 2017.

  d) Monitor the groundwater levels and chemistry within and adjacent to Block G in accordance with the Golder Associates, Former ChlorAlkali Plant, Botany Industrial Park, Post-Remediation Groundwater Monitoring, 31 January 2017;

  e) Report to the EPA as soon as practicable any incident that may adversely affect the integrity of the encapsulation structure on Block G, the surface of Blocks A or M or cause migration of contaminants to the environment; and

  f) Submit to the EPA annually, due by 31 March each year, a written report of compliance with this Notice detailing any instances of non-compliance, and potential changes to the long-term management plans, including the monitoring programs and the results of any vapour and water quality monitoring.

- Relevant results from the most recent groundwater monitoring event completed at the requirement of the Ongoing Maintenance Order (20172802) are discussed in **Section 4.1.2**.

4. Preliminary Conceptual Site Model

National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No.1) (NEPC 2013) identifies a conceptual site model (CSM) as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The development of a CSM is an essential part of all site assessments.

NEPC (2013) identified the essential elements of a CSM as including:

- Known and potential sources of contamination and contaminants of concern including the mechanism(s) of contamination as summarised in **Table 4-1**;
- Potentially affected media (soil, sediment, groundwater, surface water, indoor and ambient air) as summarised in **Table 4-1** for each AEC;
- Human and ecological receptors as applicable to the current and potential future layout (**Section 1.4**) is summarised in **Table 4-2**;
- Potential and complete exposure pathways and is summarised in **Table 4-2**; and
- Any potential preferential pathways for migration of liquid or gaseous impacts (refer to **Section 4.4**).

The preliminary CSM presented in the following Sections was formed on the basis of the site inspection (**Section 2.2**), site history (**Section 3.1**) and results from historical investigations within or proximity of the site (**Section 4.1**).

4.1 Previous Investigation Results

Review of data from historical investigations completed within the site is limited to summarised information presented in the HHERA (EnRisks 2013) and discussed below.

4.1.1 Soil

Wastes from the Depot 60 pit to the north of the site were reportedly removed in early 2007. Analytical results obtained from Orica (during assessment of the materials for disposal) indicate that the mercury concentrations in the wastes varied from 1.45 to 4,300 mg/kg. Following removal of the waste from Depot 60, the concrete surface was subject to high pressure washing and the concrete walls of the pit sampled for residual mercury. The range of mercury reported in fill and waste materials (now removed) and residual concentrations in the concrete walls of Depot 60 ranged from 13 to 430 mg/kg - which were considered to be an insignificant source of Hg^0 vapours.

Soil investigations conducted in 2007 and 2009 within Block L reported mercury concentrations ranging from 0.2 to 272 mg/kg (sample locations unavailable for review), all below the commercial/industrial health investigation level (HIL) of 730 mg/kg for inorganic mercury. The area's soil is alkaline (pH 8.5–11.1), and no elemental mercury (Hg^0) was reportedly identified. Based on the data, it was considered that no further evaluation of inorganic mercury in this area was required.

No additional data as applicable to other contaminants within site soils is available for review herein.

4.1.2 Groundwater

It is understood that there is no groundwater monitoring wells/data from directly underlying the site footprint. Notwithstanding, the HHERA (2013) reports the following with respect to results from groundwater monitoring conducted underling and downgradient of the FCAP:

- 2011: Dissolved mercury concentrations ranged from below detection (<0.0001 mg/L) to 9 mg/L, with the highest levels in shallow wells near the primary source of the FCAP (i.e. Blocks G, M and A). Concentrations declined sharply further downgradient. 44% of samples exceeded the ANZECC Trigger level, consistent with prior data.
- 2012: Dissolved mercury levels ranged from below detection limits to 1.32 mg/L, with 65% exceeding the ANZECC Trigger level. Methylmercury concentrations were detected (0.001–0.64 µg/L), consistent with historical data.

The most recent mercury monitoring data collected in accordance with the requirements of the Ongoing Maintenance Order (20172802) was reported in WSP (2023). Of note, there are two nested wells (WG212S/I/D and MWC04) located approximately 25 m from the downgradient boundary of the site included in the on-going monitoring. The total and dissolved mercury concentrations in these two wells (in the shallow aquifer) were reported to stable and / or decreasing in the shallow aquifer during the period of monitoring from May 2006 till December 2022. Moreover, the most recent reported dissolved and total mercury concentrations at these locations (WG212S; D:<0.0001, T:0.0069 and MWC04S; D<0.0008, T:0.38 mg/L) were substantially less than the reported results from monitoring locations upgradient of the site (within former Blocks M and G).

4.2 Known and Potential Sources of Contamination and Potentially Affected Media

A summary of the known and potential sources of contamination identified at the site along with affected media are presented in **Table 4-3** and shown on **Figure 3**.

Table 4-3: Known and Potential Sources of Contamination and Affected Media

Potential Source of Contamination (Areas of Environmental Concern)	Contaminants of Potential Concern	Potentially Affected Media
AEC1. Site Wide Imported and/or reworked fill materials used to create site levels (comprising material of unknown character and/or origin). Demolition of former site structures resulting in shallow soils impacted with hazardous materials (lead, asbestos).	Heavy metals (primarily Hg) polycyclic aromatic hydrocarbons (PAHs), total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylenes (BTEX), organochlorine pesticides (OCPs), chlorinated hydrocarbons (CHCs), polychlorinated biphenyls (PCBs), asbestos and pH	Soil Groundwater Soil Vapour
AEC2. Pit (Depot 60). This pit was reportedly filled with mercury contaminated process wastes and demolition wastes from the FCAP (approximately 300 m^3) which were reportedly removed in 2007. Owing to the proximity of the pit to the site, there is the potential that the waste materials caused impacts to surrounding soils / groundwater, that potentially extend into the adjoining site (being assessed here).	Heavy metals (primarily Hg), TRH, BTEX, PFAS, CHCs	Soil Groundwater Soil Vapour
AEC3. Former chemical manufacturing activities surrounding site. Refer to **Figure 4** for chemical manufacturing activities conducted on surrounding land which may have caused impacts to the site.	Heavy metals (primarily Hg), TRH, BTEX, PFAS, CHCs	Soil Groundwater Soil Vapour

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4.3 Potential Human and Ecological Receptors and Exposure Pathways

A summary of potential receptors and associated exposure pathways for the site, based on the range of exposure scenarios that may occur under the different potential land-uses of the site is presented in **Table 4-4**.

Table 4-4: Summary of Potential Exposures

Receptor	Location	Media	Potential Exposure Pathways
On-site Receptors			
Future industrial users	Within Future Warehouse (i.e. the new Chlorine Liquefaction Plant)	Soils	Inhalation (vapours and gases)
		Groundwater	Inhalation (vapours and gases)
	Outdoor Areas (limited to new Hypo Loading Facility in northern portion)	Soils	Inhalation (vapours and particulates) Oral ingestion Dermal contact
Construction worker or intrusive maintenance worker (short duration)	Construction areas/excavations	Soils	Inhalation (vapours, gases and particulates/fibres)
		Groundwater	Inhalation (vapours and particulates/fibres) Oral (infiltrating seepage water) Dermal (infiltrating seepage water)
Off-site Receptors[2]			
Recreational users of Penrhyn Estuary and Botany Bay	Surface waters downgradient of the site	Surface Water as potentially affected by site groundwater	Inhalation (vapours) Oral, Dermal, Ingestion
Off-site Commercial / Industrial users	Within buildings or outdoor areas.	Soils and/or groundwater	Inhalation (vapours, gases and particulates/fibres)
Ecological Receptors within Penrhyn Estuary and Botany Bay	Surface waters downgradient of the site	Surface Water as potentially affected by site groundwater	Various

[2] As noted in Section 3.3, the discharge of CHCs via groundwater from BIP is currently addressed as part of the BGC. As such, the assessment of potential risks to off-site receptors from impacted groundwater potentially migrating from the site will largely be restricted to contaminants/impacts sourced from historical activities on site and not those sourced and currently managed as part of BGC.

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4.4 Preferential Pathways

With the exception of the pit (Depot 60) to the north of the site, all site infrastructure is present above ground. This is likely consistent with historical manufacturing activities at the site occurring predominantly at the surface. As such, sources of impact at the site are most likely from historical releases/spills at the site surface rather than at depth. Noting the site geology comprises of permeable sands (both within fill and natural soils) and that groundwater is present in an unconfined system at relatively shallow depths, it is considered unlikely that contaminants will substantially migrate via preferential pathways (service trenches, pits or similar).

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5. Data Quality Objectives

5.1 Data Quality Objectives

Data Quality Objectives (DQOs) were established for the assessment, as discussed in the following sections.

5.1.1 State the Problem

The site, as located within BIP and part of the former ICI operations, has a substantial history of heavy industrial use. Significant potential contamination sources have been identified through the review of site history that require assessment in order to confirm the suitability of the site for the proposed land-use.

5.1.2 Identify the Decision

The decisions required to be made for the investigation are:

- Are there any unacceptable risks to likely future onsite receptors from soils?
- Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?
- Are there any gross impacts in soils that could act as ongoing source materials to groundwater impact which in turn pose an unacceptable risk to future site or downgradient receptors?
- Are there any potential vapours within unsaturated media that could present an unacceptable risk to future site receptors?
- Are there any impacts of chemical mixtures?
- Are there any aesthetic issues at the site?
- Is there any evidence of, or potential for, migration of contaminants from the site?
- Is a site management strategy required?

5.1.3 Identify the Inputs to the Decision

The following inputs are required in order to make the stated decisions:

- A review of publicly available historical information including previous environmental investigations conducted at or within proximity of the site;
- A detailed site inspection;
- Soil sampling from soil bores to assess for the presence of potential chemical COPCs and asbestos;
- Installation, sampling and analysis of sub-slab and soil vapour probes across the site;
- Laboratory analysis data for COPCs;
- Site assessment criteria for potentially impacted media for COPCs as appropriate to potential future land uses; and
- Confirmation that data generated by sampling and analysis are of an acceptable quality to allow reliable comparison by assessment of quality assurance / quality control as per the data quality indicators established in **Section 5.1.6**.

Specifically, sufficient data needs to be collected from each of the identified potentially impacted media in the identified AEC for the associated COPC (**Table 4.3**).

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5.1.4 Define the Study Boundaries

The study boundaries are limited to site boundaries as described in **Section 2.1** and shown on **Figure 2** onward.

The final vertical extent of investigation works was 6 m bgs, consistent with the maximum depth of investigations completed as part of soil investigations.

Due to the project objectives, seasonality will not be assessed as part of the investigation. Data is therefore representative of the timing and duration of the investigation.

5.1.5 Develop a Decision Rule

The decision rules adopted to answer the decisions identified in **Section 5.1.2** are summarised in **Table 5.1**.

Table 5.1 – Summary of Decision Rules

Decision Required to be Made	Decision Rule
1. *Are there any unacceptable risks to likely future onsite receptors from soils?*	Soil analytical data was compared against EPA endorsed criteria. Statistical analyses of the data in accordance with relevant guidance documents was undertaken where appropriate, to facilitate the decisions. The following statistical criteria were adopted with respect to soils: Either: the reported concentrations were all below the site criteria; Or: the 95% upper confidence limit (UCL) of the average concentration for each analyte was below the adopted site criterion; no single analyte concentration exceeded 250% of the adopted site criterion; and the standard deviation of the results was less than 50% of the site criterion. If the statistical criteria stated above were satisfied, the answer to the decision was No. If the statistical criteria were not satisfied, the answer to the decision was Yes.
2. *Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?*	If the 95% UCL of natural soils exceeded published background concentrations (NEPC 2013), the answer to the decision was Yes. Otherwise the answer to the decision was No.
3. *Are there any gross impacts in soils that could act as ongoing source materials to groundwater impact which in turn pose an unacceptable risk to future site or downgradient receptors?*	Where contaminants are reported at concentrations indicative of significant source materials that are attributable to historical activities at the site and the contaminant is not currently been managed as part of the BGC, the answer to the decision was Yes. Otherwise the answer to the decision was No.
4. *Are there any potential vapours within unsaturated media that could present an unacceptable risk to future site receptors?*	Are site-related contaminants present in soil vapour at concentrations exceeding levels found to pose a potential risk? If there is, the answer to the decision was Yes. Otherwise, the answer to the decision was No
5. *Are there any impacts of chemical mixtures?*	Are there more than one group of contaminants present which increase the risk of harm? If there is, the answer to the decision was Yes. Otherwise, the answer to the decision was No.
6. *Are there any aesthetic issues at the site?*	If there are any ACM fragments on the ground surface, any unacceptable odours or soil discolouration, the answer to the decision was Yes. Otherwise, the answer to the decision was No.
7. *Is there any evidence of, or potential for, migration of contaminants from the site?*	Are there impacts in shallow soils that could potentially migrate from the site via fugitive dust emissions? Is site sourced impacted groundwater potentially migrating from site?

Decision Required to be Made	Decision Rule
	Are there impacts in soil gas/vapour that could potentially migrate from the site via lateral diffusion? If yes to any of the above, the decision was Yes. Otherwise, the decision was No.
8. *Is a site management strategy required?*	Is the answer to any of the above decisions (1-7) Yes? If yes, further assessment and/or a site management strategy will be required to address unacceptable contamination concerns at the site, to make the site suitable for on-going commercial / industrial uses. If no, further assessment and/or a site management strategy is not required and the site is considered suitable, from a contamination view point for on-going commercial / industrial use.

5.1.6 Specific Limits on Decision Errors

This step is to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this project must be appropriate to allow decisions to be made with confidence.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW EPA, NEPC (2013), ANZECC (2000), DEC (2007)[3], appropriate data quality indicators (DQIs) used to assess QA/QC, and standard JBS&G procedures for field sampling and handling.

The pre-determined DQIs established for the project are discussed below in relation to precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS parameters), and are shown in **Table 5.2**.

- **Precision** - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD[4]) of duplicate samples.
- **Accuracy** - measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** –expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.

[3] Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination. NSW Department of Environment and Conservation 2007 (DEC 2007)

[4] C_0 = analyte concentration of the original sample, C_d = analyte concentration of the duplicate sample

$$RPD(\%) = \frac{|C_o - C_d|}{C_o + C_d} \times 200$$

- **Sensitivity** – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted criteria.

If any of the DQIs are not met, further assessment of the data set is required in order to determine whether the non-conformance has significant effects on the usefulness of the data. Corrective action to correct an adverse impact on the reliability of the dataset may include, but is not limited to, the request of further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

Table 5.2: Data Quality Indicators

Data Quality Objective	Frequency	Data Quality Indicator
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<50% RPD[1]
	1 / 10 samples for PFAS	<50% RPD[1]
Blind duplicates (inter laboratory)	1 / 20 samples	<50% RPD[1]
	1 / 10 samples for PFAS	<50% RPD[1]
Accuracy		
Laboratory duplicates	1 / 20 samples	<50% RPD[1]
Surrogate spikes	All organic samples	70-130%
Laboratory control samples	1 per lab batch	70-130%
Matrix spikes	1 per lab batch	70-130%
Representativeness		
Sampling appropriate for media and analytes		-
Laboratory blanks	1 per lab batch	<LOR
Samples extracted and analysed within holding times.	-	14 days for principal COPCs
Trip spike (for volatiles)	1/sampling event	70-130% recovery
Trip blank (for volatiles)	1/sampling event	<LOR
Rinsate blank	Daily for reusable equipment	<LOR
Leak Detection (soil vapour)	All soil vapour sample locations	Leak detection compound <10% of concentration achieved in shroud
Comparability		
Standard operating procedures for sample collection & handling	All samples	All samples
Standard analytical methods used for all analyses	All samples	All samples
Consistent field conditions, sampling staff and laboratory analysis	All samples	All samples
Limits of reporting appropriate and consistent	All samples	All samples
Completeness		
Sample description and COCs completed and appropriate	All samples	All samples
Appropriate documentation	All samples	All samples
Satisfactory frequency and result for QC samples	All QA/QC samples	-
Data from critical samples is considered valid	-	Critical samples valid

Data Quality Objective	Frequency	Data Quality Indicator
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted Site assessment criteria	All samples	LOR ≤ Site assessment criteria Asbestos: sample size greater than 500ml to enable LOR to be less than or equal to adopted site assessment criteria (where relevant)

[1] If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

[2] Recoveries to also be assessed against laboratory adopted limits.

To summarise the elements of the QA/QC program that were incorporated with the field works:

- Preparation of blind and split duplicates in the field at a frequency of one duplicate per 20 primary samples respectively for each of the media and primary analytes assessed. Consistent with the guidance in HEPA (2020) adoption of an increased rate of duplicate sample collection and analysis for PFAS of one duplicate per 10 primary samples;
- Inclusion of trip spike samples in sample batches containing sample analysis for VOCs;
- Inclusion of trip blank samples in a representative number of analytical batches and analysis for relevant analytes as specific to the batch; and
- Preparation of rinsate blanks in any instance where non-disposable / non laboratory supplied equipment / containers are used.

5.2 Optimise the Design of Obtaining Data

The purpose of this step is to identify a resource-effective field investigation sampling design that generates data that are expected to satisfy the criteria specified in the preceding steps of the DQO process. This step provides a general description of the activities necessary to generate and select data collection designs that satisfy decision performance criteria.

Based on the objectives of the assessment, the following investigation approach was adopted:

- A systematic sampling program of shallow soils (up to 1.5 m) with hand auger was first completed to characterise the identified COPCs (both chemical and asbestos) across the site. For sites that are approximately 0.15 ha, *Contaminated Land Guidelines: Sampling design part 1 – application (EPA 2022)* requires a minimum of 8 sampling locations. As such, sampling was conducted on an approximate 15 m grid (equating to 8 locations) on a systematic basis in accordance with EPA (2022). At 4 of these locations, additional sampling was completed at depths up to 6 m from boreholes advanced via drill rig completed as part of combined environmental and geotechnical investigations – these locations are identified via the prefix “BH” on **Figure 5**.
- A systematic soil vapour assessment across the extent of the site was completed to evaluate potential risks to future occupants of buildings from potential volatile COPC sources within the subsurface. Noting the history of BIP (with significant volatile CHC impacts) and future land-use (refer to **Section 1.4**), vapour intrusion of volatile constituents is the most likely exposure pathway to environmental impacts at the site and is therefore the most important aspect affecting the suitability of the site for the proposed use. The soil vapour probes were installed at 8 locations across the site as shown on **Figure 6,** equating to an approximate 15 m sampling grid.

Figures 4-5 presents the sampling locations for the current investigation. **Table 5.3** summarises the sampling location targeted to each AEC for the applicable media assessed and the rationale.

Groundwater investigations were not conducted as part of this assessment, as future site users (excluding construction workers) can only be exposed to potential groundwater impacts through vapor intrusion of volatile compounds into buildings. The risks associated with this exposure pathway has been directly assessed through the soil vapor assessment described above. Risks to off-site receptors through migration of impacted groundwater is currently being managed as part of the BGC program (refer to **Section 3.3**). Consequently, the assessment and potential remediation of groundwater would only be required in cases where there are significant impacts in soils that act as source materials contributing to ongoing groundwater impacts. These instances can be inferred from the results of the soil and soil vapor assessments with reference to the results of groundwater investigations completed historically within proximity of the site (**Section 4**).

5.2.1 Sampling Methodology

Soil Sampling Methodology

Soil samples were collected via hand auger (at depths ranging from 0 - <1.5 m bgs) or with Standard Penetration Testing (SPT) (at depths > 1.5 m bgs) sampling apparatus using a track-mounted drilling rig at the nominated borehole locations across the site. Boreholes were acknowledged as not the preferred methodology for the assessment of asbestos in soils but, given the operational nature of the site, were considered the only practical means of collecting soil samples.

Soil samples (for chemical constituents) were collected directly underneath the hardstand (concrete), then generally at 0.5-1.0 m intervals to a maximum depth of 6 m or at least 0.5 m into natural materials (or prior refusal), whichever was shallower. During the collection of soil samples, features such as seepage, discolouration, staining, odours, and other indicators of contamination were noted.

Soil samples were screened on-site during the works using a photo-ionisation detector (PID) to assess the presence of volatile organic compounds (VOCs), including chlorinated hydrocarbons. Collected samples were immediately transferred to laboratory-supplied sample jars (additional 500 mL plastic bags were used where asbestos analysis was required). The sample jars/bags were then transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples to the testing laboratory.

Duplicate soil samples were collected at a rate of one per 20 primary samples. Duplicate samples were collected for QA/QC purposes from the hand auger or dual tube by taking discrete soil samples and placing them directly into the sample jars. Samples were not mixed prior to placement into the jars to minimize the potential for loss of volatiles. Similarly, where 500 mL samples were required for duplicate asbestos analysis, no mixing of material was undertaken prior to placement into plastic bags to prevent the loss of free fibres. It was noted that this methodology may have resulted in the calculation of poor RPDs, but this was considered acceptable given that the loss of volatiles/fibres from mixing the samples would have resulted in the reporting of lower contaminant concentrations than were actually present. A trip spike (BTEX only) and rinsate blank (for non-dedicated equipment) were collected with each batch of samples.

All non-disposable sampling equipment, including augers, was cleaned with a high-pressure water/detergent spray, rinsed with water, and then air-dried. The equipment was inspected to ensure that no soil, oil, debris, or other contaminants were apparent on the equipment prior to the commencement of works. Sampling equipment was subsequently decontaminated using the above process between each location.

Not all soil samples collected were analysed. Soil samples were analysed in accordance with the sampling and analytical program (**Table 5.4**).

Table 5-3: Sampling and Analysis Program

AEC	Contaminants of Potential Concern	Potentially Affected Media	Sampling Locations / Comment
AEC1. Site wide.	Heavy metals, PAHs, TRH, BTEX, OCPs, PCBs, CHCs, PCBs, asbestos.	Soil Groundwater Soil Vapour	8 locations (approximate 15 m grid across site). Sampling of soil and soil vapour for a broad suite of COPCs to provide high-level characterisation of site. Potential impacts to groundwater will be inferred from the soil and soil vapour dataset as well as the results from historical investigations in proximity of the site.
AEC2. Depot 60 Pit.	Heavy metals (primarily Hg), TRH, BTEX, PFAS, CHCs	Soil Groundwater Soil Vapour	Locations BH3 and HA2. Soil and soil vapour were screened for COPCs. Potential impacts to groundwater will be inferred from the soil and soil vapour dataset as well as the results from historical investigations in proximity of the site.
AEC3. Former chemical manufacturing activities surrounding site	Heavy metals (primarily Hg), TRH, BTEX, PFAS, CHCs	Soil Groundwater Soil Vapour	As per AEC1. Noting the relatively small footprint of the site, the systematic sampling of soil and soil vapour at 8 locations was considered sufficient to assess potential impacts associated with this AEC.

Asbestos Quantification

Soil sampling locations to facilitate asbestos quantification were completed in general accordance with the procedures included in NEPC (2013) as derived from WA DOH (2021[5])), in which it was noted that approximately 10 L samples were inspected for the presence of asbestos.

The asbestos quantification works were completed via the excavation of boreholes (with 150 mm diameter) as described previously. The boreholes were advanced in one-metre increments until natural soils were identified at the sampling location (to the nominated maximum depth). Generally, each 1 m increment was treated as a discrete sample.

At each sampling location, material from each increment was collected on a separate plastic sheet that was distinctly different in colour from the soil and spread out for inspection. Any obvious ACM fragments were placed in a dedicated laboratory-supplied polyethylene ziplock sample bag labelled with the sampling location, depth increment, sampler's name, and sampling date. For coarse-grained material (i.e., sand, gravel, etc.), the 10 L of material was passed through a 7 mm sieve in the field. The material captured on the sieve was then hand-sorted, and any further collected ACM fragments were placed in the sample bag.

A representative 500 mL volume sample of material that passed through the 7 mm sieve was collected and placed in a separate dedicated laboratory-supplied polyethylene ziplock sample bag, labelled as a soil sample.

[5] *Guidelines for the Assessment Remediation and Management of Asbestos Contaminated Sites in Western Australia*. 2021, Western Australia Depart of Health (WA DOH 2021)

Sub-Slab and Soil Vapour Probe Installation

The following methodology was adopted for the installation of sub-slab vapour probes across the extent of the site in hardstand areas:

- A 16 mm diameter hole was drilled through the concrete slab at each location, with the encountered slab thickness typically being 100-200 mm; and
- A VaporPin metallic probe was installed following the manufacturer's instructions, which briefly comprised hammering the probe with a silicone sleeve (to ensure an air-tight seal) into the drilled hole to the depth of the encountered slab thickness.

Soil vapour probes were installed via the following methodology:

- Installed to a depth of 1.0 m;
- Installed within a 150 mm diameter borehole advanced by hand auger;
- Constructed of 6 mm diameter teflon tubing with a stainless steel gauze at the end of the tubing;
- Backfilled with washed 1-2 mm sand adjoining the end of the tubing, a shallow depth of bentonite granules, and completed with a bentonite-based grout; and
- Allowed to stabilize for a period of 24 hours prior to sampling.

The use of materials containing polyethylene were minimised in the soil vapour sampling train.

Soil Vapour Sampling and Analysis

The following methodology was adopted to sample the installed sub-slab and soil vapour probes:

- A GFM436 gas detector was used to purge each probe for approximately 30 seconds. Gas readings were monitored until oxygen and photo-ionisation detector (PID) readings had stabilized;
- Following this, a leak detection evaluation was completed via placement of an isopropyl alcohol-soaked rag within an air-tight box containing the sample train located on top of the probe. Elevated PID readings (in excess of previously established and stable PID recordings) on the gas detector were assumed to indicate a leaking probe. Any leaking probes required re-installation and were re-checked prior to sampling using the same method;
- Following preliminary confirmation of the absence of any significant leaks, sub-slab vapour samples were collected onto SKC-anasorb carbon tubes. An isopropyl alcohol-saturated rag was maintained in an air-tight box (sealed container containing sample train) throughout purging and sampling for laboratory confirmation of potential leaks. A shroud was used in the chamber to maintain an isopropyl alcohol-rich atmosphere over the sampling location. At all sample locations, a 6.2 L volume was collected using a calibrated pump at a flow rate of 200 mL/min (31 min sample time) onto a carbon tube; and
- Following sample collection, the carbon tubes were removed, capped, and stored in a cool, dry, and dark container that excluded light, prior to analysis in accordance with the laboratory schedule in **Table 5.4**.

A slight variation to this method was adopted in locations where additional sampling was undertaken to identify Hg. This comprised sampling onto an XAD tube, which allowed for specialized analysis for Hg.

Draeger Tube Screening

All soil vapour probes were screened with Draeger tubes to quantify levels of Hg in vapour. The probes were purged using the above methodology prior to screening as per the following:

- The appropriate tube for screening Hg (142s) was selected and tips at both ends of the glass tube broken prior to sampling;
- The tube was then inserted into the Kitagawa Gas Aspirating Pump;
- The sampling time (number of pump strokes) was conducted in accordance with manufacturer's recommendations (5 mins for Hg);
- Following sampling, the tube was inspected for signs of colour change; and
- Where there was a potential colour change, the corresponding concentration of the vapor was recorded in mg/m^3.

5.3 Laboratory Analysis

JBS&G used project laboratories which are NATA registered (Eurofins MGT[6] as the primary laboratory and Envirolab Services[7] as the secondary laboratory) for the required analyses. In addition, the laboratory was required to meet JBS&G's internal Quality Assurance requirements.

Table 5.4 – Sampling Analytical Program (Environmental Scope)

Sample Type	No. of Sampling Locations	Analyses (exc. QA/QC)
Soil	8 locations	Heavy metals – 18 samples PAHs – 13 samples TRH - 13 samples BTEX– 25 samples Asbestos – 8 samples Volatile Organic Compounds (VOCs) – 25 samples Semi-Volatile Organic Compounds (sVOCs) – 13 samples Organochlorine pesticides (OCPs) – 13 samples Polychlorinated biphenyls (PCBs) - 13 samples PFAS/PFOS – 8 samples
Soil Vapour	8 locations	VOC 8260 – 8 samples Field screening of Hg with Draeger tubes – 8 samples Hg Analysis with XAD – 2 samples (based on Draeger tube screening results)

6 https://www.eurofins.com.au/
7 https://www.envirolab.com.au/

6. Assessment Criteria

Generic tier 1 screening criteria has been adopted for each media assessed as part of this investigation in accordance with NEPC (2013) guidance and the proposed future land-use presented in **Section 1.4**. Reference has also been made to the risk based criteria for mercury in soils protective of inhalation exposures as well as groundwater impact from EnRisks (2013).

6.1 Soil Assessment Criteria

Soil data collected on site were compared to health-based criteria derived from:

- Health investigation levels for commercial / industrial land use (HIL-D) land-use as provided in *National Environment Protection (Assessment of Site Contamination) Measure, 1999 (as amended 2013)*, National Environment Protection Council (NEPC 2013);
- Aesthetic impacts have been assessed by on-site observations of soil staining and/or ACM and/or other anthropogenic materials; and
- PFAS National Environmental Management Plan Version 2.0. The Heads of EPAs Australia and New Zealand, January 2020 (HEPA 2020).

The health-based soil assessment criteria are summarised in **Table 6.1** and **6.2** following. Based on the general absence of on-site ecological receptors under the proposed development (due to the presence of hardstand across the extent of the site footprint), soil data was not compared to criteria protective of ecological receptors.

Table 6.1: Chemical Contaminants in Soil Health Based Assessment Criteria (all units in mg/kg)

	Limit of Reporting (LOR)	Laboratory Method	Health Based Assessment Criteria Commercial / Industrial (HIL-D HSL-D)
METALS			
Arsenic	2.0	ICP-AES (USEPA 200.7)	3000
Cadmium	0.4	ICP-AES (USEPA 200.7)	900
Total Chromium [1]	1.0	ICP-AES (USEPA 200.7)	3600[1]
Chromium (VI)	1.0	ICP-AES (USEPA 7189)	3600
Copper	1.0	ICP-AES (USEPA 200.7)	240,000
Nickel	1.0	ICP-AES (USEPA 200.7)	6000
Lead	1.0	ICP-AES (USEPA 200.7)	1500
Zinc	1.0	ICP-AES (USEPA 200.7)	400,000
Mercury (inorganic)	0.05	Cold Vapour ASS (USEPA 7471A)	730
TRH (sand, 0 to <1m depth)			
F1 C_6-C_{10}	20	Purge Trap-GCMS (USEPA8260)	-
F2 >C_{10}-C_{16}	50	Purge Trap-GCMS (USEPA8260)	-
Benzene	0.1	Purge Trap-GCMS (USEPA8260)	3
Toluene	0.1	Purge Trap-GCMS (USEPA8260)	-
Ethylbenzene	0.1	Purge Trap-GCMS (USEPA8260)	-
Total Xylenes	0.3	Purge Trap-GCMS (USEPA8260)	230
Naphthalene	0.1	Purge Trap-GCMS (USEPA8260)	-
OCPs			
DDT + DDD + DDE	0.3	GCECD (USEPA8140,8080)	3,600

	Limit of Reporting (LOR)	Laboratory Method	Health Based Assessment Criteria Commercial / Industrial (HIL-D HSL-D)
Aldrin + Dieldrin	0.2	GCECD (USEPA8140,8080)	45
Chlordane	0.1	GCECD (USEPA8140,8080)	530
Endosulfan	0.3	GCECD (USEPA8140,8080)	2,000
Endrin	0.1	GCECD (USEPA8140,8080)	100
Heptachlor	0.1	GCECD (USEPA8140,8080)	50
Hexachlorobenzene	0.1	GCECD (USEPA8140,8080)	80
Methoxychlor	0.1	GCECD (USEPA8140,8080)	2,500
PAHs			
Carcinogenic PAHs (as B(a)P TEQ)	0.5	GCMS (USEPA8270)	40
Total PAHs	0.5	GCMS (USEPA8270)	4,000
PCBS			
PCBs (total)	0.5	GCECD (USEPA8140,8080)	7
PFAS			
PFOA	0.005	LC-MS	50
Sum of PFHxS and PFOS	0.005	LC-MS	20

1. Total chromium results used as an initial screening tool for chromium (VI). Where total chromium results exceeded screening criteria, confirmatory chromium (VI) analysis was completed for direct comparison to published criteria.

Asbestos in soil thresholds adopted for the site assessment are nominated in **Table 6.2** below.

Table 6.2: Asbestos in Soil Health Based Assessment Criteria (all units in % w/w)

Form of Asbestos	Commercial / Industrial (D)
Bonded ACM	0.05 %
Fibrous asbestos or asbestos fines	0.001 %
All forms of asbestos	No visible ACM for surface soil (0 – 0.1 m bgs).

6.1.1 EnRisks (2013) Mercury Criteria

EnRisks (2013) derived risk based criteria (RBC) for total mercury in soils pm Blocks M and A that are protective of long-term exposures on and off the site) including consideration of ongoing source to groundwater contamination) as summarised in Table 6.3 below.

Table 6.3: RBC – Total Mercury in Soil (mg/kg)

Location	Outdoor / Open Space	Indoors
Block M	240	100
Block A	460	180

6.2 Vapour Assessment Criteria

Vapour concentrations in sub-slab vapour were compared against published levels as presented in **Table 6.4**, as sourced from Health based Investigation and Screening Levels (HILs and HSLs) for vapour intrusion under commercial land-use – NEPC 2013, HIL-D, HSL-D (sand, depth 0m to <1m bgs).

Where compounds were detected in sub-slab vapour for which there are no published Australian guideline values, reference was made to screening criteria in US EPA Region 9 Screening Levels in Air (for composite workers) as adjusted by an attenuation factor of 0.1 in accordance with the footnote from Table 1A(2) NEPC (2013).

Table 6.4: Soil Vapour Investigation Levels (mg/m^3)

	Limit of Reporting	Laboratory Method	NEPC (2013) HSL-D (sand, 0m to <1m bgs)	NEPC (2013) HIL-D	USEPA RSLs Industrial Air
Benzene	0.08	USEPA 8260	4	-	-
Toluene	0.08	USEPA 8260	4800	-	-
Ethylbenzene	0.08	USEPA 8260	1300	-	-
Total Xylenes	0.08	USEPA 8260	840	-	-
Naphthalene	0.08	USEPA 8260	3	-	-
PCE	0.08	USEPA 8260	-	8	-
TCE	0.08	USEPA 8260	-	0.08	-
Cis 1,2 DCE	0.08	USEPA 8260	-	0.3	-
1,1,1 TCA	0.08	USEPA 8260	-	230	-
VC	0.08	USEPA 8260	-	0.1	-
1,1,2-trichloroethane	0.08	USEPA 8260	-	-	0.0088
1,1-dichloroethane	0.08	USEPA 8260	-	-	0.77
1,2-dibromo-3-chloropropane	0.08	USEPA 8260	-	-	0.0088
Dichlorodifluoromethane	0.08	USEPA 8260	-	-	4.4
1,1-dichloroethene	0.08	USEPA 8260	-	-	8.8
trans-1,2-dichloroethene	0.08	USEPA 8260	-	-	1.8
HCB	0.005	XAD (lab)	-	-	0.00027
HCBD	0.08	USEPA 8260	-	-	0.0056
Heptane	0.08	USEPA 8260	-	-	18
Hexane	0.08	USEPA 8260	-	-	31
1,4-Dioxane	0.08	USEPA 8260	-	-	0.25
1,2,4-trimethylbenzene	0.08	USEPA 8260	-	-	2.6
n-propylbenzene	0.08	USEPA 8260	-	-	44
Styrene	0.08	USEPA 8260	-	-	44
Isopropylbenzene	0.08	USEPA 8260	-	-	18
Cyclohexane	0.08	USEPA 8260	-	-	260
2-Hexanone (MBK)	0.08	USEPA 8260	-	-	1.3
4-Methyl-2-pentanone	0.08	USEPA 8260	-	-	130
Methyl Ethyl Ketone	0.08	USEPA 8260	-	-	22
1,2,4-trichlorobenzene	0.08	USEPA 8260	-	-	0.088
1,4-dichlorobenzene	0.08	USEPA 8260	-	-	0.11
Chloroform	0.08	USEPA 8260	-	-	0.053
1,1,2,2-Tetrachloroethane (TeCA)	0.08	USEPA 8260	-	-	0.017
1,1,2-TCA	0.08	USEPA 8260	-	-	0.0077
CTC	0.08	USEPA 8260	-	-	0.02
1,2-dichloroethane (EDC)	0.08	USEPA 8260	-	-	0.0047
Mercury		XAD (lab)	-	-	0.0013[1]

Note: 1. Mercury compounds inclusive of elemental Mercury

7. Quality Assurance / Quality Control

Data quality indicators (DQIs) have been calculated as per the requirements of **Table 5.3** and are summarised in **Table 7.1** following. Laboratory reports are provided as **Appendix F**, with summarised QA/QC results presented in **Appendix E**.

Table 7.1: Summary of Quality Assurance / Quality Control Assessment

Data Quality Indicator	Frequency	Results Reported	DQI met
Precision			
Blind and split duplicates – soil	1/18	0-149 % RPD	See discussion below
Blind and split duplicates – vapour (carbon tubes)	1/8 (comparison against analysis of tube front)	0-85 % RPD	See discussion below
Accuracy			
Surrogate spikes – soil	All samples for organic constituent analysis	68-189 % recovery	See discussion below
Surrogate spikes –vapour	All samples for organic constituent analysis	88-103 % recovery	Yes
Laboratory control samples	-	65-179 % recovery	See discussion below
Matrix spikes	-	62-137 % recovery	See discussion below
Representativeness			
Sampling appropriate for media and analytes	All media	All sampling appropriate	Yes
Samples extracted and analysed within holding times.	Various	All samples extracted and analysed within holding times	Yes
Method blank	All analytes	<LOR	Yes
Trip blank (soil) Trip Spike (soil)	1/sampling event 1/sampling event	<LOR Recovery within 72-97%	Yes
Field Blank	Per media and sampling event	<LOR-detects	Yes
Leak detection (Vapour)	All samples	<10% leak detection compound concentration	Yes
Comparability			
Standard operating procedures for sample collection & handling	All samples	Standard procedures for all sampling	Yes
Standard analytical methods used for all analyses	All samples	Standard analytical methods	Yes
Consistent field conditions, sampling staff and laboratory analysis	All works	Consistent field staff and consistent field and laboratory conditions	Yes
Limits of reporting appropriate and consistent	All samples	LORs appropriate and generally consistent	Yes
Completeness			
Sample description and COCs completed and appropriate	All samples	Field documentation and COC provided and completed	Yes
Appropriate documentation	All works	Documentation provided and completed	Yes
Satisfactory frequency and result for QC samples	All samples	See discussion below	Yes
Data from critical samples is considered valid	-	Critical samples valid	Yes
Sensitivity			
Analytical methods and limits of recovery appropriate for media and adopted Site assessment criteria	All samples	LOR ≤ site assessment criteria	See discussion below

The results of QA/QC samples outside the acceptance criteria are discussed below.

7.1 Precision

Soil Duplicates

Soil blind and split duplicates were collected at a rate of greater than 1 per 20 primary samples for all class of compounds analysed. The resultant RPD's were largely within the preferred range with the exception of a limited number of heavy metals and TRH fractions, which is considered to be a result of the relatively low concentrations of the compounds reported in the samples and/or the difficulty in obtaining homogenous soil samples in relatively undisturbed sample types. As a conservative measure, the highest reported concentration of each constituent at each location will be considered when interpreting the results of the investigation.

Vapour Duplicates

Analysis of blind and split duplicate carbon tube vapour samples met the required frequency. The resultant RPD's were all within the preferred range with the exception of a limited number of samples where the results were relatively low. As a conservative measure, the highest reported concentration of each constituent at each location will be considered when interpreting the results of the investigation.

7.2 Accuracy

Surrogate Spikes

Soil and soil vapour surrogate spikes were conducted on all samples submitted for organic constituent analysis and most recoveries were reported within the preferred range (70-130 %). A small number of surrogates (in soil) were reported outside the preferred range, but largely within the laboratories acceptable limits (typically between 50 and 150 % recovery) under their NATA accreditation. In addition, where an individual surrogate recovery was outside the preferred range – the alternate surrogate (for each class of compounds) within the primary sample was within the preferred range. Most surrogate recoveries outside the preferred range related to phenol and PFAS analysis, which have a greater acceptable surrogate recovery range.

Elevated surrogate recoveries indicate the reported concentrations may potentially be greater than the actual concentrations, while low surrogate recoveries indicate the reported concentrations may potentially be less than the actual concentrations. Taking this into account it is considered that samples with slightly elevated or lower surrogate recoveries do not affect the reliability of the data for this investigation noting that the concentration of contaminants in the primary samples analysed were largely well below the adopted site assessment criteria.

Matrix Spikes

The number of matrix spikes analysed exceeded the required frequency of 1 in 20 samples for both soil analysis. The reported matrix spike recoveries were largely within JBS&G's preferred range (70-130 %). A small number of matrix spikes were reported outside the JBS&G acceptable range, but within the laboratories acceptable limits (typically between 50 and 150 % recovery) under their NATA accreditation. Therefore, matrix interference, in soil samples, is considered not to be significant with respect to the accuracy of the dataset.

Matrix spikes are not conducted for laboratory analysis of carbon tubes.

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7.3 Laboratory Control Samples

A sufficient number of laboratory control samples were analysed for all media types. The reported laboratory control sample recoveries were largely within the JBS&G preferred range (70-130 %). A small number of laboratory control samples (for PFAS and phenol compounds in water) were reported outside the JBS&G acceptable range, but largely within the laboratories acceptable limits (typically between 50 and 150 % recovery) under their NATA accreditation. On this basis, the limited number of laboratory control samples that were reported outside the preferred range are considered to not affect the outcomes of the assessment.

7.4 Representativeness

Sampling appropriate for media and analytes

All soil and soil vapour sampling works completed during the investigation were conducted in accordance with JBS&G standard operating procedures. Soil sampling was conducted with the advancement of boreholes, considered appropriate for the potential site chemical contaminants. It is noted that boreholes are not the preferred method of investigation for asbestos, but, given the site was mostly paved with concrete/asphalt and operational, it was considered the only practical method for completing the assessment. Sub-slab and soil vapour probes were correctly installed, sealed and leak detection was performed. The SKC Anasorb or XAD tubes used were appropriate for the COPCs. Flow rate and total volume for each sample was recorded.

Laboratory Blanks

There were no reported concentrations of contaminant compounds above the laboratory LOR in the laboratory method blanks for soil and soil vapour analysis.

Holding Times

The extraction and analysis all soil vapour and soil samples were completed within the recommended holding times for all analytes.

Trip Spike

A trip spike was submitted with each batch of soil samples. All trip spike recoveries were within the acceptable limit of 70-130 %, indicating that the adopted assessment sample preservation methods were appropriate to result in a low risk of contaminant concentration loss during transport of the samples.

Trip Blank

A trip blank was submitted with each batch of soil samples submitted to the laboratory. There were no reported concentrations of BTEX compounds above the laboratory LOR thus demonstrating the absence of significant contaminant cross contamination issues during the temporary storage and transportation of samples analysed during this investigation.

Rinsate

Rinsate samples were collected during the soil sampling sampling program. The reported concentration of all COPCs within the samples were below detection limits thus demonstrating that the sampling procedures did not result in the cross-contamination of samples.

Leak Detection

Leak detection was conducted on all soil vapour probes during sampling activities by firstly purging each probe with the gas detector. Following this an isopropyl soaked alcohol rag was placed around the base of each probe. PID readings were monitored and recorded. No significant leaks were identified by the PID during sampling.

Carbon Tube Blanks

Field carbon tube blanks with sample ID 'FB' were collected, in which all COPCs were reported at concentrations below detection limits. FB reflects an equipment blank in which ambient air was drawn through the sampling equipment to confirm no contamination from these sources.

7.5 Comparability

Eurofins (primary laboratory) and Envirolab (secondary laboratory) were NATA accredited for comparable methods of analysis. Field works have been undertaken by a team of experienced samplers in accordance with the same standard operating procedure. All field documentation was appropriately completed.

7.6 Completeness

Documentation

All documentation is complete and correct.

Frequency for QC Samples

Frequency of analysis for the QC samples is considered sufficient to meet the objectives of the assessment.

7.7 Sensitivity

The laboratory reporting limits are below the adopted criteria for each media assessed with the exception of a limited number of compounds in vapour (e.g. bromodichloromethane, HCBD). In such instances, a qualitative assessment was undertaken (based on a review of available information regarding the probability of that compound been present following results from other media as well as alteration of future management/remediation decisions) that identified a low potential for the respective compounds to be present at significant levels within the media in which the reporting limits were elevated and therefore the results do not affect the outcomes of the assessment.

7.8 QA/QC Assessment

The field sampling and handling procedures produced QA/QC results which indicate that the soil and soil vapour data are of an acceptable quality and suitable for use in site characterisation.

The NATA certified laboratory results sheets indicate that the project laboratory was generally achieving levels of performance within its recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program, the soil and soil vapour data are of an acceptable quality in order to achieve the objectives of the assessment.

8. Soil Assessment Results

The lithology encountered during the field works is summarised below. Borehole logs are included in **Appendix D**. A total of 8 shallow hand augers were completed at locations on-site (refer to **Figure 4**), in which deeper soil samples were collected from boreholes advanced as part of combined environmental and geotechnical investigations at 4 of these locations.

8.1 Field Observations

Fill materials were encountered at all sampling locations at depths ranging from 0.6 to 1.5 m bgs. The fill comprised of gravelly sands with varying levels of anthropogenic inclusions that included gravels, cobbles and building and demolition wastes (concrete, brick etc). there were no ACM fragments observed within soils sampled as part of investigation works. The fill materials were underlain by natural fine-grained sands (light yellow/brown and grey) to the maximum depth of the investigation (6 m bgs). Saturated soils were encountered at approximately 5 m bgs in deeper boreholes advanced as part of geotechnical investigations. There were no obvious signs (odours, staining, oily materials) of impact within the soils inspected during investigation works.

8.2 Analytical Results

Laboratory analysis results for soil samples collected for the investigation have been summarised in tables presented in **Appendix A**, with comments discussed below for the various analyte groups.

8.2.1 Heavy Metals

Heavy metal concentrations in all analysed samples were reported to be below the HIL-D criteria protective of human health. This included mercury, with levels predominantly ranging from 0.2 to 40 mg/kg, all below the HIL-D criterion of 730 mg/kg, which applies solely to inorganic mercury.

It is noted however, that mercury vapour was detected at locations BH3 and HA2, indicating the likely presence of significant levels of mercury in the soils at these locations. These levels have been assessed on the basis of soil vapour data as discussed further in **Section 9**. Elevated total mercury concentrations were reported in shallow soils at these locations, with a maximum concentration of 520 mg/kg recorded at HA2 (0.4–0.5 m depth). This exceeds the RBC criteria derived by EnRisks (2013), suggesting that mercury levels in the soils at this part of the site pose a potentially unacceptable health risk. The risk posed by mercury is discussed further in **Section 9.2.3**.

The elevated levels of mercury were further assessed to determine whether they present a potential ongoing risk of groundwater contamination. Additional leachability assessments (using ASLP and TCLP methods) were conducted on soils from these locations. The total mercury concentration in the leachate was reported at a maximum of 0.33 mg/L, substantially exceeding criteria protective of downgradient ecological receptors (ANZAST 2018 – 0.4 µg/L) and recreational exposures (0.01 mg/L).

8.2.2 Total Recoverable Hydrocarbons

TRH concentrations were reported to be below the laboratory LOR or less than the adopted health assessment criteria in all samples selected for analysis.

8.2.3 BTEX and Monocyclic Aromatic Hydrocarbons

All reported BTEX and monocyclic aromatic hydrocarbons were below the laboratory LOR or well below the adopted site assessment criteria (where available) in each analysed sample.

8.2.4 Volatile Chlorinated Hydrocarbons

Chlorinated hydrocarbons were detected in soils as follows:

- 1,1-DCA in saturated soils (4.0-4.1 m bgs) at location BH5 at a concentration of 1.4 mg/kg;
- PCE and TCE in soils throughout the assessed profile (i.e 0-6 m bgs) at location BH5 at concentrations up to 9.5 mg/kg and 0.9 mg/kg respectively; and
- PCE and TCE in shallow soils at location HA3 0.2-0.3 m at concentrations of 1.9 mg/kg and 1.4 mg/kg respectively.

Risks from these compounds are largely attributable to potential inhalation exposures. This has been discussed further in the soil vapour assessment presented as **Section 9.2.2**.

8.2.5 Phenols

All phenol concentrations were below the laboratory LOR and therefore below the adopted site assessment criteria in each analysed sample.

8.2.6 Polycyclic Aromatic Hydrocarbons

All total PAH and carcinogenic PAHs as B(a)P concentrations were below the laboratory LOR and therefore below the adopted site assessment criteria in each analysed sample.

8.2.7 PFAS Compounds

All PFAS compounds were reported at concentrations below the laboratory LOR or well below the adopted criteria in all samples selected for analysis.

8.2.8 OCPs

All reported concentrations of OCPs were below the laboratory LOR or well below the adopted site assessment criteria in each analysed sample. It is noted that low levels of hexachlorobenzene (0.3 mg/kg) were reported in shallow soils at BH2 0.5-0.6 m.

HCB was not assessed in soil vapour samples. However the actions ultimately recommended on the basis of the soil vapour constituents assessed will be protective of any HCB vapours that are also present.

8.2.9 PCBs

All total PCB concentrations were below the laboratory LOR or the adopted site assessment criteria in each analysed sample apart from (PCB) Arochlor 1254 as reported in sample HA1 1.4-1.5 at a concentration of 0.3 mg/kg.

8.2.10 Asbestos

Asbestos in the form of fragments of ACM were not reported to have been observed within material at any of the sampling locations. The laboratory analysis did not identify the presence of friable asbestos above the laboratory LOR (0.001 % w/w) or within trace analysis in all samples selected for analysis.

It is noted however, that bonded ACM fragments were identified on the ground surface in the south-eastern portion which pose a potential aesthetic issue. Moreover, it indicates the potential for additional ACM to be encountered during future construction works following the removal of all hardstand. As discussed in **Section 5.2**, boreholes as completed for soil investigations completed herein are not the preferred methodology for the assessment of asbestos given the relatively small volume of materials that can be inspected, but given the operational nature of the site, were considered the only practical means of collecting soil samples.

On the basis of the ACM observed, and the soil characteristics across the site, ACM is considered to be potentially present in surface / near-surface soils across the extent of the site.

9. Soil Vapour Assessment Results

Soil vapour sampling locations are presented on **Figure 5** and the results discussed in the Sections below.

9.1 Field Parameters

Oxygen levels were generally elevated (i.e. in the range from 17-20 %) in which methane was not reported above the instrument detection limits at any location. Low levels of carbon dioxide (i.e. < 3% v/v) were reported at most locations assessed. PID levels ranged from 0.1-9.6 ppm.

9.1.1 Draeger Mercury Screening Results

Each soil vapour probe was screened for the presence of mercury with Draeger tubes. In summary, the results were below detection limits with the exception of locations BH3 (0.8 mg/m^3) and HA2 (>2.0 mg/m^3). Re-sampling onto an XAD tube to allow lab analysis was undertaken following to confirm the screening results and are discussed further in **Section 9.2.3**.

9.2 Analytical Results

Soil vapour analytical data are presented in **Table C** as screened against the assessment criteria presented in **Section 6**.

9.2.1 Petroleum Hydrocarbons and Monocyclic Aromatic Hydrocarbons

All BTEX and monocyclic aromatic hydrocarbon compounds were reported at concentrations below the laboratory detection limits well below the adopted criteria. Low levels of BTEX compounds and/or other petroleum hydrocarbon compounds (e.g. trimethylbenzene) were reported at isolated locations across the site.

9.2.2 Chlorinated Hydrocarbons

Significant detections of chlorinated alkenes inclusive of PCE and TCE at levels exceeding the adopted criteria were reported at all locations (refer to **Figure 5**). The concentrations ranged from 1.3 to 33.9 mg/m^3 (PCE) and 0.2 to 29 mg/m^3 (TCE) respectively. The more elevated concentrations were reported in the northern portion (underlying the former solvents plant) and underlying the raised concrete slab in the south-eastern portion.

A range of other constituents have been identified as co-occurring with the chlorinated alkenes that included chlorinated alkanes (1,1,2-TCA, 1,2-DCA, CTC and 1,2-dibromo-3-chloropropane) as well as CFM, HCBD at levels exceeding the adopted screening criteria (in lieu of Australian guideline values for these constituents. These constituents were similarly largely identified in the northern portion at location BH5, with the exception of CFM which was identified across the extent of the site (at concentrations ranging from 0.1 to 1.4 mg/m^3).

It is noted that the NSW EPA screening levels for chlorinated hydrocarbons in soil vapour are based on a conservative soil to indoor attenuation factor of 10. No factor is applied to the US EPA criteria which are based on ambient air levels. The maximum factor that can typically be applied for a development like that proposed on the site is 1000. The use of this factor is noted as being required to be supported by a detailed health risk assessment (not completed for this site).

The environmental dataset has been reconsidered by using the alternate attenuation factor of 1000. Significant exceedances will still be present for TCE, chloroform and HCBD present in soil vapour. The locations of these exceedances comprise most of the site extent.

9.2.3 Mercury

Confirmatory laboratory analysis was completed at the two locations which reported positive detections of mercury vapour on the Draeger tube samples. Vapour samples were collected onto XAD tubes, in which the

corresponding laboratory results confirmed the presence of mercury in vapour at concentrations of 0.74 mg/m^3 (BH3) and 26 mg/m^3 (HA2) respectively (refer to **Table C**).

The maximum of these levels exceeds the US EPA Region 9 screening level based screening criterion by a factor exceeding 1000. This confirms that mercury vapour poses a potential unacceptable health risk via vapour intrusion / inhalation exposures within future buildings proposed on the site.

10. Refined Conceptual Site Model

A refined CSM has been developed following review of the results of the investigation and presented in **Table 10.1** below.

Table 10.1 – Refined CSM

Receptor	Location	Media	Potential Exposure Pathways	Commentary
On-site Receptors				
Future industrial users	Within Future Warehouse (i.e. the new Chlorine Liquefaction Plant)	Soils / Groundwater	Inhalation (vapours and gases)	This exposure pathway is potentially complete as a result of chlorinated hydrocarbon (including TCE, PCE, CTC, CFM and/or HCBD) and/or mercury impact in vapour which has been identified across the extent of the footprint in which the new Chlorine Liquefaction Plant is proposed (refer to **Figure 5**).
	Outdoor Areas (limited to the new Hypo Loading Bay in the northern portion)	Soils	Inhalation (particulates or vapours) Oral ingestion Dermal contact	This exposure pathway is not complete given that the surface will be covered in hardstand (thereby precluding direct contact exposures).
Construction worker or intrusive maintenance worker (short duration)	Construction areas/excavations	Soils	Inhalation (vapours, gases and particulates/fibres)	Potentially complete, as a result of chlorinated hydrocarbon and mercury impacts in site soils. Fragments of ACM were further identified on the ground surface in the south-eastern portion of the site – where it is noted that additional asbestos impacts may be encountered following removal of site hardstand during demolition and construction works.
		Groundwater	Inhalation (vapours and particulates/fibres) Oral (infiltrating seepage water) Dermal (infiltrating seepage water)	This exposure pathway has not been assessed directly herein. However, it should be assumed that the pathway is potentially complete as a result of chlorinated hydrocarbon and mercury impacts in groundwater underlying the site.

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Receptor	Location	Media	Potential Exposure Pathways	Commentary
Off-site Receptors[8]				
Recreational users of Penrhyn Estuary and Botany Bay	Surface waters downgradient of the site	Surface Water as potentially affected by site groundwater	Inhalation (vapours) Oral, Dermal, Ingestion	This exposure pathway has not been directly assessed in this report. However, as of the time of reporting, it is caused to be incomplete through the implementation of the BGC.
Off-site Commercial / Industrial users	Within buildings or outdoor areas.	Soils and/or groundwater	Inhalation (vapours, gases and particulates/fibres)	This exposure pathway is not complete based on current surrounding land-uses. Future land-uses which comprises construction of buildings in close proximity of the site may cause this exposure pathways to be complete in the future by potential lateral migration of vapours from the site.
Ecological Receptors within Penrhyn Estuary and Botany Bay	Surface waters downgradient of the site	Surface Water as potentially affected by site groundwater	Various	This exposure pathway has not been directly assessed in this report. However similarly for recreational uses of Penrhyn Estuary and Botany Bay is caused to be incomplete through the implementation of the BGC.

[8] As noted in Section 3.3, the discharge of CHCs via groundwater from BIP is currently regulated and controlled as part of BGC. As such, the assessment of potential risks to off-site receptors from impacted groundwater potentially migrating from the site will largely be restricted to contaminants/impacts sourced from historical activities on site and not those sourced and currently managed as part of BGC.

12. Site Characterisation

Based on the decision making process for assessing urban redevelopment sites detailed in EPA (2017) and discussed in **Section 5.1.5**, the decisions required to be made in order to satisfy the objectives of the assessment are discussed below.

12.1 Are there any unacceptable risks to likely future onsite receptors from soils?

Representative samples of fill material and natural soils within the site were analysed for a range of identified potential contaminants of concern including heavy metals, PAHs, TRH, BTEX, VOCs, SVOCs, OCP/PCBs, PFAS and asbestos. The reported concentrations of all contaminants in soil were below generic tier 1 health-based criteria applicable to commercial industrial land/use (HIL-D). Detections of several chlorinated hydrocarbons were reported indicating a potential for soil vapours.

Elevated total mercury concentrations were reported in shallow soils exceeding the RBC criteria previously derived by EnRisks (2013) for remediation of the FCAP.

ACM was identified across the site surface and considered likely to be present in surface / near-surface soils across the extent of the site.

There are no complete direct contact exposure pathways to impacted soils under the proposed land-use given the presence of hardstand that will extend across the site. However, inhalation exposure pathways are potentially complete and are discussed further in **Section 12.4**.

Appropriate management actions will be required during future construction works in order to mitigate risks from direct contact/ingestion/inhalation exposure pathways associated with chlorinated hydrocarbon, mercury and asbestos impacts in soils.

12.2 Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?

Soil contaminant concentrations in natural soils indicate there are likely no issues relating to local area background conditions that require consideration with respect to the suitability of the site. It is noted that natural soils at depth are impacted with chlorinated hydrocarbons that are currently managed as part of the BGC Project.

12.3 Are there any gross impacts in soils that could act as ongoing source materials to groundwater impact which in turn pose an unacceptable risk to future site or downgradient receptors?

As detailed in **Sections 8** and **10**, there are localised mercury impacts in soils (nearby Depot 60) that exceed the RBC criteria derived by EnRisks (2013) that is protective of groundwater. Mercury has been confirmed as leachable at elevated concentrations within unsaturated soils in this area. The most recent groundwater monitoring data in the downgradient monitoring well (WG212) in close proximity to Depot 60, indicates that the site is unlikely to be contributing to significant mercury impacts in groundwater at BIP.

As such, during redevelopment of the site, it is recommended that the impacted soils are retained near the surface below hardstand (as proposed across the extent of the site) to mitigate the potential for leaching of materials to affect groundwater. It is considered that source removal works are not warranted on the basis of the potential to improve groundwater quality.

12.4 Are there any potential vapours within unsaturated media that could present an unacceptable risk to future site receptors?

As detailed in **Sections 9** and **10**, significant detections of chlorinated hydrocarbons and mercury have been reported in soil vapour at the site. The complete site extent is impacted with one or a mix of these compounds at levels which exceed a criteria that would likely be derived by a future health risk assessment (if undertaken). The maximum levels of constituents in soil vapour will pose a potential unacceptable health risk to future occupants of a building constructed on the site.

The soil vapour impacts will require management / remediation to address potential inhalation exposures via vapour intrusion into the future warehouse containing the new Chlorine Liquefaction Plant.

12.5 Are there any impacts of chemical mixtures?

There were no potential chemical mixtures identified during the investigation that may pose a management issue at the site. Combinations of constituents were identified in vapour however that may cause additive effects to increase risk which will require consideration when developing an appropriate remedial strategy for the site.

12.6 Are there any aesthetic issues at the site?

The presence of ACM fragments on the site surface in the south-eastern portion will require management during site redevelopment to address potential aesthetic issues. It was considered likely that ACM is present across the extent of the site. It is noted that the site surface (0.0-0.1 m bgs) of the redeveloped site will require to be free of visible asbestos.

12.7 Is there any evidence of, or potential for, migration of contaminants from the site?

There were no significant impacts in site soils that are potentially causing ongoing risks to groundwater that is currently not been managed as part of the BGC.

Contaminants in soil vapour on site do not pose a risk to current receptors surrounding the site.

As the site will be completely covered in hardstand, there is low risk that impacts within site soils will migrate from the site through the generation of windblown dusts or surface water erosion. During future construction activities, standard asbestos/dust/odour suppression practices and sediment/erosion controls will require to be implemented to minimise the risk of contaminants in soils migrating from the site when additional soils are exposed.

12.8 Is a site management strategy required?

Based on the findings of this investigation, and subject to the limitations in **Section 14,** the following actions are considered warranted as part of the construction of the new Chorine Liquefaction Plant at the site:

- A Remedial Action Plan (RAP) is required to be prepared for the site to address the following:
    - Asbestos impacts on the site surface posing a potential aesthetic and occupational safety issue.
    - Mercury and chlorinated hydrocarbon impacts in soil vapour posing a potentially unacceptable health risk (via vapour intrusion) to future site users.

An Unexpected Find Protocol (UFP) is further recommended to be included in the RAP that will be required to be implemented during future civil and construction works on the site. The UFP will be required to document the procedures/protocols to be followed in situations where potential contamination is encountered that was not identified herein.

13. Conclusions and Recommendations

Based on the findings of this investigation and subject to the limitations presented in **Section 14**, JBS&G concludes the following:

- ACM impacts have been identified in surface soils and are potentially present at surface / near surface depths across the extent of the site;
- The maximum levels of mercury and a range of chlorinated hydrocarbons present in soil vapour will pose a potential vapour intrusion risk to potential occupants of a building constructed on the site in the future; and
- A Remedial Action Plan (RAP) is required to be prepared for the site to address the following;
    - Asbestos impacts on the site surface posing a potential aesthetic and occupational safety issue; and
    - Mercury and chlorinated hydrocarbon impacts in soil vapour posing a potentially unacceptable health risk (via vapour intrusion) to future site users.

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14. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

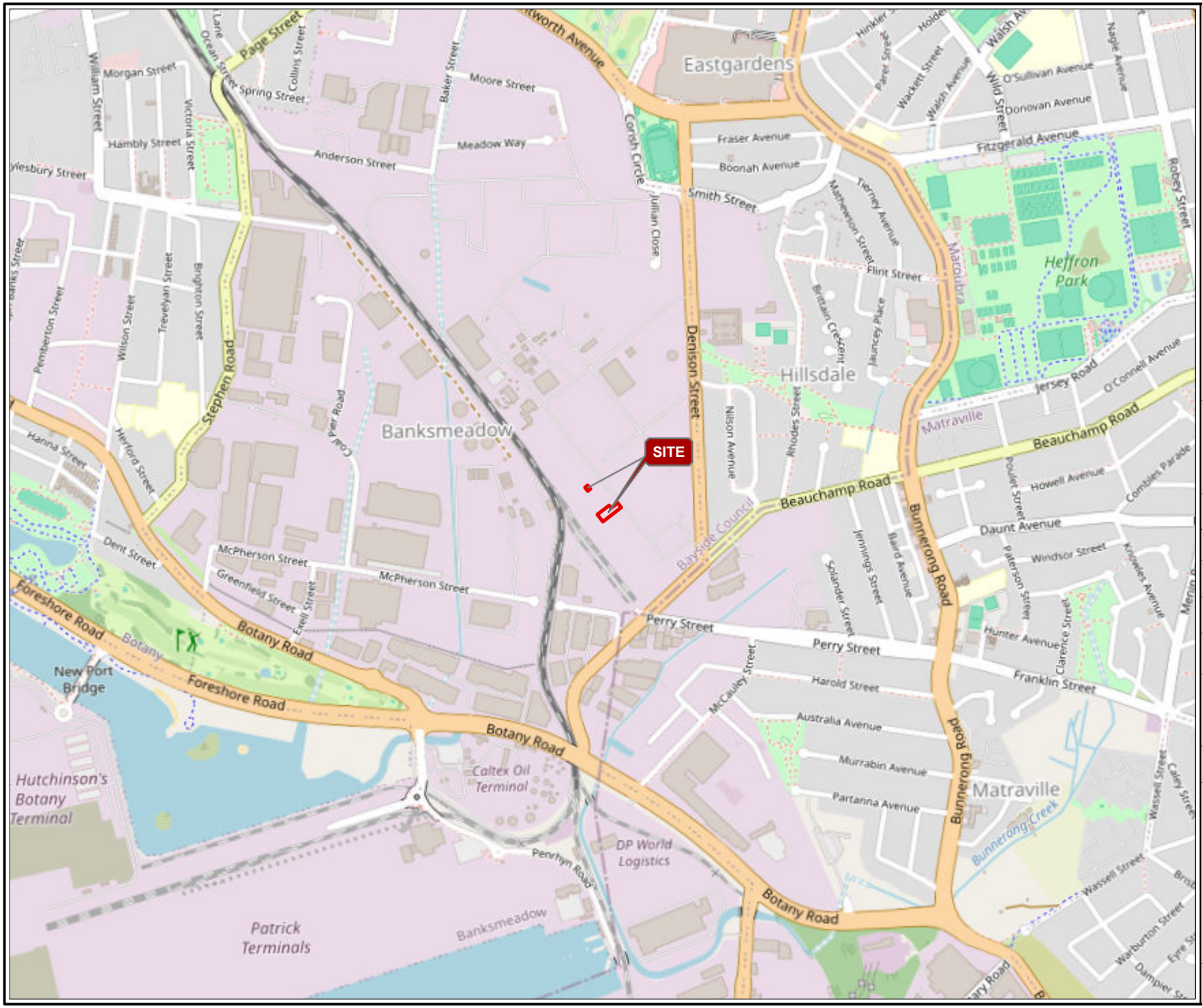
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Site Figures



Legend

Approximate Site Boundary

JBS&G

Job No: 67817	
Client: IXOM	
Version: R01 Rev A	Date 21/11/2024
Drawn By: RF	Checked By: CB

Scale 1:15,000

0 150 300

metres

Coord. Sys. GDA2020 MGA Zone 56

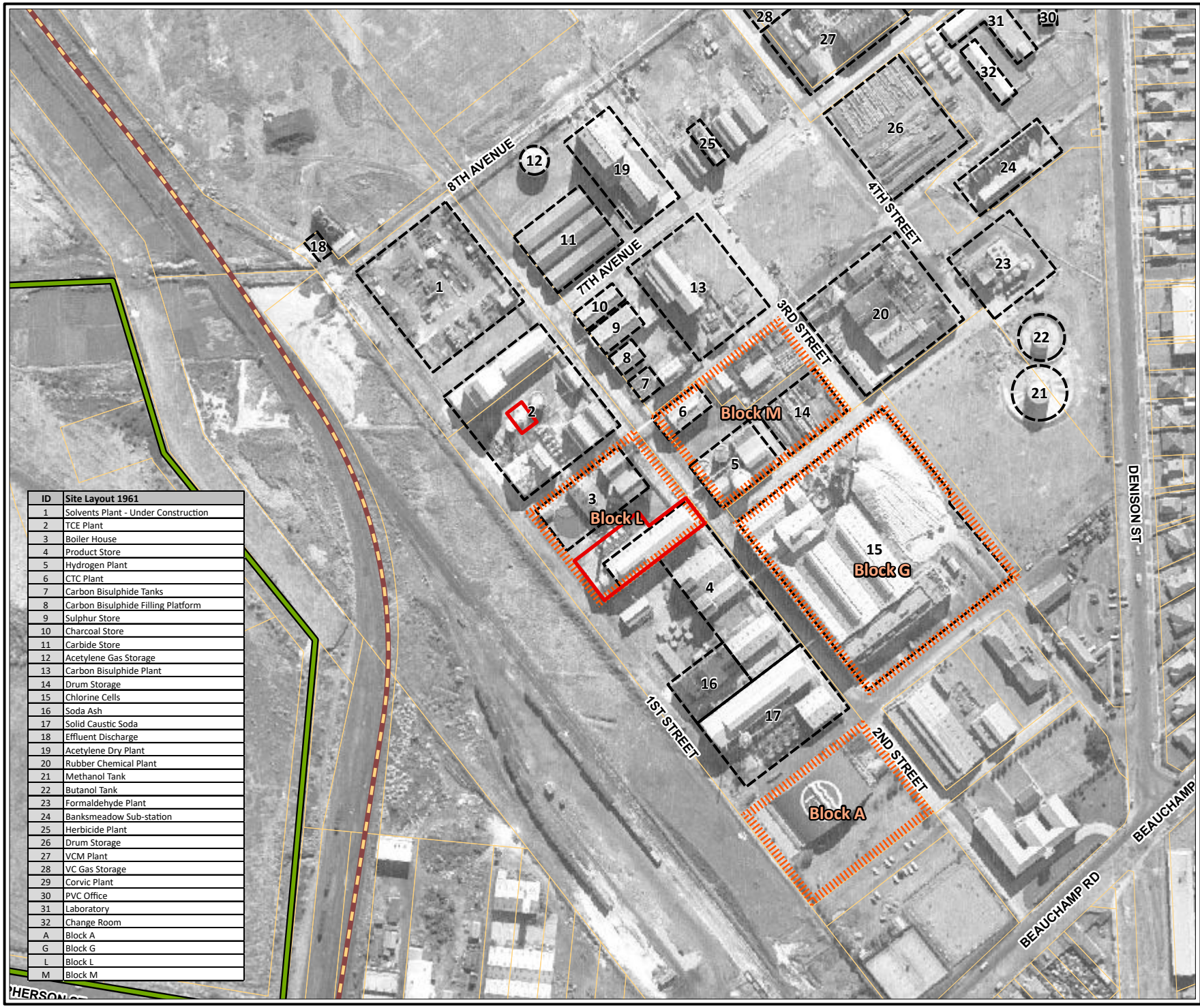
Botany BIP DSI, NSW

SITE LOCATION

FIGURE 1

File Name: 67817_BIP_DSI_R01_RevA

Reference: © OpenStreetMap (and) contributors, CC-BY-SA



ID	Site Layout 1961
1	Solvents Plant - Under Construction
2	TCE Plant
3	Boiler House
4	Product Store
5	Hydrogen Plant
6	CTC Plant
7	Carbon Bisulphide Tanks
8	Carbon Bisulphide Filling Platform
9	Sulphur Store
10	Charcoal Store
11	Carbide Store
12	Acetylene Gas Storage
13	Carbon Bisulphide Plant
14	Drum Storage
15	Chlorine Cells
16	Soda Ash
17	Solid Caustic Soda
18	Effluent Discharge
19	Acetylene Dry Plant
20	Rubber Chemical Plant
21	Methanol Tank
22	Butanol Tank
23	Formaldehyde Plant
24	Banksmeadow Sub-station
25	Herbicide Plant
26	Drum Storage
27	VCM Plant
28	VC Gas Storage
29	Corvic Plant
30	PVC Office
31	Laboratory
32	Change Room
A	Block A
G	Block G
L	Block L
M	Block M

Legend

- Approximate Site Boundary
- NSW Cadastre

Site Features

- Site Layout 1961
- Site Layout - Blocks A, G, L, M
- Southlands
- Sydney to Botany Goods Railway Line

JBS&G

Job No: 67817

Client: IXOM

Version: R01 Rev A | Date 21/11/2024

Drawn By: RF | Checked By: CB

Scale 1:2,750

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metres

Coord. Sys. GDA2020 MGA Zone 56

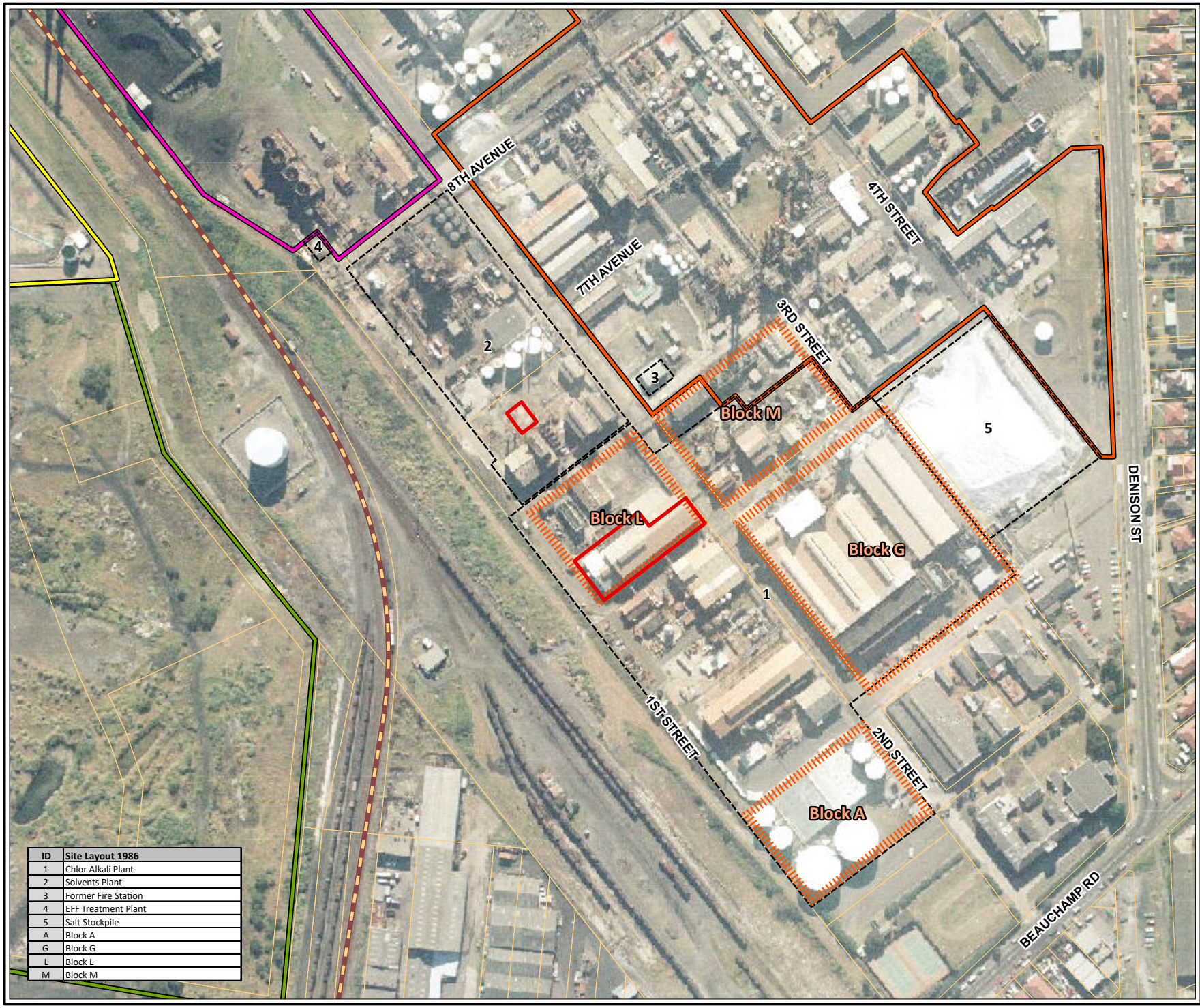
BIP DSI
Botany, NSW

SITE LAYOUT AND SURROUNDING LAND-USE (1961)

FIGURE 2A

File Name: 67817_BIP_DSI_R01_RevA

Reference: NSW Government | Copyright © Spatial Services 2024



ID	Site Layout 1986
1	Chlor Alkali Plant
2	Solvents Plant
3	Former Fire Station
4	EFF Treatment Plant
5	Salt Stockpile
A	Block A
G	Block G
L	Block L
M	Block M

Legend

- Approximate Site Boundary
- NSW Cadastre

Site Features

- Site Layout 1986
- Site Layout - Blocks A, G, L, M
- Nant Street Tank Farm
- Site Utilities
- Southlands
- Surfectants Plant
- Sydney to Botany Goods Railway Line

JBS&G

Job No: 67817

Client: IXOM

Version: R01 Rev A	Date 21/11/2024
Drawn By: RF	Checked By: CB

Scale 1:2,750

0 25 50

metres

Coord. Sys. GDA2020 MGA Zone 56

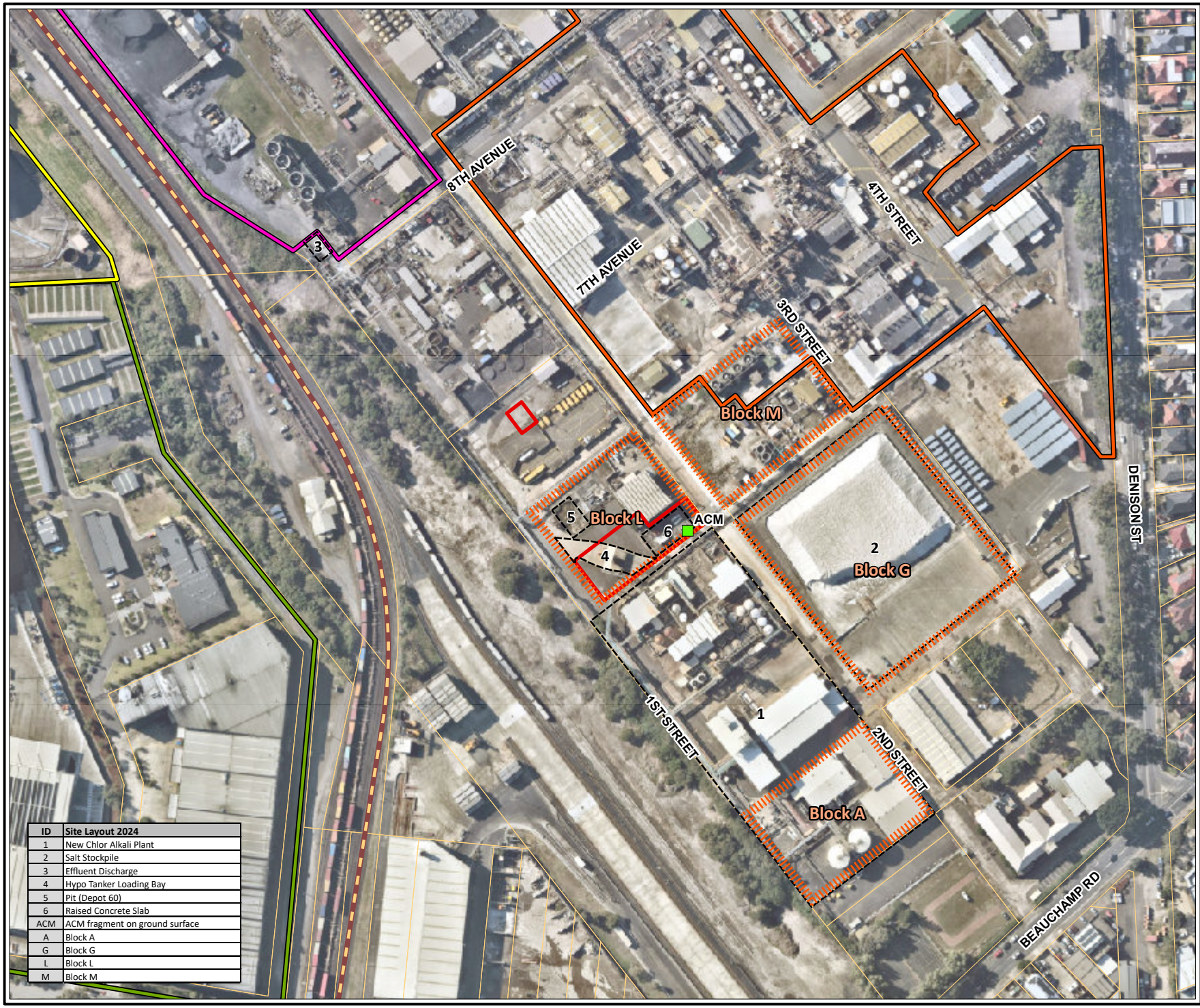
BIP DSI
Botany, NSW

SITE LAYOUT AND SURROUNDING LAND-USE (1986)

FIGURE 2B

File Name: 67817_BIP_DSI_R01_RevA

Reference: NSW Government | Copyright © Spatial Services 2024



ID	Site Layout 2024
1	New Chlor Alkali Plant
2	Salt Stockpile
3	Effluent Discharge
4	Hypo Tanker Loading Bay
5	Pit (Depot 60)
6	Raised Concrete Slab
ACM	ACM fragment on ground surface
A	Block A
G	Block G
L	Block L
M	Block M

Legend

- Approximate Site Boundary
- NSW Cadastre

Site Features

- Site Layout 2024
- Site Layout - Blocks A, G, L, M
- ACM Fragment
- Nant Street Tank Farm
- Site Utilities
- Southlands
- Surfectants Plant
- Sydney to Botany Goods Railway Line

JBS&G

Job No: 67817

Client: IXOM

Version: R01 Rev A | Date 21/11/2024

Drawn By: RF | Checked By: CB

Scale 1:2,750

0 25 50

metres

Coord. Sys. GDA2020 MGA Zone 56

BIP DSI
Botany, NSW

SITE LAYOUT AND SURROUNDING LAND-USE (2024)

FIGURE 2C

File Name: 67817_BIP_DSI_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 20240921)



Legend

- Approximate Site Boundary
- NSW Cadastre

Areas of Environmental Concern

- AEC 1 - Whole of Site
- AEC 2 - Pit (Depot 60)
- AEC 3a - Block G
- AEC 3b - Block M
- AEC 3c - Block A
- AEC 3d - CTC Plant
- AEC 3e - Solvents Plant

JBS&G

Job No: 67817	
Client: IXOM	
Version: R01 Rev A	Date 21/11/2024
Drawn By: RF	Checked By: CB

Scale 1:2,750

0 25 50

metres

Coord. Sys. GDA2020 MGA Zone 56

BIP DSI
Botany, NSW

AREAS OF POTENTIAL CONTAMINATION

FIGURE 3

File Name: 67817_BIP_DSI_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 20240921)



Legend

- Approximate Site Boundary
- NSW Cadastre

Areas of Environmental Concern

- AEC 1 - Whole of Site
- AEC 2 - Pit (Depot 60)
- AEC 3a - Block G
- AEC 3b - Block M
- AEC 3c - Block A
- AEC 3d - CTC Plant
- AEC 3e - Solvents Plant

Soil Sample Location

- Borehole
- Hand Auger
- ACM Fragment

JBS&G

Job No: 67817	
Client: IXOM	
Version: R01 Rev A	Date 21/11/2024
Drawn By: RF	Checked By: CB

Scale 1:1,250

0 10 20
metres

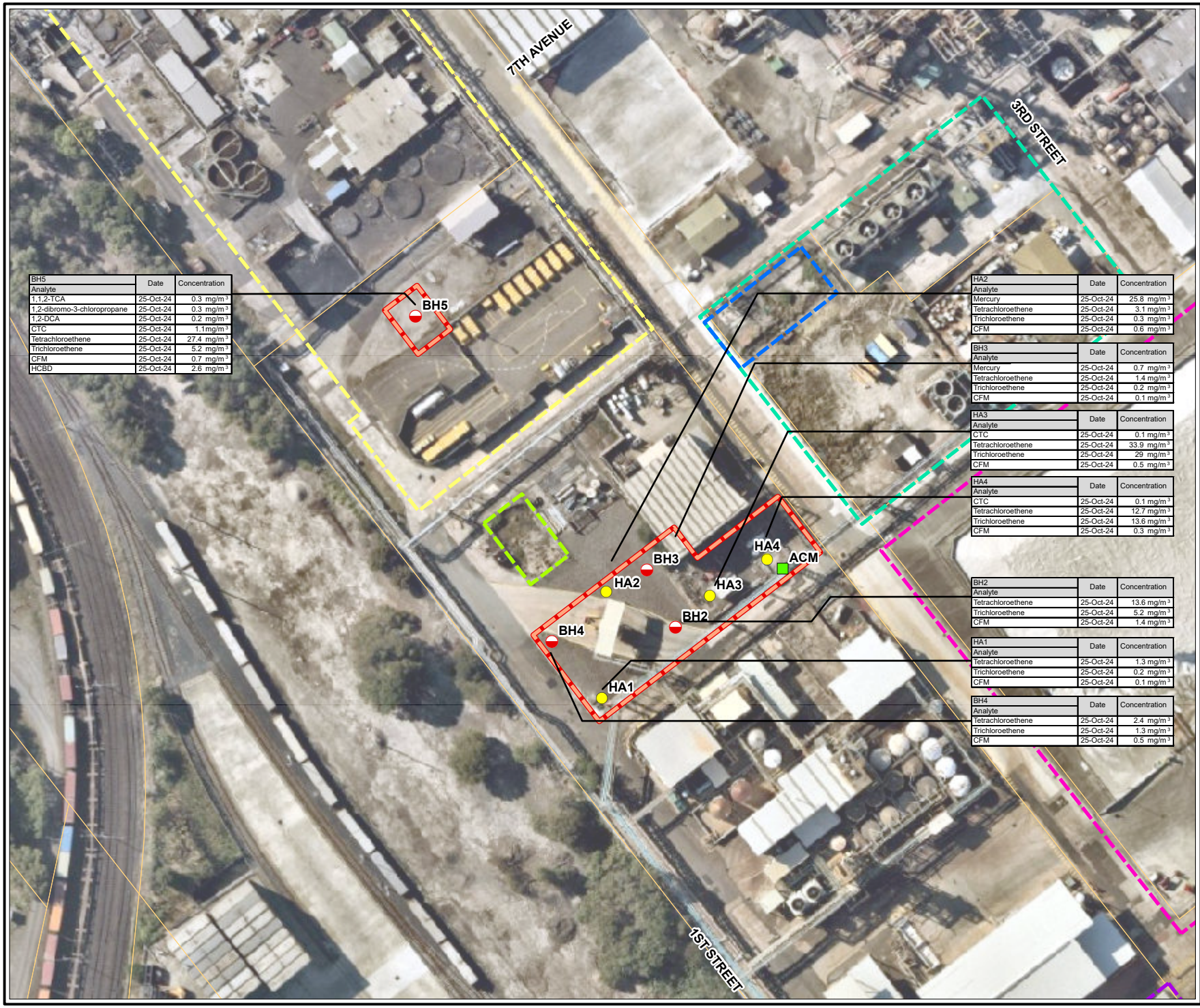
Coord. Sys. GDA2020 MGA Zone 56

BIP DSI
Botany, NSW

SAMPLE LOCATIONS - SOIL VAPOUR

FIGURE 4

File Name: 67817_BIP_DSI_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 20240921)



BH5	Date	Concentration
Analyte		
1,1,2-TCA	25-Oct-24	0.3 mg/m³
1,2-dibromo-3-chloropropane	25-Oct-24	0.3 mg/m³
1,2-DCA	25-Oct-24	0.2 mg/m³
CTC	25-Oct-24	1.1mg/m³
Tetrachloroethene	25-Oct-24	27.4 mg/m³
Trichloroethene	25-Oct-24	5.2 mg/m³
CFM	25-Oct-24	0.7 mg/m³
HCBD	25-Oct-24	2.6 mg/m³

HA2	Date	Concentration
Analyte		
Mercury	25-Oct-24	25.8 mg/m³
Tetrachloroethene	25-Oct-24	3.1 mg/m³
Trichloroethene	25-Oct-24	0.3 mg/m³
CFM	25-Oct-24	0.6 mg/m³

BH3	Date	Concentration
Analyte		
Mercury	25-Oct-24	0.7 mg/m³
Tetrachloroethene	25-Oct-24	1.4 mg/m³
Trichloroethene	25-Oct-24	0.2 mg/m³
CFM	25-Oct-24	0.1 mg/m³

HA3	Date	Concentration
Analyte		
CTC	25-Oct-24	0.1 mg/m³
Tetrachloroethene	25-Oct-24	33.9 mg/m³
Trichloroethene	25-Oct-24	29 mg/m³
CFM	25-Oct-24	0.5 mg/m³

HA4	Date	Concentration
Analyte		
CTC	25-Oct-24	0.1 mg/m³
Tetrachloroethene	25-Oct-24	12.7 mg/m³
Trichloroethene	25-Oct-24	13.6 mg/m³
CFM	25-Oct-24	0.3 mg/m³

BH2	Date	Concentration
Analyte		
Tetrachloroethene	25-Oct-24	13.6 mg/m³
Trichloroethene	25-Oct-24	5.2 mg/m³
CFM	25-Oct-24	1.4 mg/m³

HA1	Date	Concentration
Analyte		
Tetrachloroethene	25-Oct-24	1.3 mg/m³
Trichloroethene	25-Oct-24	0.2 mg/m³
CFM	25-Oct-24	0.1 mg/m³

BH4	Date	Concentration
Analyte		
Tetrachloroethene	25-Oct-24	2.4 mg/m³
Trichloroethene	25-Oct-24	1.3 mg/m³
CFM	25-Oct-24	0.5 mg/m³

Legend

- Approximate Site Boundary
- NSW Cadastre

Areas of Environmental Concern

- AEC 1 - Whole of Site
- AEC 2 - Pit (Depot 60)
- AEC 3a - Block G
- AEC 3b - Block M
- AEC 3c - Block A
- AEC 3d - CTC Plant
- AEC 3e - Solvents Plant

Soil Sample Location

- Borehole
- Hand Auger
- ACM Fragment

NOTE: Exceedances - Tier 1 Screening Criteria

JBS&G

Job No: 67817

Client: IXOM

Version: R01 Rev A | Date 21/11/2024

Drawn By: RF | Checked By: CB

Scale 1:1,250

0 10 20

metres

Coord. Sys. GDA2020 MGA Zone 56

BIP DSI
Botany, NSW

SAMPLE LOCATIONS - SOIL VAPOUR

FIGURE 5

File Name: 67817_BIP_DSI_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 20240921)

Appendix A Data Tables

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TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN						
				Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene_VOC
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				2	0.4	1	1	1	0.1	1	1	20	20	50	50	50	20	50	100	100	50	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil				3,000	900	3,600	240,000	1,500	730	6,000	400,000																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																						260		3					230	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																						370		3						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																	700	1,000	3,500	10,000										
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																														
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																														
PFAS NEMP 2020 Table 3 Interim EDE All land uses																														
PFAS NEMP 2020 Table 3 Interim EIE All land uses																														
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																											
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	**2.2**	<0.4	**27**	**18**	**150**	**43**	**9.3**	**83**	<20	<20	**93**	**56**	**149**	<20	<50	**140**	<100	**140**	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	**2.2**	<0.4	**6.2**	**21**	**67**	**28**	**7**	**83**	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	**3.8**	<0.4	**18**	**35**	**110**	**63**	**13**	**150**	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	**2.1**	<0.4	<5	<5	<5	**0.6**	<5	**5.4**	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<2	<0.4	<5	**9.5**	**55**	**6.7**	**7.4**	**63**	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	**3.8**	**0.4**	**41**	**270**	**250**	**15**	**110**	**710**	<20	<20	**95**	<50	**95**	<20	<50	**120**	<100	**120**	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	**2**	<0.4	**5.9**	**19**	**370**	**1**	**11**	**180**	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	<2	<0.4	<5	<5	<5	<0.1	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	**2.1**	<0.4	<5	<5	**41**	**0.8**	<5	**18**	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	<2	<0.4	<5	<5	**12**	**0.2**	<5	**7.1**	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<2	<0.4	**5.3**	**33**	**69**	**6.3**	<5	**66**	<20	<20	**350**	**410**	**760**	<20	<50	**700**	**200**	**900**	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	**2.1**	<0.4	**6.5**	**14**	**40**	**2.6**	<5	**97**	<20	<20	**91**	**79**	**170**	<20	<50	**150**	<100	**150**	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	**2**	<0.4	<5	**9.7**	**70**	**5.5**	<5	**95**	<20	<20	**82**	<50	**82**	<20	<50	**120**	<100	**120**	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<4	<0.4	**3**	**6**	**62**	**5.6**	**3**	**40**	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1
HA2_0-0.1	Soil	24 Oct 2024	1154010	**5.8**	<0.4	**16**	**62**	**450**	**190**	**42**	**250**	<20	<20	**93**	**60**	**153**	<20	<50	**130**	<100	**130**	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	**3.3**	**0.5**	**15**	**47**	**200**	**520**	**33**	**260**	<20	<20	**77**	**71**	**148**	<20	<50	**130**	<100	**130**	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<2	**2.5**	**7.3**	**11**	**30**	**0.8**	**9.8**	**44**	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	<2	<0.4	<5	<5	<5	<1	**7.1**	<5	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<2	<0.4	<5	<5	**6.7**	<1	<5	**8.9**	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	<2	<0.4	<5	<5	<5	<1	<5	**7.8**	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				PAH																								
				PAHs (Sum of positives)	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	2-(acetylamino) fluorene
				µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				50	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.05	0.5	0.5	0.2	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil													40													4,000	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																												
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																												
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																												
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																												
PFAS NEMP 2020 Table 3 Interim EDE All land uses																												
PFAS NEMP 2020 Table 3 Interim EIE All land uses																												
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																									
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<50	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.5
HA2_0-0.1	Soil	24 Oct 2024	1154010	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				Organochlorine Pesticides																											
				Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Mirex	Toxaphene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil				660								45	530					3,600				100			50		80	2,500	100	160
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																														
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																														
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																														
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																														
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																														
PFAS NEMP 2020 Table 3 Interim EDE All land uses																														
PFAS NEMP 2020 Table 3 Interim EIE All land uses																														
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																											
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.28**	<0.05	-	<0.5
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<10
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.5
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	-	<10
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<10
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.5
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	-
HA2_0-0.1	Soil	24 Oct 2024	1154010	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	-	-
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<10
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<10
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.5
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				Organophosphorus Pesticides																						
				Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethyl methanesulfonate	Fenitrothion	Fenthion	Malathion	Methidathion	Methyl parathion	Mevinphos (Phosdrin)	Phorate	Ronnel	Safrole	Fenamiphos	Parathion
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil						2,000																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																									
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																									
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																									
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																									
PFAS NEMP 2020 Table 3 Interim EDE All land uses																									
PFAS NEMP 2020 Table 3 Interim EIE All land uses																									
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																						
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5
HA2_0-0.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				Chlorinated Alkanes																				Chlorinated Alkenes											
				1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Hexachloroethane	Pentachloroethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																			
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																			
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																			
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																																			
PFAS NEMP 2020 Table 3 Interim EDE All land uses																																			
PFAS NEMP 2020 Table 3 Interim EIE All land uses																																			
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																																
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	**3.9**	<0.5	<0.5	**0.7**	<0.5
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	**9.5**	<0.5	<0.5	**0.9**	<0.5
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	<0.5	<0.5	<0.5	<0.5	**1.4**	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	**1.1**	<0.5	<0.5	<0.5	<0.5
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	**8.2**	<0.5	<0.5	**0.8**	<0.5
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
HA2_0-0.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	**1.9**	<0.5	<0.5	**1.4**	<0.5
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				Semivolatile Organic Compounds																																			
				1-Chloronaphthalene	2-Chloronaphthalene	Bis(2-chloroethoxy) methane	Hexachloropropene	Dibenz(a,j)acridine	Acetophenone	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl) ether	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	2,6-dinitrotoluene	2-Picoline	4-Aminobiphenyl	N-Nitrosomorpholine	N-Nitrosopiperidine	2-methyl-5-nitroaniline	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	1-Naphthylamine	2-Naphthylamine	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	Azobenzene	Diphenylamine	Carbazole	Butyl benzyl phthalate	Dibenzofuran	Isosafrole	Methapyriene	Phenacetin
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	1	0.5	0.5	1	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	1	0.5	0.5	2	1	1
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																							
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																							
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																							
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																																							
PFAS NEMP 2020 Table 3 Interim EDE All land uses																																							
PFAS NEMP 2020 Table 3 Interim EIE All land uses																																							
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																																				
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	-	-
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<2	<2	<1	<1	-	<1	-	<1	<1	-	-	-
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	-	-
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<2	<2	<1	<1	-	<1	-	<1	<1	-	-	-
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<2	<2	<1	<1	-	<1	-	<1	<1	-	-	-
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<2	<2	<1	<1	-	<1	-	<1	<1	-	-	-
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	-	-
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<0.5	<0.5	<1	<0.5	-	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<2	<1	<1
HA2_0-0.1	Soil	24 Oct 2024	1154010	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<2	<2	<1	<1	-	<1	-	<1	<1	-	-	-
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<2	<2	<1	<1	-	<1	-	<1	<1	-	-	-
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<1	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1	<1	<2	<2	<1	<1	-	<1	-	<1	<1	-	-	-
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	-	-
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	-	-
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<1	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	-	-

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

									Polychlorinated Biphenyls								Phenols										
									Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3&4-Methylphenol (m&p-cresol)	4,6-Dinitro-2-methylphenol	4-Chloro-3-Methylphenol	4-nitrophenol	Phenol
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.2	0.5	0.4	5	1	5	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																7											240,000
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																											
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																											
PFAS NEMP 2020 Table 3 Interim EDE All land uses																											
PFAS NEMP 2020 Table 3 Interim EIE All land uses																											
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																								
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<1	<5	<0.5
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<1	<5	<0.5
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<1	<1	<5	<1	<5	<2
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<1	<5	<0.5
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<1	<1	<5	<1	<5	<2
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<1	<1	<5	<1	<5	<2
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<1	<1	<5	<1	<5	<2
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<1	<5	<0.5
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	**0.3**	<1	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<1	<10	<5	<10	<0.5
HA2_0-0.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<1	<1	<5	<1	<5	<2
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<1	<1	<5	<1	<5	<2
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<1	<1	<5	<1	<5	<2
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<1	<5	<0.5
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<1	<5	<0.5
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	<0.5	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<1	<5	<0.5

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				PFAS																																					
				Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of WA DWER PFAS (n=10)*	Sum of PFAS	Perfluorononanesulfonic acid ion
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/KG	mg/kg	mg/kg
EQL				0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0005	0.0005	0.0005	0.0005	0.005	0.001	0.001	0.001	0.001	0.005	0.0002	0.0002	0.005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0002	0.0002	0.0001	0.005	0.0001	0.01	0.0001	0.005
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																								
PFAS NEMP 2020 Table 2 Health Industrial/Commercial								50																20		20						20							
PFAS NEMP 2020 Table 3 Interim EDE All land uses								10																		1													
PFAS NEMP 2020 Table 3 Interim EIE All land uses																										0.01													
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																																						
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.0002	<0.0002	-	<0.0001	<0.0001	<0.0001	<0.0001	**0.0001**	<0.0002	<0.0001	<0.0001	<0.0002	<0.0002	**0.0001**	-	**0.0001**	-	**0.0001**	-
HA2_0-0.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				MAH											Miscellaneous Hydrocarbons							Chlorinated Benzenes											Trihalomethanes				Herbicides & Fungicides			Phthalates					Nitrobenze	
				1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2,3,4-tetrachlorobenzene	1,2,3,5-tetrachlorobenzene	1,2,3-trichlorobenzene	1,2,4,5-tetrachlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3,5-trichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Pentachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Dinoseb	Pronamide	Trifluralin	Bis(2-ethylhexyl) phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	1,3-dinitrobenzene	Nitrobenzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	1	1	1	1	0.5	1	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	10	0.5	0.5	5	0.5	0.5	0.5	0.5	1	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																													
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																												
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																												
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																												
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																																												
PFAS NEMP 2020 Table 3 Interim EDE All land uses																																												
PFAS NEMP 2020 Table 3 Interim EIE All land uses																																												
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																																											
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	-	<0.5
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	-	<0.5
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<5	<1	<1	<1	<1	-	<1
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	-	<0.5
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<5	<1	<1	<1	<1	-	<1
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<5	<1	<1	<1	<1	-	<1
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<5	<1	<1	<1	<1	-	<1
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	-	<0.5
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	-	-	-	<0.5	-	<1	-	<0.5	<0.5	-	<0.5	<0.5	<1	<0.5	<1	<1	<1	<1	<10	-	-	<5	<1	<1	<5	<1	<1	<1
HA2_0-0.1	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<5	<1	<1	<50	<1	-	<1
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<5	<1	<1	<5	<1	-	<1
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<5	<1	<1	<1	<1	-	<1
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	-	<0.5
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	-	<0.5
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	-	<0.5

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

	nes
	Pentachloronitrobenzene
	mg/kg
EQL	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m	
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil	
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil	
PFAS NEMP 2020 Table 2 Health Industrial/Commercial	
PFAS NEMP 2020 Table 3 Interim EDE All land uses	
PFAS NEMP 2020 Table 3 Interim EIE All land uses	

Field ID	Matrix Type	Date	Lab Report Number	
BH2_0-1.0	Soil	23 Oct 2024	1154010	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<0.5
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	<0.5
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<1
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<0.5
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<1
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<1
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	<1
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<0.5
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	<1
HA2_0-0.1	Soil	24 Oct 2024	1154010	<1
HA2_0-0.5	Soil	24 Oct 2024	1154010	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<1
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<1
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5
HA4_0-1.0	Soil	24 Oct 2024	1154010	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<0.5
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5

TABLE A- Soil Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

				Nitrotoluenes	Anilines					Organic Sulfur Compounds	Organic Alcohols	Asbestos - Eurofins															Asbestos - Envirolab				Chlorinated Hydrocarbons		Halogenated Benzenes		Solvents		
				2,4-dinitrotoluene	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	Aniline	Carbon disulfide	Benzyl Alcohol	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	Asbestos Reported Result	Asbestos FA & AF in Soil	Asbestos ID in Soil	Total Asbestos	Asbestos (ACM >7mm) Estimation	Asbestos in soil (<2mm AF/FA) (%w/w)	Hexachlorocyclopentadiene	Hexachlorobutadiene	1,2,3,5 & 1,2,4,5 Tetrachlorobenzene	Phosalone	Acetone	Isophorone	Benzyl chloride
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	g	g	g	% (w/w)	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	% (w/w)	g/kg	g/kg	% (w/w)	% (w/w)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	1	1	1	1	0.5	0.5	1																						1	0.5	1	0.5	0.5	1	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 0-1m																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand, 1-2m																																						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																						
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil															0.05												0.001			0.05	0.001							
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																																						
PFAS NEMP 2020 Table 3 Interim EDE All land uses																																						
PFAS NEMP 2020 Table 3 Interim EIE All land uses																																						
Field ID	**Matrix Type**	**Date**	**Lab Report Number**																																			
BH2_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	**830**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	-	-	-	-	-	-	-	-	-	-	-
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	<0.5	<1	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.5	-	-	<0.5	-	<0.5
BH2_0.5-0.6	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2_1.0-1.2	Soil	23 Oct 2024	1154010	<0.5	<1	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.5	-	-	<0.5	-	<0.5
BH2_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH2_5.0-5.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH3_0-0.65	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	**738**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**0**	-	-	-	-	-	-	-	-	-	-	-
BH3_0.5-0.6	Soil	23 Oct 2024	1154010	<1	<1	-	-	-	<1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	<0.5	-	<1
BH3_3.0-3.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH3_5.0-5.1	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH3_5.9-6.0	Soil	25 Oct 2024	1154010	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH4_0-1.0	Soil	23 Oct 2024	1154010	-	-	-	-	-	-	-	-	**840**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	-	-	-	-	-	-	-	-	-	-	-
BH4_0.9-1.0	Soil	23 Oct 2024	1154010	<0.5	<1	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.5	-	-	<0.5	-	<0.5
BH4_2.0-2.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH4_4.0-4.1	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH5_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<1	-	-	-	<1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	<0.5	-	<1
BH5_1.0-1.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH5_2.0-2.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH5_4.0-4.1	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
BH5_5.9-6.0	Soil	06 Nov 2024	1157566	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
HA1_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	**798**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**0**	-	-	-	-	-	-	-	-	-	-	-
QC_B (Duplicate of HA1_0-1.0)	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	**584**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	-	-	-	-	-	-	-	-	-	-	-
QA_B (Triplicate of HA1_0-1.0)	Soil	24 Oct 2024	365062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0**	<0.1	<0.01	<0.001	-	-	-	-	-	-	-
HA1_0.5-0.6	Soil	24 Oct 2024	1154010	<1	<1	-	-	-	<1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	<0.5	-	<1
HA1_1.4-1.5	Soil	24 Oct 2024	1154010	<1	<1	-	-	-	<1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	<0.5	-	<1
QC (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	1154010	<0.5	<1	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.5	-	-	<0.5	-	<0.5
QA (Duplicate of HA1_1.4-1.5)	Soil	24 Oct 2024	365062	-	<1	<1	<1	<1	<1	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<0.5	<1	<0.5	-	<1	-
HA2_0-0.1	Soil	24 Oct 2024	1154010	<1	<1	-	-	-	<1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	<0.5	-	<1
HA2_0-0.5	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	**795**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	-	-	-	-	-	-	-	-	-	-	-
HA2_0.4-0.5	Soil	24 Oct 2024	1154010	<1	<1	-	-	-	<1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	<0.5	-	<1
HA3_0.2-0.3	Soil	24 Oct 2024	1154010	<1	<1	-	-	-	<1	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	<0.5	-	<1
HA3_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<1	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.5	-	-	<0.5	-	<0.5
HA4_0-1.0	Soil	24 Oct 2024	1154010	-	-	-	-	-	-	-	-	**698**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	-	-	-	-	-	-	-	-	-	-	-
HA4_0.5-0.6	Soil	24 Oct 2024	1154010	<0.5	<1	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.5	-	-	<0.5	-	<0.5
HA4_1.4-1.5	Soil	24 Oct 2024	1154010	<0.5	<1	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.5	-	-	<0.5	-	<0.5

TABLE B - Soil Leachate Analytical Results
Project Number: 67817
Project Name: 6, Denison Street, Banksmeadow, NSW

				Metals & Metalloids	Ionic Balance			
				Mercury	pH of Leaching Fluid	pH (after HCL)	pH (Final)	pH (Initial)
				mg/L	pH Units	pH Units	pH Units	pH Units
EQL				0.001	0.1	0.1	0.1	0.1
NSW 2014 General Solid Waste TCLP1 (leached)				0.2				
NSW 2014 Restricted Solid Waste TCLP2 (leached)				0.8				
Field ID	**Test Type**	**Date**	**Lab Report Number**					
BH3_2.0-2.1	TCLP	25 Oct 2024	1158728	0.017	-	1.8	5.3	8.9
BH3_2.0-2.1	ASLP	25 Oct 2024	1158728	0.093	7.7	-	8.9	9.1
BH3_3.0-3.1	TCLP	25 Oct 2024	1158728	0.006	-	1.7	5.1	7.5
BH3_3.0-3.1	ASLP	25 Oct 2024	1158728	0.013	7.7	-	6.9	8.4
BH3_4.0-4.1	TCLP	25 Oct 2024	1158728	0.003	-	1.8	5.2	7.6
BH3_4.0-4.1	ASLP	25 Oct 2024	1158728	0.003	7.7	-	7.6	8.0
BH3_5.9-6.0	TCLP	25 Oct 2024	1158728	0.002	-	1.7	5.1	7.5
BH3_5.9-6.0	ASLP	25 Oct 2024	1158728	0.029	7.7	-	6.6	8.3
HA2_0.4-0.5	TCLP	24 Oct 2024	1158728	0.067	-	2.1	6.0	9.0
HA2_0.4-0.5	ASLP	24 Oct 2024	1158728	0.33	7.7	-	8.0	8.6
HA2_0-0.1	TCLP	24 Oct 2024	1158728	0.031	-	1.8	5.3	9.1
HA2_0-0.1	ASLP	24 Oct 2024	1158728	0.074	7.7	-	8.1	8.3

TABLE C- Vapour Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

								Metals & Metalloids	BTEXN				PAH	Chlorinated Alkanes															
								Mercury	Benzene	Toluene	Ethylbenzene	Xylene Total	Naphthalene	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Trichlorofluoromethane
								mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL								0.002	0.08	0.08	0.08	0.24	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
NEPM 2013 Table 1A(2) Comm/Ind D Soil Vap VOCC HILs															230													
NEPM 2013 Table 1A(5) Comm/Ind D Soil Vapour HSL for Vapour Intrusion, Sand, 0-1m									4	4,800	1,300	840	3															
USEPA RSLs Industrial Air THQ=1.0 (x 10)								0.013	0.016	220	0.049	4.4	0.0036	0.017	220	0.0021	0.0077	0.077	0.013	0.00002	0.0047	0.0033			1.8	0.02	
Location Code	**Field ID**		**Matrix Type**	**Date**	**Lab Report Number**																							
BH3	BH3_SV_M		Gas	24 Oct 2024	365063			**0.74**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2	HA2_SV_M		Gas	24 Oct 2024	365063			**25.81**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2	BH2_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.19**
BH3	BH3_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**2.26**
BH4	BH4_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH4	QC_SV FRONT (duplicate of BH4)		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH5	BH5_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	**0.32**	<0.08	<0.08	**0.32**	**0.24**	<0.08	<0.08	<0.08	<0.08	**1.08**	<0.08
HA1	HA1_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
HA2	HA2_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.47**
HA3	HA3_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.1**	<0.08
HA3	QA_SV (duplicate of HA3)		Gas	25 Oct 2024	365815			-	<0.32	<0.81	<0.81	-	<1.61	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	-
HA4	HA4_SV FRONT		Gas	25 Oct 2024	1153970			-	<0.08	<0.08	<0.08	<0.24	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.11**	<0.08

TABLE C- Vapour Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

					Chlorinated Alkenes														MAH										
					1,1-dichloroethene	1,1-dichloropropene	1,3-Dichloropropene(cis)	1,3-Dichloropropene(trans)	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Bromobenzene	Isopropylbenzene
					mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL					0.08	0.08	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.81	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.08	0.81	0.08
NEPM 2013 Table 1A(2) Comm/Ind D Soil Vap VOCC HILs											0.3		8			0.08	0.1										
NEPM 2013 Table 1A(5) Comm/Ind D Soil Vapour HSL for Vapour Intrusion, Sand, 0-1m																											
USEPA RSLs Industrial Air THQ=1.0 (x 10)					8.8								0.47			0.03	0.028	2.6	2.6		44			44		2.6	18
Location Code	**Field ID**	**Matrix Type**	**Date**	**Lab Report Number**																							
BH3	BH3_SV_M	Gas	24 Oct 2024	365063	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2	HA2_SV_M	Gas	24 Oct 2024	365063	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2	BH2_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**13.55**	-	<0.08	**5.16**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
BH3	BH3_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**1.37**	-	<0.08	**0.16**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
BH4	BH4_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**2.26**	-	<0.08	**1.26**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
BH4	QC_SV FRONT (duplicate of BH4)	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**2.42**	-	<0.08	**1.23**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
BH5	BH5_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	**0.1**	<0.08	**27.42**	-	<0.08	**5.16**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
HA1	HA1_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**1.32**	-	<0.08	**0.18**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
HA2	HA2_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**3.06**	-	<0.08	**0.26**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
HA3	HA3_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**33.87**	-	<0.08	**29.03**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08
HA3	QA_SV (duplicate of HA3)	Gas	25 Oct 2024	365815	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	-	**13.71**	<0.81	-	**19.35**	-	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
HA4	HA4_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	**12.74**	-	<0.08	**13.55**	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.81	<0.08	-	<0.08

TABLE C- Vapour Analytical Results
Project Number: 67817
Project Name: Denison Street, Banksmeadow, NSW

					Miscellaneous Hydrocarbons					Chlorinated Benzenes						Trihalomethanes				Chlorinated Hydrocarbons	NA		Other						
					1,2-dibromoethane	Cyclohexane	Dibromomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Hexachlorobutadiene	Ethyl acrylate	Methyl styrene (alpha)	1,2-butylacetate	3-Methylhexane	3-Methylpentane	Di-isobutyl Ketone	Dodecane	Methylcyclohexane	Methylcyclopentane
					mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL					0.08	0.81	0.08	0.81	1.61	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
NEPM 2013 Table 1A(2) Comm/Ind D Soil Vap VOCC HILs																													
NEPM 2013 Table 1A(5) Comm/Ind D Soil Vapour HSL for Vapour Intrusion, Sand, 0-1m																													
USEPA RSLs Industrial Air THQ=1.0 (x 10)					0.0002	260	0.18	130	220		0.088	8.8		0.011	2.2		0.0053	0.11	0.0033	0.0056	0.35								
Location Code	**Field ID**	**Matrix Type**	**Date**	**Lab Report Number**																									
BH3	BH3_SV_M	Gas	24 Oct 2024	365063	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA2	HA2_SV_M	Gas	24 Oct 2024	365063	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2	BH2_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**1.35**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-
BH3	BH3_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.13**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-
BH4	BH4_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.53**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-
BH4	QC_SV FRONT (duplicate of BH4)	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.52**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-
BH5	BH5_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.71**	<0.08	<0.08	**2.58**	-	-	-	-	-	-	-	-	-	-
HA1	HA1_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.08**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-
HA2	HA2_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.58**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-
HA3	HA3_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.53**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-
HA3	QA_SV (duplicate of HA3)	Gas	25 Oct 2024	365815	<0.81	<0.81	-	<0.81	<1.61	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
HA4	HA4_SV FRONT	Gas	25 Oct 2024	1153970	<0.08	-	<0.08	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	**0.26**	<0.08	<0.08	<0.08	-	-	-	-	-	-	-	-	-	-

Appendix B Historical Aerial Photographs

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Legend

Approximate Site Boundary

JBS&G

Job No: 67817

Client: IXOM

Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB

Scale 1:3,750

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

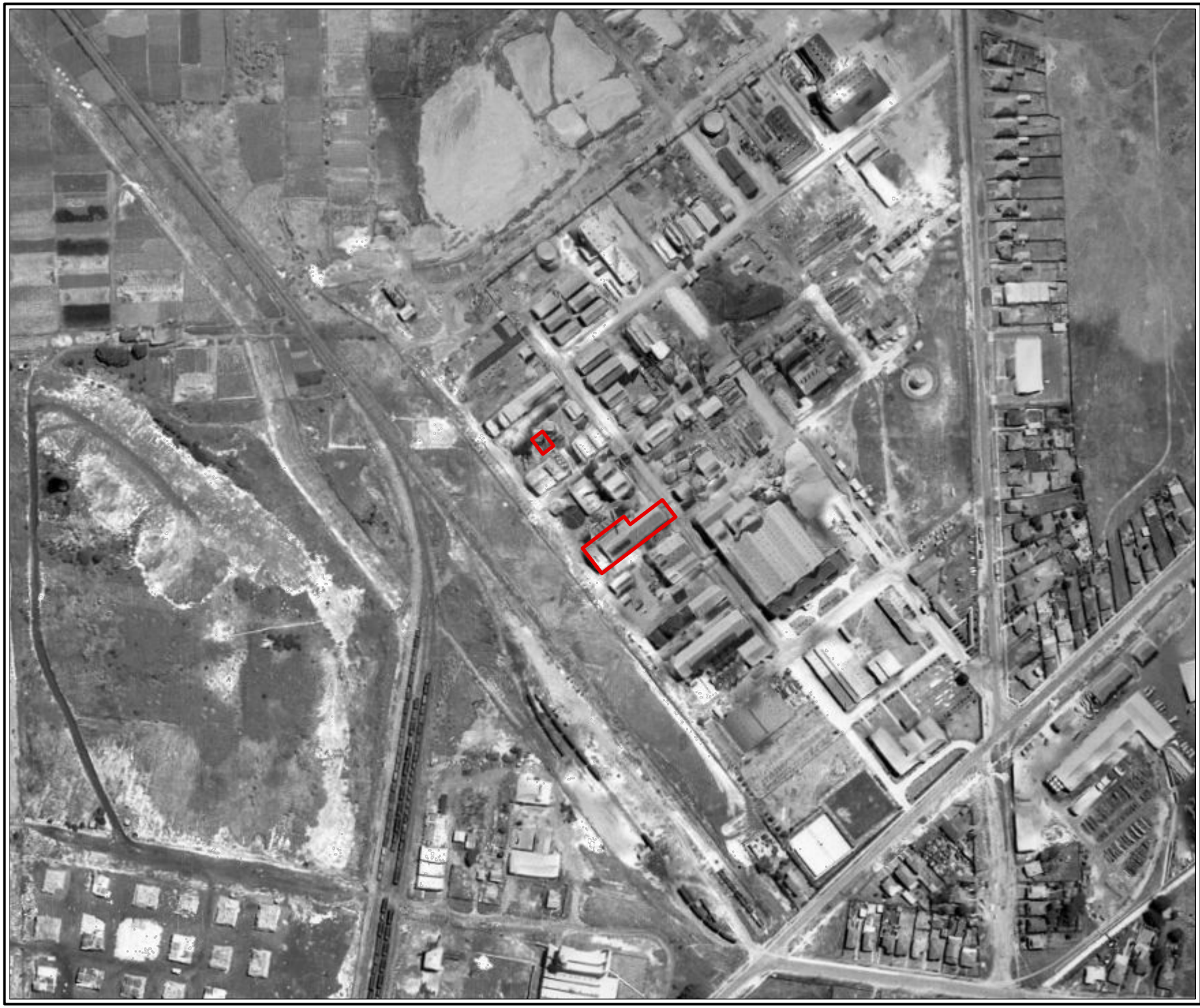
BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1943

FIGURE 1943

File Name: 67817_BIP_DSI_Aerials

Reference: NSW Government | Copyright © Spatial Services 2024



Legend

Approximate Site Boundary

JBS&G

Job No: 67817

Client: IXOM

Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB

Scale 1:3,750

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1955

FIGURE 1955

File Name: 67817_BIP_DSI_Aerials
Reference: NSW Government | Copyright © Spatial Services 2024



Legend

Approximate Site Boundary

JBS&G

Job No: 67817

Client: IXOM

Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB

Scale 1:3,750

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1961

FIGURE 1961

File Name: 67817_BIP_DSI_Aerials
Reference: NSW Government | Copyright © Spatial Services 2024



Legend

Approximate Site Boundary

JBS&G

Job No: 67817

Client: IXOM

Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB

Scale 1:3,750

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1975

FIGURE 1975

File Name: 67817_BIP_DSI_Aerials
Reference: NSW Government | Copyright © Spatial Services 2024



Legend

Approximate Site Boundary

JBS&G

Job No: 67817	
Client: IXOM	
Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB
Scale 1:3,750	

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1986

FIGURE 1986

File Name: 67817_BIP_DSI_Aerials
Reference: NSW Government | Copyright © Spatial Services 2024



Legend

Approximate Site Boundary

JBS&G

Job No: 67817

Client: IXOM

Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB

Scale 1:3,750

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1994

FIGURE 1994

File Name: 67817_BIP_DSI_Aerials
Reference: NSW Government | Copyright © Spatial Services 2024



Legend

Approximate Site Boundary

JBS&G

Job No: 67817	
Client: IXOM	
Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB
Scale 1:3,750	

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2014

FIGURE 2014

File Name: 67817_BIP_DSI_Aerials
Reference: Nearmap - www.nearmap.com (Capture Date: 20241129)



Legend

Approximate Site Boundary

JBS&G

Job No: 67817

Client: IXOM

Version: Aerials	Date 7/11/2024
Drawn By: RF	Checked By: CB

Scale 1:3,750

0 30 60

metres

Coord. Sys. GDA 1994 MGA Zone 56

BIP DSI
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2024

FIGURE 2024

File Name: 67817_BIP_DSI_Aerials
Reference: Nearmap - www.nearmap.com (Capture Date: 20240921)

Appendix C Photographic Log

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PHOTOGRAPH 1: RAISED CONCRETE SLAB IN SOUTH-EASTERN PORTION



PHOTOGRAPH 2: RAISED CONCRETE SLAB IN SOUTH-EASTERN PORTION



PHOTOGRAPH 3: RAISED CONCRETE SLAB IN SOUTH-EASTERN PORTION



PHOTOGRAPH 4: AREA WHERE ACM OBSERVED ON GROUND SURFACE IN SOUTH-EASTERN PORTION



JBS&G

Job No: 67817	
Client: Ixom Operations Pty Ltd	
Version: R01 Rev A	Date: 21 November 2024
Drawn By: CB	Checked By: CB
Not to Scale	
Coord. Sys n/a	

Denison St Banksmeadow

APPENDIX C

PHOTOGRAPH 5: HYPO TANKER LOADING BAY



PHOTOGRAPH 6: HYPO TANKER LOADING BAY



PHOTOGRAPH 7: PIT (DEPOT 60)



PHOTOGRAPH 8: NORTHERN PORTION OF SITE



JBS&G

Job No: 67817	
Client: Ixom Operations Pty Ltd	
Version: R01 Rev A	Date: 21 November 2024
Drawn By: CB	Checked By: CB
Not to Scale	
Coord. Sys n/a	

Denison St Banksmeadow

APPENDIX C

Appendix D Borelogs

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SOIL VAPOUR PROBE BH2

PROJECT NUMBER 67817	**DRILLING COMPANY** Macquarie	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 6.00 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 23 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			0.2		Fill - SAND, brown/ dark brown, heterogeneous, damp, poorly graded, medium sand dense, with inclusions of igneous gravels, rocks, concrete boulders and reinforcement bar.	DP	BH2_0-1.0	2.2	No odour, staining and asbestos. 10L Asbestos Quantification @ 0-1.0mbgs = 0g 10L Asbestos Quantification @ 1.0-1.2mbgs = 0g
			0.4				BH2_0.00-1.0		
			0.6				BH2_0.50-0.6	1.9	
			0.8						
			1				BH2_1.0-1.2	1.8	
			1.2				BH2_1.00-1.2		No odour, staining and asbestos. 10L Asbestos Quantification @ 1.2-1.5mbgs = 0g
			1.4		SP - SAND, cream, homogenous, damp, poorly graded, medium sand loose	DP	BH2_1.20-1.5		
							BH2_1.40-1.5	2.1	
SPT			1.6		SP SAND trace silt; pale grey; SAND is fine to medium grained	DP			
			1.8						
			2				BH2_2.0-2.1		
			2.2						
			2.4						
			2.6						
			2.8						
			3						
			3.2						
			3.4						
			3.6						
			3.8		SC-SM Clayey Silty SAND; black dark brown; SAND is fine to medium grained; Clay is medium plasticity	DP			
			4						
			4.2						
			4.4						

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SOIL VAPOUR PROBE BH2

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
	▽		4.6 4.8 5 5.2 5.4 5.6 5.8 6		Fill Silty SAND; pale grey; SAND is medium to coarse grained	DP	BH2_5.0-5.1		
			6.2 6.4 6.6 6.8 7 7.2 7.4 7.6 7.8 8 8.2 8.4 8.6 8.8 9 9.2 9.4 9.6 9.8		Termination Depth at:6.00 m.				

SOIL VAPOUR PROBE BH3

PROJECT NUMBER 67817	**DRILLING COMPANY** Macquarie	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 6.00 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 23 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			0.2		Fill - SAND, brown/ dark brown, heterogeneous, damp, poorly graded, medium sand dense, with inclusions of roots, igneous gravels and rocks.	DP	BH3_0-0.65	2.6	No odour, staining and asbestos. 10L Asbestos Quantification @ 0-0.65mbgs = 0g
			0.4				BH3_0.00-0.6		
			0.6				BH3_0.50-0.6	0.9	
SPT			0.8		Fill FILL/CONCRETE; grey; aggregate up to 15mm; aggregate up to 15mm				
			1						
			1.2						
			1.4		SP SAND with silt; pale grey mottled yellow-orange; SAND is fine to medium grained	M			
			1.6						
			1.8						
			2				BH3_2.0-2.1		
			2.2						
			2.4						
			2.6						
			2.8						
			3				BH3_3.0-3.1		
			3.2						
			3.4						
			3.6						
			3.8						
	▽		4		SP Clayey SAND; black dark brown; SAND is fine to coarse grained; Clay is medium plasticity	M	BH3_4.0-4.1		
			4.2						
			4.4						

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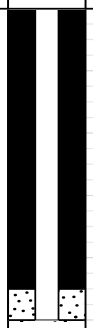
SOIL VAPOUR PROBE BH3

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
			4.6						
			4.8		SP SAND with silt; grey-brown; SAND is fine to medium grained	M			
			5				BH3_5.0-5.1		
			5.2						
			5.4						
			5.6						
			5.8						
			6				BH3_5.9-6.0		
					Termination Depth at:6.00 m.				
			6.2						
			6.4						
			6.6						
			6.8						
			7						
			7.2						
			7.4						
			7.6						
			7.8						
			8						
			8.2						
			8.4						
			8.6						
			8.8						
			9						
			9.2						
			9.4						
			9.6						
			9.8						

SOIL VAPOUR PROBE BH4

PROJECT NUMBER 67817	**DRILLING COMPANY** BCP	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 1.50 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 23 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			0.2 0.4 0.6 0.8 1		Fill - SAND, brown/ dark brown, heterogeneous, damp, poorly graded, medium sand dense, with inclusions of rocks and igneous gravels.	DP	BH4_0-1.0 BH4_0.00-1.0 BH4_0.50-0.6 BH4_0.9-1.0	3.1 2.1 1.6	No odour, staining and asbestos. 10L Asbestos Quantification @ 0-1.0mbgs = 0g
			1.2 1.4		SP - SAND, cream, homogenous, damp, poorly graded, medium sand loose	DP	BH4_1.00-1.5 BH4_1.40-1.5	 0.7	No odour, staining and asbestos. 10L Asbestos Quantification @ 1.0-1.5mbgs = 0g
			1.6 1.8 2 2.2 2.4 2.6 2.8 3 3.2 3.4 3.6 3.8 4 4.2 4.4		Termination Depth at:1.50 m.				

SOIL VAPOUR PROBE BH5

PROJECT NUMBER 67817	**DRILLING COMPANY** Macquarie	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 6.45 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 24 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

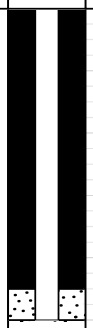
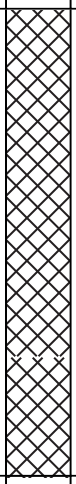
Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			0.2		Fill - SAND, brown/ dark brown, heterogeneous, dry, well graded, medium sand dense, with inclusions of igneous gravels, roadbase and brick fragment.	DR	BH5_0.00-0.1	2.6	No odour, staining and asbestos. 10L Asbestos Quantification @ 0-0.5mbgs = 0g
							BH5_0.00-0.5		
			0.4				BH5_0.40-0.5	3.1	
SPT			0.6		Fill CONCRETE; grey; Aggregate up to 20mm; Aggregate up to 20mm	DP			
					Fill FILL/SAND trace silt, trace gravel; grey; SAND is fine to medium grained; gravel is angular to sub angular fine to coarse grained	DP			
			0.8			DP			
			1		SP SAND trace silt; grey; SAND is fine to medium grained		BH5_1.0-1.1		
			1.2						
			1.4						
			1.6						
			1.8						
			2				BH5_2.0-2.1		
			2.2						
			2.4						
			2.6						
			2.8		SP Clayey Silty SAND; black grey; SAND is fine to medium grained; Hydrocarbon odour	M			
			3						
			3.2						
			3.4						
			3.6						
			3.8		SP Silty SAND; grey black; SAND is fine to medium grained; Hydrocarbon odour	W			
			4				BH5_4.0-4.1		
			4.2						
			4.4						

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
			4.6						
			4.8						
			5		SP SAND trace silt; grey; SAND is fine to coarse grained; trace lenses of black silt	W			
			5.2						
			5.4						
			5.6						
			5.8						
			6				BH5_5.9-6.0		
			6.2						
			6.4						
			6.6		Termination Depth at:6.45 m.				
			6.8						
			7						
			7.2						
			7.4						
			7.6						
			7.8						
			8						
			8.2						
			8.4						
			8.6						
			8.8						
			9						
			9.2						
			9.4						
			9.6						
			9.8						

SOIL VAPOUR PROBE HA1

PROJECT NUMBER 67817	**DRILLING COMPANY** BCP	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 1.50 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 24 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			0.2 0.4 0.6 0.8 1 1.2 1.4		Fill - SAND, brown, heterogeneous, damp, poorly graded, medium sand loose, with inclusions of rocks and igneous gravels.	DP	HA1_0-1.0 HA1_0.00-1.0 HA1_0.50-0.6 HA1_1.00-1.1 HA1_1.00-1.5 HA1_1.4-1.5	2.6 2.8 3.1 2.9	No odour, staining and asbestos. 10L Asbestos Quantification @ 0-1.0mbgs = 0g 10L Asbestos Quantification @ 1.0-1.5mbgs = 0g
			1.6 1.8 2 2.2 2.4 2.6 2.8 3 3.2 3.4 3.6 3.8 4 4.2 4.4		Termination Depth at:1.50 m.				

SOIL VAPOUR PROBE HA2

PROJECT NUMBER 67817	**DRILLING COMPANY** BCP	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 0.50 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 24 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			0.2		Fill - SAND, brown, heterogeneous, damp, poorly graded, medium sand loose, with inclusions of concrete cobbles (with reinforcement), rocks and igneous gravels.	DP	HA2_0-0.5	1.8	No odour, staining and asbestos. 10L Asbestos Quantification @ 0-0.5mbgs = 0g
			0.4				HA2_0.00-0.5		
							HA2_0.40-0.5	2.1	
			0.6		Termination Depth at:0.50 m.				
			0.8						
			1						
			1.2						
			1.4						
			1.6						
			1.8						
			2						
			2.2						
			2.4						
			2.6						
			2.8						
			3						
			3.2						
			3.4						
			3.6						
			3.8						
			4						
			4.2						
			4.4						

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SOIL VAPOUR PROBE HA3

PROJECT NUMBER 67817	**DRILLING COMPANY** BCP	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 1.50 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 24 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
CC			0.2		Concrete				
HA			0.4		Fill - SAND, brown, homogenous, damp, poorly graded, medium sand loose, with inclusions of trace gravels (concrete and blue metal).	DP	HA3_0.20-0.3	2.1	No odour, staining and asbestos. 10L Asbestos Quantification @ 0.2-0.9mbgs = 0g
			0.6				HA3_0.20-0.9		
			0.8				HA3_0.50-0.6	3.2	
			1		Fill as above, turns cream.	DP	HA3_1.00-1.1	1.7	No odour, staining and asbestos. 10L Asbestos Quantification @ 0.9-1.5mbgs = 0g
			1.2				HA3_0.90-1.5		
			1.4				HA3_1.4-1.5	1.9	
			1.6		Termination Depth at:1.50 m.				
			1.8						
			2						
			2.2						
			2.4						
			2.6						
			2.8						
			3						
			3.2						
			3.4						
			3.6						
			3.8						
			4						
			4.2						
			4.4						

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SOIL VAPOUR PROBE HA4

PROJECT NUMBER 67817	**DRILLING COMPANY** BCP	**EASTING**
PROJECT NAME 67817_BIPDSI	**DRILL RIG**	**NORTHING**
CLIENT IXOM	**DRILLING METHOD** Hand Auger	**COORD SYS** GDA2020_MGA_zone_56
ADDRESS Denison Street, Banksmeadow, NSW	**TOTAL DEPTH** 1.50 m bgl	**ELEVATION**
	DIAMETER 150 mm	**LOGGED BY** AC
DRILLING DATE 24 Oct 2024		**CHECKED BY**
COMPLETION	**CASING**	**SCREEN INTERVAL** - m bgl

COMMENTS Soil Vapour Probe with steel wool filter

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
CC			0.2		Concrete		HA4_0-1.0		
HA			0.4		Fill - SAND, brown, homogenous, damp, poorly graded, medium sand loose, with inclusions of gravels.	DP	HA4_0.20-0.3	2.1	No odour, staining and asbestos. 10L Asbestos Quantification @ 0.2-1.0mbgs = 0g
			0.6				HA4_0.20-1.0		
			0.8				HA4_0.50-0.6	3.2	
			1		Fill as above, turns cream.	DP	HA4_1.00-1.1	1.8	No odour, staining and asbestos. 10L Asbestos Quantification @ 1.0-1.5mbgs = 0g
			1.2				HA4_1.00-1.5		
			1.4				HA4_1.4-1.5	1.7	
			1.6		Termination Depth at:1.50 m.				
			1.8						
			2						
			2.2						
			2.4						
			2.6						
			2.8						
			3						
			3.2						
			3.4						
			3.6						
			3.8						
			4						
			4.2						
			4.4						

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Appendix E QA/QC Assessment

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TABLE - QAQC Summary - Soil Duplicate and Triplicate
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field or Interlab Duplicates

			Lab Report Number	1154010	1154010		1154010	365062		1154010	1154010		1154010	365062	
			Field ID	HA1_0-1.0	QC_B		HA1_0-1.0	QA_B		HA1_1.4-1.5	QC		HA1_1.4-1.5	QA	
			Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
			Date	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD
	Unit	EQL													
Metals & Metalloids															
Arsenic	mg/kg	2	-	-	-	-	-	-	2.1	2.0	5	2.1	<4	5
Cadmium	mg/kg	0.4	-	-	-	-	-	-	<0.4	<0.4	0	<0.4	<0.4	0
Chromium (III+VI)	mg/kg	1	-	-	-	-	-	-	6.5	<5	89	6.5	3	74
Copper	mg/kg	1	-	-	-	-	-	-	14	9.7	36	14	6	80
Lead	mg/kg	1	-	-	-	-	-	-	40	70	55	40	62	43
Mercury	mg/kg	0.1	-	-	-	-	-	-	2.6	5.5	72	2.6	5.6	73
Nickel	mg/kg	1	-	-	-	-	-	-	<5	<5	0	<5	3	18
Zinc	mg/kg	1	-	-	-	-	-	-	97	95	2	97	40	83
TPHs (NEPC 1999)														
C6-C9 Fraction	mg/kg	20	-	-	-	-	-	-	<20	<20	0	<20	<25	22
C10-C14 Fraction	mg/kg	20	-	-	-	-	-	-	<20	<20	0	<20	<50	86
C15-C28 Fraction	mg/kg	50	-	-	-	-	-	-	91	82	10	91	<100	58
C29-C36 Fraction	mg/kg	50	-	-	-	-	-	-	79	<50	104	79	<100	45
C10-C36 Fraction (Sum of Total)	mg/kg	50	-	-	-	-	-	-	170	82	70	170	<50	149
TRHs (NEPC 2013)														
C6-C10	mg/kg	20	-	-	-	-	-	-	<20	<20	0	<20	<25	22
C10-C16	mg/kg	50	-	-	-	-	-	-	<50	<50	0	<50	<50	86
C16-C34	mg/kg	100	-	-	-	-	-	-	150	120	22	150	<100	100
C34-C40	mg/kg	100	-	-	-	-	-	-	<100	<100	0	<100	<100	0
C10-C40 (Sum of total)	mg/kg	50	-	-	-	-	-	-	150	120	22	150	<50	143
F1 (C6-C10 minus BTEX)	mg/kg	20	-	-	-	-	-	-	<20	<20	0	<20	<25	22
F2 (C10-C16 less Naphthalene)	mg/kg	50	-	-	-	-	-	-	<50	<50	0	<50	<50	86
BTEXN														
Benzene	mg/kg	0.1	-	-	-	-	-	-	<0.1	<0.1	0	<0.1	<0.2	67
Toluene	mg/kg	0.1	-	-	-	-	-	-	<0.1	<0.1	0	<0.1	<0.5	133
Ethylbenzene	mg/kg	0.1	-	-	-	-	-	-	<0.1	<0.1	0	<0.1	<1	164
Xylene (o)	mg/kg	0.1	-	-	-	-	-	-	<0.1	<0.1	0	<0.1	<1	164
Xylene (m & p)	mg/kg	0.2	-	-	-	-	-	-	<0.2	<0.2	0	<0.2	<2	164
Xylene Total	mg/kg	0.3	-	-	-	-	-	-	<0.3	<0.3	0	<0.3	<1	108
Naphthalene_VOC	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
PAH														
PAHs (Sum of positives)	µg/kg	50	-	-	-	-	-	-	-	-	-	-	<50	-
2-Methylnaphthalene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	0	<1	<0.5	67
3-Methylcholanthrene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	0	<1	<0.5	67
7,12-Dimethylbenz(a)anthracene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	0	<1	<0.5	67
Acenaphthene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Acenaphthylene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Anthracene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Benz(a)anthracene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Benzo(a)pyrene	mg/kg	0.05	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.05	164
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5	-	-	-	-	-	-	1.2	1.2	0	1.2	<0.5	131
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5	-	-	-	-	-	-	0.6	0.6	0	0.6	<0.5	83
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(b+j)fluoranthene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
Benzo(b+j+k)fluoranthene	mg/kg	0.2	-	-	-	-	-	-	-	-	-	-	<0.2	-
Benzo(g,h,i)perylene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Benzo(k)fluoranthene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
Chrysene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Dibenz(a,h)anthracene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Fluoranthene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Fluorene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Naphthalene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Phenanthrene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
Pyrene	mg/kg	0.1	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.1	133
PAHs (Sum of total)	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
2-(acetylamino) fluorene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Organochlorine Pesticides														
Pentachlorophenol	mg/kg	1	-	-	-	-	-	-	<1	<1	0	<1	<5	133
4,4-DDE	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
a-BHC	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
b-BHC	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
d-BHC	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
g-BHC (Lindane)	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Aldrin	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Dieldrin	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Aldrin + Dieldrin	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Chlordane	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-
Chlordane (cis)	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	<0.1	-
Chlordane (trans)	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	<0.1	-
DDT	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
DDD	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
DDT+DDE+DDD	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Endosulfan I	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164

TABLE - QAQC Summary - Soil Duplicate and Triplicate
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field or Interlab Duplicates

			Lab Report Number	1154010	1154010		1154010	365062		1154010	1154010		1154010	365062	
			Field ID	HA1_0-1.0	QC_B		HA1_0-1.0	QA_B		HA1_1.4-1.5	QC		HA1_1.4-1.5	QA	
			Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
			Date	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD
	Unit	EQL													
Endosulfan II	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Endosulfan sulphate	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Endrin	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Endrin aldehyde	mg/kg	0.05	-	-	-	-	-	-	<0.5	<0.05	181	<0.5	<0.1	67
Endrin ketone	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.5	67
Heptachlor	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Heptachlor Epoxide	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Hexachlorobenzene	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Methoxychlor	mg/kg	0.05	-	-	-	-	-	-	<1	<0.05	181	<1	<0.1	164
Mirex	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	<0.1	-
Toxaphene	mg/kg	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-
Organophosphorus Pesticides														
Azinophos methyl	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Bromophos-ethyl	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Chlorpyrifos	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Chlorpyrifos-methyl	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Coumaphos	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Diazinon	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Dichlorvos	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Dimethoate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Disulfoton	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Ethion	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Ethyl methanesulfonate	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Fenitrothion	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Fenthion	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Malathion	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Methidathion	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Methyl parathion	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Mevinphos (Phosdrin)	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Phorate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Ronnel	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Safrole	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Fenamiphos	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Parathion	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Chlorinated Alkanes														
1,1,1,2-tetrachloroethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,1,1-trichloroethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,1,2,2-tetrachloroethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,1,2-trichloroethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,1-dichloroethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,2,3-trichloropropane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,2-dibromo-3-chloropropane	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
1,2-dichloroethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,2-dichloropropane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,3-dichloropropane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
2,2-dichloropropane	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Bromochloromethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Carbon tetrachloride	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Chloroethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Chloromethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Dichlorodifluoromethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Dichloromethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
Hexachloroethane	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<0.5	67
Pentachloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Trichlorofluoromethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Chlorinated Alkenes														
1,1-dichloroethene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
1,1-dichloropropene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
2-chlorotoluene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
3-chloropropene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
4-chlorotoluene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
cis-1,2-dichloroethene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
cis-1,3-dichloropropene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Tetrachloroethene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
trans-1,2-dichloroethene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
trans-1,3-dichloropropene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Trichloroethene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Vinyl Chloride	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Semivolatile Organic Compounds														
1-Chloronaphthalene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<0.5	67
2-Chloronaphthalene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<0.5	67
Bis(2-chloroethoxy) methane	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Hexachloropropene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-
Dibenz(a.j)acridine	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
Acetophenone	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0

TABLE - QAQC Summary - Soil Duplicate and Triplicate
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field or Interlab Duplicates

			Lab Report Number	1154010	1154010		1154010	365062		1154010	1154010		1154010	365062	
			Field ID	HA1_0-1.0	QC_B		HA1_0-1.0	QA_B		HA1_1.4-1.5	QC		HA1_1.4-1.5	QA	
			Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
			Date	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD
	Unit	EQL													
Bis(2-chloroethyl)ether	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Bis(2-chloroisopropyl) ether	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
4-Bromophenyl phenyl ether	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
4-Chlorophenyl phenyl ether	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
2,6-dinitrotoluene	mg/kg	1	-	-	-	-	-	-	<1	<1	0	<1	<1	0
2-Picoline	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
4-Aminobiphenyl	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
N-Nitrosomorpholine	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
N-Nitrosopiperidine	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
2-methyl-5-nitroaniline	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
N-nitrosodi-n-butylamine	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
N-nitrosodi-n-propylamine	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
1-Naphthylamine	mg/kg	0.5	-	-	-	-	-	-	<2	<0.5	67	<2	<1	0
2-Naphthylamine	mg/kg	0.5	-	-	-	-	-	-	<2	<0.5	67	<2	<1	0
3,3-Dichlorobenzidine	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
4-(dimethylamino) azobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Azobenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Diphenylamine	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Carbazole	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Butyl benzyl phthalate	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Dibenzofuran	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Isosafrole	mg/kg	2	-	-	-	-	-	-	-	-	-	-	<2	-
Methapyrilene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Phenacetin	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Solvents														
Acetone	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
Isophorone	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Benzyl chloride	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
Polychlorinated Biphenyls														
Arochlor 1016	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-
Arochlor 1221	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-
Arochlor 1232	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-
Arochlor 1242	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-
Arochlor 1248	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-
Arochlor 1254	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	0.3	-
Arochlor 1260	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-
PCBs (Sum of total)	mg/kg	0.1	-	-	-	-	-	-	-	<0.1	-	-	0.3	-
Phenols														
2,3,4,6-tetrachlorophenol	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
2,4,5-trichlorophenol	mg/kg	0.5	-	-	-	-	-	-	<1	<1	0	<1	<0.5	67
2,4,6-trichlorophenol	mg/kg	0.5	-	-	-	-	-	-	<1	<1	0	<1	<0.5	67
2,4-dichlorophenol	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
2,4-dimethylphenol	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
2,4-dinitrophenol	mg/kg	5	-	-	-	-	-	-	<5	<5	0	<5	<10	67
2,6-dichlorophenol	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
2-chlorophenol	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
2-Methylphenol	mg/kg	0.2	-	-	-	-	-	-	<0.5	<0.2	86	<0.5	<0.5	0
2-nitrophenol	mg/kg	0.5	-	-	-	-	-	-	<1	<1	0	<1	<0.5	67
3&4-Methylphenol (m&p-cresol)	mg/kg	0.4	-	-	-	-	-	-	<1	<0.4	86	<1	<1	0
4,6-Dinitro-2-methylphenol	mg/kg	5	-	-	-	-	-	-	<5	<5	0	<5	<10	67
4-Chloro-3-Methylphenol	mg/kg	1	-	-	-	-	-	-	<1	<1	0	<1	<5	133
4-nitrophenol	mg/kg	5	-	-	-	-	-	-	<5	<5	0	<5	<10	67
Phenol	mg/kg	0.5	-	-	-	-	-	-	<2	<0.5	120	<2	<0.5	120
PFAS														
Perfluorobutanoic acid (PFBA)	mg/kg	0.0002	-	-	-	-	-	-	-	<0.005	-	-	<0.0002	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	-	-	-	-	-	-	-	<0.005	-	-	<0.0002	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
Perfluorooctanoic acid (PFOA)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0005	-	-	-	-	-	-	-	<0.005	-	-	<0.0005	-
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0005	-	-	-	-	-	-	-	<0.005	-	-	<0.0005	-
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0005	-	-	-	-	-	-	-	<0.005	-	-	<0.0005	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0005	-	-	-	-	-	-	-	<0.005	-	-	<0.0005	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	<0.005	-
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.001	-	-	-	-	-	-	-	<0.005	-	-	<0.001	-
N-Methyl perfluorooctane sulfonamide (NMeFOSA)	mg/kg	0.001	-	-	-	-	-	-	-	<0.005	-	-	<0.001	-
N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	mg/kg	0.001	-	-	-	-	-	-	-	<0.005	-	-	<0.001	-
N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	mg/kg	0.001	-	-	-	-	-	-	-	<0.005	-	-	<0.001	-
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	<0.005	-

TABLE - QAQC Summary - Soil Duplicate and Triplicate
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field or Interlab Duplicates

			Lab Report Number	1154010	1154010		1154010	365062		1154010	1154010		1154010	365062	
			Field ID	HA1_0-1.0	QC_B		HA1_0-1.0	QA_B		HA1_1.4-1.5	QC		HA1_1.4-1.5	QA	
			Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
			Date	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD
		Unit	EQL												
	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	mg/kg	0.0002	-	-	-	-	-	-	-	<0.01	-	-	<0.0002	-
	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	mg/kg	0.0002	-	-	-	-	-	-	-	<0.01	-	-	<0.0002	-
	Perfluoropropanesulfonic acid (PFPrS)	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	-	-
	Perfluorobutanesulfonic acid (PFBS)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
	Perfluoropentanesulfonic acid (PFPeS)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
	Perfluorohexanesulfonic acid (PFHxS)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
	Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
	Perfluorooctanesulfonic acid (PFOS)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	0.0001	-
	Perfluorodecanesulfonic acid (PFDS)	mg/kg	0.0002	-	-	-	-	-	-	-	<0.005	-	-	<0.0002	-
	1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	<0.0001	-
	1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	mg/kg	0.0001	-	-	-	-	-	-	-	<0.01	-	-	<0.0001	-
	1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	mg/kg	0.0002	-	-	-	-	-	-	-	<0.005	-	-	<0.0002	-
	1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	mg/kg	0.0002	-	-	-	-	-	-	-	<0.005	-	-	<0.0002	-
	Sum of PFHxS and PFOS	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	0.0001	-
	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	-	-
	Sum of US EPA PFAS (PFOS + PFOA)*	mg/kg	0.0001	-	-	-	-	-	-	-	<0.005	-	-	0.0001	-
	Sum of WA DWER PFAS (n=10)*	mg/KG	0.01	-	-	-	-	-	-	-	<0.01	-	-	-	-
	Sum of PFAS	mg/kg	0.0001	-	-	-	-	-	-	-	<0.05	-	-	0.0001	-
	Perfluorononanesulfonic acid ion	mg/kg	0.005	-	-	-	-	-	-	-	<0.005	-	-	-	-
MAH															
	1,2,4-trimethylbenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	1,3,5-trimethylbenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	n-butylbenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
	n-propylbenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
	p-isopropyltoluene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
	sec-butylbenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
	Styrene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	tert-butylbenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
	Total MAH	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
	Bromobenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Isopropylbenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Miscellaneous Hydrocarbons															
	1,2-dibromoethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Bromomethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Cyclohexane	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
	Dibromomethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Iodomethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
	4-Methyl-2-pentanone	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
	Methyl Ethyl Ketone	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
Chlorinated Benzenes															
	1,2,3,4-tetrachlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<0.5	67
	1,2,3,5-tetrachlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
	1,2,4-trichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<0.5	67
	1,2-Dichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
	1,3,5-trichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	-	-
	1,3-dichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
	1,4-dichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<0.5	0
	Chlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Pentachlorobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<0.5	67
Trihalomethanes															
	Dibromochloromethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Chloroform	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Tribromomethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
	Bromodichloromethane	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	<1	67
Herbicides & Fungicides															
	Dinoseb	mg/kg	10	-	-	-	-	-	-	-	-	-	-	<10	-
	Pronamide	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	0	<1	-	-
	Trifluralin	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	0	<1	-	-
Phthalates															
	Bis(2-ethylhexyl) phthalate	mg/kg	5	-	-	-	-	-	-	<5	<5	0	<5	<5	0
	Diethylphthalate	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
	Dimethyl phthalate	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
	Di-n-butyl phthalate	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<5	133
	Di-n-octyl phthalate	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Nitrobenzenes															
	1,3-dinitrobenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
	Nitrobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0

TABLE - QAQC Summary - Soil Duplicate and Triplicate
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field or Interlab Duplicates

			Lab Report Number	1154010	1154010		1154010	365062		1154010	1154010		1154010	365062	
			Field ID	HA1_0-1.0	QC_B		HA1_0-1.0	QA_B		HA1_1.4-1.5	QC		HA1_1.4-1.5	QA	
			Matrix Type	Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
			Date	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD	24 Oct 2024	24 Oct 2024	RPD
	Unit	EQL													
Pentachloronitrobenzene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Nitrotoluenes														
2,4-dinitrotoluene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	0	<1	-	-
Anilines														
2-Nitroaniline	mg/kg	1	-	-	-	-	-	-	<1	<1	0	<1	<1	0
3-Nitroaniline	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
4-Chloroaniline	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
4-Nitroaniline	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Aniline	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<1	0
Organic Sulfur Compounds														
Carbon disulfide	mg/kg	0.5	-	-	-	-	-	-	<0.5	<0.5	0	<0.5	-	-
Organic Alcohols														
Benzyl Alcohol	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Asbestos - Eurofins														
Approximate Sample Mass	g		798	584	31	798	-	-	-	-	-	-	-	-
Mass ACM	g		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Mass Asbestos in ACM	g		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Asbestos from ACM in Soil	% (w/w)		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Mass FA	g		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Mass Asbestos in FA	g		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Mass AF	g		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Mass asbestos in AF	g		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Mass Asbestos in FA & AF	g		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Asbestos FA & AF in Soil	% (w/w)		0.0000	0.0000	-	0.0000	-	-	-	-	-	-	-	-
Asbestos - Envirolab														
Asbestos ID in Soil	g/kg		-	-	-	-	0	-	-	-	-	-	-	-
Total Asbestos	g/kg		-	-	-	-	<0.1	-	-	-	-	-	-	-
Asbestos (ACM >7mm) Estimation	% (w/w)		-	-	-	-	<0.01	-	-	-	-	-	-	-
Asbestos in soil (<2mm AF/FA) (%w/w)	% (w/w)		-	-	-	-	<0.001	-	-	-	-	-	-	-
Chlorinated Hydrocarbons														
Hexachlorocyclopentadiene	mg/kg	1	-	-	-	-	-	-	<1	<1	0	<1	<2	67
Hexachlorobutadiene	mg/kg	0.5	-	-	-	-	-	-	<1	<0.5	67	<1	<0.5	67
Halogenated Benzenes														
1,2,3,5 & 1,2,4,5 Tetrachlorobenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	<1	-
Phosalone	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	<0.5	-

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

TABLE - QAQC Summary - Gas Duplicate and Triplicate
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field or Interlab Duplicates

			Lab Report Number	1153970	1153970		1153970	1153970		1153970	365815	
			Field ID	BH4_SV BACK	QC_SV BACK		BH4_SV FRONT	QC_SV FRONT		HA3_SV FRONT	QA_SV	
			Matrix Type	Gas	Gas		Gas	Gas		Gas	Gas	
			Date	25 Oct 2024	25 Oct 2024	RPD	25 Oct 2024	25 Oct 2024	RPD	25 Oct 2024	25 Oct 2024	RPD
	Unit	EQL										
BTEXN												
Benzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.32	0
Toluene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Ethylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Xylene (o)	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Xylene (m & p)	mg/m3	1.61	-	-	-	-	-	-	-	<1.61	-
Xylene Total	mg/m3	0.24	<0.24	<0.24	0	<0.24	<0.24	0	<0.24	-	-
PAH												
Naphthalene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<1.61	0
Organochlorine Pesticides												
Epichlorohydrin	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Chlorinated Alkanes												
Nonane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
1,1,1,2-tetrachloroethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,1,1-trichloroethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,1,2,2-tetrachloroethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,1,2-trichloroethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,1-dichloroethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,2,3-trichloropropane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,2-dibromo-3-chloropropane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,2-dichloroethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,2-dichloropropane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,3-dichloropropane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
2,2-dichloropropane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Bromochloromethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Carbon tetrachloride	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	0.10	<0.81	0
Trichlorofluoromethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	-	-
Chlorinated Alkenes												
1,1-dichloroethene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,1-dichloropropene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,3-Dichloropropene(cis)	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
1,3-Dichloropropene(trans)	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
2-chlorotoluene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
4-chlorotoluene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
cis-1,2-dichloroethene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
cis-1,3-dichloropropene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	-	-
Tetrachloroethene	mg/m3	0.08	<0.08	<0.08	0	2.26	2.42	7	33.87	13.71	85
trans-1,2-dichloroethene	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
trans-1,3-dichloropropene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	-	-
Trichloroethene	mg/m3	0.08	<0.08	<0.08	0	1.26	1.23	2	29.03	19.35	40
Vinyl Chloride	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	-	-
Volatile Organic Compounds												
3-Methyl-2-butanone (MIPK)	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Solvents												
Decane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Heptane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Hexane	mg/m3	3.23	-	-	-	-	-	-	-	<3.23	-
Octane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Cyclohexanone	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Acetone	mg/m3	3.23	-	-	-	-	-	-	-	<3.23	-
1,4-Dioxane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Ethyl Acetate	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Acrylonitrile	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
MTBE	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Benzyl chloride	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
MAH												
1,2,4-trimethylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,3,5-trimethylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
n-butylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
n-propylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
p-isopropyltoluene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
sec-butylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Styrene	mg/m3	0.81	<0.81	<0.81	0	<0.81	<0.81	0	<0.81	<0.81	0
tert-butylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Bromobenzene	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Isopropylbenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Miscellaneous Hydrocarbons												
1,2-dibromoethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Cyclohexane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Dibromomethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	-	-
4-Methyl-2-pentanone	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Methyl Ethyl Ketone	mg/m3	1.61	-	-	-	-	-	-	-	<1.61	-
Chlorinated Benzenes												
1,2,3-trichlorobenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,2,4-trichlorobenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,2-Dichlorobenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,3-dichlorobenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
1,4-dichlorobenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Chlorobenzene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Trihalomethanes												
Dibromochloromethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Chloroform	mg/m3	0.08	<0.08	<0.08	0	0.53	0.52	2	0.53	<0.81	0
Tribromomethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Bromodichloromethane	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
Chlorinated Hydrocarbons												
Hexachlorobutadiene	mg/m3	0.08	<0.08	<0.08	0	<0.08	<0.08	0	<0.08	<0.81	0
NA												
Ethyl acrylate	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Methyl styrene (alpha)	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Other												
1,2-butylacetate	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
3-Methylhexane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
3-Methylpentane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Di-isobutyl Ketone	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Dodecane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Methylcyclohexane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-
Methylcyclopentane	mg/m3	0.81	-	-	-	-	-	-	-	<0.81	-

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

TABLE - QAQC Summary - Rinsate, Trip Blank, Trip Spike

Project Number: 67817

Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field Blanks

Lab Report Number			1154010	1154010	1154010
Sample ID			RINS	Trip Blank	Trip Spike
Matrix Type			Water	Water	Water
Date			24 Oct 2024	24 Oct 2024	24 Oct 2024
	Unit	EQL			
Metals & Metalloids					
Arsenic (filtered)	mg/L	0.001	<0.001	-	
Cadmium (filtered)	mg/L	0.0002	<0.0002	-	
Chromium (III+VI) (filtered)	mg/L	0.001	<0.001	-	
Copper (filtered)	mg/L	0.001	<0.001	-	
Lead (filtered)	mg/L	0.001	<0.001	-	
Mercury (filtered)	mg/L	0.0001	<0.0001	-	
Nickel (filtered)	mg/L	0.001	<0.001	-	
Zinc (filtered)	mg/L	0.005	<0.005	-	
TPHs (NEPC 1999)					
C6-C9 Fraction	mg/L	0.02	<0.02	<0.02	
C10-C14 Fraction	mg/L	0.05	<0.05	-	
C15-C28 Fraction	mg/L	0.1	<0.1	-	
C29-C36 Fraction	mg/L	0.1	<0.1	-	
C10-C36 Fraction (Sum of Total)	mg/L	0.1	<0.1	-	
TRHs (NEPC 2013)					
C6-C10	mg/L	0.02	<0.02	<0.02	
C10-C16	mg/L	0.05	<0.05	-	
C16-C34	mg/L	0.1	<0.1	-	
C34-C40	mg/L	0.1	<0.1	-	
C10-C40 (Sum of total)	mg/L	0.1	<0.1	-	
F1 (C6-C10 minus BTEX)	mg/L	0.02	<0.02	<0.02	
F2 (C10-C16 less Naphthalene)	mg/L	0.05	<0.05	-	
BTEXN					
Benzene	mg/L	0.001	<0.001	<0.001	89% recovery
Toluene	mg/L	0.001	<0.001	<0.001	97% recovery
Ethylbenzene	mg/L	0.001	<0.001	<0.001	87% recovery
Xylene (o)	mg/L	0.001	<0.001	<0.001	86% recovery
Xylene (m & p)	mg/L	0.002	<0.002	<0.002	96% recovery
Xylene Total	mg/L	0.003	<0.003	<0.003	
Naphthalene_VOC	mg/L	0.01	<0.01	<0.01	97% recovery
PAH					
2-Methylnaphthalene	mg/L	0.005	<0.005	-	
3-Methylcholanthrene	mg/L	0.005	<0.005	-	
7,12-Dimethylbenz(a)anthracene	mg/L	0.005	<0.005	-	
Acenaphthene	mg/L	0.001	<0.001	-	
Acenaphthylene	mg/L	0.001	<0.001	-	
Anthracene	mg/L	0.001	<0.001	-	
Benz(a)anthracene	mg/L	0.001	<0.001	-	
Benzo(a)pyrene	mg/L	0.001	<0.001	-	
Benzo(b+j)fluoranthene	mg/L	0.001	<0.001	-	
Benzo(g,h,i)perylene	mg/L	0.001	<0.001	-	
Benzo(k)fluoranthene	mg/L	0.001	<0.001	-	
Chrysene	mg/L	0.001	<0.001	-	
Dibenz(a,h)anthracene	mg/L	0.001	<0.001	-	
Fluoranthene	mg/L	0.001	<0.001	-	
Fluorene	mg/L	0.001	<0.001	-	
Indeno(1,2,3-c,d)pyrene	mg/L	0.001	<0.001	-	
Naphthalene	mg/L	0.001	<0.001	-	
Phenanthrene	mg/L	0.001	<0.001	-	
Pyrene	mg/L	0.001	<0.001	-	
PAHs (Sum of total)	mg/L	0.001	<0.001	-	
Organochlorine Pesticides					
Pentachlorophenol	mg/L	0.01	<0.01	-	
4,4-DDE	mg/L	0.0002	<0.0002	-	
a-BHC	mg/L	0.0002	<0.0002	-	
b-BHC	mg/L	0.0002	<0.0002	-	
d-BHC	mg/L	0.0002	<0.0002	-	
g-BHC (Lindane)	mg/L	0.0002	<0.0002	-	
Aldrin	mg/L	0.0002	<0.0002	-	
Dieldrin	mg/L	0.0002	<0.0002	-	
Aldrin + Dieldrin	mg/L	0.0002	<0.0002	-	
Chlordane	mg/L	0.002	<0.002	-	
DDT	mg/L	0.0002	<0.0002	-	
DDD	mg/L	0.0002	<0.0002	-	
DDT+DDE+DDD	mg/L	0.0002	<0.0002	-	
Endosulfan I	mg/L	0.0002	<0.0002	-	
Endosulfan II	mg/L	0.0002	<0.0002	-	
Endosulfan sulphate	mg/L	0.0002	<0.0002	-	
Endrin	mg/L	0.0002	<0.0002	-	
Endrin aldehyde	mg/L	0.0002	<0.0002	-	
Endrin ketone	mg/L	0.0002	<0.0002	-	
Heptachlor	mg/L	0.0002	<0.0002	-	
Heptachlor Epoxide	mg/L	0.0002	<0.0002	-	
Hexachlorobenzene	mg/L	0.0002	<0.0002	-	
Methoxychlor	mg/L	0.0002	<0.0002	-	
Toxaphene	mg/L	0.005	<0.005	-	
Chlorinated Alkanes					
1,1,1,2-tetrachloroethane	mg/L	0.001	<0.001	-	
1,1,1-trichloroethane	mg/L	0.001	<0.001	-	
1,1,2,2-tetrachloroethane	mg/L	0.001	<0.001	-	
1,1,2-trichloroethane	mg/L	0.001	<0.001	-	
1,1-dichloroethane	mg/L	0.001	<0.001	-	
1,2,3-trichloropropane	mg/L	0.001	<0.001	-	
1,2-dichloroethane	mg/L	0.001	<0.001	-	
1,2-dichloropropane	mg/L	0.001	<0.001	-	
1,3-dichloropropane	mg/L	0.001	<0.001	-	
Bromochloromethane	mg/L	0.001	<0.001	-	
Carbon tetrachloride	mg/L	0.001	<0.001	-	
Chloroethane	mg/L	0.005	<0.005	-	
Chloromethane	mg/L	0.005	<0.005	-	
Dichlorodifluoromethane	mg/L	0.005	<0.005	-	
Dichloromethane	mg/L	0.005	<0.005	-	
Hexachloroethane	mg/L	0.005	<0.005	-	
Trichlorofluoromethane	mg/L	0.005	<0.005	-	

TABLE - QAQC Summary - Rinsate, Trip Blank, Trip Spike
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field Blanks

Lab Report Number			1154010	1154010	1154010
Sample ID			RINS	Trip Blank	Trip Spike
Matrix Type			Water	Water	Water
Date			24 Oct 2024	24 Oct 2024	24 Oct 2024
Chlorinated Alkenes					
1,1-dichloroethene	mg/L	0.001	<0.001	-	
3-chloropropene	mg/L	0.001	<0.001	-	
4-chlorotoluene	mg/L	0.001	<0.001	-	
cis-1,2-dichloroethene	mg/L	0.001	<0.001	-	
cis-1,3-dichloropropene	mg/L	0.001	<0.001	-	
Tetrachloroethene	mg/L	0.001	<0.001	-	
trans-1,2-dichloroethene	mg/L	0.001	<0.001	-	
trans-1,3-dichloropropene	mg/L	0.001	<0.001	-	
Trichloroethene	mg/L	0.001	<0.001	-	
Vinyl Chloride	mg/L	0.005	<0.005	-	
Semivolatile Organic Compounds					
1-Chloronaphthalene	mg/L	0.005	<0.005	-	
2-Chloronaphthalene	mg/L	0.005	<0.005	-	
Bis(2-chloroethoxy) methane	mg/L	0.005	<0.005	-	
Dibenz(a.j)acridine	mg/L	0.005	<0.005	-	
Acetophenone	mg/L	0.005	<0.005	-	
Bis(2-chloroisopropyl) ether	mg/L	0.005	<0.005	-	
4-Bromophenyl phenyl ether	mg/L	0.005	<0.005	-	
4-Chlorophenyl phenyl ether	mg/L	0.005	<0.005	-	
2,6-dinitrotoluene	mg/L	0.005	<0.005	-	
2-Picoline	mg/L	0.005	<0.005	-	
4-Aminobiphenyl	mg/L	0.005	<0.005	-	
N-Nitrosopiperidine	mg/L	0.005	<0.005	-	
N-nitrosodi-n-butylamine	mg/L	0.005	<0.005	-	
N-nitrosodi-n-propylamine	mg/L	0.005	<0.005	-	
1-Naphthylamine	mg/L	0.005	<0.005	-	
2-Naphthylamine	mg/L	0.005	<0.005	-	
3,3-Dichlorobenzidine	mg/L	0.005	<0.005	-	
4-(dimethylamino) azobenzene	mg/L	0.005	<0.005	-	
Diphenylamine	mg/L	0.005	<0.005	-	
Butyl benzyl phthalate	mg/L	0.005	<0.005	-	
Dibenzofuran	mg/L	0.005	<0.005	-	
Solvents					
Acetone	mg/L	0.005	<0.005	-	
Benzyl chloride	mg/L	0.005	<0.005	-	
Polychlorinated Biphenyls					
Arochlor 1016	mg/L	0.005	<0.005	-	
Arochlor 1221	mg/L	0.005	<0.005	-	
Arochlor 1232	mg/L	0.005	<0.005	-	
Arochlor 1242	mg/L	0.005	<0.005	-	
Arochlor 1248	mg/L	0.005	<0.005	-	
Arochlor 1254	mg/L	0.005	<0.005	-	
Arochlor 1260	mg/L	0.005	<0.005	-	
PCBs (Sum of total)	mg/L	0.005	<0.005	-	
Phenols					
2,3,4,6-tetrachlorophenol	mg/L	0.01	<0.01	-	
2,4,5-trichlorophenol	mg/L	0.01	<0.01	-	
2,4,6-trichlorophenol	mg/L	0.01	<0.01	-	
2,4-dichlorophenol	mg/L	0.003	<0.003	-	
2,4-dimethylphenol	mg/L	0.003	<0.003	-	
2,4-dinitrophenol	mg/L	0.03	<0.03	-	
2,6-dichlorophenol	mg/L	0.003	<0.003	-	
2-chlorophenol	mg/L	0.003	<0.003	-	
2-Methylphenol	mg/L	0.003	<0.003	-	
2-nitrophenol	mg/L	0.01	<0.01	-	
3&4-Methylphenol (m&p-cresol)	mg/L	0.006	<0.006	-	
4,6-Dinitro-2-methylphenol	mg/L	0.03	<0.03	-	
4-Chloro-3-Methylphenol	mg/L	0.01	<0.01	-	
4-nitrophenol	mg/L	0.03	<0.03	-	
Phenol	mg/L	0.003	<0.003	-	
PFAS					
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.05	-	
Perfluoropentanoic acid (PFPeA)	µg/L	0.01	<0.01	-	
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.01	-	
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<0.01	-	
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	-	
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.01	-	
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.01	-	
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.01	-	
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.01	-	
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.01	-	
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.01	-	
Perfluorooctane sulfonamide (FOSA)	µg/L	0.05	<0.05	-	
N-Methyl perfluorooctane sulfonamide (NMeFOSA)	µg/L	0.05	<0.05	-	
N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	µg/L	0.05	<0.05	-	
N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	µg/L	0.05	<0.05	-	
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	µg/L	0.05	<0.05	-	
N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	µg/L	0.05	<0.05	-	
N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	µg/L	0.05	<0.05	-	
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.01	-	
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.01	<0.01	-	
Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.01	<0.01	-	
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.01	<0.01	-	
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.01	-	
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.01	<0.01	-	
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.01	-	
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	µg/L	0.01	<0.01	-	

TABLE - QAQC Summary - Rinsate, Trip Blank, Trip Spike
Project Number: 67817
Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field Blanks

			Lab Report Number	1154010	1154010	1154010
			Sample ID	RINS	Trip Blank	Trip Spike
			Matrix Type	Water	Water	Water
			Date	24 Oct 2024	24 Oct 2024	24 Oct 2024
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	µg/L	0.05		<0.05	-	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	µg/L	0.01		<0.01	-	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	µg/L	0.01		<0.01	-	
Sum of PFHxS and PFOS	µg/L	0.01		<0.01	-	
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01		<0.01	-	
Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01		<0.01	-	
Sum of WA DWER PFAS (n=10)*	UG/L	0.05		<0.05	-	
Sum of PFAS	µg/L	0.1		<0.1	-	
Perfluorononanesulfonic acid ion	µg/L	0.01		<0.01	-	
MAH						
1,2,4-trimethylbenzene	mg/L	0.001		<0.001	-	
1,3,5-trimethylbenzene	mg/L	0.001		<0.001	-	
Styrene	mg/L	0.001		<0.001	-	
Total MAH	mg/L	0.003		<0.003	-	
Bromobenzene	mg/L	0.001		<0.001	-	
Isopropylbenzene	mg/L	0.001		<0.001	-	
Miscellaneous Hydrocarbons						
1,2-dibromoethane	mg/L	0.001		<0.001	-	
Bromomethane	mg/L	0.005		<0.005	-	
Dibromomethane	mg/L	0.001		<0.001	-	
Iodomethane	mg/L	0.001		<0.001	-	
4-Methyl-2-pentanone	mg/L	0.005		<0.005	-	
Methyl Ethyl Ketone	mg/L	0.005		<0.005	-	
Chlorinated Benzenes						
1,2,3,4-tetrachlorobenzene	mg/L	0.005		<0.005	-	
1,2,3,5-tetrachlorobenzene	mg/L	0.005		<0.005	-	
1,2,3-trichlorobenzene	mg/L	0.005		<0.005	-	
1,2,4,5-tetrachlorobenzene	mg/L	0.005		<0.005	-	
1,2,4-trichlorobenzene	mg/L	0.005		<0.005	-	
1,2-Dichlorobenzene	mg/L	0.001		<0.001	-	
1,3,5-trichlorobenzene	mg/L	0.005		<0.005	-	
1,3-dichlorobenzene	mg/L	0.001		<0.001	-	
1,4-dichlorobenzene	mg/L	0.001		<0.001	-	
Chlorobenzene	mg/L	0.001		<0.001	-	
Pentachlorobenzene	mg/L	0.005		<0.005	-	
Trihalomethanes						
Dibromochloromethane	mg/L	0.001		<0.001	-	
Chloroform	mg/L	0.005		<0.005	-	
Tribromomethane	mg/L	0.001		<0.001	-	
Bromodichloromethane	mg/L	0.001		<0.001	-	
Herbicides & Fungicides						
Pronamide	mg/L	0.005		<0.005	-	
Trifluralin	mg/L	0.005		<0.005	-	
Phthalates						
Bis(2-ethylhexyl) phthalate	mg/L	0.005		<0.005	-	
Diethylphthalate	mg/L	0.005		<0.005	-	
Dimethyl phthalate	mg/L	0.005		<0.005	-	
Di-n-butyl phthalate	mg/L	0.005		<0.005	-	
Di-n-octyl phthalate	mg/L	0.005		<0.005	-	
Nitrobenzenes						
Nitrobenzene	mg/L	0.005		<0.005	-	
Pentachloronitrobenzene	mg/L	0.005		<0.005	-	
Nitrotoluenes						
2,4-dinitrotoluene	mg/L	0.005		<0.005	-	
Anilines						
2-Nitroaniline	mg/L	0.005		<0.005	-	
Aniline	mg/L	0.005		<0.005	-	
Organic Sulfur Compounds						
Carbon disulfide	mg/L	0.001		<0.001	-	
EPA VIC - IWRG621						
Chlorinated Hydrocarbons EPAVic	mg/L	0.005		<0.005	-	
Other Chlorinated Hydrocarbons EPAVic	mg/L	0.005		<0.005	-	
Organochlorine Pesticides EPAVic	mg/L	0.002		<0.002	-	
Other Organochlorine Pesticides EPAVic	mg/L	0.002		<0.002	-	
Chlorinated Hydrocarbons						
Hexachlorocyclopentadiene	mg/L	0.005		<0.005	-	
Hexachlorobutadiene	mg/L	0.005		<0.005	-	

TABLE - QAQC Summary-Gas Field Blanks

Project Number: 67817

Project Name: 67817_BIPDSI , Denison Street, Banksmeadow, NSW , KBR

Field Blanks

			Lab Report Number	1153970	1153970
			Sample ID	FB	FB
			Matrix Type	Gas	Gas
			Date	25 Oct 2024	25 Oct 2024
	Unit	EQL		
BTEXN				
Benzene	mg/m3	0.08	<0.08	<0.08
Toluene	mg/m3	0.08	<0.08	<0.08
Ethylbenzene	mg/m3	0.08	<0.08	<0.08
Xylene Total	mg/m3	0.24	<0.24	<0.24
PAH				
Naphthalene	mg/m3	0.08	<0.08	<0.08
Chlorinated Alkanes				
1,1,1,2-tetrachloroethane	mg/m3	0.08	<0.08	<0.08
1,1,1-trichloroethane	mg/m3	0.08	<0.08	<0.08
1,1,2,2-tetrachloroethane	mg/m3	0.08	<0.08	<0.08
1,1,2-trichloroethane	mg/m3	0.08	<0.08	<0.08
1,1-dichloroethane	mg/m3	0.08	<0.08	<0.08
1,2,3-trichloropropane	mg/m3	0.08	<0.08	<0.08
1,2-dibromo-3-chloropropane	mg/m3	0.08	<0.08	<0.08
1,2-dichloroethane	mg/m3	0.08	<0.08	<0.08
1,2-dichloropropane	mg/m3	0.08	<0.08	<0.08
1,3-dichloropropane	mg/m3	0.08	<0.08	<0.08
2,2-dichloropropane	mg/m3	0.08	<0.08	<0.08
Bromochloromethane	mg/m3	0.08	<0.08	<0.08
Carbon tetrachloride	mg/m3	0.08	<0.08	<0.08
Trichlorofluoromethane	mg/m3	0.08	<0.08	<0.08
Chlorinated Alkenes				
1,1-dichloroethene	mg/m3	0.08	<0.08	<0.08
1,1-dichloropropene	mg/m3	0.08	<0.08	<0.08
2-chlorotoluene	mg/m3	0.08	<0.08	<0.08
4-chlorotoluene	mg/m3	0.08	<0.08	<0.08
cis-1,2-dichloroethene	mg/m3	0.08	<0.08	<0.08
cis-1,3-dichloropropene	mg/m3	0.08	<0.08	<0.08
Tetrachloroethene	mg/m3	0.08	<0.08	<0.08
trans-1,3-dichloropropene	mg/m3	0.08	<0.08	<0.08
Trichloroethene	mg/m3	0.08	<0.08	<0.08
Vinyl Chloride	mg/m3	0.08	<0.08	<0.08
MAH				
1,2,4-trimethylbenzene	mg/m3	0.08	<0.08	<0.08
1,3,5-trimethylbenzene	mg/m3	0.08	<0.08	<0.08
n-butylbenzene	mg/m3	0.08	<0.08	<0.08
n-propylbenzene	mg/m3	0.08	<0.08	<0.08
p-isopropyltoluene	mg/m3	0.08	<0.08	<0.08
sec-butylbenzene	mg/m3	0.08	<0.08	<0.08
Styrene	mg/m3	0.81	<0.81	<0.81
tert-butylbenzene	mg/m3	0.08	<0.08	<0.08
Isopropylbenzene	mg/m3	0.08	<0.08	<0.08
Miscellaneous Hydrocarbons				
1,2-dibromoethane	mg/m3	0.08	<0.08	<0.08
Dibromomethane	mg/m3	0.08	<0.08	<0.08
Chlorinated Benzenes				
1,2,3-trichlorobenzene	mg/m3	0.08	<0.08	<0.08
1,2,4-trichlorobenzene	mg/m3	0.08	<0.08	<0.08
1,2-Dichlorobenzene	mg/m3	0.08	<0.08	<0.08
1,3-dichlorobenzene	mg/m3	0.08	<0.08	<0.08
1,4-dichlorobenzene	mg/m3	0.08	<0.08	<0.08
Chlorobenzene	mg/m3	0.08	<0.08	<0.08
Trihalomethanes				
Dibromochloromethane	mg/m3	0.08	<0.08	<0.08
Chloroform	mg/m3	0.08	<0.08	<0.08
Tribromomethane	mg/m3	0.08	<0.08	<0.08
Bromodichloromethane	mg/m3	0.08	<0.08	<0.08
Chlorinated Hydrocarbons				
Hexachlorobutadiene	mg/m3	0.08	<0.08	<0.08

Appendix F Laboratory Reports and Chain of Custody Documentation

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Level 8, 179 Elizabeth St
Sydney
NSW 2000

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Attention: **Chris Bielby**

Report **1153970-A**
Project name BOTANY SV
Project ID 67817
Received Date Oct 28, 2024

Client Sample ID			**BH5_SV FRONT**	**BH5_SV BACK**	**HA2_SV FRONT**	**HA2_SV BACK**
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins Sample No.			**S24-Oc0073756**	**S24-Oc0073757**	**S24-Oc0073758**	**S24-Oc0073759**
Date Sampled			**Oct 25, 2024**	**Oct 25, 2024**	**Oct 25, 2024**	**Oct 25, 2024**
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	2.0	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	2.0	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	1.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	6.7	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	4.4	< 0.5	3.6	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	0.6	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH5_SV FRONT	BH5_SV BACK	HA2_SV FRONT	HA2_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073756	S24-Oc0073757	S24-Oc0073758	S24-Oc0073759
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	170	< 0.5	19	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	32	< 0.5	1.6	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	2.9	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	90	92	90	91
4-Bromofluorobenzene (surr.)	1	%	93	95	91	91
Dibromofluoromethane (surr.)	1	%	103	102	102	102
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	16	< 0.5	< 0.5	< 0.5

Client Sample ID			BH4_SV FRONT	BH4_SV BACK	QC_SV FRONT	QC_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073760	S24-Oc0073761	S24-Oc0073762	S24-Oc0073763
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH4_SV FRONT	BH4_SV BACK	QC_SV FRONT	QC_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073760	S24-Oc0073761	S24-Oc0073762	S24-Oc0073763
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	3.3	< 0.5	3.2	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	14	< 0.5	15	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	7.8	< 0.5	7.6	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	90	91	89	90
4-Bromofluorobenzene (surr.)	1	%	92	94	94	96
Dibromofluoromethane (surr.)	1	%	101	103	102	101
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			HA1_SV FRONT	HA1_SV BACK	BH3_SV FRONT	BH3_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073764	S24-Oc0073765	S24-Oc0073766	S24-Oc0073767
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	0.5	< 0.5	0.8	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	8.2	< 0.5	8.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	1.1	< 0.5	1.0	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	14	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	88	90	90	90
4-Bromofluorobenzene (surr.)	1	%	95	96	95	97
Dibromofluoromethane (surr.)	1	%	102	102	102	102

Client Sample ID			HA1_SV FRONT	HA1_SV BACK	BH3_SV FRONT	BH3_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073764	S24-Oc0073765	S24-Oc0073766	S24-Oc0073767
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH2_SV FRONT	BH2_SV BACK	HA3_SV FRONT	HA3_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073768	S24-Oc0073769	S24-Oc0073770	S24-Oc0073771
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	0.6	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	8.4	< 0.5	3.3	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH2_SV FRONT	BH2_SV BACK	HA3_SV FRONT	HA3_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073768	S24-Oc0073769	S24-Oc0073770	S24-Oc0073771
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	84	< 0.5	210	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	32	< 0.5	180	< 0.5
Trichlorofluoromethane	0.5	Total ug	1.2	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	90	90	88	91
4-Bromofluorobenzene (surr.)	1	%	95	96	95	94
Dibromofluoromethane (surr.)	1	%	103	102	103	102
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			HA4_SV FRONT	HA4_SV BACK	FB_SV FRONT	FB_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073772	S24-Oc0073773	S24-Oc0073774	S24-Oc0073775
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			HA4_SV FRONT	HA4_SV BACK	FB_SV FRONT	FB_SV BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S24-Oc0073772	S24-Oc0073773	S24-Oc0073774	S24-Oc0073775
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	0.7	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	1.6	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	79	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	84	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	90	90	90	90
4-Bromofluorobenzene (surr.)	1	%	89	92	91	97
Dibromofluoromethane (surr.)	1	%	102	103	102	103
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
VOCs in Ambient Air by GC/MS	Melbourne	Oct 28, 2024	14 Days

- Method: LTM-ORG-2030 VOCs in Ambient Air by GC/MS

eurofins

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

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: BOTANY SV
Project ID: 67817

Order No.:
Report #: 1153970
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Nov 4, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	BH5_SV FRONT	Oct 25, 2024		Air	S24-Oc0073756	X
2	BH5_SV BACK	Oct 25, 2024		Air	S24-Oc0073757	X
3	HA2_SV FRONT	Oct 25, 2024		Air	S24-Oc0073758	X
4	HA2_SV BACK	Oct 25, 2024		Air	S24-Oc0073759	X
5	BH4_SV FRONT	Oct 25, 2024		Air	S24-Oc0073760	X
6	BH4_SV BACK	Oct 25, 2024		Air	S24-Oc0073761	X
7	QC_SV FRONT	Oct 25, 2024		Air	S24-Oc0073762	X
8	QC_SV BACK	Oct 25, 2024		Air	S24-Oc0073763	X
9	HA1_SV FRONT	Oct 25, 2024		Air	S24-Oc0073764	X

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

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

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

Eurofins Environment Testing NZ Ltd
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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: BOTANY SV
Project ID: 67817

Order No.:
Report #: 1153970
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Nov 4, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA # 1261 Site # 1254						X
10	HA1_SV BACK	Oct 25, 2024		Air	S24-Oc0073765	X
11	BH3_SV FRONT	Oct 25, 2024		Air	S24-Oc0073766	X
12	BH3_SV BACK	Oct 25, 2024		Air	S24-Oc0073767	X
13	BH2_SV FRONT	Oct 25, 2024		Air	S24-Oc0073768	X
14	BH2_SV BACK	Oct 25, 2024		Air	S24-Oc0073769	X
15	HA3_SV FRONT	Oct 25, 2024		Air	S24-Oc0073770	X
16	HA3_SV BACK	Oct 25, 2024		Air	S24-Oc0073771	X
17	HA4_SV FRONT	Oct 25, 2024		Air	S24-Oc0073772	X
18	HA4_SV BACK	Oct 25, 2024		Air	S24-Oc0073773	X
19	FB_SV FRONT	Oct 25, 2024		Air	S24-Oc0073774	X

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

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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

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Eurofins Analytical Services Manager : Andrew Black

Sample Detail						VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA # 1261 Site # 1254						X
20	FB_SV BACK	Oct 25, 2024		Air	S24-Oc0073775	X
Test Counts						20

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloropropene	Total ug	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromoethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
2-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
2.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
4-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
Benzene	Total ug	< 0.5			0.5	Pass	
Bromochloromethane	Total ug	< 0.5			0.5	Pass	
Bromodichloromethane	Total ug	< 0.5			0.5	Pass	
Bromoform	Total ug	< 0.5			0.5	Pass	
Carbon Tetrachloride	Total ug	< 0.5			0.5	Pass	
Chlorobenzene	Total ug	< 0.5			0.5	Pass	
Chloroform	Total ug	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	Total ug	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Dibromochloromethane	Total ug	< 0.5			0.5	Pass	
Dibromomethane	Total ug	< 0.5			0.5	Pass	
Ethylbenzene	Total ug	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	Total ug	< 0.5			0.5	Pass	
n-Butylbenzene	Total ug	< 0.5			0.5	Pass	
n-Propylbenzene	Total ug	< 0.5			0.5	Pass	
Naphthalene	Total ug	< 0.5			0.5	Pass	
p-Isopropyltoluene	Total ug	< 0.5			0.5	Pass	
sec-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Styrene	Total ug	< 5			5	Pass	
tert-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Tetrachloroethene	Total ug	< 0.5			0.5	Pass	
Toluene	Total ug	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Trichloroethene	Total ug	< 0.5			0.5	Pass	
Trichlorofluoromethane	Total ug	< 0.5			0.5	Pass	
Vinyl chloride	Total ug	< 0.5			0.5	Pass	
Xylenes - Total*	Total ug	< 1.5			1.5	Pass	
1.2-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobutadiene	Total ug	< 0.5			0.5	Pass	
Method Blank							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloropropene	Total ug	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromoethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
2-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
2.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
4-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
Benzene	Total ug	< 0.5			0.5	Pass	
Bromochloromethane	Total ug	< 0.5			0.5	Pass	
Bromodichloromethane	Total ug	< 0.5			0.5	Pass	
Bromoform	Total ug	< 0.5			0.5	Pass	
Carbon Tetrachloride	Total ug	< 0.5			0.5	Pass	
Chlorobenzene	Total ug	< 0.5			0.5	Pass	
Chloroform	Total ug	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	Total ug	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Dibromochloromethane	Total ug	< 0.5			0.5	Pass	
Dibromomethane	Total ug	< 0.5			0.5	Pass	
Ethylbenzene	Total ug	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	Total ug	< 0.5			0.5	Pass	
n-Butylbenzene	Total ug	< 0.5			0.5	Pass	
n-Propylbenzene	Total ug	< 0.5			0.5	Pass	
Naphthalene	Total ug	< 0.5			0.5	Pass	
p-Isopropyltoluene	Total ug	< 0.5			0.5	Pass	
sec-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Styrene	Total ug	< 5			5	Pass	
tert-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Tetrachloroethene	Total ug	< 0.5			0.5	Pass	
Toluene	Total ug	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Trichloroethene	Total ug	< 0.5			0.5	Pass	
Trichlorofluoromethane	Total ug	< 0.5			0.5	Pass	
Vinyl chloride	Total ug	< 0.5			0.5	Pass	
Xylenes - Total*	Total ug	< 1.5			1.5	Pass	
1.2-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
Hexachlorobutadiene	Total ug	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethene	%	73			70-130	Pass	
1.1-Dichloropropene	%	80			70-130	Pass	
1.1.1-Trichloroethane	%	92			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	85			75-125	Pass	
1.2-Dichloroethane	%	84			70-130	Pass	
Benzene	%	84			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
Naphthalene	%	70			70-130	Pass	
Toluene	%	97			70-130	Pass	
Trichloroethene	%	90			70-130	Pass	
Xylenes - Total*	%	73			70-130	Pass	
1.2-Dichlorobenzene	%	90			70-130	Pass	
1.2.3-Trichlorobenzene	%	85			70-130	Pass	
1.2.4-Trichlorobenzene	%	86			70-130	Pass	
1.4-Dichlorobenzene	%	92			70-130	Pass	
LCS - % Recovery							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethene	%	117			70-130	Pass	
1.1-Dichloropropene	%	123			70-130	Pass	
1.1.1-Trichloroethane	%	127			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	113			75-125	Pass	
1.2-Dichloroethane	%	122			70-130	Pass	
Benzene	%	122			70-130	Pass	
Ethylbenzene	%	128			70-130	Pass	
Naphthalene	%	96			70-130	Pass	
Toluene	%	127			70-130	Pass	
Trichloroethene	%	130			70-130	Pass	
Xylenes - Total*	%	127			70-130	Pass	
1.2-Dichlorobenzene	%	117			70-130	Pass	
1.2.3-Trichlorobenzene	%	114			70-130	Pass	
1.2.4-Trichlorobenzene	%	111			70-130	Pass	
1.4-Dichlorobenzene	%	119			70-130	Pass	
LCS - % Recovery							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethene	%	80			70-130	Pass	
1.1-Dichloropropene	%	90			70-130	Pass	
1.1.1-Trichloroethane	%	104			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	97			75-125	Pass	
1.2-Dichloroethane	%	96			70-130	Pass	
Benzene	%	92			70-130	Pass	
Ethylbenzene	%	108			70-130	Pass	
Naphthalene	%	83			70-130	Pass	
Toluene	%	107			70-130	Pass	
Trichloroethene	%	101			70-130	Pass	
Xylenes - Total*	%	107			70-130	Pass	
1.2-Dichlorobenzene	%	102			70-130	Pass	
1.2.3-Trichlorobenzene	%	100			70-130	Pass	
1.2.4-Trichlorobenzene	%	97			70-130	Pass	
1.4-Dichlorobenzene	%	103			70-130	Pass	

Comments

Sample Integrity

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

Authorised by:

Andrew Black	Analytical Services Manager
Joseph Edouard	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-Volatile



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
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NZBN: 9429046024954

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Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Chris Bielby
Project name: BOTANY SV
Project ID: 67817
Turnaround time: 5 Day
Date/Time received Oct 28, 2024 6:11 PM
Eurofins reference 1153970

Sample Information

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

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Chris Bielby - cbielby@jbsg.com.au.

Global Leader - Results you can trust

Eurofins. (1 | 1)

Chain of Custody

JBS&G

PROJECT NO.: 67817	LABORATORY BATCH NO.:
PROJECT NAME: BOTONY SV	SAMPLERS: A. CHEOK.
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSLABRESULTS@jbsg.com.au; (3) CBIELBY@jbsg.com.au ACHEOK

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	VOC 8260	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH5_SV	CARBON	25/10		CARBON TUBE		✓			
HA2_SV						✓			
~~HA3_SV_M~~									
BH4_SV						✓			
QC_SV						✓			
HA1_SV						✓			
BH3_SV						✓			
~~BH3_SV_M~~									
BH2_SV						✓			
HA3_SV						✓			
HA4_SV						✓			
FB						✓			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: CB DATE: 28/10/24. OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: Mary Ann DATE: 6:11 PM 28/10 OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C NA
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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1153970

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

CERTIFICATE OF ANALYSIS 365815

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Chris Bielby
Address	Level 8, 179 Elizabeth St, Sydney, NSW, 2000

Sample Details

Your Reference	**67817**
Number of Samples	1 Carbon tube
Date samples received	07/11/2024
Date completed instructions received	07/11/2024

Analysis Details

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

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

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

Report Details

Date results requested by	08/11/2024
Date of Issue	08/11/2024

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

Results Approved By
Liam Timmins, Organics Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

VOC in Carbon tubes & Badges		
Our Reference	UNITS	365815-1
Your Reference		QA_SV
Type of sample		Carbon tube
Date Extracted	-	08/11/2024
Date Analysed	-	08/11/2024
Acetone	µg	<20
1,1-Dichloroethene	µg	<5
Acrylonitrile	µg	<5
Methyl tert-butyl ethene (MtBE)	µg	<5
Trans 1,2-Dichloroethene	µg	<5
1,1-Dichloroethane	µg	<5
3-Methylpentane	µg	<5
Methyl Ethyl Ketone (MEK)	µg	<10
Hexane	µg	<20
Ethylacetate	µg	<5
Cis 1,2-Dichloroethene	µg	<5
2,2-Dichloropropane	µg	<5
Bromochloromethane	µg	<5
Chloroform	µg	<5
Methylcyclopentane	µg	<5
1,1,1-Trichloroethane	µg	<5
1,2-Dichloroethane	µg	<5
Methyl Isopropyl Ketone (MIPK)	µg	<5
1,1-Dichloropropene	µg	<5
Benzene	µg	<2
Carbon Tetrachloride	µg	<5
Cyclohexane	µg	<5
3-Methylhexane	µg	<5
Ethyl acrylate	µg	<5
Heptane	µg	<5
Trichloroethene	µg	120
1,2-Dichloropropane	µg	<5
1,4-Dioxane	µg	<5
Bromodichloromethane	µg	<5
Epichlorohydrin	µg	<5
Methylcyclohexane	µg	<5
Methyl Isobutyl Ketone (MIBK)	µg	<5
cis-1,3-Dichloropropene	µg	<5
trans-1,3-Dichloropropene	µg	<5
Toluene	µg	<5

VOC in Carbon tubes & Badges		
Our Reference		365815-1
Your Reference	UNITS	QA_SV
Type of sample		Carbon tube
1,1,2-Trichloroethane	µg	<5
1,3-Dichloropropane	µg	<5
Octane	µg	<5
n-Butyl acetate	µg	<5
Dibromochloromethane	µg	<5
Tetrachloroethene	µg	85
1,2-Dibromoethane	µg	<5
Chlorobenzene	µg	<5
1,1,1,2-Tetrachloroethane	µg	<5
Ethylbenzene	µg	<5
m+p-Xylene	µg	<10
Nonane	µg	<5
Styrene	µg	<5
o-Xylene	µg	<5
Cyclohexanone	µg	<5
Bromoform	µg	<5
1,1,2,2-Tetrachloroethane	µg	<5
1,2,3-Trichloropropane	µg	<5
Isopropylbenzene	µg	<5
Bromobenzene	µg	<5
n-Propylbenzene	µg	<5
Diisobutyl Ketone (DIBK)	µg	<5
2-Chlorotoluene	µg	<5
4-Chlorotoluene	µg	<5
1,3,5-Trimethylbenzene	µg	<5
a-Methylstyrene	µg	<5
Decane	µg	<5
tert-Butylbenzene	µg	<5
1,2,4-Trimethylbenzene	µg	<5
sec-Butylbenzene	µg	<5
1,3-Dichlorobenzene	µg	<5
Benzyl chloride	µg	<5
1,4-Dichlorobenzene	µg	<5
4-Isopropyl toluene	µg	<5
1,2-Dichlorobenzene	µg	<5
n-Butylbenzene	µg	<5
1,2-Dibromo-3-chloropropane	µg	<5
Dodecane	µg	<5

VOC in Carbon tubes & Badges		
Our Reference		365815-1
Your Reference	UNITS	QA_SV
Type of sample		Carbon tube
1,2,4-Trichlorobenzene	µg	<5
Naphthalene	µg	<10
Hexachlorobutadiene	µg	<5
1,2,3-Trichlorobenzene	µg	<5
Surrogate Toluene-d8	%	70
Surrogate 4-Bromofluorobenzene	%	84

Method ID	Methodology Summary
ORG-022	Determination of volatile organic compounds in charcoal tubes/badges/sorbents using CS2 extraction, determined by GC/GC-MS. Desorption efficiencies are not applied to results. Note where µg/m3 or mg/m3 results are supplied for SKC badges, the factors used are for 575-002, if 575-002 data is unavailable for an analyte then use 575-001 then 575-003 (exposure time must be supplied). Otherwise a sampling rate may be used for a similar analyte on request. Analytes such as (where applicable) Iodomethane, Chloroprene, Nitrobenzene, Naphthalene and 1, 2, 3 / 1, 2, 4 Trichlorobenzenes are considered to be semi-quant analyses using CS2 desorption from charcoal tubes. The latter three compounds are better served by XAD-2 collection and analysis. Note - air volume measurements are not covered by Envirolab's NATA accreditation.

QUALITY CONTROL: VOC in Carbon tubes & Badges					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date Extracted	-			08/11/2024	[NT]	[NT]	[NT]	[NT]	08/11/2024	[NT]
Date Analysed	-			08/11/2024	[NT]	[NT]	[NT]	[NT]	08/11/2024	[NT]
Acetone	µg	20	ORG-022	<20	[NT]	[NT]	[NT]	[NT]	112	[NT]
1,1-Dichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	121	[NT]
Acrylonitrile	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	117	[NT]
Methyl tert-butyl ethene (MtBE)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	121	[NT]
Trans 1,2-Dichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	125	[NT]
1,1-Dichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	124	[NT]
3-Methylpentane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	116	[NT]
Methyl Ethyl Ketone (MEK)	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	117	[NT]
Hexane	µg	20	ORG-022	<20	[NT]	[NT]	[NT]	[NT]	108	[NT]
Ethylacetate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	118	[NT]
Cis 1,2-Dichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	116	[NT]
2,2-Dichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	110	[NT]
Bromochloromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
Chloroform	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	113	[NT]
Methylcyclopentane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	97	[NT]
1,1,1-Trichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
1,2-Dichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
Methyl Isopropyl Ketone (MIPK)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
1,1-Dichloropropene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	93	[NT]
Benzene	µg	2	ORG-022	<2	[NT]	[NT]	[NT]	[NT]	91	[NT]
Carbon Tetrachloride	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	94	[NT]
Cyclohexane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
3-Methylhexane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	87	[NT]
Ethyl acrylate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Heptane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	79	[NT]
Trichloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	92	[NT]
1,2-Dichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	87	[NT]
1,4-Dioxane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	89	[NT]
Bromodichloromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	84	[NT]
Epichlorohydrin	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	87	[NT]
Methylcyclohexane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	77	[NT]
Methyl Isobutyl Ketone (MIBK)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	75	[NT]
cis-1,3-Dichloropropene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	80	[NT]
trans-1,3-Dichloropropene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	77	[NT]
Toluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	71	[NT]

QUALITY CONTROL: VOC in Carbon tubes & Badges					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
1,1,2-Trichloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	76	[NT]
1,3-Dichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	73	[NT]
Octane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	66	[NT]
n-Butyl acetate	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	76	[NT]
Dibromochloromethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	70	[NT]
Tetrachloroethene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	75	[NT]
1,2-Dibromoethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	70	[NT]
Chlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	93	[NT]
1,1,1,2-Tetrachloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Ethylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	88	[NT]
m+p-Xylene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	87	[NT]
Nonane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	82	[NT]
Styrene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	94	[NT]
o-Xylene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	88	[NT]
Cyclohexanone	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	89	[NT]
Bromoform	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	88	[NT]
1,1,2,2-Tetrachloroethane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	92	[NT]
1,2,3-Trichloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	91	[NT]
Isopropylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	93	[NT]
Bromobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	88	[NT]
n-Propylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	84	[NT]
Diisobutyl Ketone (DIBK)	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	78	[NT]
2-Chlorotoluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	87	[NT]
4-Chlorotoluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	87	[NT]
1,3,5-Trimethylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	83	[NT]
a-Methylstyrene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	81	[NT]
Decane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	81	[NT]
tert-Butylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	85	[NT]
1,2,4-Trimethylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	82	[NT]
sec-Butylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	82	[NT]
1,3-Dichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	88	[NT]
Benzyl chloride	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	83	[NT]
1,4-Dichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
4-Isopropyl toluene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	90	[NT]
1,2-Dichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
n-Butylbenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	91	[NT]
1,2-Dibromo-3-chloropropane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	94	[NT]
Dodecane	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	84	[NT]
1,2,4-Trichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Naphthalene	µg	10	ORG-022	<10	[NT]	[NT]	[NT]	[NT]	93	[NT]

QUALITY CONTROL: VOC in Carbon tubes & Badges					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Hexachlorobutadiene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
1,2,3-Trichlorobenzene	µg	5	ORG-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Surrogate Toluene-d8	%		ORG-022	68	[NT]	[NT]	[NT]	[NT]	73	[NT]
Surrogate 4-Bromofluorobenzene	%		ORG-022	92	[NT]	[NT]	[NT]	[NT]	99	[NT]

Result Definitions

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

Quality Control Definitions

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

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

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

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

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

ENVIROLAB

Chain of Custody

JBS&G

PROJECT NO.: 67817	LABORATORY BATCH NO.:
PROJECT NAME: BOTANY	SAMPLERS: A. CHEOK
DATE NEEDED BY: STD TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) CBIELBY@jbsg.com.au A CHEOK

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Please forward to ENVIROLAB.

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	VOCs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
1 QA_SV	CARBON			CARBON TUBE		X			

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

ENVIROLAB GROUP

Job No: 365915

Date Received: 7/11/24

Time Received: 1400

Received By: [illegible]

Temp: Cool/Ambient 25°C

Cooling: Ice/Icepack

Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: [signature] DATE: 6/11/24	CONSIGNMENT NOTE NO.	NAME: Amin Jam Bi	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF: 6/11/24	COOLER TEMP ..... deg C N/A
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: 5:00PM	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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#365815
07/11/24 SP

Sarah Park

From: Andrew Cheok <acheok@jbsg.com.au>
Sent: Thursday, 7 November 2024 7:30 PM
To: Sarah Park; Chris Bielby
Subject: Re: #365815 - 67817, Botany: VOC Suite

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

No worries.

Suite 3 on 24 HR TAT please.

Kind Regards,

Andrew Cheok | Project Consultant | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0434 956 368 | E: acheok@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

---

From: Sarah Park <SPark@envirolab.com.au>
Sent: Thursday, November 7, 2024 7:28:19 PM
To: Andrew Cheok <acheok@jbsg.com.au>; Chris Bielby <CBielby@jbsg.com.au>
Subject: RE: #365815 - 67817, Botany: VOC Suite

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.

Hi Andrew,

Thanks for the quick response – unfortunately, I believe VOC 8260 is a suite/standard VOC procedure for Eurofins. I previously confirmed with Chris to be our VOC Suite 3 equivalent.

I have attached the email thread for your reference, please confirm if you are happy to proceed.

Kind Regards,

Sarah Park | Customer Service | Envirolab Services

Great Science. Great Service.

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

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

From: Andrew Cheok <acheok@jbsg.com.au>
Sent: Thursday, 7 November 2024 7:21 PM

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CERTIFICATE OF ANALYSIS 365063

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Chris Bielby
Address	Level 8, 179 Elizabeth St, Sydney, NSW, 2000

Sample Details

Your Reference	**67817**
Number of Samples	2 Filter
Date samples received	29/10/2024
Date completed instructions received	29/10/2024

Analysis Details

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

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

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

Report Details

Date results requested by	05/11/2024
Date of Issue	05/11/2024

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

Results Approved By
Giovanni Agosti, Group Technical Manager

Authorised By
Nancy Zhang, Laboratory Manager

Hg in active monitors			
Our Reference	UNITS	365063-1	365063-2
Your Reference		BH3_SV_M	HA2_SV_M
Date Sampled		24/10/2024	24/10/2024
Type of sample		Filter	Filter
Date prepared	-	05/11/2024	05/11/2024
Date analysed	-	05/11/2024	05/11/2024
Mercury in tube	µg/sample	4.6	160

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.

QUALITY CONTROL: Hg in active monitors						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			05/11/2024	[NT]	[NT]	[NT]	[NT]	05/11/2024	[NT]
Date analysed	-			05/11/2024	[NT]	[NT]	[NT]	[NT]	05/11/2024	[NT]
Mercury in tube	µg/sample	0.01	Metals-021	<0.01	[NT]	[NT]	[NT]	[NT]	114	[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.

COC 28/10 14:39

ENVIROLAB

Chain of Custody

JBS&G

PROJECT NO.: 67817	LABORATORY BATCH NO.:
PROJECT NAME: BOTANY SV	SAMPLERS: A CHEVE
DATE NEEDED BY: Stnd	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) CBIELBY@jbsg.com.au ACHEVE

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Mercury	VOC 8260	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH3_SV_M 1	SOIL	24/10		CARBON TUBE		/				
BHA2_SV_M 2	CARBON	↓		↓		/				
QC-SV NR							/			

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

Job No: 365063

Date Received: 29/10/19
Time Received: 10 15H5
Received By: VW
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: C.B DATE: 28/10/19 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: 29/10/19 OF: EJ NYD	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP 4.: deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Chris Bielby

Sample Login Details

Your reference	67817
Envirolab Reference	365063
Date Sample Received	29/10/2024
Date Instructions Received	29/10/2024
Date Results Expected to be Reported	05/11/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 Filter
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:

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Sample ID	Hg in active monitors
BH3_SV_M	✓
HA2_SV_M	✓

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

Additional Info

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

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Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Chris Bielby**

Report **1158728-S**
Project name ADDITIONAL: BOTANY
Project ID 67817
Received Date Nov 11, 2024

Client Sample ID			**BH3_2.0-2.1**	**BH3_3.0-3.1**	**BH3_4.0-4.1**	**BH3_5.9-6.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S24-No0027360**	**S24-No0027362**	**S24-No0027365**	**S24-No0027368**
Date Sampled			**Oct 25, 2024**	**Oct 25, 2024**	**Oct 25, 2024**	**Oct 25, 2024**
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury	0.1	mg/kg	23	2.3	2.0	0.3
Sample Properties						
% Moisture	1	%	8.1	4.6	24	23

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Heavy Metals	Sydney	Nov 11, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Nov 11, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			

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email: EnviroSales@eurofins.com

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

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Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
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+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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Site# 2370 & 2554

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: BOTANY
Project ID: 67817

Order No.:
Report #: 1158728
Phone: 02 8245 0300
Fax:

Received: Nov 11, 2024 11:54 PM
Due: Nov 12, 2024
Priority: 1 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Mercury	AUS Leaching Procedure	USA Leaching Procedure	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	HA2_0-0.1	Oct 24, 2024		AUS Leachate	S24-No0027354	X	X		
2	HA2_0.4-0.5	Oct 24, 2024		AUS Leachate	S24-No0027355	X	X		
3	HA2_0.4-0.5	Oct 24, 2024		US Leachate	S24-No0027356	X		X	
4	HA2_0-0.1	Oct 24, 2024		US Leachate	S24-No0027357	X		X	
5	BH3_2.0-2.1	Oct 25, 2024		AUS Leachate	S24-No0027358	X	X		
6	BH3_2.0-2.1	Oct 25, 2024		US Leachate	S24-No0027359	X		X	
7	BH3_2.0-2.1	Oct 25, 2024		Soil	S24-No0027360	X			X
8	BH3_3.0-3.1	Oct 25, 2024		US Leachate	S24-No0027361	X		X	
9	BH3_3.0-3.1	Oct 25, 2024		Soil	S24-No0027362	X			X
10	BH3_4.0-4.1	Oct 25, 2024		AUS Leachate	S24-No0027363	X	X		
11	BH3_4.0-4.1	Oct 25, 2024		US Leachate	S24-No0027364	X		X	
12	BH3_4.0-4.1	Oct 25, 2024		Soil	S24-No0027365	X			X
13	BH3_5.9-6.0	Oct 25, 2024		AUS Leachate	S24-No0027366	X	X		
14	BH3_5.9-6.0	Oct 25, 2024		US Leachate	S24-No0027367	X		X	

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

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6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
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Project Name: ADDITIONAL: BOTANY
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Order No.:
Report #: 1158728
Phone: 02 8245 0300
Fax:

Received: Nov 11, 2024 11:54 PM
Due: Nov 12, 2024
Priority: 1 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Mercury	AUS Leaching Procedure	USA Leaching Procedure	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
15	BH3_5.9-6.0	Oct 25, 2024		Soil	S24-No0027368	X			X
16	BH3_3.0-3.1	Oct 25, 2024		AUS Leachate	S24-No0027373	X	X		
Test Counts						16	6	6	4

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Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Mercury			mg/kg	< 0.1			0.1	Pass	
LCS - % Recovery									
Heavy Metals									
Mercury			%	114			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Mercury	N24-No0019855	NCP	%	105			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Mercury	S24-No0023861	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S24-No0027368	CP	%	23	22	3.0	30%	Pass	

Comments

Sample Integrity

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

Authorised by:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Sample Properties



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
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Attention: **Chris Bielby**

Report **1158728-L**
Project name ADDITIONAL: BOTANY
Project ID 67817
Received Date Nov 11, 2024

Client Sample ID			**HA2_0-0.1**	**HA2_0.4-0.5**	**HA2_0.4-0.5**	**HA2_0-0.1**
Sample Matrix			**AUS Leachate**	**AUS Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S24-No0027354**	**S24-No0027355**	**S24-No0027356**	**S24-No0027357**
Date Sampled			**Oct 24, 2024**	**Oct 24, 2024**	**Oct 24, 2024**	**Oct 24, 2024**
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury	0.001	mg/L	0.074	0.33	0.067	0.031
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	-	-
pH (initial)	0.1	pH Units	8.3	8.6	-	-
pH (Leachate fluid)	0.1	pH Units	7.7	7.7	-	-
pH (off)	0.1	pH Units	8.1	8.0	-	-
USA Leaching Procedure						
Leachate Fluid*[C01]		comment	-	-	1.0	1.0
pH (initial)	0.1	pH Units	-	-	9.0	9.1
pH (off)*	0.1	pH Units	-	-	6.0	5.3
pH (USA HCl addition)*	0.1	pH Units	-	-	2.1	1.8

Client Sample ID			**BH3_2.0-2.1**	**BH3_2.0-2.1**	**BH3_3.0-3.1**	**BH3_4.0-4.1**
Sample Matrix			**AUS Leachate**	**US Leachate**	**US Leachate**	**AUS Leachate**
Eurofins Sample No.			**S24-No0027358**	**S24-No0027359**	**S24-No0027361**	**S24-No0027363**
Date Sampled			**Oct 25, 2024**	**Oct 25, 2024**	**Oct 25, 2024**	**Oct 25, 2024**
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury	0.001	mg/L	0.093	0.017	0.006	0.003
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	-	-	4.0
pH (initial)	0.1	pH Units	9.1	-	-	8.0
pH (Leachate fluid)	0.1	pH Units	7.7	-	-	7.7
pH (off)	0.1	pH Units	8.9	-	-	7.6
USA Leaching Procedure						
Leachate Fluid*[C01]		comment	-	1.0	1.0	-
pH (initial)	0.1	pH Units	-	8.9	7.5	-
pH (off)*	0.1	pH Units	-	5.3	5.1	-
pH (USA HCl addition)*	0.1	pH Units	-	1.8	1.7	-

Client Sample ID			BH3_4.0-4.1	BH3_5.9-6.0	BH3_5.9-6.0	BH3_3.0-3.1
Sample Matrix			US Leachate	AUS Leachate	US Leachate	AUS Leachate
Eurofins Sample No.			S24-No0027364	S24-No0027366	S24-No0027367	S24-No0027373
Date Sampled			Oct 25, 2024	Oct 25, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury	0.001	mg/L	0.003	0.029	0.002	0.013
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	-	4.0	-	4.0
pH (initial)	0.1	pH Units	-	8.3	-	8.4
pH (Leachate fluid)	0.1	pH Units	-	7.7	-	7.7
pH (off)	0.1	pH Units	-	6.6	-	6.9
USA Leaching Procedure						
Leachate Fluid*[C01]		comment	1.0	-	1.0	-
pH (initial)	0.1	pH Units	7.6	-	7.5	-
pH (off)*	0.1	pH Units	5.2	-	5.1	-
pH (USA HCl addition)*	0.1	pH Units	1.8	-	1.7	-

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Heavy Metals	Sydney	Nov 11, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
AUS Leaching Procedure	Sydney	Nov 11, 2024	7 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
USA Leaching Procedure	Sydney	Nov 11, 2024	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

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email: EnviroSales@eurofins.com

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ABN: 50 005 085 521

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Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: BOTANY
Project ID: 67817

Order No.:
Report #: 1158728
Phone: 02 8245 0300
Fax:

Received: Nov 11, 2024 11:54 PM
Due: Nov 12, 2024
Priority: 1 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Mercury	AUS Leaching Procedure	USA Leaching Procedure	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	HA2_0-0.1	Oct 24, 2024		AUS Leachate	S24-No0027354	X	X		
2	HA2_0.4-0.5	Oct 24, 2024		AUS Leachate	S24-No0027355	X	X		
3	HA2_0.4-0.5	Oct 24, 2024		US Leachate	S24-No0027356	X		X	
4	HA2_0-0.1	Oct 24, 2024		US Leachate	S24-No0027357	X		X	
5	BH3_2.0-2.1	Oct 25, 2024		AUS Leachate	S24-No0027358	X	X		
6	BH3_2.0-2.1	Oct 25, 2024		US Leachate	S24-No0027359	X		X	
7	BH3_2.0-2.1	Oct 25, 2024		Soil	S24-No0027360	X			X
8	BH3_3.0-3.1	Oct 25, 2024		US Leachate	S24-No0027361	X		X	
9	BH3_3.0-3.1	Oct 25, 2024		Soil	S24-No0027362	X			X
10	BH3_4.0-4.1	Oct 25, 2024		AUS Leachate	S24-No0027363	X	X		
11	BH3_4.0-4.1	Oct 25, 2024		US Leachate	S24-No0027364	X		X	
12	BH3_4.0-4.1	Oct 25, 2024		Soil	S24-No0027365	X			X
13	BH3_5.9-6.0	Oct 25, 2024		AUS Leachate	S24-No0027366	X	X		
14	BH3_5.9-6.0	Oct 25, 2024		US Leachate	S24-No0027367	X		X	

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Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
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IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
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NSW 2000

Project Name: ADDITIONAL: BOTANY
Project ID: 67817

Order No.:
Report #: 1158728
Phone: 02 8245 0300
Fax:

Received: Nov 11, 2024 11:54 PM
Due: Nov 12, 2024
Priority: 1 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Mercury	AUS Leaching Procedure	USA Leaching Procedure	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
15	BH3_5.9-6.0	Oct 25, 2024		Soil	S24-No0027368	X			X
16	BH3_3.0-3.1	Oct 25, 2024		AUS Leachate	S24-No0027373	X	X		
Test Counts						16	6	6	4

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Mercury			mg/L	< 0.001			0.001	Pass	
LCS - % Recovery									
Heavy Metals									
Mercury			%	96			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Mercury	S24-No0027367	CP	%	97			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Mercury	S24-No0027373	CP	%	99			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Mercury	S24-No0027354	CP	mg/L	0.074	0.077	5.0	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Sample Properties



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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

Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Chris Bielby
Project name: ADDITIONAL: BOTANY
Project ID: 67817
Turnaround time: 1 Day
Date/Time received Nov 11, 2024 11:54 PM
Eurofins reference 1158728

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 3.4 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Chris Bielby - cbielby@jbsg.com.au.

Global Leader - Results you can trust

Outlook

1 DAY TAT ADDITIONAL LEACHATES: FW: Eurofins Test Results - Report 1154010 : Site BOTANY (67817)

From Andrew Black <Andrew.Black@eurofinsanz.com>
Date Mon 11/11/2024 1:54 PM
To SH_AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofinsanz.com>

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

Urgent 1 day TAT additional leachates thanks team

- ASLP/TCLP – Hg (HA2_0-0.1and HA2_0.4-0.5)
- Total Hg and ASLP/TCLP Hg (BH3 2.0-2.1, BH3 3.0-3.1, BH3 4.0-4.1, BH3, 5.9-6.0)

Andrew Black
Analytical Services Manager

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Website: eurofins.com.au/environmental-testing
https://www.eurofins-estore.com.au/

Please note my work hours are 8:30am-5:30pm, anything outside of that I will get to the next day. Contact evening shift ASM for anything urgent.



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From: Chris Bielby <CBielby@jbsg.com.au>
Sent: Monday, 11 November 2024 11:54 AM
To: Andrew Black <Andrew.Black@eurofinsanz.com>
Cc: Andrew Cheok <acheok@jbsg.com.au>
Subject: RE: Eurofins Test Results - Report 1154010 : Site BOTANY (67817)

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Andrew, no I didn't.

From: Andrew Black <Andrew.Black@eurofinsanz.com>
Sent: Monday, 11 November 2024 11:53 AM
To: Chris Bielby <CBielby@jbsg.com.au>
Cc: Andrew Cheok <acheok@jbsg.com.au>
Subject: RE: Eurofins Test Results - Report 1154010 : Site BOTANY (67817)
Importance: High

[EXTERNAL EMAIL]** Stop and think before opening attachments, clicking or responding.

Hi Chris

Did you forward this onto anyone else with me on leave last week?

Andrew Black
Analytical Services Manager

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Website: eurofins.com.au/environmental-testing
https://www.eurofins-estore.com.au/

Please note my work hours are 8:30am-5:30pm, anything outside of that I will get to the next day. Contact evening shift ASM for anything urgent.



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From: Chris Bielby <CBielby@jbsg.com.au>
Sent: Thursday, 7 November 2024 4:14 PM
To: Andrew Black <andrewblack@eurofins.com>
Cc: Andrew Cheok <acheok@jbsg.com.au>
Subject: RE: Eurofins Test Results - Report 1154010 : Site BOTANY (67817)

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Andrew – requesting additional analysis on 48 hr turnaround as follows:

- ASLP/TCLP – Hg (HA2_0-0.1and HA2_0.4-0.5)
- Total and ASLP/TCLP (BH3 2.0-2.1, BH3 3.0-3.1, BH3 4.0-4.1, BH3, 5.9-6.0)

Thanks

From: AndrewBlack@eurofins.com <AndrewBlack@eurofins.com>
Sent: Friday, 1 November 2024 10:08 AM
To: Chris Bielby <CBielby@jbsg.com.au>
Cc: Andrew Cheok <acheok@jbsg.com.au>
Subject: Eurofins Test Results - Report 1154010 : Site BOTANY (67817)

[EXTERNAL EMAIL]** Stop and think before opening attachments, clicking or responding.

Kindest Regards,

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing
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MAYFIELD WEST NSW 2304
AUSTRALIA
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Mobile: +61 410 220 750
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View our latest EnviroNotes

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NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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Attention: **Andrew Cheok**

Report **1157566-S**
Project name BOTANY
Project ID 67817
Received Date Nov 06, 2024

Client Sample ID			**BH5_1.0-1.1**	**BH5_2.0-2.1**	**BH5_4.0-4.1**	**BH5_5.9-6.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S24-No0017129**	**S24-No0017130**	**S24-No0017131**	**S24-No0017132**
Date Sampled			**Nov 06, 2024**	**Nov 06, 2024**	**Nov 06, 2024**	**Nov 06, 2024**
Test/Reference	LOR	Unit				
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	1.4	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH5_1.0-1.1	BH5_2.0-2.1	BH5_4.0-4.1	BH5_5.9-6.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0017129	S24-No0017130	S24-No0017131	S24-No0017132
Date Sampled			Nov 06, 2024	Nov 06, 2024	Nov 06, 2024	Nov 06, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	9.5	< 0.5	1.1	8.2
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	0.9	< 0.5	< 0.5	0.8
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	89.4	3.7	6	66
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	10.4	< 0.5	1.1	9
4-Bromofluorobenzene (surr.)	1	%	56	[Q09]INT	[Q09]INT	[Q09]INT
Toluene-d8 (surr.)	1	%	65	57	[Q09]INT	[Q09]INT
Heavy Metals						
Arsenic	2	mg/kg	2.0	< 2	2.1	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	5.9	< 5	< 5	< 5
Copper	5	mg/kg	19	< 5	< 5	< 5
Lead	5	mg/kg	370	< 5	41	12
Mercury	0.1	mg/kg	1.0	< 0.1	0.8	0.2
Nickel	5	mg/kg	11	< 5	< 5	< 5
Zinc	5	mg/kg	180	< 5	18	7.1
Sample Properties						
% Moisture	1	%	37	3.2	23	24

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Volatile Organics	Sydney	Nov 07, 2024	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Metals M8	Sydney	Nov 07, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Nov 07, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins

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

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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: BOTANY
Project ID: 67817

Order No.:
Report #: 1157566
Phone: 02 8245 0300
Fax:

Received: Nov 6, 2024 5:00 PM
Due: Nov 13, 2024
Priority: 5 Day
Contact Name: Andrew Cheok

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD*	Metals M8	Volatile Organics	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH5_1.0-1.1	Nov 06, 2024		Soil	S24-No0017129		X	X	X
2	BH5_2.0-2.1	Nov 06, 2024		Soil	S24-No0017130		X	X	X
3	BH5_4.0-4.1	Nov 06, 2024		Soil	S24-No0017131		X	X	X
4	BH5_5.9-6.0	Nov 06, 2024		Soil	S24-No0017132		X	X	X
5	BH5_3.0-3.1	Nov 06, 2024		Soil	S24-No0017133	X			
6	BH5_5.0-5.1	Nov 06, 2024		Soil	S24-No0017134	X			
Test Counts						2	4	4	4

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	117			70-130	Pass	
1.1.1-Trichloroethane	%	108			70-130	Pass	
1.2-Dichlorobenzene	%	114			70-130	Pass	
1.2-Dichloroethane	%	115			70-130	Pass	
Benzene	%	120			70-130	Pass	
Ethylbenzene	%	111			70-130	Pass	
m&p-Xylenes	%	117			70-130	Pass	
o-Xylene	%	123			70-130	Pass	
Toluene	%	114			70-130	Pass	
Trichloroethene	%	119			70-130	Pass	
Xylenes - Total*	%	119			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	101			80-120	Pass	
Copper	%	100			80-120	Pass	
Lead	%	103			80-120	Pass	
Mercury	%	102			80-120	Pass	
Nickel	%	101			80-120	Pass	
Zinc	%	101			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Volatile Organics				Result 1					
Benzene	S24-No0018106	NCP	%	86			70-130	Pass	
Ethylbenzene	S24-No0018106	NCP	%	85			70-130	Pass	
m&p-Xylenes	S24-No0018106	NCP	%	90			70-130	Pass	
o-Xylene	S24-No0018106	NCP	%	93			70-130	Pass	
Toluene	S24-No0018106	NCP	%	92			70-130	Pass	
Xylenes - Total*	S24-No0018106	NCP	%	91			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S24-No0017132	CP	%	92			75-125	Pass	
Cadmium	S24-No0017132	CP	%	91			75-125	Pass	
Chromium	S24-No0017132	CP	%	94			75-125	Pass	
Copper	S24-No0017132	CP	%	93			75-125	Pass	
Lead	S24-No0017132	CP	%	99			75-125	Pass	
Mercury	S24-No0017132	CP	%	100			75-125	Pass	
Nickel	S24-No0017132	CP	%	94			75-125	Pass	
Zinc	S24-No0017132	CP	%	95			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S24-No0018105	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzene	N24-No0012562	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Bromobenzene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	N24-No0012562	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Iodomethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	S24-No0018105	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methylene Chloride	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	N24-No0012562	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S24-No0018105	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	N24-No0012562	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	N24-No0012562	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total*	S24-No0018105	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S24-No0017131	CP	mg/kg	2.1	< 2	21	30%	Pass	
Cadmium	S24-No0017131	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S24-No0017131	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S24-No0017131	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S24-No0017131	CP	mg/kg	41	30	31	30%	Fail	Q15
Mercury	S24-No0017131	CP	mg/kg	0.8	0.6	24	30%	Pass	
Nickel	S24-No0017131	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S24-No0017131	CP	mg/kg	18	13	30	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S24-No0017131	CP	%	23	23	3.0	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Sample Properties



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Eurofins Environment Testing Australia Pty Ltd

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

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Andrew Cheok
Project name:	BOTANY
Project ID:	67817
Turnaround time:	5 Day
Date/Time received	Nov 6, 2024 5:00 PM
Eurofins reference	1157566

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 1.5 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Andrew Cheok - acheok@jbsg.com.au.

Global Leader - Results you can trust

Chain of Custody

JBS&G

PROJECT NO.: 67817
PROJECT NAME: BOTANY
DATE NEEDED BY: STD TAT
LABORATORY BATCH NO.:
SAMPLERS: A.CHEOK
QC LEVEL: NEPM (2013)
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) ACHEOK@jbsg.com.au CBIELBY

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HM	VOCs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH5-1.0-1.1	SOIL	6/11		J+PFAS		X	X			
-2.0-2.1	↓	↓		↓		X	X			
-3.0-3.1										
-4.0-4.1						X	X			
-5.0-5.1										
-5.9-6.0						X	X			

RELINQUISHED BY:
NAME: [signature] DATE: 6/11/24
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: Amin Jumbi
DATE:
OF: 6/11/24
NAME: DATE:
OF: 5:00PM

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
COOLER TEMP ..... deg C 1.5
COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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1157566

JBS & G Australia (NSW) P/L
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Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Chris Bielby**

Report **1154010-S**
Project name BOTANY
Project ID 67817
Received Date Oct 28, 2024

Client Sample ID			[G01]HA1_0.5-0.6	[G01]HA1_1.4-1.5	[G01]HA2_0-0.1	[G01]HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	350	91	93	77
TRH C29-C36	50	mg/kg	410	79	60	71
TRH C10-C36 (Total)	50	mg/kg	760	170	153	148
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	700	150	130	130
TRH >C34-C40	100	mg/kg	200	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	900	150	130	130
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	90	91	86	100
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			[G01]HA1_0.5-0.6	[G01]HA1_1.4-1.5	[G01]HA2_0-0.1	[G01]HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	90	91	86	100
Toluene-d8 (surr.)	1	%	82	95	74	103
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			G01HA1_0.5-0.6	G01HA1_1.4-1.5	G01HA2_0-0.1	G01HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	94	-	-	95
p-Terphenyl-d14 (surr.)	1	%	101	-	-	99
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	-	-	< 1
4.4'-DDD	0.05	mg/kg	< 0.5	-	-	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5	-	-	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5	-	-	< 0.5
a-HCH	0.05	mg/kg	< 0.5	-	-	< 0.5
Aldrin	0.05	mg/kg	< 0.5	-	-	< 0.5
b-HCH	0.05	mg/kg	< 0.5	-	-	< 0.5
d-HCH	0.05	mg/kg	< 0.5	-	-	< 0.5
Dieldrin	0.05	mg/kg	< 0.5	-	-	< 0.5
Endosulfan I	0.05	mg/kg	< 0.5	-	-	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5	-	-	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5	-	-	< 0.5
Endrin	0.05	mg/kg	< 0.5	-	-	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.5	-	-	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5	-	-	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5	-	-	< 0.5
Heptachlor	0.05	mg/kg	< 0.5	-	-	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5	-	-	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.5	-	-	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5	-	-	< 0.5
Toxaphene	0.5	mg/kg	< 10	-	-	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	-	-	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	-	-	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	-	-	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	-	-	< 1
Dibutylchlorendate (surr.)	1	%	97	-	-	79
Tetrachloro-m-xylene (surr.)	1	%	137	-	-	136

Client Sample ID			[G01]HA1_0.5-0.6	[G01]HA1_1.4-1.5	[G01]HA2_0-0.1	[G01]HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	-	-	< 1
Aroclor-1221	0.1	mg/kg	< 1	-	-	< 1
Aroclor-1232	0.1	mg/kg	< 1	-	-	< 1
Aroclor-1242	0.1	mg/kg	< 1	-	-	< 1
Aroclor-1248	0.1	mg/kg	< 1	-	-	< 1
Aroclor-1254	0.1	mg/kg	< 1	-	-	< 1
Aroclor-1260	0.1	mg/kg	< 1	-	-	< 1
Total PCB*	0.1	mg/kg	< 1	-	-	< 1
Dibutylchlorendate (surr.)	1	%	97	-	-	79
Tetrachloro-m-xylene (surr.)	1	%	137	-	-	136
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 1	< 1	< 1	< 1
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 1	< 1	< 1	< 1
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 1	< 1	< 1	< 1
1-Naphthylamine	0.5	mg/kg	< 2	< 2	< 2	< 2
1.2-Dichlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.2.3-Trichlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.2.4-Trichlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.3.5-Trichlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
2-Chloronaphthalene	0.5	mg/kg	< 1	< 1	< 1	< 1
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	94	98	95	95
2-Methylnaphthalene	0.5	mg/kg	< 1	< 1	< 1	< 1
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Naphthylamine	0.5	mg/kg	< 2	< 2	< 2	< 2
2-Nitroaniline	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 1	< 1	< 1	< 1
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 1	< 1	< 1	< 1
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 1	< 1	< 1	< 1
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	[Q09]INT	[Q09]INT	[Q09]INT	[Q09]INT
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	1	mg/kg	< 1	< 1	< 1	< 1
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			G01HA1_0.5-0.6	G01HA1_1.4-1.5	G01HA2_0-0.1	G01HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
3-Methylcholanthrene	0.5	mg/kg	< 1	< 1	< 1	< 1
3.3'-Dichlorobenzidine	0.5	mg/kg	< 1	< 1	< 1	< 1
4-Aminobiphenyl	0.5	mg/kg	< 1	< 1	< 1	< 1
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 1	< 1	< 1	< 1
4.4'-DDE	0.5	mg/kg	< 1	< 1	< 1	< 1
4.4'-DDT	1	mg/kg	< 1	< 1	< 1	< 1
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 1	< 1	< 1	< 1
a-HCH	0.5	mg/kg	< 1	< 1	< 1	< 1
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 1	< 1	< 1	< 1
Aldrin	0.5	mg/kg	< 1	< 1	< 1	< 1
Aniline	0.5	mg/kg	< 1	< 1	< 1	< 1
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 1	< 1	< 1	< 1
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 1	< 1	< 1	< 1
Bis(2-ethylhexyl)phthalate	5	mg/kg	< 5	< 5	< 5	< 5
Butyl benzyl phthalate	0.5	mg/kg	< 1	< 1	< 1	< 1
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 1	< 1	< 1	< 1
Di-n-butyl phthalate	0.5	mg/kg	< 1	< 1	< 50	< 5
Di-n-octyl phthalate	0.5	mg/kg	< 1	< 1	< 1	< 1
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 1	< 1	< 1	< 1
Dibenzofuran	0.5	mg/kg	< 1	< 1	< 1	< 1
Dieldrin	0.5	mg/kg	< 1	< 1	< 1	< 1
Diethyl phthalate	0.5	mg/kg	< 1	< 1	< 1	< 1
Dimethyl phthalate	0.5	mg/kg	< 1	< 1	< 1	< 1
Dimethylaminoazobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
Diphenylamine	0.5	mg/kg	< 1	< 1	< 1	< 1
Endosulfan I	0.5	mg/kg	< 1	< 1	< 1	< 1
Endosulfan II	0.5	mg/kg	< 1	< 1	< 1	< 1
Endosulfan sulphate	0.5	mg/kg	< 1	< 1	< 1	< 1
Endrin	0.5	mg/kg	< 1	< 1	< 1	< 1
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 1	< 1	< 1	< 1
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 1	< 1	< 1	< 1
Heptachlor	0.5	mg/kg	< 1	< 1	< 1	< 1
Heptachlor epoxide	0.5	mg/kg	< 1	< 1	< 1	< 1
Hexachlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			[G01]HA1_0.5-0.6	[G01]HA1_1.4-1.5	[G01]HA2_0-0.1	[G01]HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 1	< 1	< 1	< 1
Hexachlorocyclopentadiene	1	mg/kg	< 1	< 1	< 1	< 1
Hexachloroethane	0.5	mg/kg	< 1	< 1	< 1	< 1
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 1	< 1	< 1	< 1
N-Nitrosodibutylamine	0.5	mg/kg	< 1	< 1	< 1	< 1
N-Nitrosodipropylamine	0.5	mg/kg	< 1	< 1	< 1	< 1
N-Nitrosopiperidine	0.5	mg/kg	< 1	< 1	< 1	< 1
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
Nitrobenzene-d5 (surr.)	1	%	69	74	74	73
Pentachlorobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
Pentachloronitrobenzene	0.5	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 2	< 2	< 2	< 2
Phenol-d6 (surr.)	1	%	86	92	74	80
Pronamide	0.5	mg/kg	< 1	< 1	< 1	< 1
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 1	< 1	< 1	< 1
Haloethers						
4-Bromophenyl phenyl ether	0.5	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 1	< 1	< 1	< 1
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 1	< 1	< 1	< 1
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 1	< 1	< 1	< 1
Heavy Metals						
Arsenic	2	mg/kg	< 2	2.1	5.8	3.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	0.5
Chromium	5	mg/kg	5.3	6.5	16	15
Copper	5	mg/kg	33	14	62	47
Lead	5	mg/kg	69	40	450	200
Mercury	0.1	mg/kg	6.3	2.6	190	520
Nickel	5	mg/kg	< 5	< 5	42	33
Zinc	5	mg/kg	66	97	250	260
Sample Properties						
% Moisture	1	%	6.0	5.4	8.0	8.2
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	-	-	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	-	-	< 5

Client Sample ID			G01HA1_0.5-0.6	G01HA1_1.4-1.5	G01HA2_0-0.1	G01HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFBA (surr.)	1	%	106	-	-	102
13C5-PFPeA (surr.)	1	%	123	-	-	113
13C5-PFHxA (surr.)	1	%	131	-	-	115
13C4-PFHpA (surr.)	1	%	117	-	-	99
13C8-PFOA (surr.)	1	%	117	-	-	103
13C5-PFNA (surr.)	1	%	117	-	-	111
13C6-PFDA (surr.)	1	%	146	-	-	127
13C2-PFUnDA (surr.)	1	%	132	-	-	132
13C2-PFDoDA (surr.)	1	%	128	-	-	117
13C2-PFTeDA (surr.)	1	%	138	-	-	125
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	-	-	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	-	-	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	-	-	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5	-	-	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5	-	-	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	-	-	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	-	-	< 10
13C8-FOSA (surr.)	1	%	118	-	-	37
D3-N-MeFOSA (surr.)	1	%	138	-	-	119
D5-N-EtFOSA (surr.)	1	%	131	-	-	128
D7-N-MeFOSE (surr.)	1	%	113	-	-	104
D9-N-EtFOSE (surr.)	1	%	119	-	-	111
D5-N-EtFOSAA (surr.)	1	%	131	-	-	123
D3-N-MeFOSAA (surr.)	1	%	157	-	-	133
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	< 5	-	-	< 5
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	< 5	-	-	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	-	-	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	-	-	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	-	-	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	-	-	< 5
13C3-PFBS (surr.)	1	%	119	-	-	107
18O2-PFHxS (surr.)	1	%	124	-	-	112
13C8-PFOS (surr.)	1	%	128	-	-	119
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	-	-	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10	-	-	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	-	-	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	-	-	< 5
13C2-4:2 FTSA (surr.)	1	%	94	-	-	91

Client Sample ID			[G01]HA1_0.5-0.6	[G01]HA1_1.4-1.5	[G01]HA2_0-0.1	[G01]HA2_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074273	S24-Oc0074274	S24-Oc0074276	S24-Oc0074277
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
13C2-6:2 FTSA (surr.)	1	%	104	-	-	72
13C2-8:2 FTSA (surr.)	1	%	123	-	-	105
13C2-10:2 FTSA (surr.)	1	%	189	-	-	164
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	-	-	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	-	-	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	-	-	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	-	-	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	-	-	< 50

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	99	85	84	102
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	1.9	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	1.4	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	3.3	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	3.3	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	99	85	84	102
Toluene-d8 (surr.)	1	%	95	96	88	86
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	94	-	84	-
p-Terphenyl-d14 (surr.)	1	%	98	-	88	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.5	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.5	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.5	-	< 0.05	-
a-HCH	0.05	mg/kg	< 0.5	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.5	-	< 0.05	-
b-HCH	0.05	mg/kg	< 0.5	-	< 0.05	-
d-HCH	0.05	mg/kg	< 0.5	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.5	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.5	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.5	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.5	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.5	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.5	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.5	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.5	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.5	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.5	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.5	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.5	-	< 0.05	-
Toxaphene	0.5	mg/kg	< 10	-	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	87	-	81	-
Tetrachloro-m-xylene (surr.)	1	%	135	-	87	-

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 1	-	< 0.1	-
Total PCB*	0.1	mg/kg	< 1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	87	-	81	-
Tetrachloro-m-xylene (surr.)	1	%	135	-	87	-
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 1	< 1	< 1	< 1
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 2	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	94	84	84	84
2-Methylnaphthalene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.5	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 2	< 0.5	< 0.5	< 0.5
2-Nitroaniline	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	[Q09]INT	109	102	97
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	1	mg/kg	< 1	< 1	< 1	< 1
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 1	< 0.4	< 0.4	< 0.4

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
3-Methylcholanthrene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
4.4'-DDT	1	mg/kg	< 1	< 1	< 1	< 1
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	5	mg/kg	< 5	< 5	< 5	< 5
Butyl benzyl phthalate	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	1	mg/kg	< 1	< 1	< 1	< 1
Hexachloroethane	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	72	82	83	79
Pentachlorobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 2	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	75	80	80	78
Pronamide	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Haloethers						
4-Bromophenyl phenyl ether	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	2.5	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.3	< 5	< 5	< 5
Copper	5	mg/kg	11	< 5	< 5	< 5
Lead	5	mg/kg	30	< 5	6.7	< 5
Mercury	0.1	mg/kg	0.8	< 1	< 1	< 1
Nickel	5	mg/kg	9.8	7.1	< 5	< 5
Zinc	5	mg/kg	44	< 5	8.9	7.8
Sample Properties						
% Moisture	1	%	11	4.1	8.0	3.9
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	-	< 5	-
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	-	< 5	-

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFBA (surr.)	1	%	94	-	101	-
13C5-PFPeA (surr.)	1	%	108	-	105	-
13C5-PFHxA (surr.)	1	%	109	-	116	-
13C4-PFHpA (surr.)	1	%	99	-	116	-
13C8-PFOA (surr.)	1	%	101	-	109	-
13C5-PFNA (surr.)	1	%	122	-	113	-
13C6-PFDA (surr.)	1	%	126	-	129	-
13C2-PFUnDA (surr.)	1	%	119	-	133	-
13C2-PFDoDA (surr.)	1	%	119	-	119	-
13C2-PFTeDA (surr.)	1	%	126	-	132	-
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	-	< 5	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	-	< 5	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	-	< 5	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5	-	< 5	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5	-	< 5	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	-	< 10	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	-	< 10	-
13C8-FOSA (surr.)	1	%	101	-	112	-
D3-N-MeFOSA (surr.)	1	%	116	-	125	-
D5-N-EtFOSA (surr.)	1	%	111	-	127	-
D7-N-MeFOSE (surr.)	1	%	104	-	120	-
D9-N-EtFOSE (surr.)	1	%	102	-	106	-
D5-N-EtFOSAA (surr.)	1	%	106	-	113	-
D3-N-MeFOSAA (surr.)	1	%	126	-	119	-
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	< 5	-	< 5	-
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	< 5	-	< 5	-
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	-	< 5	-
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	-	< 5	-
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	-	< 5	-
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	-	< 5	-
13C3-PFBS (surr.)	1	%	116	-	117	-
18O2-PFHxS (surr.)	1	%	107	-	117	-
13C8-PFOS (surr.)	1	%	117	-	123	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	-	< 5	-
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10	-	< 10	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	-	< 5	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	-	< 5	-
13C2-4:2 FTSA (surr.)	1	%	76	-	103	-

Client Sample ID			[G01]HA3_0.2-0.3	HA3_1.4-1.5	HA4_0.5-0.6	HA4_1.4-1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074279	S24-Oc0074280	S24-Oc0074281	S24-Oc0074282
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
13C2-6:2 FTSA (surr.)	1	%	86	-	114	-
13C2-8:2 FTSA (surr.)	1	%	115	-	114	-
13C2-10:2 FTSA (surr.)	1	%	179	-	190	-
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	-	< 5	-
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	-	< 5	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	-	< 5	-
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	-	< 10	-
Sum of PFASs (n=30)*	50	ug/kg	< 50	-	< 50	-

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	93	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	56	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	149	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	140	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	140	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	86	82	90	80
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	86	82	90	80
Toluene-d8 (surr.)	1	%	87	86	77	92
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	94	-	97	88
p-Terphenyl-d14 (surr.)	1	%	95	-	96	90
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
a-HCH	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
b-HCH	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
d-HCH	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	0.28	-	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	-	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.5	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	0.28	-	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	0.28	-	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	87	-	93	83
Tetrachloro-m-xylene (surr.)	1	%	99	-	137	89

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	-	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	87	-	93	83
Tetrachloro-m-xylene (surr.)	1	%	99	-	137	89
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 1	< 1	< 1	< 1
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 2	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	94	97	97	88
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.5	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 2	< 0.5
2-Nitroaniline	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	87	82	[Q09]INT	99
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	1	mg/kg	< 1	< 1	< 1	< 1
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 1	< 0.4

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
4.4'-DDT	1	mg/kg	< 1	< 1	< 1	< 1
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Bis(2-ethylhexyl)phthalate	5	mg/kg	< 5	< 5	< 5	< 5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Hexachlorocyclopentadiene	1	mg/kg	< 1	< 1	< 1	< 1
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Nitrobenzene-d5 (surr.)	1	%	78	81	70	84
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 2	< 0.5
Phenol-d6 (surr.)	1	%	80	79	75	81
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Haloethers						
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 1	< 0.5
Heavy Metals						
Arsenic	2	mg/kg	2.2	2.2	3.8	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	27	6.2	18	< 5
Copper	5	mg/kg	18	21	35	9.5
Lead	5	mg/kg	150	67	110	55
Mercury	0.1	mg/kg	43	28	63	6.7
Nickel	5	mg/kg	9.3	7.0	13	7.4
Zinc	5	mg/kg	83	83	150	63
Sample Properties						
% Moisture	1	%	8.0	9.0	11	7.5
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	-	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	-	< 5	< 5

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFBA (surr.)	1	%	96	-	106	96
13C5-PFPeA (surr.)	1	%	104	-	119	107
13C5-PFHxA (surr.)	1	%	109	-	121	110
13C4-PFHpA (surr.)	1	%	107	-	116	116
13C8-PFOA (surr.)	1	%	91	-	115	108
13C5-PFNA (surr.)	1	%	106	-	119	107
13C6-PFDA (surr.)	1	%	118	-	137	125
13C2-PFUnDA (surr.)	1	%	120	-	124	124
13C2-PFDoDA (surr.)	1	%	109	-	129	120
13C2-PFTeDA (surr.)	1	%	121	-	126	122
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	-	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	-	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	-	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5	-	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5	-	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	-	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	-	< 10	< 10
13C8-FOSA (surr.)	1	%	91	-	110	107
D3-N-MeFOSA (surr.)	1	%	139	-	123	132
D5-N-EtFOSA (surr.)	1	%	123	-	125	133
D7-N-MeFOSE (surr.)	1	%	107	-	117	107
D9-N-EtFOSE (surr.)	1	%	103	-	111	109
D5-N-EtFOSAA (surr.)	1	%	119	-	137	120
D3-N-MeFOSAA (surr.)	1	%	116	-	139	132
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	< 5	-	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	< 5	-	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	-	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	-	< 5	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	-	< 5	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	-	< 5	< 5
13C3-PFBS (surr.)	1	%	106	-	114	112
18O2-PFHxS (surr.)	1	%	104	-	112	105
13C8-PFOS (surr.)	1	%	113	-	126	125
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	-	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10	-	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	-	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	-	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	93	-	117	117

Client Sample ID			BH2_0.5-0.6	BH2_1.0-1.2	[G01]BH3_0.5-0.6	BH4_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074284	S24-Oc0074286	S24-Oc0074287	S24-Oc0074289
Date Sampled			Oct 23, 2024	Oct 23, 2024	Oct 23, 2024	Oct 23, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
13C2-6:2 FTSA (surr.)	1	%	115	-	102	72
13C2-8:2 FTSA (surr.)	1	%	112	-	128	119
13C2-10:2 FTSA (surr.)	1	%	179	-	188	143
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	-	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	-	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	-	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	-	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	-	< 50	< 50

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	82	95	-	-
TRH C29-C36	50	mg/kg	< 50	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	82	95	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	120	120	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	120	120	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	84	87	91	82
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	3.9	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	6.7	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	4.6	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	84	87	91	82
Toluene-d8 (surr.)	1	%	79	84	73	75
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	95	96	-	-
p-Terphenyl-d14 (surr.)	1	%	98	101	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.5	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.5	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.5	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.5	-	-
a-HCH	0.05	mg/kg	< 0.05	< 0.5	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.5	-	-
b-HCH	0.05	mg/kg	< 0.05	< 0.5	-	-
d-HCH	0.05	mg/kg	< 0.05	< 0.5	-	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.5	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.5	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.5	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.5	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.5	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.5	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.5	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.5	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.5	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.5	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 50	-	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.5	-	-
Toxaphene	0.5	mg/kg	< 0.5	< 10	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.5	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.5	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 50	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 50	-	-
Dibutylchlorendate (surr.)	1	%	87	98	-	-
Tetrachloro-m-xylene (surr.)	1	%	102	133	-	-

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 1	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	< 1	-	-
Aroclor-1232	0.1	mg/kg	< 0.1	< 1	-	-
Aroclor-1242	0.1	mg/kg	< 0.1	< 1	-	-
Aroclor-1248	0.1	mg/kg	< 0.1	< 1	-	-
Aroclor-1254	0.1	mg/kg	< 0.1	< 1	-	-
Aroclor-1260	0.1	mg/kg	< 0.1	< 1	-	-
Total PCB*	0.1	mg/kg	< 0.1	< 1	-	-
Dibutylchlorendate (surr.)	1	%	87	98	-	-
Tetrachloro-m-xylene (surr.)	1	%	102	133	-	-
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 1	-	-
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 1	< 1	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	-	-
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 1	-	-
1-Naphthylamine	0.5	mg/kg	< 0.5	< 2	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 1	-	-
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	95	96	-	-
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 1	-	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.5	-	-
2-Naphthylamine	0.5	mg/kg	< 0.5	< 2	-	-
2-Nitroaniline	1	mg/kg	< 1	< 1	-	-
2-Nitrophenol	1	mg/kg	< 1	< 1	-	-
2-Picoline	0.5	mg/kg	< 0.5	< 1	-	-
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5	< 1	-	-
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-	-
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	-	-
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	-	-
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	< 1	-	-
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	-	-
2.4.6-Tribromophenol (surr.)	1	%	117	113	-	-
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	-	-
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-	-
2.6-Dinitrotoluene	1	mg/kg	< 1	< 1	-	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 1	-	-

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 1	-	-
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 1	-	-
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 1	-	-
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	-	-
4-Nitrophenol	5	mg/kg	< 5	< 5	-	-
4.4'-DDD	0.5	mg/kg	< 0.5	< 1	-	-
4.4'-DDE	0.5	mg/kg	< 0.5	< 1	-	-
4.4'-DDT	1	mg/kg	< 1	< 1	-	-
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 1	-	-
a-HCH	0.5	mg/kg	< 0.5	< 1	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acetophenone	0.5	mg/kg	< 0.5	< 1	-	-
Aldrin	0.5	mg/kg	< 0.5	< 1	-	-
Aniline	0.5	mg/kg	< 0.5	< 1	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
b-HCH	0.5	mg/kg	< 0.5	< 1	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzyl chloride	0.5	mg/kg	< 0.5	< 1	-	-
Bis(2-ethylhexyl)phthalate	5	mg/kg	< 5	< 5	-	-
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 1	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
d-HCH	0.5	mg/kg	< 0.5	< 1	-	-
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 1	-	-
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 1	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 1	-	-
Dibenzofuran	0.5	mg/kg	< 0.5	< 1	-	-
Dieldrin	0.5	mg/kg	< 0.5	< 1	-	-
Diethyl phthalate	0.5	mg/kg	< 0.5	< 1	-	-
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 1	-	-
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 1	-	-
Diphenylamine	0.5	mg/kg	< 0.5	< 1	-	-
Endosulfan I	0.5	mg/kg	< 0.5	< 1	-	-
Endosulfan II	0.5	mg/kg	< 0.5	< 1	-	-
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 1	-	-
Endrin	0.5	mg/kg	< 0.5	< 1	-	-
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	-	-
Endrin ketone	0.5	mg/kg	< 0.5	< 1	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 1	-	-
Heptachlor	0.5	mg/kg	< 0.5	< 1	-	-
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 1	-	-
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Semivolatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 1	-	-
Hexachlorocyclopentadiene	1	mg/kg	< 1	< 1	-	-
Hexachloroethane	0.5	mg/kg	< 0.5	< 1	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Methoxychlor	0.5	mg/kg	< 0.5	< 1	-	-
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 1	-	-
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 1	-	-
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 1	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Nitrobenzene	0.5	mg/kg	< 0.5	< 1	-	-
Nitrobenzene-d5 (surr.)	1	%	80	69	-	-
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 1	-	-
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 1	-	-
Pentachlorophenol	1	mg/kg	< 1	< 1	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenol	0.5	mg/kg	< 0.5	< 2	-	-
Phenol-d6 (surr.)	1	%	83	76	-	-
Pronamide	0.5	mg/kg	< 0.5	< 1	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trifluralin	0.5	mg/kg	< 0.5	< 1	-	-
Haloethers						
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 1	-	-
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 1	-	-
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 1	-	-
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 1	-	-
Heavy Metals						
Arsenic	2	mg/kg	2.0	3.8	-	-
Cadmium	0.4	mg/kg	< 0.4	0.4	-	-
Chromium	5	mg/kg	< 5	41	-	-
Copper	5	mg/kg	9.7	270	-	-
Lead	5	mg/kg	70	250	-	-
Mercury	0.1	mg/kg	5.5	15	-	-
Nickel	5	mg/kg	< 5	110	-	-
Zinc	5	mg/kg	95	710	-	-
Sample Properties						
% Moisture	1	%	5.6	7.8	3.6	20
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	< 5	< 5	-	-
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	< 5	< 5	-	-

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFBA (surr.)	1	%	101	108	-	-
13C5-PFPeA (surr.)	1	%	116	124	-	-
13C5-PFHxA (surr.)	1	%	122	130	-	-
13C4-PFHpA (surr.)	1	%	113	122	-	-
13C8-PFOA (surr.)	1	%	108	118	-	-
13C5-PFNA (surr.)	1	%	115	124	-	-
13C6-PFDA (surr.)	1	%	135	135	-	-
13C2-PFUnDA (surr.)	1	%	134	148	-	-
13C2-PFDoDA (surr.)	1	%	133	140	-	-
13C2-PFTeDA (surr.)	1	%	126	143	-	-
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	< 5	< 5	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	< 5	< 5	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	< 5	< 5	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	5	ug/kg	< 5	< 5	-	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	5	ug/kg	< 5	< 5	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	< 10	< 10	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	< 10	< 10	-	-
13C8-FOSA (surr.)	1	%	115	119	-	-
D3-N-MeFOSA (surr.)	1	%	118	134	-	-
D5-N-EtFOSA (surr.)	1	%	124	142	-	-
D7-N-MeFOSE (surr.)	1	%	113	117	-	-
D9-N-EtFOSE (surr.)	1	%	105	112	-	-
D5-N-EtFOSAA (surr.)	1	%	112	152	-	-
D3-N-MeFOSAA (surr.)	1	%	127	153	-	-
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	< 5	< 5	-	-
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	< 5	< 5	-	-
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	< 5	< 5	-	-
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	< 5	< 5	-	-
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	< 5	< 5	-	-
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	< 5	< 5	-	-
13C3-PFBS (surr.)	1	%	112	116	-	-
18O2-PFHxS (surr.)	1	%	111	121	-	-
13C8-PFOS (surr.)	1	%	111	129	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	< 5	< 5	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	10	ug/kg	< 10	< 10	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	< 5	< 5	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	< 5	< 5	-	-
13C2-4:2 FTSA (surr.)	1	%	96	121	-	-

Client Sample ID			QC	[G01]BH5_0.4-0.5	BH4_2.0-2.1	BH4_4.0-4.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074291	S24-Oc0074292	S24-Oc0074296	S24-Oc0074297
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
13C2-6:2 FTSA (surr.)	1	%	99	105	-	-
13C2-8:2 FTSA (surr.)	1	%	110	148	-	-
13C2-10:2 FTSA (surr.)	1	%	147	INT	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	-	-
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	-	-
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	-	-

Client Sample ID			BH2_2.0-2.1	BH2_5.0-5.1	BH3_3.0-3.1	BH3_5.0-5.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074298	S24-Oc0074299	S24-Oc0074300	S24-Oc0074301
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	[Q09]INT	96	100	127
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH2_2.0-2.1	BH2_5.0-5.1	BH3_3.0-3.1	BH3_5.0-5.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-Oc0074298	S24-Oc0074299	S24-Oc0074300	S24-Oc0074301
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 25, 2024	Oct 25, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	[Q09]INT	96	100	127
Toluene-d8 (surr.)	1	%	113	104	108	102
Sample Properties						
% Moisture	1	%	4.8	16	4.6	22

Client Sample ID			BH3_5.9-6.0
Sample Matrix			Soil
Eurofins Sample No.			S24-Oc0074302
Date Sampled			Oct 25, 2024
Test/Reference	LOR	Unit	
Volatile Organics			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5
Benzene	0.1	mg/kg	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5
Bromoform	0.5	mg/kg	< 0.5
Bromomethane	0.5	mg/kg	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5
Chloroethane	0.5	mg/kg	< 0.5
Chloroform	0.5	mg/kg	< 0.5
Chloromethane	0.5	mg/kg	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1
Iodomethane	0.5	mg/kg	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5
o-Xylene	0.1	mg/kg	< 0.1
Styrene	0.5	mg/kg	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5
Toluene	0.1	mg/kg	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5

Client Sample ID			BH3_5.9-6.0
Sample Matrix			Soil
Eurofins Sample No.			S24-Oc0074302
Date Sampled			Oct 25, 2024
Test/Reference	LOR	Unit	
Volatile Organics			
Trichloroethene	0.5	mg/kg	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3
Total MAH*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5
4-Bromofluorobenzene (surr.)	1	%	98
Toluene-d8 (surr.)	1	%	87
Heavy Metals			
Arsenic	2	mg/kg	2.1
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	< 5
Copper	5	mg/kg	< 5
Lead	5	mg/kg	< 5
Mercury	0.1	mg/kg	0.6
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	5.4
Sample Properties			
% Moisture	1	%	23

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Eurofins Suite B1			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Semivolatile Organics	Sydney	Oct 29, 2024	14 Day
- Method: LTM-ORG-2190 SVOC in Water & Soil by GC-MS			
Metals M8	Sydney	Oct 29, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Oct 29, 2024	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Sydney	Oct 29, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Sydney	Oct 30, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Sydney	Oct 30, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Sydney	Oct 30, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Sydney	Oct 30, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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NSW 2000

Project Name: BOTANY
Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	CANCELLED*	HOLD*	Polycyclic Aromatic Hydrocarbons	Metals M8	Metals M8 filtered	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Semivolatile Organics	Eurofins Suite B1	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	HA1_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074273				X	X			X	X	X	X	X		X	
2	HA1_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074274					X				X	X	X	X			
3	HA1_0-1.0	Oct 24, 2024		Soil	S24-Oc0074275	X														
4	HA2_0-0.1	Oct 24, 2024		Soil	S24-Oc0074276					X				X	X	X	X			
5	HA2_0.4-0.5	Oct 24, 2024		Soil	S24-Oc0074277				X	X			X	X	X	X	X		X	
6	HA2_0-0.5	Oct 24, 2024		Soil	S24-Oc0074278	X														
7	HA3_0.2-0.3	Oct 24, 2024		Soil	S24-Oc0074279				X	X			X	X	X	X	X		X	
8	HA3_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074280					X				X	X	X	X			
9	HA4_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074281				X	X			X	X	X	X	X		X	
10	HA4_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074282					X				X	X	X	X			
11	HA4_0-1.0	Oct 24, 2024		Soil	S24-Oc0074283	X														
12	BH2_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074284				X	X			X	X	X	X	X		X	
13	BH2_0-1.0	Oct 23, 2024		Soil	S24-Oc0074285	X														
14	BH2_1.0-1.2	Oct 23, 2024		Soil	S24-Oc0074286					X				X	X	X	X			

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Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	CANCELLED*	HOLD*	Polycyclic Aromatic Hydrocarbons	Metals M8	Metals M8 filtered	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Semivolatile Organics	Eurofins Suite B1	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15	BH3_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074287				X	X			X	X	X	X	X		X	
16	BH3_0-0.65	Oct 23, 2024		Soil	S24-Oc0074288	X														
17	BH4_0.9-1.0	Oct 23, 2024		Soil	S24-Oc0074289				X	X			X	X	X	X	X		X	
18	BH4_0-1.0	Oct 23, 2024		Soil	S24-Oc0074290	X														
19	QC	Oct 24, 2024		Soil	S24-Oc0074291				X	X			X	X	X	X	X		X	
20	BH5_0.4-0.5	Oct 24, 2024		Soil	S24-Oc0074292				X	X			X	X	X	X	X		X	
21	RINS	Oct 24, 2024		Water	S24-Oc0074293				X		X		X	X		X	X		X	
22	TS	Oct 24, 2024		Trip Spike (liquid)	S24-Oc0074294															X
23	TB	Oct 24, 2024		Trip Blank (liquid)	S24-Oc0074295													X		
24	BH4_2.0-2.1	Oct 24, 2024		Soil	S24-Oc0074296							X		X	X					
25	BH4_4.0-4.1	Oct 24, 2024		Soil	S24-Oc0074297							X		X	X					
26	BH2_2.0-2.1	Oct 24, 2024		Soil	S24-Oc0074298							X		X	X					
27	BH2_5.0-5.1	Oct 24, 2024		Soil	S24-Oc0074299							X		X	X					
28	BH3_3.0-3.1	Oct 25, 2024		Soil	S24-Oc0074300							X		X	X					
29	BH3_5.0-5.1	Oct 25, 2024		Soil	S24-Oc0074301							X		X	X					

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Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
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Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30	BH3_5.9-6.0	Oct 25, 2024		Soil	S24-Oc0074302					X				X	X					
31	QC_B	Oct 24, 2024		Soil	S24-Oc0074303	X														
32	HA1_0-0.1	Oct 24, 2024		Soil	S24-Oc0074304			X												
33	HA1_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074305			X												
34	HA1_1.0-1.5	Oct 24, 2024		Soil	S24-Oc0074306			X												
35	HA3_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074307			X												
36	HA3_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074308			X												
37	HA3_0.2-0.9	Oct 24, 2024		Soil	S24-Oc0074309			X												
38	HA3_0.9-1.5	Oct 24, 2024		Soil	S24-Oc0074310			X												
39	HA4_0.2-0.3	Oct 24, 2024		Soil	S24-Oc0074311			X												
40	HA4_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074312			X												
41	HA4_1.0-1.4	Oct 24, 2024		Soil	S24-Oc0074313		X													
42	BH2_0-0.1	Oct 23, 2024		Soil	S24-Oc0074314			X												
43	BH2_1.0-1.1	Oct 23, 2024		Soil	S24-Oc0074315			X												
44	BH2_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074316			X												
45	BH2_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074317			X												
46	BH3_0-0.1	Oct 23, 2024		Soil	S24-Oc0074318			X												

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Order No.:
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Received: Oct 28, 2024 6:11 PM
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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
47	BH4_0-0.1	Oct 23, 2024		Soil	S24-Oc0074319			X												
48	BH4_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074320			X												
49	BH4_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074321			X												
50	BH4_1.0-1.5	Oct 23, 2024		Soil	S24-Oc0074322			X												
51	BH5_0-0.1	Oct 24, 2024		Soil	S24-Oc0074323			X												
52	BH5_0-0.5	Oct 24, 2024		Soil	S24-Oc0074324			X												
53	BH4_3.0-3.1	Oct 24, 2024		Soil	S24-Oc0074325			X												
54	BH4_5.0-5.1	Oct 24, 2024		Soil	S24-Oc0074326			X												
55	BH4_5.9-6.0	Oct 24, 2024		Soil	S24-Oc0074327			X												
56	BH2_3.0-3.1	Oct 24, 2024		Soil	S24-Oc0074328			X												
57	BH2_4.0-4.1	Oct 24, 2024		Soil	S24-Oc0074329			X												
58	BH2_5.9-6.0	Oct 24, 2024		Soil	S24-Oc0074330			X												
59	BH3_2.0-2.1	Oct 25, 2024		Soil	S24-Oc0074331			X												
60	BH3_4.0-4.1	Oct 25, 2024		Soil	S24-Oc0074332			X												
61	PFAS BLANK	Oct 24, 2024		Water	S24-Oc0074333			X												
62	HA4_GRAVELS	Oct 24, 2024		Water	S24-Oc0074393			X												

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
63	BH2_1.2-1.5	Oct 24, 2024		Water	S24-Oc0074394			X												
64	BH4_1.1-1.5	Oct 24, 2024		Water	S24-Oc0074395			X												
Test Counts						7	1	32	10	15	1	6	10	22	21	15	15	1	10	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
1-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
1-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.4-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2-Methylnaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
2-Nitroaniline	mg/kg	< 1			1	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2-Picoline	mg/kg	< 0.5			0.5	Pass	
2.3.4.6-Tetrachlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2.4-Dinitrotoluene	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.6-Dinitrotoluene	mg/kg	< 1			1	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
3-Methylcholanthrene	mg/kg	< 0.5			0.5	Pass	
3.3'-Dichlorobenzidine	mg/kg	< 0.5			0.5	Pass	
4-Aminobiphenyl	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
4.4'-DDD	mg/kg	< 0.5			0.5	Pass	
4.4'-DDE	mg/kg	< 0.5			0.5	Pass	
4.4'-DDT	mg/kg	< 1			1	Pass	
7.12-Dimethylbenz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
a-HCH	mg/kg	< 0.5			0.5	Pass	
Acetophenone	mg/kg	< 0.5			0.5	Pass	
Aldrin	mg/kg	< 0.5			0.5	Pass	
Aniline	mg/kg	< 0.5			0.5	Pass	
b-HCH	mg/kg	< 0.5			0.5	Pass	
Benzyl chloride	mg/kg	< 0.5			0.5	Pass	
Bis(2-ethylhexyl)phthalate	mg/kg	< 5			5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
d-HCH	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.j)acridine	mg/kg	< 0.5			0.5	Pass	
Dibenzofuran	mg/kg	< 0.5			0.5	Pass	
Dieldrin	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethylaminoazobenzene	mg/kg	< 0.5			0.5	Pass	
Diphenylamine	mg/kg	< 0.5			0.5	Pass	
Endosulfan I	mg/kg	< 0.5			0.5	Pass	
Endosulfan II	mg/kg	< 0.5			0.5	Pass	
Endosulfan sulphate	mg/kg	< 0.5			0.5	Pass	
Endrin	mg/kg	< 0.5			0.5	Pass	
Endrin ketone	mg/kg	< 0.5			0.5	Pass	
g-HCH (Lindane)	mg/kg	< 0.5			0.5	Pass	
Heptachlor	mg/kg	< 0.5			0.5	Pass	
Heptachlor epoxide	mg/kg	< 0.5			0.5	Pass	
Hexachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Hexachlorocyclopentadiene	mg/kg	< 1			1	Pass	
Hexachloroethane	mg/kg	< 0.5			0.5	Pass	
Methoxychlor	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodibutylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodipropylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosopiperidine	mg/kg	< 0.5			0.5	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachloronitrobenzene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pentachlorophenol	mg/kg	< 1			1	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Pronamide	mg/kg	< 0.5			0.5	Pass	
Trifluralin	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Haloethers							
4-Bromophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Chlorophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroethoxy)methane	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroisopropyl)ether	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/kg	< 5			5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5			5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5			5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5			5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5			5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5			5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5			5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5			5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5			5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/kg	< 5			5	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/kg	< 5			5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5			5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5			5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5			5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5			5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5			5	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/kg	< 10			10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5			5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Semivolatile Organics							
Endrin aldehyde	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	97			70-130	Pass	
Acenaphthylene	%	97			70-130	Pass	
Anthracene	%	95			70-130	Pass	
Benz(a)anthracene	%	92			70-130	Pass	
Benzo(a)pyrene	%	96			70-130	Pass	
Benzo(b&j)fluoranthene	%	101			70-130	Pass	
Benzo(g.h.i)perylene	%	94			70-130	Pass	
Benzo(k)fluoranthene	%	96			70-130	Pass	
Chrysene	%	99			70-130	Pass	
Dibenz(a.h)anthracene	%	90			70-130	Pass	
Fluoranthene	%	96			70-130	Pass	
Fluorene	%	99			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	96			70-130	Pass	
Naphthalene	%	96			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	95			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	89			70-130	Pass	
Aroclor-1260	%	102			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	%	99			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.2.4-Trichlorobenzene	%	114			70-130	Pass	
1.4-Dichlorobenzene	%	102			70-130	Pass	
2-Chlorophenol	%	96			25-140	Pass	
2-Methylphenol (o-Cresol)	%	97			25-140	Pass	
2-Nitrophenol	%	91			25-140	Pass	
2.4-Dichlorophenol	%	93			25-140	Pass	
2.4-Dimethylphenol	%	94			25-140	Pass	
2.4-Dinitrophenol	%	99			25-140	Pass	
2.4-Dinitrotoluene	%	93			70-130	Pass	
2.4.5-Trichlorophenol	%	89			25-140	Pass	
2.4.6-Trichlorophenol	%	99			25-140	Pass	
2.6-Dichlorophenol	%	93			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	96			25-140	Pass	
4-Chloro-3-methylphenol	%	96			25-140	Pass	
4-Nitrophenol	%	91			25-140	Pass	
N-Nitrosodipropylamine	%	108			70-130	Pass	
Pentachlorophenol	%	84			25-140	Pass	
Phenol	%	99			25-140	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	102			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	96			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	106			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	101			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	108			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	106			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	110			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	110			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	108			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	118			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	116			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	105			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	107			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	100			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	92			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	100			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	99			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	99			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	97			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	102			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	87			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	89			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	101			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	102			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	104			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	98			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	93			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	120			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	101			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	93			50-150	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	110			70-130	Pass	
Toluene	%	105			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	104			70-130	Pass	
o-Xylene	%	108			70-130	Pass	
Xylenes - Total*	%	105			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	88			70-130	Pass	
1.1.1-Trichloroethane	%	91			70-130	Pass	
1.2-Dichlorobenzene	%	109			70-130	Pass	
1.2-Dichloroethane	%	106			70-130	Pass	
Trichloroethene	%	96			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	114			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C10-C14	%	82			70-130	Pass	
TRH >C10-C16	%	81			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics							
Endrin aldehyde	%	81			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C10-C14	%	105			70-130	Pass	
TRH >C10-C16	%	107			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C10-C14	%	98			70-130	Pass	
TRH >C10-C16	%	97			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	88			70-130	Pass	
Toluene	%	97			70-130	Pass	
o-Xylene	%	97			70-130	Pass	
Xylenes - Total*	%	125			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	101			70-130	Pass	
1.1.1-Trichloroethane	%	91			70-130	Pass	
1.2-Dichlorobenzene	%	110			70-130	Pass	
1.2-Dichloroethane	%	108			70-130	Pass	
Trichloroethene	%	75			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	93			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	95			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cadmium	%	97			80-120	Pass	
Chromium	%	99			80-120	Pass	
Copper	%	100			80-120	Pass	
Lead	%	104			80-120	Pass	
Mercury	%	109			80-120	Pass	
Nickel	%	99			80-120	Pass	
Zinc	%	101			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	106			80-120	Pass	
Copper	%	108			80-120	Pass	
Lead	%	111			80-120	Pass	
Nickel	%	107			80-120	Pass	
Zinc	%	108			80-120	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	98			70-130	Pass	
4.4'-DDD	%	92			70-130	Pass	
4.4'-DDE	%	99			70-130	Pass	
4.4'-DDT	%	102			70-130	Pass	
a-HCH	%	96			70-130	Pass	
Aldrin	%	99			70-130	Pass	
b-HCH	%	97			70-130	Pass	
d-HCH	%	95			70-130	Pass	
Dieldrin	%	101			70-130	Pass	
Endosulfan I	%	98			70-130	Pass	
Endosulfan II	%	90			70-130	Pass	
Endosulfan sulphate	%	91			70-130	Pass	
Endrin	%	100			70-130	Pass	
Endrin aldehyde	%	81			70-130	Pass	
Endrin ketone	%	92			70-130	Pass	
g-HCH (Lindane)	%	97			70-130	Pass	
Heptachlor	%	100			70-130	Pass	
Heptachlor epoxide	%	95			70-130	Pass	
Hexachlorobenzene	%	98			70-130	Pass	
Methoxychlor	%	95			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S24-Oc0073297	NCP	%	77			70-130	Pass	
Toluene	S24-Oc0073297	NCP	%	83			70-130	Pass	
Ethylbenzene	S24-Oc0073297	NCP	%	79			70-130	Pass	
m&p-Xylenes	S24-Oc0073297	NCP	%	80			70-130	Pass	
o-Xylene	S24-Oc0073297	NCP	%	81			70-130	Pass	
Xylenes - Total*	S24-Oc0073297	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S24-Oc0073297	NCP	%	76			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthylene	S24-Oc0077629	NCP	%	73			70-130	Pass	
Anthracene	S24-Oc0077629	NCP	%	82			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene	S24-Oc0077629	NCP	%	74			70-130	Pass	
Fluorene	S24-Oc0077629	NCP	%	82			70-130	Pass	
Naphthalene	S24-Oc0077629	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
2-Chlorophenol	S24-Oc0077629	NCP	%	78			30-130	Pass	
2-Methylphenol (o-Cresol)	S24-Oc0077629	NCP	%	78			30-130	Pass	
2.4-Dimethylphenol	S24-Oc0077629	NCP	%	77			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S24-Oc0077629	NCP	%	72			30-130	Pass	
Phenol	S24-Oc0077629	NCP	%	99			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Zinc	N24-Oc0070625	NCP	%	80			75-125	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S24-Oc0074273	CP	%	100			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S24-Oc0074273	CP	%	94			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S24-Oc0074273	CP	%	103			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-Oc0074273	CP	%	98			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S24-Oc0074273	CP	%	107			50-150	Pass	
Perfluorononanoic acid (PFNA)	S24-Oc0074273	CP	%	101			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S24-Oc0074273	CP	%	111			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-Oc0074273	CP	%	118			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-Oc0074273	CP	%	95			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	S24-Oc0074273	CP	%	104			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-Oc0074273	CP	%	94			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S24-Oc0066663	NCP	%	94			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-Oc0066663	NCP	%	72			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-Oc0066663	NCP	%	101			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-Oc0066663	NCP	%	96			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-Oc0066663	NCP	%	101			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-Oc0066663	NCP	%	104			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-Oc0066663	NCP	%	98			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S24-Oc0066663	NCP	%	98			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S24-Oc0066663	NCP	%	95			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S24-Oc0066663	NCP	%	89			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S24-Oc0066663	NCP	%	90			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S24-Oc0066663	NCP	%	99			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroheptanesulfonic acid (PFHpS)	S24-Oc0066663	NCP	%	91			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S24-Oc0066663	NCP	%	94			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S24-Oc0066663	NCP	%	89			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-Oc0066663	NCP	%	114			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S24-Oc0066663	NCP	%	114			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-Oc0066663	NCP	%	137			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-Oc0066663	NCP	%	97			50-150	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S24-Oc0074279	CP	%	91			75-125	Pass	
Cadmium	S24-Oc0074279	CP	%	118			75-125	Pass	
Chromium	S24-Oc0074279	CP	%	98			75-125	Pass	
Copper	S24-Oc0074279	CP	%	113			75-125	Pass	
Lead	S24-Oc0074279	CP	%	89			75-125	Pass	
Mercury	S24-Oc0074279	CP	%	109			75-125	Pass	
Nickel	S24-Oc0074279	CP	%	102			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S24-Oc0074281	CP	%	93			70-130	Pass	
TRH >C10-C16	S24-Oc0074281	CP	%	88			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S24-Oc0074289	CP	%	104			70-130	Pass	
Pyrene	S24-Oc0074289	CP	%	103			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
1.2.4-Trichlorobenzene	S24-Oc0074289	CP	%	114			70-130	Pass	
1.4-Dichlorobenzene	S24-Oc0074289	CP	%	101			70-130	Pass	
2.4-Dinitrotoluene	S24-Oc0074289	CP	%	87			70-130	Pass	
4-Chloro-3-methylphenol	S24-Oc0074289	CP	%	101			30-130	Pass	
N-Nitrosodipropylamine	S24-Oc0074289	CP	%	107			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorotridecanoic acid (PFTrDA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-Oc0072339	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-Oc0072339	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S24-Oc0072339	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-Oc0072339	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S24-Oc0074277	CP	mg/kg	3.3	3.3	2.0	30%	Pass	
Cadmium	S24-Oc0074277	CP	mg/kg	0.5	< 0.4	23	30%	Pass	
Chromium	S24-Oc0074277	CP	mg/kg	15	15	3.0	30%	Pass	
Copper	S24-Oc0074277	CP	mg/kg	47	46	4.0	30%	Pass	
Lead	S24-Oc0074277	CP	mg/kg	200	160	22	30%	Pass	
Mercury	S24-Oc0074277	CP	mg/kg	520	900	54	30%	Fail	Q02

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel	S24-Oc0074277	CP	mg/kg	33	35	4.0	30%	Pass	
Zinc	S24-Oc0074277	CP	mg/kg	260	270	5.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S24-Oc0074279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10	S24-Oc0074279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S24-Oc0074279	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-Oc0074279	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S24-Oc0074279	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S24-Oc0074279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S24-Oc0074279	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-Oc0074279	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Isopropyl benzene (Cumene)	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S24-Oc0074279	CP	mg/kg	1.9	0.9	75	30%	Fail	Q15
trans-1.2-Dichloroethene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S24-Oc0074279	CP	mg/kg	1.4	< 0.5	110	30%	Fail	Q15
Trichlorofluoromethane	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S24-Oc0074279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S24-Oc0074280	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S24-Oc0074280	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	S24-Oc0074280	CP	mg/kg	< 5	< 5	<1	30%	Pass	
1-Chloronaphthalene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chlorophenol	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S24-Oc0074280	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Naphthylamine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Nitrophenol	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Picoline	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S24-Oc0074280	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dinitrotoluene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S24-Oc0074280	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
3-Methylcholanthrene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Nitrophenol	S24-Oc0074280	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4.4'-DDD	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	S24-Oc0074280	CP	mg/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
Butyl benzyl phthalate	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Hexachloroethane	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	S24-Oc0074280	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Phenol	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Haloethers				Result 1	Result 2	RPD			
4-Bromophenyl phenyl ether	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorophenyl phenyl ether	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	S24-Oc0074280	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S24-Oc0074282	CP	%	3.9	4.3	9.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S24-Oc0074287	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S24-Oc0074287	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S24-Oc0074287	CP	mg/kg	< 50	51	15	30%	Pass	
TRH C29-C36	S24-Oc0074287	CP	mg/kg	< 50	56	19	30%	Pass	
TRH C6-C10	S24-Oc0074287	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S24-Oc0074287	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S24-Oc0074287	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S24-Oc0074287	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S24-Oc0074287	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-Oc0074287	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S24-Oc0074287	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S24-Oc0074287	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S24-Oc0074287	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-Oc0074287	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	S24-Oc0074287	CP	mg/kg	< 5	< 5	<1	30%	Pass	
1-Chloronaphthalene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1-Naphthylamine	S24-Oc0074287	CP	mg/kg	< 2	< 2	<1	30%	Pass	
1.2-Dichlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1.2.3-Trichlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1.2.4-Trichlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1.3-Dichlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
1.3.5-Trichlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
1.4-Dichlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Chloronaphthalene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Chlorophenol	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Naphthylamine	S24-Oc0074287	CP	mg/kg	< 2	< 2	<1	30%	Pass	
2-Nitroaniline	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Nitrophenol	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Picoline	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dichlorophenol	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S24-Oc0074287	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dinitrotoluene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.5-Trichlorophenol	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
3-Methylcholanthrene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
3.3'-Dichlorobenzidine	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Aminobiphenyl	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Chloro-3-methylphenol	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Nitrophenol	S24-Oc0074287	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4.4'-DDD	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDE	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDT	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
a-HCH	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Acetophenone	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aldrin	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aniline	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
b-HCH	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Benzyl chloride	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	S24-Oc0074287	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Butyl benzyl phthalate	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
d-HCH	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Di-n-butyl phthalate	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Di-n-octyl phthalate	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Dibenz(a.j)acridine	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Dibenzofuran	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Dieldrin	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Diethyl phthalate	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Dimethyl phthalate	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Dimethylaminoazobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Diphenylamine	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Endosulfan I	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Endosulfan II	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Endosulfan sulphate	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Endrin	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Endrin aldehyde	S24-Oc0074287	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
g-HCH (Lindane)	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Heptachlor	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
Heptachlor epoxide	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Hexachlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Hexachlorobutadiene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Hexachlorocyclopentadiene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Hexachloroethane	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Methoxychlor	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
N-Nitrosodibutylamine	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
N-Nitrosodipropylamine	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
N-Nitrosopiperidine	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Nitrobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachloronitrobenzene	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Phenol	S24-Oc0074287	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Pronamide	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Trifluralin	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Haloethers				Result 1	Result 2	RPD			
4-Bromophenyl phenyl ether	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Chlorophenyl phenyl ether	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Bis(2-chloroethoxy)methane	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	S24-Oc0074287	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S24-Oc0074292	CP	mg/kg	3.8	2.6	38	30%	Fail	Q15
Cadmium	S24-Oc0074292	CP	mg/kg	0.4	0.4	9.0	30%	Pass	
Chromium	S24-Oc0074292	CP	mg/kg	41	61	39	30%	Fail	Q15
Copper	S24-Oc0074292	CP	mg/kg	270	210	27	30%	Pass	
Lead	S24-Oc0074292	CP	mg/kg	250	200	21	30%	Pass	
Mercury	S24-Oc0074292	CP	mg/kg	15	16	5.0	30%	Pass	
Nickel	S24-Oc0074292	CP	mg/kg	110	110	7.0	30%	Pass	
Zinc	S24-Oc0074292	CP	mg/kg	710	690	2.0	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S24-Oc0074299	CP	%	16	18	15	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-PFAS
Roopesh Rangarajan	Senior Analyst-Sample Properties
Roopesh Rangarajan	Senior Analyst-Volatile
Sayeed Abu	Senior Analyst-Asbestos



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Certificate of Analysis

Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000

Attention:	Chris Bielby
Report	1154010-AID
Project Name	BOTANY
Project ID	67817
Received Date	Oct 28, 2024
Date Reported	Nov 01, 2024

Methodology:

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

Project Name BOTANY
Project ID 67817
Date Sampled Oct 23, 2024 to Oct 24, 2024
Report 1154010-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
HA1_0-1.0	24-Oc0074275	Oct 24, 2024	Approximate Sample 798g Sample consisted of: Brown coarse-grained sandy soil, cement, coal and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA2_0-0.5	24-Oc0074278	Oct 24, 2024	Approximate Sample 795g Sample consisted of: Brown coarse-grained sandy soil, corroded metal, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA4_0-1.0	24-Oc0074283	Oct 24, 2024	Approximate Sample 698g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH2_0-1.0	24-Oc0074285	Oct 23, 2024	Approximate Sample 830g Sample consisted of: Brown coarse-grained sandy soil, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH3_0-0.65	24-Oc0074288	Oct 23, 2024	Approximate Sample 738g Sample consisted of: Brown coarse-grained sandy soil, fiber glass material and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Synthetic mineral fibre detected. Organic fibre detected. No trace asbestos detected.
BH4_0-1.0	24-Oc0074290	Oct 23, 2024	Approximate Sample 840g Sample consisted of: Brown coarse-grained sandy soil, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
QC_B	24-Oc0074303	Oct 24, 2024	Approximate Sample 584g Sample consisted of: Brown coarse-grained sandy soil, brick, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Oct 29, 2024	Indefinite

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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
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Project Name: BOTANY
Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	CANCELLED*	HOLD*	Polycyclic Aromatic Hydrocarbons	Metals M8	Metals M8 filtered	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Semivolatile Organics	Eurofins Suite B1	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	HA1_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074273				X	X			X	X	X	X	X		X	
2	HA1_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074274					X				X	X	X	X			
3	HA1_0-1.0	Oct 24, 2024		Soil	S24-Oc0074275	X														
4	HA2_0-0.1	Oct 24, 2024		Soil	S24-Oc0074276					X				X	X	X	X			
5	HA2_0.4-0.5	Oct 24, 2024		Soil	S24-Oc0074277				X	X			X	X	X	X	X		X	
6	HA2_0-0.5	Oct 24, 2024		Soil	S24-Oc0074278	X														
7	HA3_0.2-0.3	Oct 24, 2024		Soil	S24-Oc0074279				X	X			X	X	X	X	X		X	
8	HA3_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074280					X				X	X	X	X			
9	HA4_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074281				X	X			X	X	X	X	X		X	
10	HA4_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074282					X				X	X	X	X			
11	HA4_0-1.0	Oct 24, 2024		Soil	S24-Oc0074283	X														
12	BH2_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074284				X	X			X	X	X	X	X		X	
13	BH2_0-1.0	Oct 23, 2024		Soil	S24-Oc0074285	X														
14	BH2_1.0-1.2	Oct 23, 2024		Soil	S24-Oc0074286					X				X	X	X	X			

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
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NSW 2000

Project Name: BOTANY
Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	CANCELLED*	HOLD*	Polycyclic Aromatic Hydrocarbons	Metals M8	Metals M8 filtered	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Semivolatile Organics	Eurofins Suite B1	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15	BH3_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074287				X	X			X	X	X	X	X		X	
16	BH3_0-0.65	Oct 23, 2024		Soil	S24-Oc0074288	X														
17	BH4_0.9-1.0	Oct 23, 2024		Soil	S24-Oc0074289				X	X			X	X	X	X	X		X	
18	BH4_0-1.0	Oct 23, 2024		Soil	S24-Oc0074290	X														
19	QC	Oct 24, 2024		Soil	S24-Oc0074291				X	X			X	X	X	X	X		X	
20	BH5_0.4-0.5	Oct 24, 2024		Soil	S24-Oc0074292				X	X			X	X	X	X	X		X	
21	RINS	Oct 24, 2024		Water	S24-Oc0074293				X		X		X	X		X	X		X	
22	TS	Oct 24, 2024		Trip Spike (liquid)	S24-Oc0074294															X
23	TB	Oct 24, 2024		Trip Blank (liquid)	S24-Oc0074295													X		
24	BH4_2.0-2.1	Oct 24, 2024		Soil	S24-Oc0074296							X		X	X					
25	BH4_4.0-4.1	Oct 24, 2024		Soil	S24-Oc0074297							X		X	X					
26	BH2_2.0-2.1	Oct 24, 2024		Soil	S24-Oc0074298							X		X	X					
27	BH2_5.0-5.1	Oct 24, 2024		Soil	S24-Oc0074299							X		X	X					
28	BH3_3.0-3.1	Oct 25, 2024		Soil	S24-Oc0074300							X		X	X					
29	BH3_5.0-5.1	Oct 25, 2024		Soil	S24-Oc0074301							X		X	X					

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30	BH3_5.9-6.0	Oct 25, 2024		Soil	S24-Oc0074302					X				X	X					
31	QC_B	Oct 24, 2024		Soil	S24-Oc0074303	X														
32	HA1_0-0.1	Oct 24, 2024		Soil	S24-Oc0074304			X												
33	HA1_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074305			X												
34	HA1_1.0-1.5	Oct 24, 2024		Soil	S24-Oc0074306			X												
35	HA3_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074307			X												
36	HA3_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074308			X												
37	HA3_0.2-0.9	Oct 24, 2024		Soil	S24-Oc0074309			X												
38	HA3_0.9-1.5	Oct 24, 2024		Soil	S24-Oc0074310			X												
39	HA4_0.2-0.3	Oct 24, 2024		Soil	S24-Oc0074311			X												
40	HA4_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074312			X												
41	HA4_1.0-1.4	Oct 24, 2024		Soil	S24-Oc0074313		X													
42	BH2_0-0.1	Oct 23, 2024		Soil	S24-Oc0074314			X												
43	BH2_1.0-1.1	Oct 23, 2024		Soil	S24-Oc0074315			X												
44	BH2_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074316			X												
45	BH2_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074317			X												
46	BH3_0-0.1	Oct 23, 2024		Soil	S24-Oc0074318			X												

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ABN: 50 005 085 521

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

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

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: BOTANY
Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	CANCELLED*	HOLD*	Polycyclic Aromatic Hydrocarbons	Metals M8	Metals M8 filtered	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Semivolatile Organics	Eurofins Suite B1	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
47	BH4_0-0.1	Oct 23, 2024		Soil	S24-Oc0074319			X												
48	BH4_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074320			X												
49	BH4_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074321			X												
50	BH4_1.0-1.5	Oct 23, 2024		Soil	S24-Oc0074322			X												
51	BH5_0-0.1	Oct 24, 2024		Soil	S24-Oc0074323			X												
52	BH5_0-0.5	Oct 24, 2024		Soil	S24-Oc0074324			X												
53	BH4_3.0-3.1	Oct 24, 2024		Soil	S24-Oc0074325			X												
54	BH4_5.0-5.1	Oct 24, 2024		Soil	S24-Oc0074326			X												
55	BH4_5.9-6.0	Oct 24, 2024		Soil	S24-Oc0074327			X												
56	BH2_3.0-3.1	Oct 24, 2024		Soil	S24-Oc0074328			X												
57	BH2_4.0-4.1	Oct 24, 2024		Soil	S24-Oc0074329			X												
58	BH2_5.9-6.0	Oct 24, 2024		Soil	S24-Oc0074330			X												
59	BH3_2.0-2.1	Oct 25, 2024		Soil	S24-Oc0074331			X												
60	BH3_4.0-4.1	Oct 25, 2024		Soil	S24-Oc0074332			X												
61	PFAS BLANK	Oct 24, 2024		Water	S24-Oc0074333			X												
62	HA4_GRAVELS	Oct 24, 2024		Water	S24-Oc0074393			X												

eurofins

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

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

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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
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IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
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NSW 2000

Project Name: BOTANY
Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	CANCELLED*	HOLD*	Polycyclic Aromatic Hydrocarbons	Metals M8	Metals M8 filtered	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Semivolatile Organics	Eurofins Suite B1	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
63	BH2_1.2-1.5	Oct 24, 2024		Water	S24-Oc0074394			X												
64	BH4_1.1-1.5	Oct 24, 2024		Water	S24-Oc0074395			X												
Test Counts						7	1	32	10	15	1	6	10	22	21	15	15	1	10	1

Internal Quality Control Review and Glossary General

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

Holding Times

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

Units

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

Calculations

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

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

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

Terms

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

Comments

Sample Integrity

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

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Chris Bielby**

Report **1154010-W**
Project name BOTANY
Project ID 67817
Received Date Oct 28, 2024

Client Sample ID			**RINS**	**TS**	**TB**
Sample Matrix			**Water**	**Trip Spike (liquid)**	**Trip Blank (liquid)**
Eurofins Sample No.			**S24-Oc0074293**	**S24-Oc0074294**	**S24-Oc0074295**
Date Sampled			**Oct 24, 2024**	**Oct 24, 2024**	**Oct 24, 2024**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	0.02	mg/L	< 0.02	-	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)*[N01]	0.05	mg/L	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	-	-
BTEX					
Benzene	0.001	mg/L	< 0.001	-	< 0.001
Toluene	0.001	mg/L	< 0.001	-	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	79	-	110
Volatile Organics					
1.1-Dichloroethane	0.001	mg/L	< 0.001	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	-	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	-	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	-	-

Client Sample ID			RINS	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S24-Oc0074293	S24-Oc0074294	S24-Oc0074295
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit			
Volatile Organics					
1.3-Dichloropropane	0.001	mg/L	< 0.001	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	-	-
2-Butanone (MEK)	0.005	mg/L	< 0.005	-	-
2-Propanone (Acetone)	0.005	mg/L	< 0.005	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	-	-
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	-	-
Allyl chloride	0.001	mg/L	< 0.001	-	-
Benzene	0.001	mg/L	< 0.001	-	-
Bromobenzene	0.001	mg/L	< 0.001	-	-
Bromochloromethane	0.001	mg/L	< 0.001	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	-	-
Bromoform	0.001	mg/L	< 0.001	-	-
Bromomethane	0.005	mg/L	< 0.005	-	-
Carbon disulfide	0.001	mg/L	< 0.001	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	-	-
Chlorobenzene	0.001	mg/L	< 0.001	-	-
Chloroethane	0.005	mg/L	< 0.005	-	-
Chloroform	0.005	mg/L	< 0.005	-	-
Chloromethane	0.005	mg/L	< 0.005	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	-	-
Dibromomethane	0.001	mg/L	< 0.001	-	-
Dichlorodifluoromethane	0.005	mg/L	< 0.005	-	-
Ethylbenzene	0.001	mg/L	< 0.001	-	-
Iodomethane	0.001	mg/L	< 0.001	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	-
Methylene Chloride	0.005	mg/L	< 0.005	-	-
o-Xylene	0.001	mg/L	< 0.001	-	-
Styrene	0.001	mg/L	< 0.001	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	-	-
Toluene	0.001	mg/L	< 0.001	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-
Trichloroethene	0.001	mg/L	< 0.001	-	-
Trichlorofluoromethane	0.005	mg/L	< 0.005	-	-
Vinyl chloride	0.005	mg/L	< 0.005	-	-
Xylenes - Total*	0.003	mg/L	< 0.003	-	-
Total MAH*	0.003	mg/L	< 0.003	-	-
Vic EPA IWRG 621 CHC (Total)*	0.005	mg/L	< 0.005	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.005	mg/L	< 0.005	-	-
4-Bromofluorobenzene (surr.)	1	%	79	-	-
Toluene-d8 (surr.)	1	%	129	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.01	mg/L	< 0.01	-	-

Client Sample ID			RINS	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S24-Oc0074293	S24-Oc0074294	S24-Oc0074295
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	-	-
Anthracene	0.001	mg/L	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-
Chrysene	0.001	mg/L	< 0.001	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	-
Fluoranthene	0.001	mg/L	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-
Naphthalene	0.001	mg/L	< 0.001	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-
Pyrene	0.001	mg/L	< 0.001	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-
2-Fluorobiphenyl (surr.)	1	%	131	-	-
p-Terphenyl-d14 (surr.)	1	%	77	-	-
Organochlorine Pesticides					
Chlordanes - Total	0.002	mg/L	< 0.002	-	-
4.4'-DDD	0.0002	mg/L	< 0.0002	-	-
4.4'-DDE	0.0002	mg/L	< 0.0002	-	-
4.4'-DDT	0.0002	mg/L	< 0.0002	-	-
a-HCH	0.0002	mg/L	< 0.0002	-	-
Aldrin	0.0002	mg/L	< 0.0002	-	-
b-HCH	0.0002	mg/L	< 0.0002	-	-
d-HCH	0.0002	mg/L	< 0.0002	-	-
Dieldrin	0.0002	mg/L	< 0.0002	-	-
Endosulfan I	0.0002	mg/L	< 0.0002	-	-
Endosulfan II	0.0002	mg/L	< 0.0002	-	-
Endosulfan sulphate	0.0002	mg/L	< 0.0002	-	-
Endrin	0.0002	mg/L	< 0.0002	-	-
Endrin aldehyde	0.0002	mg/L	< 0.0002	-	-
Endrin ketone	0.0002	mg/L	< 0.0002	-	-
g-HCH (Lindane)	0.0002	mg/L	< 0.0002	-	-
Heptachlor	0.0002	mg/L	< 0.0002	-	-
Heptachlor epoxide	0.0002	mg/L	< 0.0002	-	-
Hexachlorobenzene	0.0002	mg/L	< 0.0002	-	-
Methoxychlor	0.0002	mg/L	< 0.0002	-	-
Toxaphene	0.005	mg/L	< 0.005	-	-
Aldrin and Dieldrin (Total)*	0.0002	mg/L	< 0.0002	-	-
DDT + DDE + DDD (Total)*	0.0002	mg/L	< 0.0002	-	-
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	< 0.002	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	< 0.002	-	-
Dibutylchlorendate (surr.)	1	%	84	-	-
Tetrachloro-m-xylene (surr.)	1	%	109	-	-

Client Sample ID			RINS	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S24-Oc0074293	S24-Oc0074294	S24-Oc0074295
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit			
Polychlorinated Biphenyls					
Aroclor-1016	0.005	mg/L	< 0.005	-	-
Aroclor-1221	0.005	mg/L	< 0.005	-	-
Aroclor-1232	0.005	mg/L	< 0.005	-	-
Aroclor-1242	0.005	mg/L	< 0.005	-	-
Aroclor-1248	0.005	mg/L	< 0.005	-	-
Aroclor-1254	0.005	mg/L	< 0.005	-	-
Aroclor-1260	0.005	mg/L	< 0.005	-	-
Total PCB*	0.005	mg/L	< 0.005	-	-
Dibutylchlorendate (surr.)	1	%	84	-	-
Tetrachloro-m-xylene (surr.)	1	%	109	-	-
Semivolatile Organics					
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.005	-	-
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.005	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	-	-
1-Chloronaphthalene	0.005	mg/L	< 0.005	-	-
1-Naphthylamine	0.005	mg/L	< 0.005	-	-
1.2-Dichlorobenzene	0.005	mg/L	< 0.005	-	-
1.2.3-Trichlorobenzene	0.005	mg/L	< 0.005	-	-
1.2.3.4-Tetrachlorobenzene	0.005	mg/L	< 0.005	-	-
1.2.3.5-Tetrachlorobenzene	0.005	mg/L	< 0.005	-	-
1.2.4-Trichlorobenzene	0.005	mg/L	< 0.005	-	-
1.2.4.5-Tetrachlorobenzene	0.005	mg/L	< 0.005	-	-
1.3-Dichlorobenzene	0.005	mg/L	< 0.005	-	-
1.3.5-Trichlorobenzene	0.005	mg/L	< 0.005	-	-
1.4-Dichlorobenzene	0.005	mg/L	< 0.005	-	-
2-Chloronaphthalene	0.005	mg/L	< 0.005	-	-
2-Chlorophenol	0.003	mg/L	< 0.003	-	-
2-Fluorobiphenyl (surr.)	1	%	131	-	-
2-Methylnaphthalene	0.005	mg/L	< 0.005	-	-
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	-	-
2-Naphthylamine	0.005	mg/L	< 0.005	-	-
2-Nitroaniline	0.005	mg/L	< 0.005	-	-
2-Nitrophenol	0.01	mg/L	< 0.01	-	-
2-Picoline	0.005	mg/L	< 0.005	-	-
2.3.4.6-Tetrachlorophenol	0.01	mg/L	< 0.01	-	-
2.4-Dichlorophenol	0.003	mg/L	< 0.003	-	-
2.4-Dimethylphenol	0.003	mg/L	< 0.003	-	-
2.4-Dinitrophenol	0.03	mg/L	< 0.03	-	-
2.4-Dinitrotoluene	0.005	mg/L	< 0.005	-	-
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	-	-
2.4.6-Tribromophenol (surr.)	1	%	[Q09]INT	-	-
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	-	-
2.6-Dichlorophenol	0.003	mg/L	< 0.003	-	-
2.6-Dinitrotoluene	0.005	mg/L	< 0.005	-	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	-	-
3-Methylcholanthrene	0.005	mg/L	< 0.005	-	-
3.3'-Dichlorobenzidine	0.005	mg/L	< 0.005	-	-

Client Sample ID			RINS	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S24-Oc0074293	S24-Oc0074294	S24-Oc0074295
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit			
Semivolatile Organics					
4-Aminobiphenyl	0.005	mg/L	< 0.005	-	-
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	-	-
4-Nitrophenol	0.03	mg/L	< 0.03	-	-
4.4'-DDD	0.005	mg/L	< 0.005	-	-
4.4'-DDE	0.005	mg/L	< 0.005	-	-
4.4'-DDT	0.005	mg/L	< 0.005	-	-
7.12-Dimethylbenz(a)anthracene	0.005	mg/L	< 0.005	-	-
a-HCH	0.005	mg/L	< 0.005	-	-
Acenaphthene	0.001	mg/L	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	-	-
Acetophenone	0.005	mg/L	< 0.005	-	-
Aldrin	0.005	mg/L	< 0.005	-	-
Aniline	0.005	mg/L	< 0.005	-	-
Anthracene	0.001	mg/L	< 0.001	-	-
b-HCH	0.005	mg/L	< 0.005	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-
Benzyl chloride	0.005	mg/L	< 0.005	-	-
Bis(2-ethylhexyl)phthalate	0.005	mg/L	< 0.005	-	-
Butyl benzyl phthalate	0.005	mg/L	< 0.005	-	-
Chrysene	0.001	mg/L	< 0.001	-	-
d-HCH	0.005	mg/L	< 0.005	-	-
Di-n-butyl phthalate	0.005	mg/L	< 0.005	-	-
Di-n-octyl phthalate	0.005	mg/L	< 0.005	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	-
Dibenz(a.j)acridine	0.005	mg/L	< 0.005	-	-
Dibenzofuran	0.005	mg/L	< 0.005	-	-
Dieldrin	0.005	mg/L	< 0.005	-	-
Diethyl phthalate	0.005	mg/L	< 0.005	-	-
Dimethyl phthalate	0.005	mg/L	< 0.005	-	-
Dimethylaminoazobenzene	0.005	mg/L	< 0.005	-	-
Diphenylamine	0.005	mg/L	< 0.005	-	-
Endosulfan I	0.005	mg/L	< 0.005	-	-
Endosulfan II	0.005	mg/L	< 0.005	-	-
Endosulfan sulphate	0.005	mg/L	< 0.005	-	-
Endrin	0.005	mg/L	< 0.005	-	-
Endrin aldehyde	0.005	mg/L	< 0.005	-	-
Endrin ketone	0.005	mg/L	< 0.005	-	-
Fluoranthene	0.001	mg/L	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	-	-
g-HCH (Lindane)	0.005	mg/L	< 0.005	-	-
Heptachlor	0.005	mg/L	< 0.005	-	-
Heptachlor epoxide	0.005	mg/L	< 0.005	-	-
Hexachlorobenzene	0.005	mg/L	< 0.005	-	-
Hexachlorobutadiene	0.005	mg/L	< 0.005	-	-

Client Sample ID			RINS	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S24-Oc0074293	S24-Oc0074294	S24-Oc0074295
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit			
Semivolatile Organics					
Hexachlorocyclopentadiene	0.005	mg/L	< 0.005	-	-
Hexachloroethane	0.005	mg/L	< 0.005	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-
Methoxychlor	0.005	mg/L	< 0.005	-	-
N-Nitrosodibutylamine	0.005	mg/L	< 0.005	-	-
N-Nitrosodipropylamine	0.005	mg/L	< 0.005	-	-
N-Nitrosopiperidine	0.005	mg/L	< 0.005	-	-
Naphthalene	0.001	mg/L	< 0.001	-	-
Nitrobenzene	0.005	mg/L	< 0.005	-	-
Nitrobenzene-d5 (surr.)	1	%	[Q09]INT	-	-
Pentachlorobenzene	0.005	mg/L	< 0.005	-	-
Pentachloronitrobenzene	0.005	mg/L	< 0.005	-	-
Pentachlorophenol	0.01	mg/L	< 0.01	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-
Phenol	0.003	mg/L	< 0.003	-	-
Phenol-d6 (surr.)	1	%	60	-	-
Pronamide	0.005	mg/L	< 0.005	-	-
Pyrene	0.001	mg/L	< 0.001	-	-
Trifluralin	0.005	mg/L	< 0.005	-	-
Haloethers					
4-Bromophenyl phenyl ether	0.005	mg/L	< 0.005	-	-
4-Chlorophenyl phenyl ether	0.005	mg/L	< 0.005	-	-
Bis(2-chloroethoxy)methane	0.005	mg/L	< 0.005	-	-
Bis(2-chloroisopropyl)ether	0.005	mg/L	< 0.005	-	-
Heavy Metals					
Arsenic (filtered)	0.001	mg/L	< 0.001	-	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	-	-
Chromium (filtered)	0.001	mg/L	< 0.001	-	-
Copper (filtered)	0.001	mg/L	< 0.001	-	-
Lead (filtered)	0.001	mg/L	< 0.001	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-	-
Nickel (filtered)	0.001	mg/L	< 0.001	-	-
Zinc (filtered)	0.005	mg/L	< 0.005	-	-
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	-	-
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	-	-
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	-	-
13C4-PFBA (surr.)	1	%	94	-	-
13C5-PFPeA (surr.)	1	%	113	-	-
13C5-PFHxA (surr.)	1	%	119	-	-

Client Sample ID			RINS	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S24-Oc0074293	S24-Oc0074294	S24-Oc0074295
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit			
Perfluoroalkyl carboxylic acids (PFCAs)					
13C4-PFHpA (surr.)	1	%	112	-	-
13C8-PFOA (surr.)	1	%	103	-	-
13C5-PFNA (surr.)	1	%	118	-	-
13C6-PFDA (surr.)	1	%	105	-	-
13C2-PFUnDA (surr.)	1	%	98	-	-
13C2-PFDoDA (surr.)	1	%	97	-	-
13C2-PFTeDA (surr.)	1	%	101	-	-
Perfluoroalkyl sulfonamido substances					
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.05	ug/L	< 0.05	-	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.05	ug/L	< 0.05	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	-	-
13C8-FOSA (surr.)	1	%	108	-	-
D3-N-MeFOSA (surr.)	1	%	105	-	-
D5-N-EtFOSA (surr.)	1	%	108	-	-
D7-N-MeFOSE (surr.)	1	%	104	-	-
D9-N-EtFOSE (surr.)	1	%	102	-	-
D5-N-EtFOSAA (surr.)	1	%	109	-	-
D3-N-MeFOSAA (surr.)	1	%	110	-	-
Perfluoroalkyl sulfonic acids (PFSAs)					
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	-	-
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	-	-
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	-	-
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	-	-
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	-	-
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	-	-
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	-	-
13C3-PFBS (surr.)	1	%	111	-	-
18O2-PFHxS (surr.)	1	%	113	-	-
13C8-PFOS (surr.)	1	%	115	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.05	ug/L	< 0.05	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	-	-
13C2-4:2 FTSA (surr.)	1	%	108	-	-
13C2-6:2 FTSA (surr.)	1	%	113	-	-
13C2-8:2 FTSA (surr.)	1	%	95	-	-
13C2-10:2 FTSA (surr.)	1	%	91	-	-

Client Sample ID			RINS	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S24-Oc0074293	S24-Oc0074294	S24-Oc0074295
Date Sampled			Oct 24, 2024	Oct 24, 2024	Oct 24, 2024
Test/Reference	LOR	Unit			
PFASs Summations					
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	-	-
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	-	-
TRH C6-C10	1	%	-	72	-
Total Recoverable Hydrocarbons					
Naphthalene	1	%	-	97	-
TRH C6-C9	1	%	-	72	-
BTEX					
Benzene	1	%	-	89	-
Ethylbenzene	1	%	-	87	-
m&p-Xylenes	1	%	-	96	-
o-Xylene	1	%	-	86	-
Toluene	1	%	-	97	-
Xylenes - Total	1	%	-	89	-
4-Bromofluorobenzene (surr.)	1	%	-	110	-
BTEX and Naphthalene					
Naphthalene[N02]	0.01	mg/L	-	-	< 0.01

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 29, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Eurofins Suite B1			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Semivolatile Organics	Sydney	Oct 29, 2024	7 Day
- Method: LTM-ORG-2190 SVOC in Water & Soil by GC-MS			
Metals M8 filtered	Sydney	Oct 29, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Oct 29, 2024	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Sydney	Oct 29, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Sydney	Oct 29, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Sydney	Oct 29, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Sydney	Oct 29, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

eurofins

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Project Name: BOTANY
Project ID: 67817

Order No.:
Report #: 1154010
Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
Due: Oct 31, 2024
Priority: 5 Day
Contact Name: Chris Bielby

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	CANCELLED*	HOLD*	Polycyclic Aromatic Hydrocarbons	Metals M8	Metals M8 filtered	BTEX	Suite B13: OCP/PCB	Volatile Organics	Moisture Set	Semivolatile Organics	Eurofins Suite B1	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	HA1_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074273				X	X			X	X	X	X	X		X	
2	HA1_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074274					X				X	X	X	X			
3	HA1_0-1.0	Oct 24, 2024		Soil	S24-Oc0074275	X														
4	HA2_0-0.1	Oct 24, 2024		Soil	S24-Oc0074276					X				X	X	X	X			
5	HA2_0.4-0.5	Oct 24, 2024		Soil	S24-Oc0074277				X	X			X	X	X	X	X		X	
6	HA2_0-0.5	Oct 24, 2024		Soil	S24-Oc0074278	X														
7	HA3_0.2-0.3	Oct 24, 2024		Soil	S24-Oc0074279				X	X			X	X	X	X	X		X	
8	HA3_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074280					X				X	X	X	X			
9	HA4_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074281				X	X			X	X	X	X	X		X	
10	HA4_1.4-1.5	Oct 24, 2024		Soil	S24-Oc0074282					X				X	X	X	X			
11	HA4_0-1.0	Oct 24, 2024		Soil	S24-Oc0074283	X														
12	BH2_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074284				X	X			X	X	X	X	X		X	
13	BH2_0-1.0	Oct 23, 2024		Soil	S24-Oc0074285	X														
14	BH2_1.0-1.2	Oct 23, 2024		Soil	S24-Oc0074286					X				X	X	X	X			

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NSW 2000

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Project ID: 67817

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Phone: 02 8245 0300
Fax:

Received: Oct 28, 2024 6:11 PM
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Eurofins Analytical Services Manager : Andrew Black

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15	BH3_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074287				X	X			X	X	X	X	X		X	
16	BH3_0-0.65	Oct 23, 2024		Soil	S24-Oc0074288	X														
17	BH4_0.9-1.0	Oct 23, 2024		Soil	S24-Oc0074289				X	X			X	X	X	X	X		X	
18	BH4_0-1.0	Oct 23, 2024		Soil	S24-Oc0074290	X														
19	QC	Oct 24, 2024		Soil	S24-Oc0074291				X	X			X	X	X	X	X		X	
20	BH5_0.4-0.5	Oct 24, 2024		Soil	S24-Oc0074292				X	X			X	X	X	X	X		X	
21	RINS	Oct 24, 2024		Water	S24-Oc0074293				X		X		X	X		X	X		X	
22	TS	Oct 24, 2024		Trip Spike (liquid)	S24-Oc0074294															X
23	TB	Oct 24, 2024		Trip Blank (liquid)	S24-Oc0074295													X		
24	BH4_2.0-2.1	Oct 24, 2024		Soil	S24-Oc0074296							X		X	X					
25	BH4_4.0-4.1	Oct 24, 2024		Soil	S24-Oc0074297							X		X	X					
26	BH2_2.0-2.1	Oct 24, 2024		Soil	S24-Oc0074298							X		X	X					
27	BH2_5.0-5.1	Oct 24, 2024		Soil	S24-Oc0074299							X		X	X					
28	BH3_3.0-3.1	Oct 25, 2024		Soil	S24-Oc0074300							X		X	X					
29	BH3_5.0-5.1	Oct 25, 2024		Soil	S24-Oc0074301							X		X	X					

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30	BH3_5.9-6.0	Oct 25, 2024		Soil	S24-Oc0074302					X				X	X					
31	QC_B	Oct 24, 2024		Soil	S24-Oc0074303	X														
32	HA1_0-0.1	Oct 24, 2024		Soil	S24-Oc0074304			X												
33	HA1_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074305			X												
34	HA1_1.0-1.5	Oct 24, 2024		Soil	S24-Oc0074306			X												
35	HA3_0.5-0.6	Oct 24, 2024		Soil	S24-Oc0074307			X												
36	HA3_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074308			X												
37	HA3_0.2-0.9	Oct 24, 2024		Soil	S24-Oc0074309			X												
38	HA3_0.9-1.5	Oct 24, 2024		Soil	S24-Oc0074310			X												
39	HA4_0.2-0.3	Oct 24, 2024		Soil	S24-Oc0074311			X												
40	HA4_1.0-1.1	Oct 24, 2024		Soil	S24-Oc0074312			X												
41	HA4_1.0-1.4	Oct 24, 2024		Soil	S24-Oc0074313		X													
42	BH2_0-0.1	Oct 23, 2024		Soil	S24-Oc0074314			X												
43	BH2_1.0-1.1	Oct 23, 2024		Soil	S24-Oc0074315			X												
44	BH2_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074316			X												
45	BH2_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074317			X												
46	BH3_0-0.1	Oct 23, 2024		Soil	S24-Oc0074318			X												

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
47	BH4_0-0.1	Oct 23, 2024		Soil	S24-Oc0074319			X												
48	BH4_0.5-0.6	Oct 23, 2024		Soil	S24-Oc0074320			X												
49	BH4_1.4-1.5	Oct 23, 2024		Soil	S24-Oc0074321			X												
50	BH4_1.0-1.5	Oct 23, 2024		Soil	S24-Oc0074322			X												
51	BH5_0-0.1	Oct 24, 2024		Soil	S24-Oc0074323			X												
52	BH5_0-0.5	Oct 24, 2024		Soil	S24-Oc0074324			X												
53	BH4_3.0-3.1	Oct 24, 2024		Soil	S24-Oc0074325			X												
54	BH4_5.0-5.1	Oct 24, 2024		Soil	S24-Oc0074326			X												
55	BH4_5.9-6.0	Oct 24, 2024		Soil	S24-Oc0074327			X												
56	BH2_3.0-3.1	Oct 24, 2024		Soil	S24-Oc0074328			X												
57	BH2_4.0-4.1	Oct 24, 2024		Soil	S24-Oc0074329			X												
58	BH2_5.9-6.0	Oct 24, 2024		Soil	S24-Oc0074330			X												
59	BH3_2.0-2.1	Oct 25, 2024		Soil	S24-Oc0074331			X												
60	BH3_4.0-4.1	Oct 25, 2024		Soil	S24-Oc0074332			X												
61	PFAS BLANK	Oct 24, 2024		Water	S24-Oc0074333			X												
62	HA4_GRAVELS	Oct 24, 2024		Water	S24-Oc0074393			X												

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
63	BH2_1.2-1.5	Oct 24, 2024		Water	S24-Oc0074394			X												
64	BH4_1.1-1.5	Oct 24, 2024		Water	S24-Oc0074395			X												
Test Counts						7	1	32	10	15	1	6	10	22	21	15	15	1	10	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.005			0.005	Pass	
2-Propanone (Acetone)	mg/L	< 0.005			0.005	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005			0.005	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.005			0.005	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.005			0.005	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	
Dichlorodifluoromethane	mg/L	< 0.005			0.005	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.005			0.005	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.005			0.005	Pass	
Vinyl chloride	mg/L	< 0.005			0.005	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.002			0.002	Pass	
4.4'-DDD	mg/L	< 0.0002			0.0002	Pass	
4.4'-DDE	mg/L	< 0.0002			0.0002	Pass	
4.4'-DDT	mg/L	< 0.0002			0.0002	Pass	
a-HCH	mg/L	< 0.0002			0.0002	Pass	
Aldrin	mg/L	< 0.0002			0.0002	Pass	
b-HCH	mg/L	< 0.0002			0.0002	Pass	
d-HCH	mg/L	< 0.0002			0.0002	Pass	
Dieldrin	mg/L	< 0.0002			0.0002	Pass	
Endosulfan I	mg/L	< 0.0002			0.0002	Pass	
Endosulfan II	mg/L	< 0.0002			0.0002	Pass	
Endosulfan sulphate	mg/L	< 0.0002			0.0002	Pass	
Endrin	mg/L	< 0.0002			0.0002	Pass	
Endrin aldehyde	mg/L	< 0.0002			0.0002	Pass	
Endrin ketone	mg/L	< 0.0002			0.0002	Pass	
g-HCH (Lindane)	mg/L	< 0.0002			0.0002	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/L	< 0.0002			0.0002	Pass	
Heptachlor epoxide	mg/L	< 0.0002			0.0002	Pass	
Hexachlorobenzene	mg/L	< 0.0002			0.0002	Pass	
Methoxychlor	mg/L	< 0.0002			0.0002	Pass	
Toxaphene	mg/L	< 0.005			0.005	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/L	< 0.005			0.005	Pass	
Aroclor-1221	mg/L	< 0.005			0.005	Pass	
Aroclor-1232	mg/L	< 0.005			0.005	Pass	
Aroclor-1242	mg/L	< 0.005			0.005	Pass	
Aroclor-1248	mg/L	< 0.005			0.005	Pass	
Aroclor-1254	mg/L	< 0.005			0.005	Pass	
Aroclor-1260	mg/L	< 0.005			0.005	Pass	
Total PCB*	mg/L	< 0.005			0.005	Pass	
Method Blank							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
1-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
1-Naphthylamine	mg/L	< 0.005			0.005	Pass	
1.2-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.4-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3.5-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.4-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
2-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2-Methylnaphthalene	mg/L	< 0.005			0.005	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Naphthylamine	mg/L	< 0.005			0.005	Pass	
2-Nitroaniline	mg/L	< 0.005			0.005	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2-Picoline	mg/L	< 0.005			0.005	Pass	
2.3.4.6-Tetrachlorophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
2.4-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.6-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
3-Methylcholanthrene	mg/L	< 0.005			0.005	Pass	
3.3'-Dichlorobenzidine	mg/L	< 0.005			0.005	Pass	
4-Aminobiphenyl	mg/L	< 0.005			0.005	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
4.4'-DDD	mg/L	< 0.005			0.005	Pass	
4.4'-DDE	mg/L	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDT	mg/L	< 0.005			0.005	Pass	
7.12-Dimethylbenz(a)anthracene	mg/L	< 0.005			0.005	Pass	
a-HCH	mg/L	< 0.005			0.005	Pass	
Acetophenone	mg/L	< 0.005			0.005	Pass	
Aldrin	mg/L	< 0.005			0.005	Pass	
Aniline	mg/L	< 0.005			0.005	Pass	
b-HCH	mg/L	< 0.005			0.005	Pass	
Benzyl chloride	mg/L	< 0.005			0.005	Pass	
Bis(2-ethylhexyl)phthalate	mg/L	< 0.005			0.005	Pass	
Butyl benzyl phthalate	mg/L	< 0.005			0.005	Pass	
d-HCH	mg/L	< 0.005			0.005	Pass	
Di-n-butyl phthalate	mg/L	< 0.005			0.005	Pass	
Di-n-octyl phthalate	mg/L	< 0.005			0.005	Pass	
Dibenz(a.j)acridine	mg/L	< 0.005			0.005	Pass	
Dibenzofuran	mg/L	< 0.005			0.005	Pass	
Dieldrin	mg/L	< 0.005			0.005	Pass	
Diethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethylaminoazobenzene	mg/L	< 0.005			0.005	Pass	
Diphenylamine	mg/L	< 0.005			0.005	Pass	
Endosulfan I	mg/L	< 0.005			0.005	Pass	
Endosulfan II	mg/L	< 0.005			0.005	Pass	
Endosulfan sulphate	mg/L	< 0.005			0.005	Pass	
Endrin	mg/L	< 0.005			0.005	Pass	
Endrin aldehyde	mg/L	< 0.005			0.005	Pass	
Endrin ketone	mg/L	< 0.005			0.005	Pass	
g-HCH (Lindane)	mg/L	< 0.005			0.005	Pass	
Heptachlor	mg/L	< 0.005			0.005	Pass	
Heptachlor epoxide	mg/L	< 0.005			0.005	Pass	
Hexachlorobenzene	mg/L	< 0.005			0.005	Pass	
Hexachlorobutadiene	mg/L	< 0.005			0.005	Pass	
Hexachlorocyclopentadiene	mg/L	< 0.005			0.005	Pass	
Hexachloroethane	mg/L	< 0.005			0.005	Pass	
Methoxychlor	mg/L	< 0.005			0.005	Pass	
N-Nitrosodibutylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosodipropylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosopiperidine	mg/L	< 0.005			0.005	Pass	
Nitrobenzene	mg/L	< 0.005			0.005	Pass	
Pentachlorobenzene	mg/L	< 0.005			0.005	Pass	
Pentachloronitrobenzene	mg/L	< 0.005			0.005	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Pronamide	mg/L	< 0.005			0.005	Pass	
Trifluralin	mg/L	< 0.005			0.005	Pass	
Method Blank							
Haloethers							
4-Bromophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
4-Chlorophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroethoxy)methane	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroisopropyl)ether	mg/L	< 0.005			0.005	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C10-C14	%	78			70-130	Pass	
TRH >C10-C16	%	78			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	118			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	102			70-130	Pass	
m&p-Xylenes	%	117			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
o-Xylene	%	126			70-130	Pass	
Xylenes - Total*	%	120			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	122			70-130	Pass	
1.1.1-Trichloroethane	%	118			70-130	Pass	
1.2-Dichlorobenzene	%	108			70-130	Pass	
1.2-Dichloroethane	%	128			70-130	Pass	
Trichloroethene	%	105			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	99			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Anthracene	%	87			70-130	Pass	
Benz(a)anthracene	%	86			70-130	Pass	
Benzo(a)pyrene	%	87			70-130	Pass	
Benzo(b&j)fluoranthene	%	91			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	86			70-130	Pass	
Chrysene	%	90			70-130	Pass	
Dibenz(a.h)anthracene	%	89			70-130	Pass	
Fluoranthene	%	90			70-130	Pass	
Fluorene	%	80			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	89			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	90			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	79			70-130	Pass	
4.4'-DDD	%	74			70-130	Pass	
4.4'-DDE	%	77			70-130	Pass	
4.4'-DDT	%	76			70-130	Pass	
a-HCH	%	76			70-130	Pass	
Aldrin	%	76			70-130	Pass	
b-HCH	%	83			70-130	Pass	
d-HCH	%	82			70-130	Pass	
Dieldrin	%	78			70-130	Pass	
Endosulfan I	%	78			70-130	Pass	
Endosulfan II	%	78			70-130	Pass	
Endosulfan sulphate	%	77			70-130	Pass	
Endrin	%	77			70-130	Pass	
Endrin aldehyde	%	73			70-130	Pass	
Endrin ketone	%	80			70-130	Pass	
g-HCH (Lindane)	%	80			70-130	Pass	
Heptachlor	%	76			70-130	Pass	
Heptachlor epoxide	%	77			70-130	Pass	
Hexachlorobenzene	%	70			70-130	Pass	
Methoxychlor	%	73			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	73			70-130	Pass	
Aroclor-1260	%	82			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Semivolatile Organics							
1.2.4-Trichlorobenzene	%	80			70-130	Pass	
1.4-Dichlorobenzene	%	72			70-130	Pass	
4-Chloro-3-methylphenol	%	37			25-140	Pass	
N-Nitrosodipropylamine	%	80			70-130	Pass	
Phenol	%	25			25-140	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	90			80-120	Pass	
Cadmium (filtered)	%	93			80-120	Pass	
Chromium (filtered)	%	90			80-120	Pass	
Copper (filtered)	%	89			80-120	Pass	
Lead (filtered)	%	93			80-120	Pass	
Mercury (filtered)	%	93			80-120	Pass	
Nickel (filtered)	%	91			80-120	Pass	
Zinc (filtered)	%	90			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	103			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	100			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	101			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	96			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	103			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	109			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	105			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	101			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	96			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	92			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	105			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	93			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	106			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	110			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	96			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	101			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	90			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	111			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	98			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	105			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	90			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	88			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	98			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	104			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	104			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	97			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	115			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	122			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	124			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	105			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery									
Total Recoverable Hydrocarbons									
TRH C6-C9			%	80			70-130	Pass	
TRH C6-C10			%	71			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S24-Oc0070714	NCP	%	73			70-130	Pass	
TRH >C10-C16	S24-Oc0070714	NCP	%	72			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
2-Chlorophenol	S24-Oc0061811	NCP	%	77			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S24-Oc0061815	NCP	%	102			75-125	Pass	
Cadmium (filtered)	S24-Oc0061815	NCP	%	102			75-125	Pass	
Chromium (filtered)	S24-Oc0061815	NCP	%	100			75-125	Pass	
Copper (filtered)	S24-Oc0061815	NCP	%	99			75-125	Pass	
Lead (filtered)	S24-Oc0061815	NCP	%	104			75-125	Pass	
Mercury (filtered)	S24-Oc0061815	NCP	%	105			75-125	Pass	
Nickel (filtered)	S24-Oc0061815	NCP	%	100			75-125	Pass	
Zinc (filtered)	S24-Oc0061815	NCP	%	90			75-125	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S24-Oc0061811	NCP	%	92			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S24-Oc0061811	NCP	%	88			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S24-Oc0061811	NCP	%	90			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-Oc0061811	NCP	%	90			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S24-Oc0061811	NCP	%	102			50-150	Pass	
Perfluorononanoic acid (PFNA)	S24-Oc0061811	NCP	%	89			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S24-Oc0061811	NCP	%	97			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-Oc0061811	NCP	%	100			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-Oc0061811	NCP	%	98			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	S24-Oc0061811	NCP	%	87			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-Oc0061811	NCP	%	94			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S24-Oc0061811	NCP	%	88			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-Oc0061811	NCP	%	99			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-Oc0061811	NCP	%	99			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-Oc0061811	NCP	%	89			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-Oc0061811	NCP	%	89			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-Oc0061811	NCP	%	88			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-Oc0061811	NCP	%	96			50-150	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S24-Oc0061811	NCP	%	88			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S24-Oc0061811	NCP	%	90			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S24-Oc0061811	NCP	%	81			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S24-Oc0061811	NCP	%	76			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S24-Oc0061811	NCP	%	83			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S24-Oc0061811	NCP	%	92			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S24-Oc0061811	NCP	%	83			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S24-Oc0061811	NCP	%	83			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-Oc0061811	NCP	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S24-Oc0061811	NCP	%	94			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-Oc0061811	NCP	%	90			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-Oc0061811	NCP	%	95			50-150	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S24-Oc0082168	NCP	%	99			70-130	Pass	
TRH C6-C10	S24-Oc0082168	NCP	%	87			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S24-Oc0082168	NCP	%	86			70-130	Pass	
Toluene	S24-Oc0082168	NCP	%	89			70-130	Pass	
Ethylbenzene	S24-Oc0082168	NCP	%	90			70-130	Pass	
m&p-Xylenes	S24-Oc0082168	NCP	%	87			70-130	Pass	
o-Xylene	S24-Oc0082168	NCP	%	88			70-130	Pass	
Xylenes - Total*	S24-Oc0082168	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S24-Oc0082168	NCP	%	88			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S24-Oc0074293	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S24-Oc0061810	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S24-Oc0061810	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S24-Oc0061810	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C6-C10	S24-Oc0074293	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S24-Oc0061810	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S24-Oc0061810	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S24-Oc0061810	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S24-Oc0074293	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S24-Oc0074293	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1-Dichloroethene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1-Trichloroethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2-Trichloroethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dibromoethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichlorobenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloroethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloropropane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.3-Trichloropropane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.4-Trimethylbenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichlorobenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichloropropane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3.5-Trimethylbenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.4-Dichlorobenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Butanone (MEK)	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Propanone (Acetone)	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chlorotoluene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Allyl chloride	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromochloromethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromodichloromethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromoform	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromomethane	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Carbon disulfide	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon Tetrachloride	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chlorobenzene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroethane	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloroform	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
cis-1.2-Dichloroethene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.3-Dichloropropene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromochloromethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromomethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dichlorodifluoromethane	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Iodomethane	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Methylene Chloride	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Styrene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Tetrachloroethene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.2-Dichloroethene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.3-Dichloropropene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichloroethene	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichlorofluoromethane	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Vinyl chloride	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S24-Oc0074293	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S24-Oc0061810	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S24-Oc0061810	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
4.4'-DDD	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
4.4'-DDE	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
4.4'-DDT	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
a-HCH	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Aldrin	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
b-HCH	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
d-HCH	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Dieldrin	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan I	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan II	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan sulphate	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin aldehyde	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin ketone	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
g-HCH (Lindane)	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Heptachlor	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Heptachlor epoxide	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Hexachlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Methoxychlor	S24-Oc0061810	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Toxaphene	S24-Oc0081444	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1221	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1232	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1242	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1248	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1254	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1260	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Total PCB*	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	S24-Oc0061810	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
1-Chloronaphthalene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1-Naphthylamine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2-Dichlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.3-Trichlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.4-Trichlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.3-Dichlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.3.5-Trichlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.4-Dichlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Chloronaphthalene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Chlorophenol	S24-Oc0061810	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Methylnaphthalene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S24-Oc0061810	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Naphthylamine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Nitroaniline	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Nitrophenol	S24-Oc0061810	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2-Picoline	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	S24-Oc0061810	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4-Dichlorophenol	S24-Oc0061810	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dimethylphenol	S24-Oc0061810	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dinitrophenol	S24-Oc0061810	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
2.4-Dinitrotoluene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2.4.5-Trichlorophenol	S24-Oc0061810	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4.6-Trichlorophenol	S24-Oc0061810	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.6-Dichlorophenol	S24-Oc0061810	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.6-Dinitrotoluene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S24-Oc0061810	NCP	mg/L	< 0.006	< 0.006	<1	30%	Pass	
3-Methylcholanthrene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
3.3'-Dichlorobenzidine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Aminobiphenyl	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chloro-3-methylphenol	S24-Oc0061810	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
4-Nitrophenol	S24-Oc0061810	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
4.4'-DDD	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4.4'-DDE	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4.4'-DDT	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Acetophenone	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aldrin	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aniline	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Benzyl chloride	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Butyl benzyl phthalate	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Di-n-butyl phthalate	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Di-n-octyl phthalate	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dibenz(a.j)acridine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dibenzofuran	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dieldrin	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Diethyl phthalate	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dimethyl phthalate	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dimethylaminoazobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Diphenylamine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
Endosulfan I	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endosulfan II	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endosulfan sulphate	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endrin	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endrin aldehyde	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endrin ketone	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
g-HCH (Lindane)	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Heptachlor	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Heptachlor epoxide	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Hexachlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Hexachlorobutadiene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Hexachlorocyclopentadiene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Hexachloroethane	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Methoxychlor	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
N-Nitrosodibutylamine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
N-Nitrosodipropylamine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
N-Nitrosopiperidine	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Nitrobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Pentachlorobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Pentachloronitrobenzene	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Pentachlorophenol	S24-Oc0061810	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Phenol	S24-Oc0061810	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Pronamide	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Trifluralin	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Haloethers				Result 1	Result 2	RPD			
4-Bromophenyl phenyl ether	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chlorophenyl phenyl ether	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bis(2-chloroethoxy)methane	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	S24-Oc0061810	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S24-Oc0074293	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead (filtered)	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S24-Oc0074293	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S24-Oc0074293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc (filtered)	S24-Oc0074293	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S24-Oc0061810	NCP	ug/L	0.02	0.02	11	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S24-Oc0061810	NCP	ug/L	0.01	0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-Oc0061810	NCP	ug/L	0.01	0.01	12	30%	Pass	
Perfluorooctanoic acid (PFOA)	S24-Oc0061810	NCP	ug/L	0.01	0.01	7.0	30%	Pass	
Perfluorononanoic acid (PFNA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S24-Oc0061810	NCP	ug/L	0.01	0.01	9.0	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S24-Oc0061810	NCP	ug/L	0.01	0.01	3.0	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S24-Oc0061810	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-Oc0061810	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

Authorised by:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-PFAS
Roopesh Rangarajan	Senior Analyst-Volatile



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Eurofins Environment Testing Australia Pty Ltd

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

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

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Chris Bielby
Project name:	BOTANY
Project ID:	67817
Turnaround time:	5 Day
Date/Time received	Oct 28, 2024 6:11 PM
Eurofins reference	1154010

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 3.4 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Received extra samples ID as follows HA4_GRAVELS (TP), BH2_1.2-1.5 (BG), BH4_1.1-1.5 (BG) LOGGED on hold. Following samples are not received analysis cancelled ID as follows HA4_1.0-1.4, BH2_1.4-1.5 (JC) TP LOGGED ON HOLD. BH4_1.4-1.5 (JC) has been found. No ASB bag received for BH4_0.9-1.0 analysis cancelled.
Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Chris Bielby - cbielby@jbsg.com.au.

Global Leader - Results you can trust

Eurofins (1/4)

Chain of Custody

JBS&G

PROJECT NO.: ~~67818~~ 67817
PROJECT NAME: BOTANY
DATE NEEDED BY: STANDARD

LABORATORY BATCH NO.:
SAMPLERS: A. CHEDE
QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) C.BIELBY@jbsg.com.au ACHEDE

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Change job number on all samples from "67818" to "67817".

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAHs	TRH/BTEX	VOCs	sVOCs	OCP/PCBs	PFAS	Asbestos	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
HA1 - 0-0.1	SOIL	24/10		J+ PFAS												
- 0.5-0.6						/	/	/	/	/	/	/				
- 1.0-1.1																
- 1.4-1.5						/		/	/	/						
- ~~Dup~~ 0-1.0				B									/			
- 1.0-1.5																
HA2 - 0-0.1				J+ PFAS		/	M	/	/	/						
- 0.4-0.5						/	/	/	/	/	/	/				
- 0-0.5				B									/			
HA3 - 0.2-0.3				J+PFAS		/	/	/	/	/	/	/				
- 0.5-0.6																
- 1.0-1.1																
- 1.4-1.5						/		/	/	/						
- 0.2-0.9				B												
- 0.9-1.5																
HA4 - 0.2-0.3				J+ PFAS												
- 0.5-0.6						/	/	/	/	/	/	/				
- 1.0-1.1																
- 1.4-1.5						/		/	/	/						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: CB DATE: 28/10/24	CONSIGNMENT NOTE NO.	NAME: Riham Al Smayd	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE:	3.4°C
NAME: DATE:	CONSIGNMENT NOTE NO.	OF:	COOLER TEMP ..... deg C
OF:	TRANSPORT CO	NAME: 28/10 DATE: ~~28/10~~	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
		OF: 6:11pm	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

courier

1154010

Eurofins (214)

Chain of Custody

JBS&G

PROJECT NO.: ~~67817~~ 67817	LABORATORY BATCH NO.:
PROJECT NAME: BOTANY	SAMPLERS: A. CHEOK
DATE NEEDED BY: 5	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) C.BIELBY@jbsg.com.au A.CHEOK

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Change job number on all samples from "67818~~3~~" to "67817"

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Asbestos	Heavy Metals	PAHs	TEH/BTEX	VOCs	sVOCs	OCP/PCBs	PFAS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
HA4_0-1.0	SOIL	24/10		B		/										
↓ _1.0-1.4	↓	↓		↓												
~~BH2~~ BH2_0-0.1		23/10		J+PFAS												
_0.5-0.6							/	/	/	/	/	/	/			
_1.0-1.1																
_1.4-1.5				↓												
_0-1.0				B		/										
_1.0-1.2				↓			A	/	/	/						
↓ _1.4-1.5																
BH3_0-0.1				J+PFAS												
↓ _0.5-0.6				↓			/	/	/	/	/	/	/			
↓ _0-0.65				B		/										
BH4_0-0.1				J+PFAS												
_0.5-0.6																
_0.9-1.0						/	/	/	/	/	/	/	/			
_1.4-1.5				↓												
_0-1.0				B		/										
↓ _1.0-1.5		↓		↓												
QC	↓	24/10		J+PFAS		WAIT	/	/	/	/	/	/	/			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: CB DATE: 25/10/24	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Eurofins (3 | 4)

Chain of Custody

JBS&G

PROJECT NO.: ~~[illegible]~~ 67817	LABORATORY BATCH NO.:
PROJECT NAME: BOTANY	SAMPLERS: A. CHEON
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) C.BELBY@jbsg.com.au A.CHEON

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Change Job number on all samples from "67818" to "67817".

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	BTEX	Heavy Metals	PAHs	TPH/BTEX	VOCs	sVOCs	OCP/PCBs	PFAS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH5_0-0.1	SOIL	24/10		J+PFAS			/	/	/	/	/	/	/			
_0.4-0.5	↓	↓		↓												
_0-0.5	↓	↓		B												
RINSATE	WATER	24/10					/	/	/	/	/	/	/			
TSTB	↓	↓		VIALS.		/										
BH4_2.0-2.1	SOIL	24/10		J+PFAS		/				/						
_3.0-3.1																
_4.0-4.1						/				/						
_5.0-5.1																
_5.9-6.0						/										
BH2_2.0-2.1						/				/						
_3.0-3.1																
_4.0-4.1																
_5.0-5.1						/				/						
_5.9-6.0																
BH3_2.0-2.1	SOIL	25/10		J+PFAS												
_3.0-3.1						/				/						
_4.0-4.1																
_5.0-5.1						/				/						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: C.B DATE: 29/10/24	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Eurofins (4 14)

Chain of Custody

JBS&G

PROJECT NO.: 67817	LABORATORY BATCH NO.:
PROJECT NAME: BOTANY	SAMPLERS: A. CHEOK
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) C.BIELBY@jbsg.com.au A.CHEOK

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Change Job number on all samples from "67818" to "67817"

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	VOCs	BTEX	Asbestos	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH3_S-9-60	SOIL	25/10		J+PFAS.		/	/					
QC-B	↓	24/10		B					/			
PFAS BLANK	WATER	↓		PFAS								

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: CB DATE: 28/10/24	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE:	
		OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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CERTIFICATE OF ANALYSIS 365062

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Chris Bielby
Address	Level 8, 179 Elizabeth St, Sydney, NSW, 2000

Sample Details

Your Reference	**67817**
Number of Samples	2 Soil
Date samples received	29/10/2024
Date completed instructions received	28/10/2024

Analysis Details

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

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

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

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

Report Details

Date results requested by	05/11/2024
Date of Issue	04/11/2024

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

Results Approved By
Giovanni Agosti, Group Technical Manager
Jack Wallis, Senior Chemist
Lucy Zhu, Asbestos Supervisor
Sean McAlary, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date Extracted	-	30/10/2024
Date Analysed	-	31/10/2024
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-Dichloroethene	mg/kg	<1
1,1-Dichloroethane	mg/kg	<1
cis-1,2-Dichloroethene	mg/kg	<1
Bromochloromethane	mg/kg	<1
Chloroform	mg/kg	<1
2,2-Dichloropropane	mg/kg	<1
1,2-Dichloroethane	mg/kg	<1
1,1,1-Trichloroethane	mg/kg	<1
1,1-Dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
Carbon Tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
Dibromomethane	mg/kg	<1
1,2-Dichloropropane	mg/kg	<1
Trichloroethene	mg/kg	<1
Bromodichloromethane	mg/kg	<1
trans-1,3-Dichloropropene	mg/kg	<1
cis-1,3-Dichloropropene	mg/kg	<1
1,1,2-Trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-Dichloropropane	mg/kg	<1
Dibromochloromethane	mg/kg	<1
1,2-Dibromoethane	mg/kg	<1
Tetrachloroethene	mg/kg	<1
1,1,1,2-Tetrachloroethane	mg/kg	<1
Chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1

VOCs in soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Bromoform	mg/kg	<1
m+p-Xylene	mg/kg	<2
Styrene	mg/kg	<1
1,1,2,2-Tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-Trichloropropane	mg/kg	<1
Isopropylbenzene	mg/kg	<1
Bromobenzene	mg/kg	<1
n-Propylbenzene	mg/kg	<1
2-Chlorotoluene	mg/kg	<1
4-Chlorotoluene	mg/kg	<1
1,3,5-Trimethylbenzene	mg/kg	<1
tert-Butylbenzene	mg/kg	<1
1,2,4-Trimethylbenzene	mg/kg	<1
1,3-Dichlorobenzene	mg/kg	<1
sec-Butylbenzene	mg/kg	<1
1,4-Dichlorobenzene	mg/kg	<1
4-Isopropyltoluene	mg/kg	<1
1,2-Dichlorobenzene	mg/kg	<1
n-Butylbenzene	mg/kg	<1
1,2-Dibromo-3-chloropropane	mg/kg	<1
1,2,4-Trichlorobenzene	mg/kg	<1
Hexachlorobutadiene	mg/kg	<1
1,2,3-Trichlorobenzene	mg/kg	<1
Surrogate Dibromofluoromethane	%	100
Surrogate aaa-Trifluorotoluene	%	112
Surrogate Toluene-d_8	%	97
Surrogate 4-Bromofluorobenzene	%	98

SVOCs in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
Aniline	mg/kg	<1
4-Chloroaniline	mg/kg	<1
2-Nitroaniline	mg/kg	<1
3-Nitroaniline	mg/kg	<1
Dibenzofuran	mg/kg	<1
2-Naphthylamine	mg/kg	<1
1-Naphthylamine	mg/kg	<1
4-Nitroaniline	mg/kg	<1
Bis(2-chloroethyl) ether	mg/kg	<1
Bis(2-chloroisopropyl) ether	mg/kg	<1
Bis(2-chloroethoxy) methane	mg/kg	<1
4-Chlorophenyl phenyl ether	mg/kg	<1
4-Bromophenyl phenyl ether	mg/kg	<1
Ethyl Methanesulfonate	mg/kg	<1
Benzyl Alcohol	mg/kg	<1
Isosafrole (cis+trans)	mg/kg	<2
Safrole	mg/kg	<1
Carbazole	mg/kg	<1
Methapyrilene	mg/kg	<1
p-Dimethylaminoazobenzene	mg/kg	<1
Acetophenone	mg/kg	<1
Nitrobenzene	mg/kg	<1
Isophorone	mg/kg	<1
1,3-Dinitrobenzene	mg/kg	<1
2,6-Dinitrotoluene	mg/kg	<1
5-Nitro-o-toluidine	mg/kg	<1
Azobenzene	mg/kg	<1
Phenacetin	mg/kg	<1
Pentachloronitrobenzene	mg/kg	<1
N-Nitrosodi-n-propylamine (NDPA)	mg/kg	<1
N-Nitrosomorpholine (NMOR)	mg/kg	<1
N-Nitrosopiperidine (NPIP)	mg/kg	<1
N-Nitrosodi-n-butylamine (NDBA)	mg/kg	<1
Diphenylamine	mg/kg	<1

SVOCs in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
alpha-BHC	mg/kg	<0.5
beta-BHC	mg/kg	<0.5
gamma-BHC (Lindane)	mg/kg	<0.5
delta-BHC	mg/kg	<0.5
Heptachlor	mg/kg	<0.5
Aldrin	mg/kg	<0.5
Heptachlor Epoxide	mg/kg	<0.5
gamma-Chlordane (trans-Chlordane)	mg/kg	<0.5
alpha-Chlordane (cis-Chlordane)	mg/kg	<0.5
Endosulfan I	mg/kg	<0.5
4,4'-DDE (p,p-DDE)	mg/kg	<0.5
Dieldrin	mg/kg	<0.5
Endrin	mg/kg	<0.5
4,4'-DDD (p,p-DDD)	mg/kg	<0.5
Endosulfan II	mg/kg	<0.5
Endrin Aldehyde	mg/kg	<0.5
4,4'-DDT (p,p-DDT)	mg/kg	<0.5
Endosulfan Sulphate	mg/kg	<0.5
Endrin Ketone	mg/kg	<0.5
Methoxychlor	mg/kg	<0.5
Dichlorvos	mg/kg	<0.5
Mevinphos	mg/kg	<0.5
Phorate	mg/kg	<0.5
Dimethoate	mg/kg	<0.5
Diazinon	mg/kg	<0.5
Disulfoton	mg/kg	<0.5
Chlorpyrifos-methyl	mg/kg	<0.5
Parathion-Methyl	mg/kg	<0.5
Ronnel	mg/kg	<0.5
Fenitrothion	mg/kg	<0.5
Malathion	mg/kg	<0.5
Chlorpyriphos	mg/kg	<0.5
Fenthion	mg/kg	<0.5
Parathion	mg/kg	<0.5
Bromophos-ethyl	mg/kg	<0.5
Methidathion	mg/kg	<0.5
Fenamiphos	mg/kg	<0.5

SVOCs in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Ethion	mg/kg	<0.5
Phosalone	mg/kg	<0.5
Azinphos-methyl (Guthion)	mg/kg	<0.5
Coumaphos	mg/kg	<0.5
Naphthalene	mg/kg	<0.5
2-Methylnaphthalene	mg/kg	<0.5
2-Chloronaphthalene	mg/kg	<0.5
1-Chloronaphthalene	mg/kg	<0.5
Acenaphthylene	mg/kg	<0.5
Acenaphthene	mg/kg	<0.5
Fluorene	mg/kg	<0.5
Phenanthrene	mg/kg	<0.5
Anthracene	mg/kg	<0.5
Fluoranthene	mg/kg	<0.5
Pyrene	mg/kg	<0.5
2-Acetylaminofluorene	mg/kg	<0.5
Benzo(a)anthracene	mg/kg	<0.5
Chrysene	mg/kg	<0.5
Benzo(b+j+k)fluoranthene	mg/kg	<1
7,12-Dimethylbenz(a)anthracene	mg/kg	<0.5
Benzo(a)pyrene	mg/kg	<0.5
3-Methylcholanthrene	mg/kg	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.5
Dibenzo(a,h)anthracene	mg/kg	<0.5
Benzo(g,h,i)perylene	mg/kg	<0.5
Phenol	mg/kg	<0.5
2-Chlorophenol	mg/kg	<0.5
2-Methylphenol (o-Cresol)	mg/kg	<0.5
3/4-Methylphenol (m/p-Cresol)	mg/kg	<1
2-Nitrophenol	mg/kg	<0.5
2,4-Dimethylphenol	mg/kg	<0.5
2,4-Dichlorophenol	mg/kg	<0.5
2,6-dichlorophenol	mg/kg	<0.5
4-Chloro-3-methylphenol	mg/kg	<5
2,4,6-Trichlorophenol	mg/kg	<0.5
2,4,5-Trichlorophenol	mg/kg	<0.5
2,4-Dinitrophenol	mg/kg	<10

SVOCs in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
4-Nitrophenol	mg/kg	<10
2,3,4,6-Tetrachlorophenol	mg/kg	<1
2-Methyl-4,6-dinitrophenol	mg/kg	<10
Pentachlorophenol	mg/kg	<5
Dinoseb	mg/kg	<10
Dimethyl phthalate	mg/kg	<1
Diethyl phthalate	mg/kg	<1
Di-n-butyl phthalate	mg/kg	<5
Butyl benzyl phthalate	mg/kg	<1
Bis(2-ethylhexyl) phthalate (DEHP)	mg/kg	<5
Di-n-octylphthalate	mg/kg	<1
Pentachloroethane	mg/kg	<0.5
1,3-Dichlorobenzene	mg/kg	<0.5
1,4-Dichlorobenzene	mg/kg	<0.5
1,2-Dichlorobenzene	mg/kg	<0.5
Hexachloroethane	mg/kg	<0.5
1,2,4-Trichlorobenzene	mg/kg	<0.5
Hexachloropropene	mg/kg	<0.5
Hexachlorobutadiene	mg/kg	<0.5
Hexachlorocyclopentadiene	mg/kg	<2
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	<1
1,2,3,4-Tetrachlorobenzene	mg/kg	<0.5
Pentachlorobenzene	mg/kg	<0.5
Hexachlorobenzene	mg/kg	<0.5
Surrogate 2-Fluorophenol	%	95
Surrogate Phenol-d_6	%	88
Surrogate Nitrobenzene-d_5	%	91
Surrogate 4-Chloro-3-NBTF	%	79
Surrogate 2-Fluorobiphenyl	%	95
Surrogate 2,4,6-Tribromophenol	%	79
Surrogate p-Terphenyl-d_{14}	%	95

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	112

svTRH (C10-C40) in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	81

PAHs in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	84

Organochlorine Pesticides in soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Mirex	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1
Surrogate 4-Chloro-3-NBTF	%	80

PCBs in Soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date extracted	-	30/10/2024
Date analysed	-	31/10/2024
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	0.3
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	0.3
Surrogate 2-Fluorobiphenyl	%	81

Acid Extractable metals in soil		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date prepared	-	31/10/2024
Date analysed	-	31/10/2024
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	3
Copper	mg/kg	6
Lead	mg/kg	62
Mercury	mg/kg	5.6
Nickel	mg/kg	3
Zinc	mg/kg	40

Moisture		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date prepared	-	30/10/2024
Date analysed	-	31/10/2024
Moisture	%	15

PFAS in Soils Extended		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Date prepared	-	30/10/2024
Date analysed	-	30/10/2024
Perfluorobutanesulfonic acid	µg/kg	<0.1
Perfluoropentanesulfonic acid	µg/kg	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<0.1
Perfluoroheptanesulfonic acid	µg/kg	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1
Perfluorodecanesulfonic acid	µg/kg	<0.2
Perfluorobutanoic acid	µg/kg	<0.2
Perfluoropentanoic acid	µg/kg	<0.2
Perfluorohexanoic acid	µg/kg	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1
Perfluorononanoic acid	µg/kg	<0.1
Perfluorodecanoic acid	µg/kg	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5
Perfluorododecanoic acid	µg/kg	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5
Perfluorotetradecanoic acid	µg/kg	<5
4:2 FTS	µg/kg	<0.1
6:2 FTS	µg/kg	<0.1
8:2 FTS	µg/kg	<0.2
10:2 FTS	µg/kg	<0.2
Perfluorooctane sulfonamide	µg/kg	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	100
Surrogate $^{13}C_2$ *PFOA*	%	103
Extracted ISTD $^{13}C_3$ *PFBS*	%	101
Extracted ISTD $^{18}O_2$ *PFHxS*	%	97
Extracted ISTD $^{13}C_4$ *PFOS*	%	95
Extracted ISTD $^{13}C_4$ *PFBA*	%	99

PFAS in Soils Extended		
Our Reference		365062-1
Your Reference	UNITS	QA
Date Sampled		24/10/2024
Type of sample		Soil
Extracted ISTD $^{13}C_3$ *PFPeA*	%	101
Extracted ISTD $^{13}C_2$ *PFHxA*	%	98
Extracted ISTD $^{13}C_4$ *PFHpA*	%	99
Extracted ISTD $^{13}C_4$ *PFOA*	%	99
Extracted ISTD $^{13}C_5$ *PFNA*	%	96
Extracted ISTD $^{13}C_2$ *PFDA*	%	101
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	112
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	113
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	128
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	101
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	105
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	113
Extracted ISTD $^{13}C_8$ *FOSA*	%	103
Extracted ISTD d_3 *N MeFOSA*	%	103
Extracted ISTD d_5 *N EtFOSA*	%	107
Extracted ISTD d_7 *N MeFOSE*	%	97
Extracted ISTD d_9 *N EtFOSE*	%	102
Extracted ISTD d_3 *N MeFOSAA*	%	107
Extracted ISTD d_5 *N EtFOSAA*	%	113
Total Positive PFHxS & PFOS	µg/kg	0.1
Total Positive PFOS & PFOA	µg/kg	0.1
Total Positive PFAS	µg/kg	0.1

Asbestos ID - soils NEPM - ASB-001		
Our Reference		365062-2
Your Reference	UNITS	QA_B
Date Sampled		24/10/2024
Type of sample		Soil
Date analysed	-	01/11/2024
Sample mass tested	g	609.82
Sample Description	-	Brown sandy soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected
ACM >7mm Estimation*	g	–
FA and AF Estimation*	g	–
ACM >7mm Estimation*	%(w/w)	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001
Asbestos comments	-	Nil

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE#1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF relative to the sample mass tested) NOTE#2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.

Method ID	Methodology Summary
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.
Org-025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MSMS.

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

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date Extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date Analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,2-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	132	[NT]
2,2-Dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	128	[NT]
1,1,1-Trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
1,1-Dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbon Tetrachloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	118	[NT]
Dibromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Bromodichloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
trans-1,3-Dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-Dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-Trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	115	[NT]
1,3-Dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]
1,2-Dibromoethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	114	[NT]
1,1,1,2-Tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Bromoform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-Xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	117	[NT]
Styrene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-Tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
1,2,3-Trichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Isopropylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-Propylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-Chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-Chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-Trimethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-Butylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-Trimethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-Butylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-Isopropyltoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-Butylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-Dibromo-3-chloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	98	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	115	[NT]	[NT]	[NT]	[NT]	113	[NT]
Surrogate Toluene-d_8	%		Org-023	97	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	97	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: SVOCs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	365062-1
Date extracted	-			30/10/2024	1	30/10/2024	30/10/2024		30/10/2024	30/10/2024
Date analysed	-			31/10/2024	1	31/10/2024	31/10/2024		31/10/2024	31/10/2024
Aniline	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
4-Chloroaniline	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
2-Nitroaniline	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
3-Nitroaniline	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Dibenzofuran	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
2-Naphthylamine	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
1-Naphthylamine	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
4-Nitroaniline	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Bis(2-chloroethyl) ether	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Bis(2-chloroisopropyl) ether	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Bis(2-chloroethoxy) methane	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
4-Chlorophenyl phenyl ether	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
4-Bromophenyl phenyl ether	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Ethyl Methanesulfonate	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Benzyl Alcohol	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Isosafrole (cis+trans)	mg/kg	2	Org-025	<2	1	<2	<2	0	[NT]	[NT]
Safrole	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Carbazole	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Methapyrilene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
p-Dimethylaminoazobenzene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Acetophenone	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Nitrobenzene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Isophorone	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
1,3-Dinitrobenzene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
2,6-Dinitrotoluene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
5-Nitro-o-toluidine	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Azobenzene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Phenacetin	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Pentachloronitrobenzene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
N-Nitrosodi-n-propylamine (NDPA)	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
N-Nitrosomorpholine (NMOR)	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
N-Nitrosopiperidine (NPIP)	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
N-Nitrosodi-n-butylamine (NDBA)	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Diphenylamine	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	96	96
beta-BHC	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	94	85

QUALITY CONTROL: SVOCs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	365062-1
gamma-BHC (Lindane)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
delta-BHC	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Heptachlor	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	94	62
Aldrin	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	100	98
Heptachlor Epoxide	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	104	103
gamma-Chlordane (trans-Chlordane)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
alpha-Chlordane (cis-Chlordane)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Endosulfan I	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
4,4'-DDE (p,p-DDE)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	92	90
Dieldrin	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	98	102
Endrin	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	92	81
4,4'-DDD (p,p-DDD)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	92	93
Endosulfan II	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
4,4'-DDT (p,p-DDT)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	92	87
Endrin Ketone	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Methoxychlor	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Dichlorvos	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	108	102
Mevinphos	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Phorate	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Dimethoate	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Diazinon	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Disulfoton	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Ronnel	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	100	95
Fenitrothion	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	102	103
Malathion	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	110	108
Chlorpyriphos	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	100	99
Fenthion	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Parathion	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	90	92
Bromophos-ethyl	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Methidathion	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Fenamiphos	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Ethion	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	98	105
Phosalone	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]

QUALITY CONTROL: SVOCs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	365062-1
Coumaphos	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Naphthalene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	94	89
2-Methylnaphthalene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2-Chloronaphthalene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1-Chloronaphthalene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Acenaphthene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	102	98
Fluorene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	96	94
Phenanthrene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	102	96
Anthracene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Fluoranthene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	100	96
Pyrene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	104	98
2-Acetylaminofluorene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Chrysene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	92	90
Benzo(b+j+k)fluoranthene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
7,12-Dimethylbenz(a)anthracene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	98	99
3-Methylcholanthrene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Phenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	50	46
2-Chlorophenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	76	70
2-Methylphenol (o-Cresol)	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	92	82
3/4-Methylphenol (m/p-Cresol)	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
2-Nitrophenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2,4-Dimethylphenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2,4-Dichlorophenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2,6-dichlorophenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	86	81
4-Chloro-3-methylphenol	mg/kg	5	Org-025	<5	1	<5	<5	0	[NT]	[NT]
2,4,6-Trichlorophenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2,4,5-Trichlorophenol	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
2,4-Dinitrophenol	mg/kg	10	Org-025	<10	1	<10	<10	0	[NT]	[NT]
4-Nitrophenol	mg/kg	10	Org-025	<10	1	<10	<10	0	86	98
2,3,4,6-Tetrachlorophenol	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
2-Methyl-4,6-dinitrophenol	mg/kg	10	Org-025	<10	1	<10	<10	0	[NT]	[NT]
Pentachlorophenol	mg/kg	5	Org-025	<5	1	<5	<5	0	110	106
Dinoseb	mg/kg	10	Org-025	<10	1	<10	<10	0	[NT]	[NT]

QUALITY CONTROL: SVOCs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	365062-1
Dimethyl phthalate	mg/kg	1	Org-025	<1	1	<1	<1	0	92	90
Diethyl phthalate	mg/kg	1	Org-025	<1	1	<1	<1	0	102	100
Di-n-butyl phthalate	mg/kg	5	Org-025	<5	1	<5	<5	0	[NT]	[NT]
Butyl benzyl phthalate	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Bis(2-ethylhexyl) phthalate (DEHP)	mg/kg	5	Org-025	<5	1	<5	<5	0	[NT]	[NT]
Di-n-octylphthalate	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
Pentachloroethane	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	100	90
1,2-Dichlorobenzene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Hexachloroethane	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Hexachloropropene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	84	#
Hexachlorobutadiene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Hexachlorocyclopentadiene	mg/kg	2	Org-025	<2	1	<2	<2	0	[NT]	[NT]
1,2,3,5 & 1,2,4,5-Tetrachlorobenzene	mg/kg	1	Org-025	<1	1	<1	<1	0	[NT]	[NT]
1,2,3,4-Tetrachlorobenzene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	96	91
Pentachlorobenzene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Hexachlorobenzene	mg/kg	0.5	Org-025	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
Surrogate 2-Fluorophenol	%		Org-025	100	1	95	95	0	104	92
Surrogate Phenol-d_6	%		Org-025	93	1	88	80	10	97	80
Surrogate Nitrobenzene-d_5	%		Org-025	96	1	91	88	3	99	86
Surrogate 4-Chloro-3-NBTF	%		Org-025	79	1	79	77	3	87	78
Surrogate 2-Fluorobiphenyl	%		Org-025	99	1	95	92	3	101	94
Surrogate 2,4,6-Tribromophenol	%		Org-025	92	1	79	83	5	93	84
Surrogate p-Terphenyl-d_{14}	%		Org-025	98	1	95	90	5	95	89

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	117	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	117	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	118	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	115	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	120	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	117	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	115	[NT]	[NT]	[NT]	[NT]	113	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	118	[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]	100	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	71	[NT]	[NT]	[NT]	[NT]	71	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	68	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	66	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	80	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	74	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	83	[NT]	[NT]	[NT]	[NT]	85	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			30/10/2024	[NT]	[NT]	[NT]	[NT]	30/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	80	[NT]	[NT]	[NT]	[NT]	81	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
Date analysed	-			31/10/2024	[NT]	[NT]	[NT]	[NT]	31/10/2024	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	99	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	91	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			30/10/2024	1	30/10/2024	30/10/2024		30/10/2024	[NT]
Date analysed	-			30/10/2024	1	30/10/2024	30/10/2024		30/10/2024	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	100	[NT]
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	103	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	96	[NT]
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	101	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	1	0.1	<0.1	0	102	[NT]
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	96	[NT]
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	99	[NT]
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	97	[NT]
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	87	[NT]
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	85	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	78	[NT]
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	84	[NT]
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	90	[NT]
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	95	[NT]
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	97	[NT]
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	96	[NT]
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	100	[NT]
4:2 FTS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	99	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	89	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	96	[NT]
10:2 FTS	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	111	[NT]
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	1	<1	<1	0	103	[NT]
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	1	<1	<1	0	106	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	1	<1	<1	0	99	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	1	<1	<1	0	108	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	1	<5	<5	0	105	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	99	[NT]
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	99	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	97	1	100	100	0	99	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	98	1	103	97	6	98	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	105	1	101	95	6	102	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	103	1	97	99	2	104	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	104	1	95	94	1	103	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	105	1	99	97	2	105	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	106	1	101	99	2	105	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	105	1	98	99	1	105	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	104	1	99	99	0	103	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	105	1	99	101	2	105	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	107	1	96	102	6	106	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	106	1	101	95	6	100	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	114	1	112	105	6	105	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	104	1	113	111	2	110	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	134	1	128	132	3	130	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	110	1	101	100	1	107	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	110	1	105	110	5	110	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	112	1	113	117	3	106	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	112	1	103	104	1	109	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	107	1	103	103	0	108	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	109	1	107	106	1	110	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	103	1	97	97	0	105	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	103	1	102	102	0	108	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	107	1	107	107	0	107	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	114	1	113	115	2	112	[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

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

SVOCs in Soil - # Percent recovery for the surrogate/matrix spike is not possible to report due to interference from analytes (other than those being tested) in sample/s 365062-1ms.

COC 28/10 14:39

ENVIROLAB

Chain of Custody

JBS&G

PROJECT NO.: ~~67818~~ 67817	LABORATORY BATCH NO.:
PROJECT NAME: BOTANY	SAMPLERS: A. CHEOK
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JBSGLABRESULTS@jbsg.com.au; (3) CBIELBY@jbsg.com.au A CHEOK

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

CHANGE JOB NUMBER ON SAMPLES FROM "67818" to "67817"

SAMPLE ID		MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAHs	TRH/BTEX	VOCs	sVOCs	OCP/PCBs	PFAS	ASBESTOS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QA	1	SOIL	24/10		~~B~~ J+ PFAS		/	/	/	/	/	/	/				
QA_B	2	SOIL	↓		B									/			

ENVIROLAB GROUP

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

Job No: 365062
Date Received: 29/10/24
Time Received: 1 SUT
Received By: CW
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: CB DATE: 28/10/24	CONSIGNMENT NOTE NO.	NAME: O. WILCZYK.	COOLER SEAL – (Yes) ..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 29/10/24	
		OF: ELS SYD	COOLER TEMP 4°C deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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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	JBS & G (NSW & WA) Pty Ltd
Attention	Chris Bielby

Sample Login Details

Your reference	67817
Envirolab Reference	365062
Date Sample Received	29/10/2024
Date Instructions Received	28/10/2024
Date Results Expected to be Reported	05/11/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	4
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Assumed asbestos NEPM required for QA_B

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	VOCs in soil	SVOCs in Soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	PCBs in Soil	Acid Extractable metalsin soil	PFAS in Soils Extended	Asbestos ID - soils NEPM - ASB-001
QA	✓	✓	✓	✓	✓	✓	✓	✓	✓	
QA_B										✓

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 G Field Notes and Calibration Certificates

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Vapour Purging Form

IXOM

JBS&G

Project Number: ~~67020~~ 67817	Date: 25/10 / 2024	Sampler/s: AL
Site Address: 330-338 Botany Street, Alexandria	Sample Method: SV	Weather: SUNNY (RAINED NIGHT BEFORE)

Field Measurements

Sample ID	Time	Oxygen	Carbon Dioxide	CH4 ~~PID~~	H2S ~~Methane~~	CO ~~LEL~~	~~Leak Detection PID~~ CH4	~~Leak Detection PID~~ 5 MIN	PID	Hg
BH5_SV	0807	16.6	0.0	1.0	0.0	0.0	9.6	181.7	9.8	0 mg/m3
	0808	18.9	0.0	0.0	0.0	0.0				
	0809	19.3	0.0	0.0	0.0	0.0				
	0810	19.5	0.0	0.0	0.0	0.0				
HA2_SV	0832	20.1	0.0	0.0	0.0	0.0	0.7	198.1	1.0	72.0 mg/m3
HA2_SV_M	0833	20.0	0.0	0.0	0.0	0.0				
	0834	20.0	0.0	0.0	0.0	0.0				
	0835	20.1	0.0	0.0	0.0	0.0				
BH4_SV	0905	18.4	2.6	0.0	0.0	0.0	0.3	182.7	0.4	0 mg/m3
QC_SV	0906	17.6	2.6	0.0	0.0	0.0				
	0907	17.7	2.6	0.0	0.0	0.0				
	0908	17.6	2.6	0.0	0.0	0.0				
HA1_SV	~~0909~~ 0910	18.1	2.7	0.0	0.0	0.0	0.4	196.4	0.5	0 gmg/m3
	0911	18.2	2.2	0.0	0.0	0.0				
	0912	18.1	2.2	0.0	0.0	0.0				
	0913	18.0	2.2	0.0	0.0	0.0				
BH3_SV	0943	19.3	0.8	0.0	0.0	0.0	0.1	182.3	0.1	0.8 mg/m3
BH3_SV_M	0944	19.9	0.7	0.0	0.0	0.0				
	0945	19.9	0.7	0.0	0.0	0.0				
	0946	20.0	0.8	0.0	0.0	0.0				
BH2_SV	1008	20.1	1.3	0.0	0.0	0.0	1.2	194.8	1.3	0 gmg/m3
	1009	19.3	1.4	0.0	0.0	0.0				
	1010	19.2	1.4	0.0	0.0	0.0				
	1011	19.2	1.4	0.0	0.0	0.0				
HA3_SV	1034	20.2	2.5	0.0	0.0	0.0	6.9	199.7	7.4	0 mg/m3
	1035	17.8	2.9	0.0	0.0	0.0				
	1036	17.8	2.9	0.0	0.0	0.0				
	1037	17.7	3.0	0.0	0.0	0.0				
HA4_SV	1039	18.1	2.0	0.0	0.0	0.0	3.2	184.7	3.1	
	1040	17.9	2.8	0.0	0.0	0.0				
	1041	17.8	2.8	0.0	0.0	0.0				
	1042	17.9	2.8	0.0	0.0	0.0				

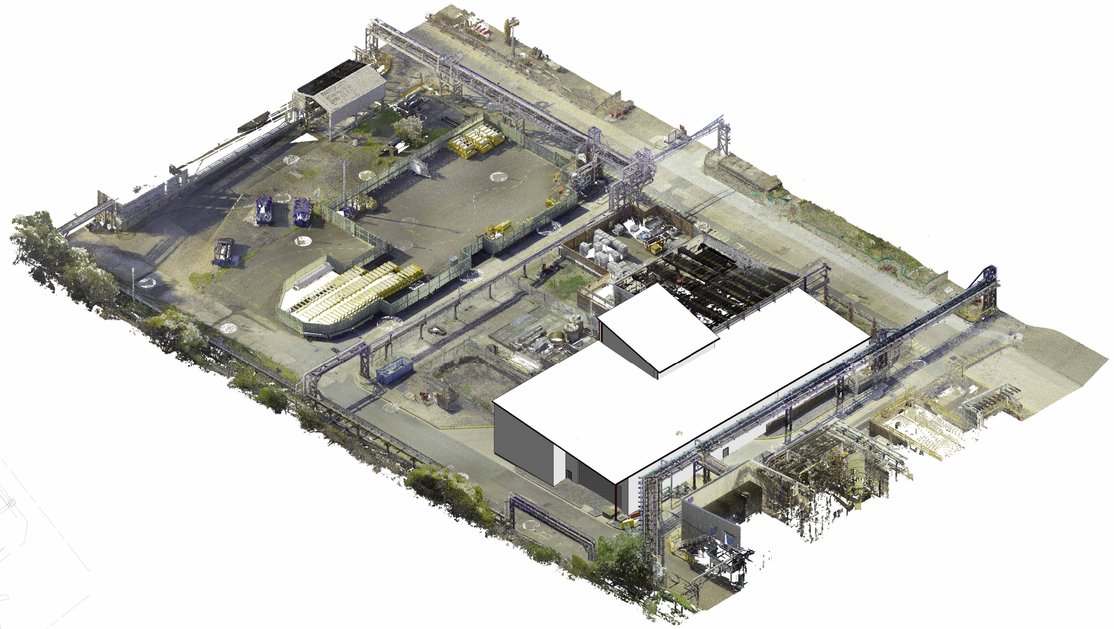
Appendix H Proposed Development Plans

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LOCATION PLAN
SCALE 1 : 1000

20000 0 20000 40000 60000 80000
SCALE 1: 1000 SCALE IN mm



ISOMETRIC VIEW
SCALE

DRAWING INDEX

DRAWING NUMBER	DRAWING NAME
PC.20301993-13-100	LOCATION PLAN
PC.20301993-13-101	SITE PLAN - EXISTING
PC.20301993-13-102	SITE PLAN - PROPOSED
PC.20301993-13-103	GRID SET OUT PLAN
PC.20301993-13-105	GENERAL ARRANGEMENT - GROUND FLOOR PLAN
PC.20301993-13-107	GENERAL ARRANGEMENT - CONCRETE OUTLINE PLAN
PC.20301993-13-109	GENERAL ARRANGEMENT - ROOF PLAN
PC.20301993-13-111	GENERAL ARRANGEMENT - ELEVATIONS - SHEET 1
PC.20301993-13-112	GENERAL ARRANGEMENT - ELEVATIONS - SHEET 2
PC.20301993-13-113	GENERAL ARRANGEMENT - SECTIONS - SHEET 1
PC.20301993-13-114	GENERAL ARRANGEMENT - SECTIONS - SHEET 2

CHECK PRINT - INCOMPLETE REVISION
NOT AUTHORISED FOR USE
PLOT DATE: 20/11/2024 11:30:48 AM

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE

NOT AUTHORISED FOR USE

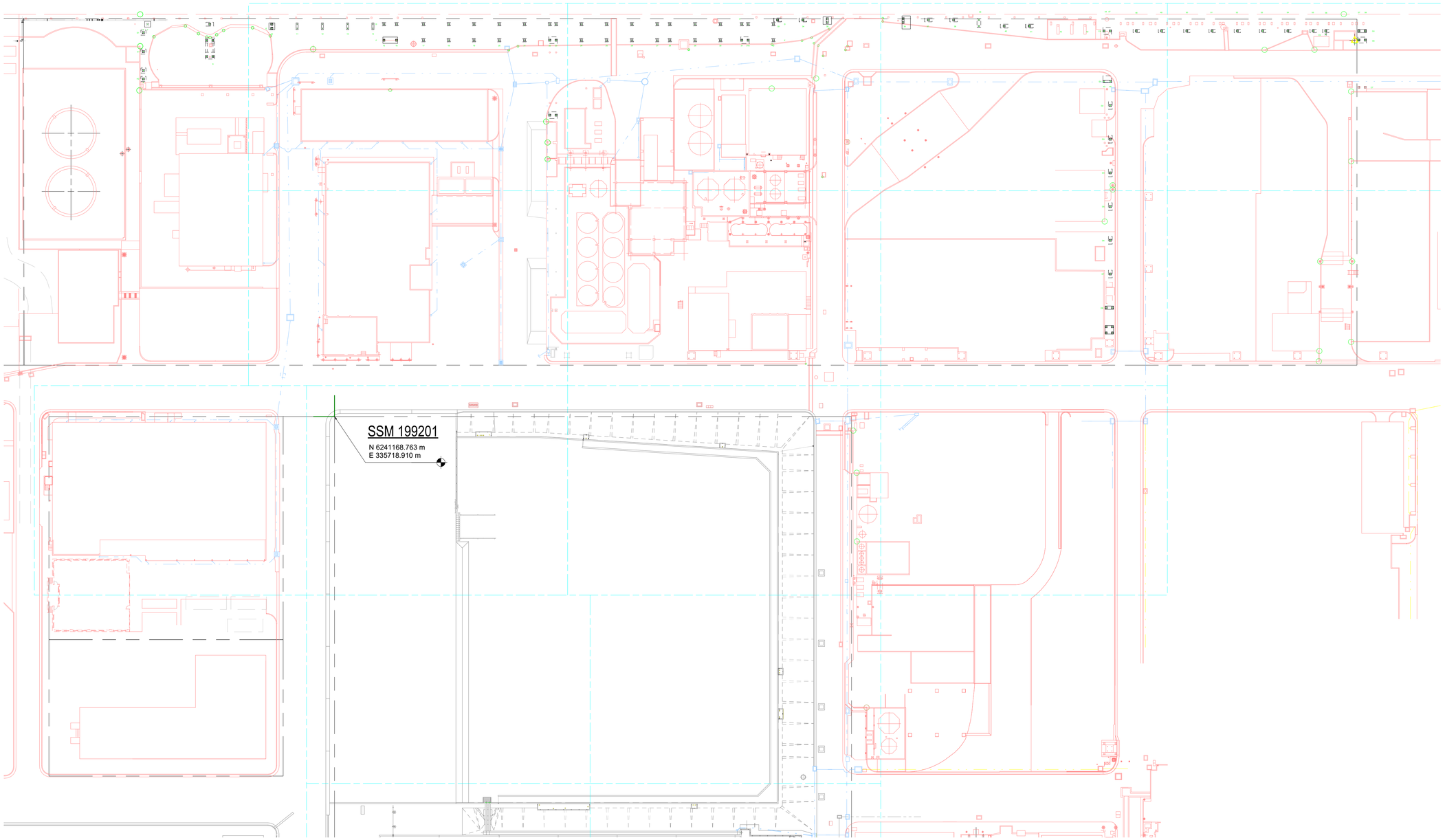
POSITION	NAME	SIGNATURE
DRAFTING CHECK		
ORIGINATE/ DESIGN		
INDEPENDENT CHECK		
TECHNICAL APROVAL		
PROJECT APPROVAL		
CLIENT APPROVAL		

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TITLE
IXOM OPERATIONS PTY. LTD.
PROJECT GEMINI
ARCHITECTURAL
LOCATION PLAN

DRAWING SCALE 1 : 1000
DRAFTER: Author
ORIG. SIZE A1
DRAWING NO. PC.20301993-13-100
REVISION

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EXISTING SITE PLAN
SCALE 1 : 500

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SCALE 1: 500 SCALE IN mm

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			PROJECT APPROVAL		
			CLIENT APPROVAL		

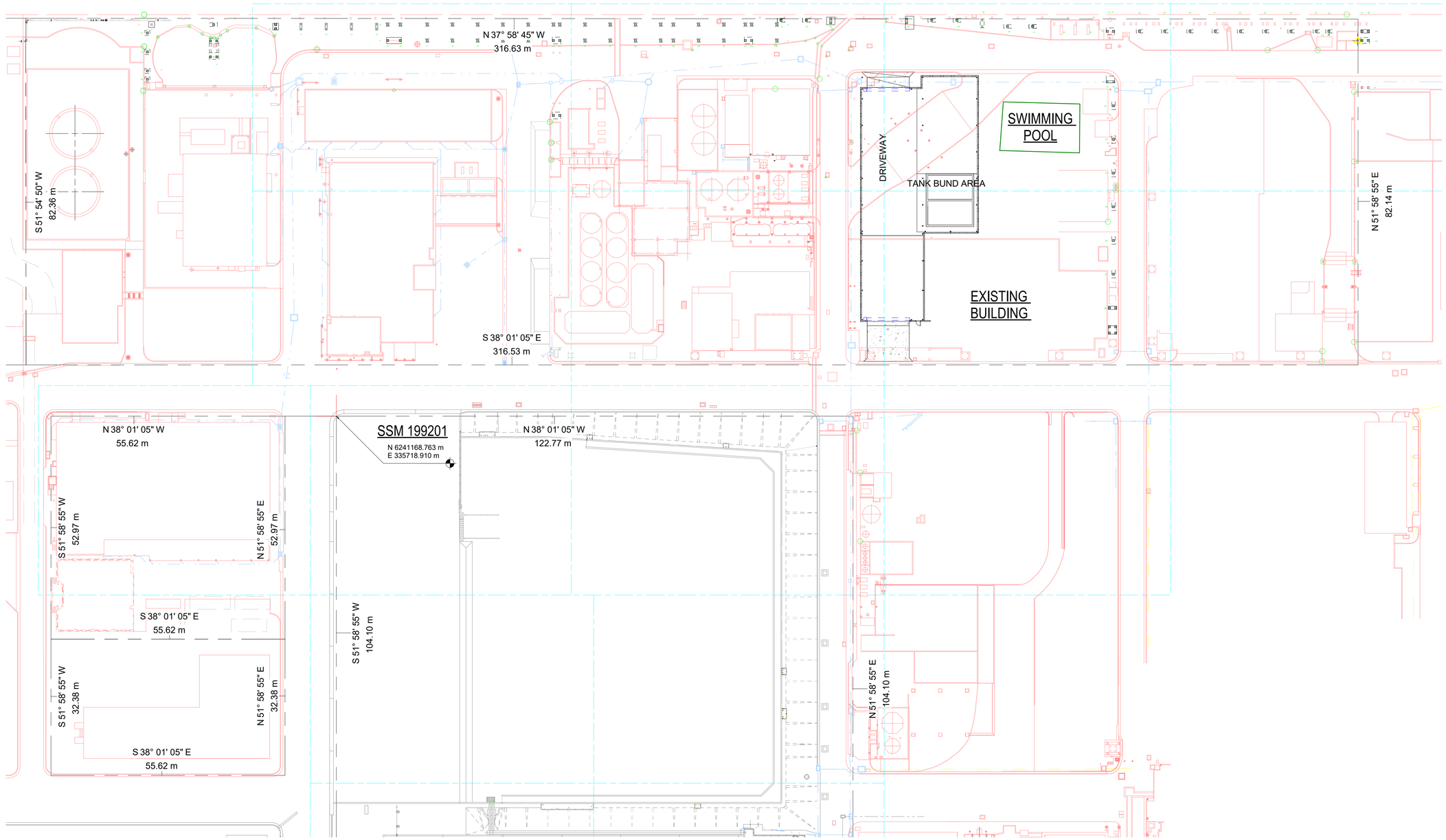
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PROJECT GEMINI
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DRAFTER: Author
ORIG. SIZE A1
DRAWING NO. PC.20301993-13-101
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SITE PLAN - PROPOSED

SCALE 1 : 500

10000 0 10000 20000 30000 40000
SCALE 1: 500 SCALE IN mm

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INDEPENDENT CHECK		
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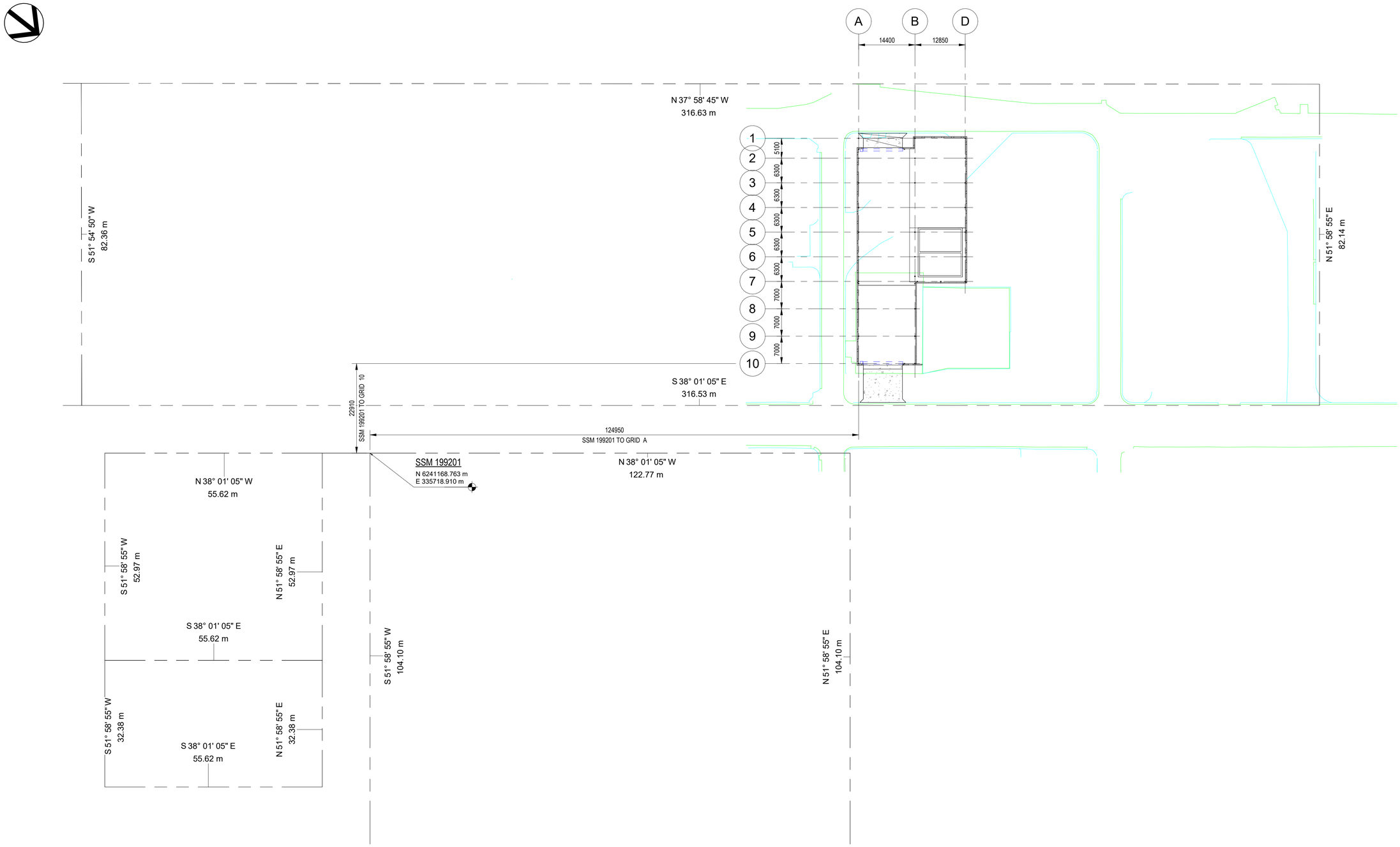
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PROJECT GEMINI
ARCHITECTURAL
SITE PLAN - PROPOSED

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GRID SET OUT PLAN

SCALE 1 : 500

10000 0 10000 20000 30000 40000

SCALE 1: 500 SCALE IN mm

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PROJECT GEMINI
ARCHITECTURAL
GRID SET OUT PLAN

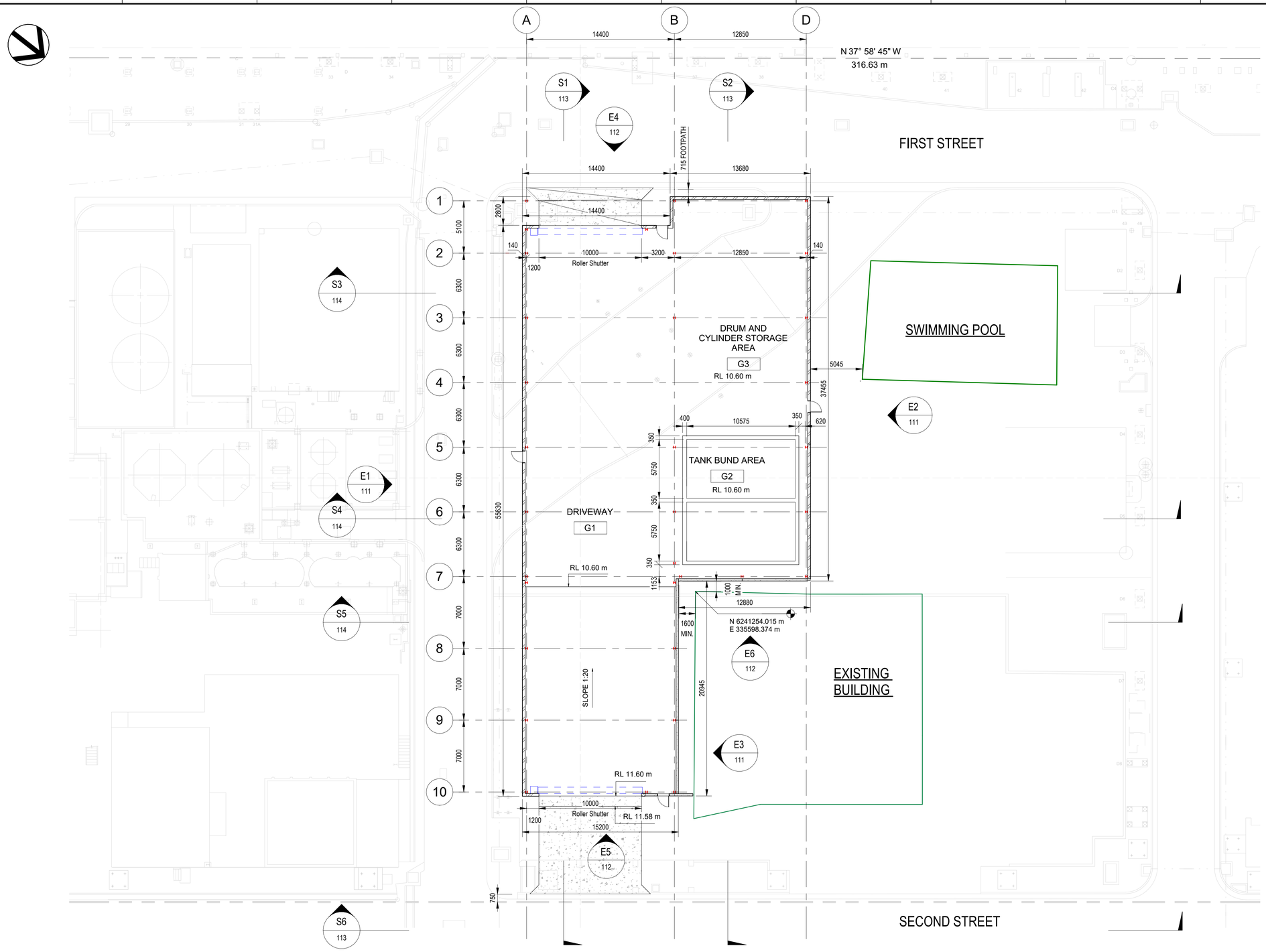
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ROOM SCHEDULE				
Department	Name	Number	Area	Volume
Driveway	DRIVEWAY	G1	771 m²	6093.16 m³
TANK	TANK BUND AREA	G2	203 m²	2472.92 m³
STORAGE	DRUM AND CYLINDER STORAGE AREA	G3	333 m²	3085.24 m³

4000 0 4000 8000 12000 16000
SCALE 1: 200 SCALE IN mm

GENERAL ARRANGEMENT PLAN - GROUND

SCALE 1 : 200

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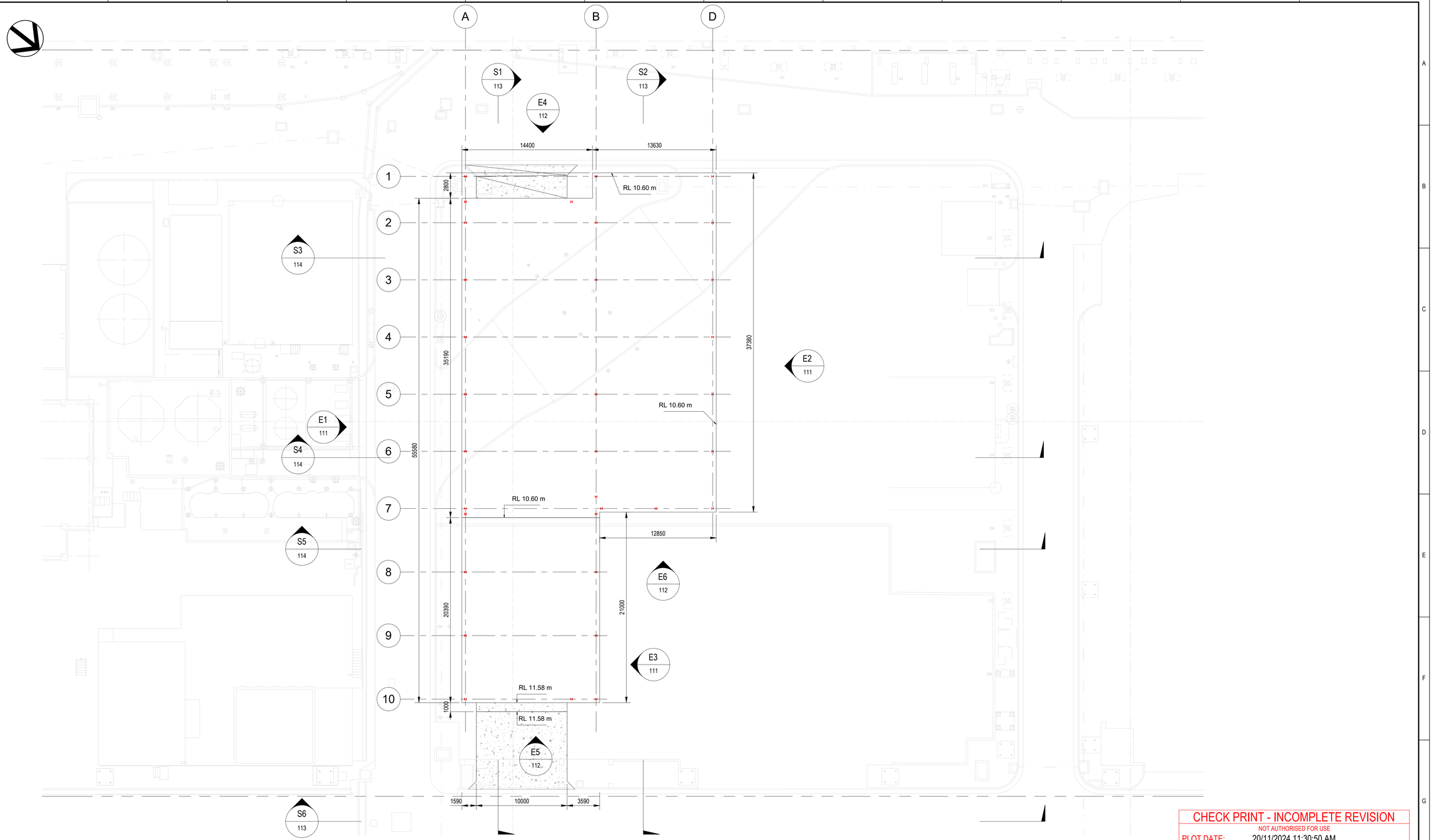
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PROJECT GEMINI
ARCHITECTURAL
GENERAL ARRANGEMENT - GROUND FLOOR PLAN

DRAWING SCALE 1 : 200
ORIG. SIZE A1
DRAWING NO. PC.20301993-13-105
REVISION
DRAFTER: Author

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SCALE 1: 200 SCALE IN mm

CONCRETE OUTLINE PLAN - GROUND

SCALE 1 : 200

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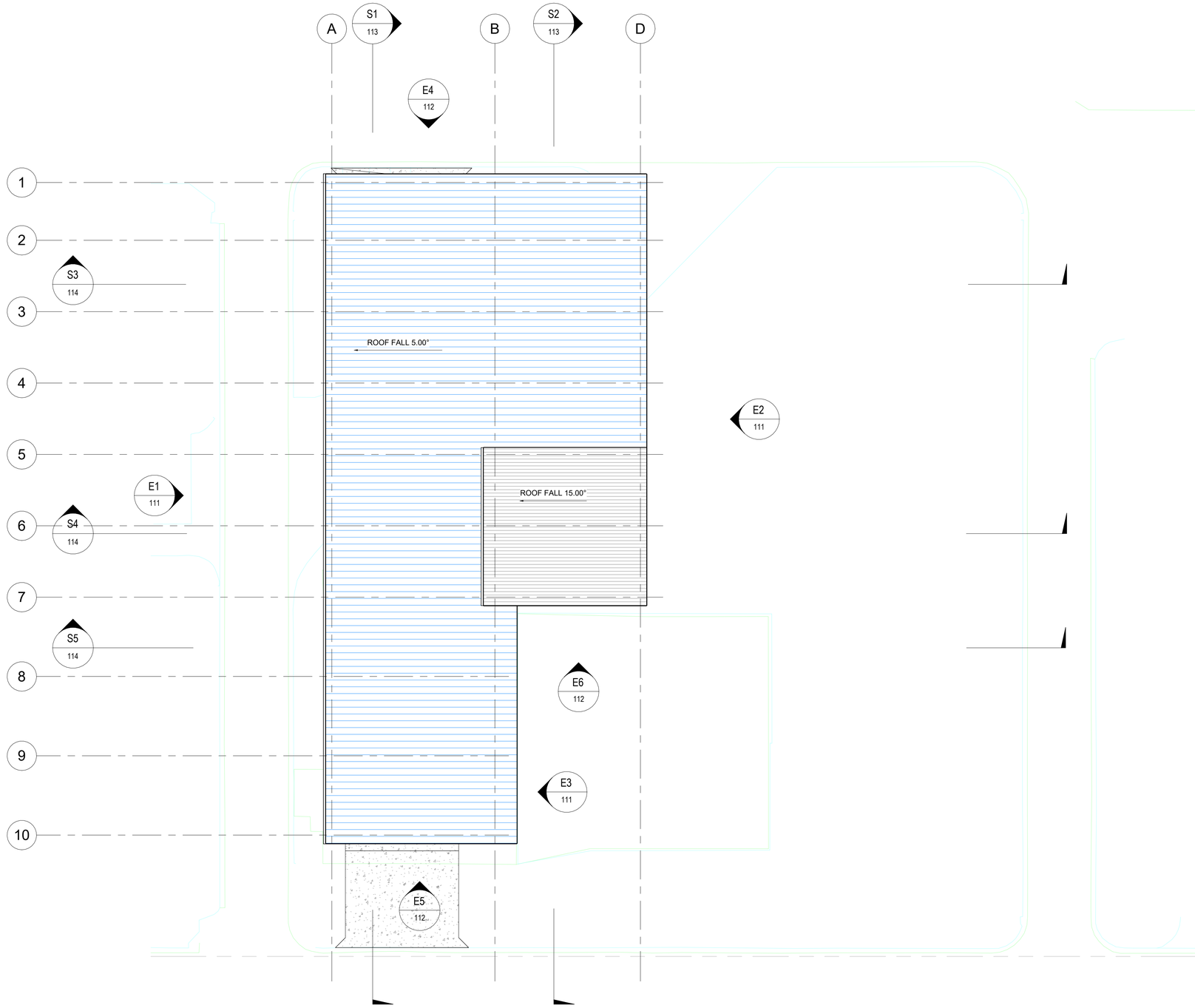
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PROJECT GEMINI
ARCHITECTURAL
GENERAL ARRANGEMENT - CONCRETE OUTLINE PLAN

DRAWING SCALE 1 : 200
ORIG. SIZE A1
DRAWING NO. PC.20301993-13-107
REVISION
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TANK ROOF

SCALE 1 : 200

4000 0 4000 8000 12000 16000

SCALE 1: 200 SCALE IN mm

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GENERAL ARRANGEMENT - ROOF PLAN

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ORIG. SIZE A1

DRAWING NO. PC.20301993-13-109

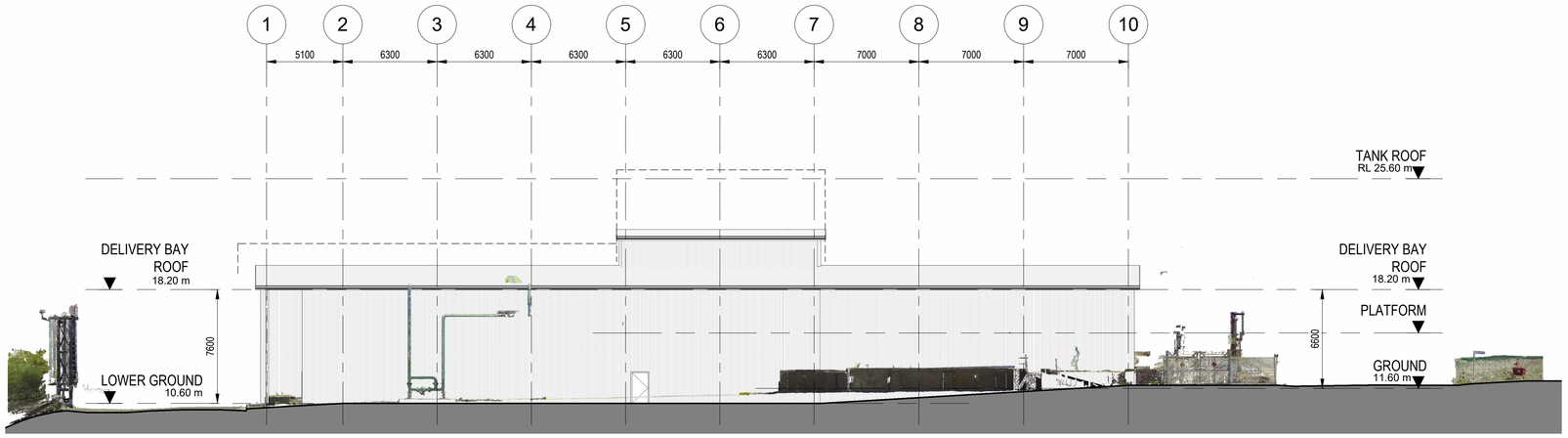
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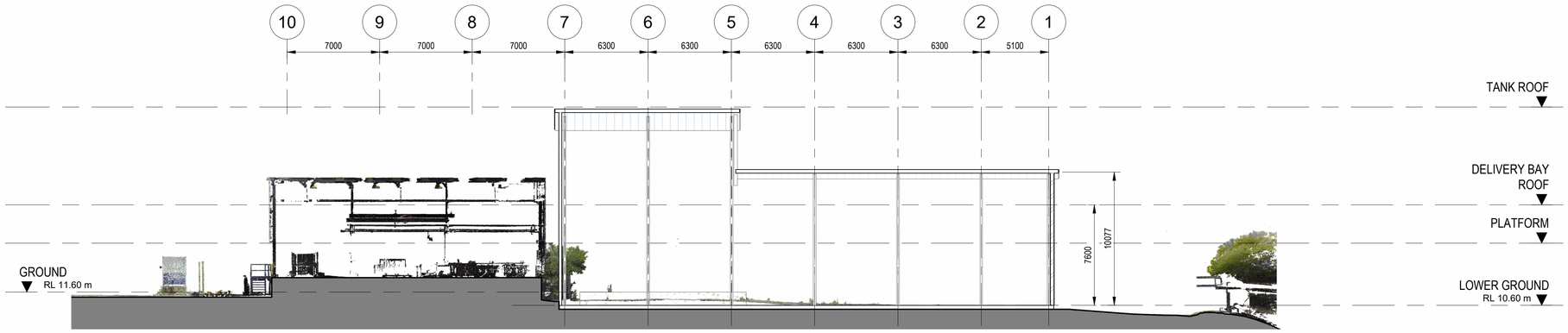
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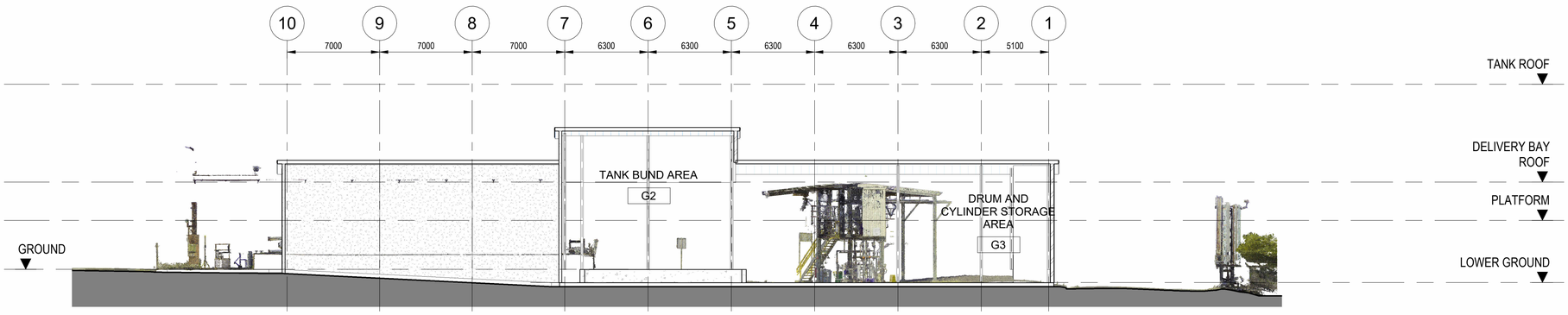
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ELEVATION E1
SCALE 1 : 200 0012



ELEVATION E2
SCALE 1 : 200 0012



ELEVATION E3
SCALE 1 : 200 0012

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SCALE 1: 200 SCALE IN mm

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TECHNICAL APROVAL		
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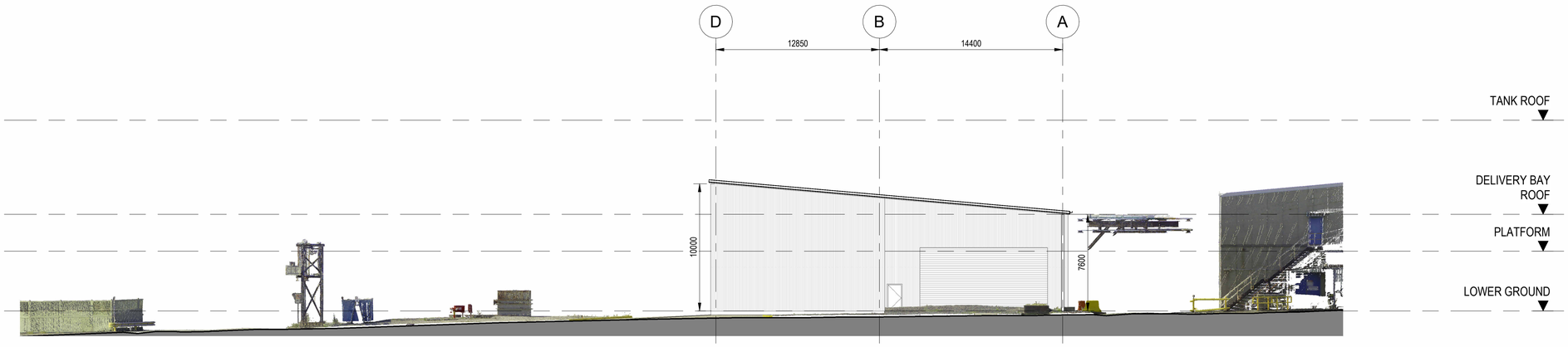
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PROJECT GEMINI
ARCHITECTURAL
GENERAL ARRANGEMENT - ELEVATIONS - SHEET 1

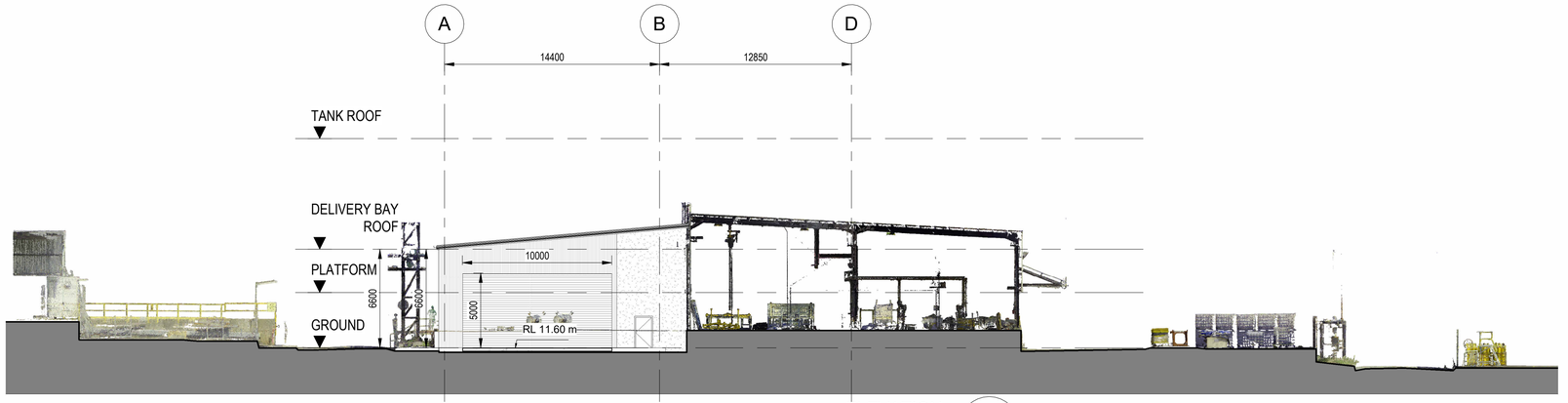
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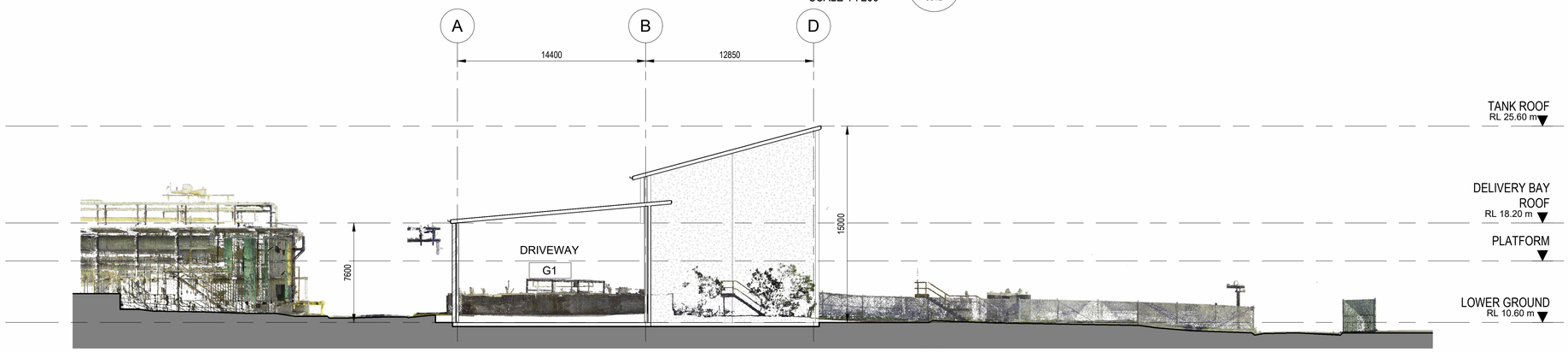
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ELEVATION E4
SCALE 1 : 200 0012



ELEVATION E5
SCALE 1 : 200 0012



ELEVATION E6
SCALE 1 : 200 0012

4000 0 4000 8000 12000 16000
SCALE 1: 200 SCALE IN mm

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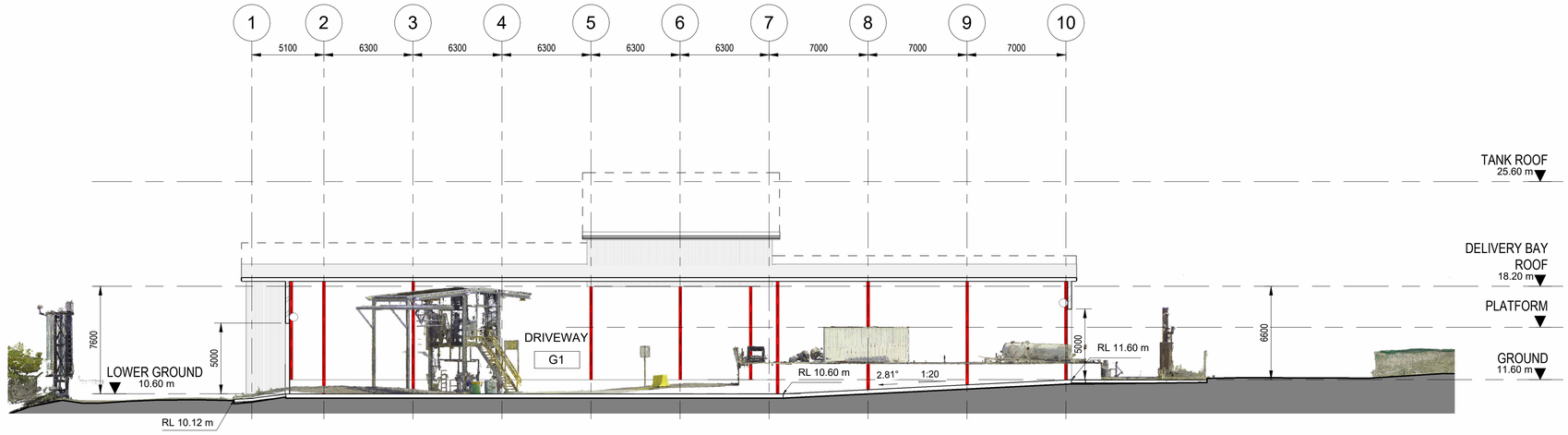
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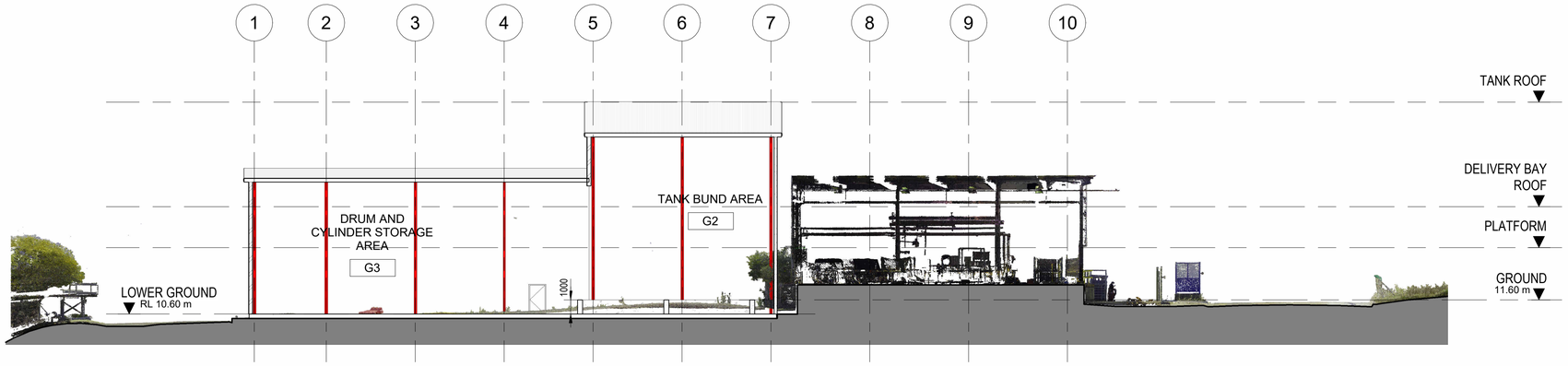
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PROJECT GEMINI
ARCHITECTURAL
GENERAL ARRANGEMENT - ELEVATIONS - SHEET 2

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ORIG. SIZE A1
DRAWING NO. PC.20301993-13-112
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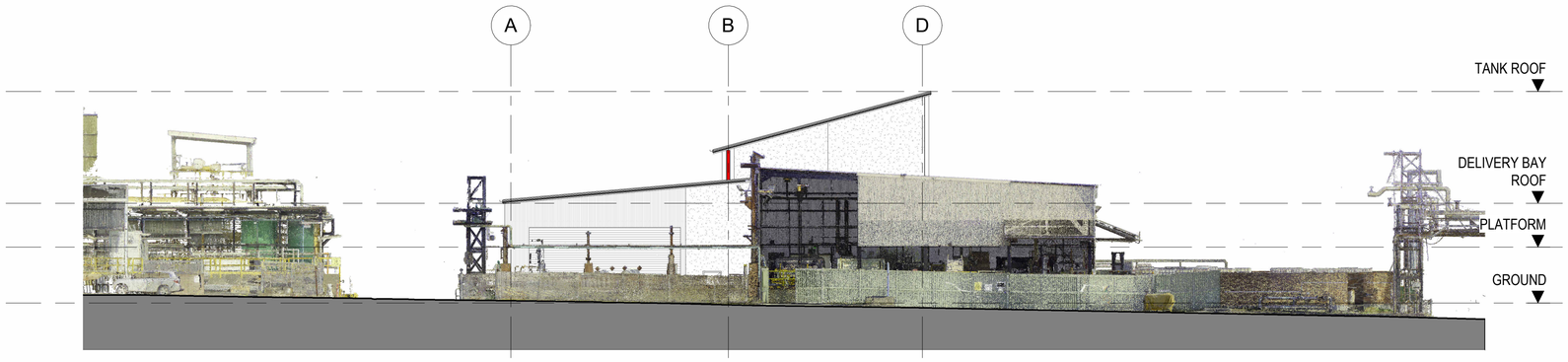
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SECTION S1
SCALE 1 : 200 0012



SECTION S2
SCALE 1 : 200 0012



SECTION S6
SCALE 1 : 200 0012

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SCALE 1: 200 SCALE IN mm

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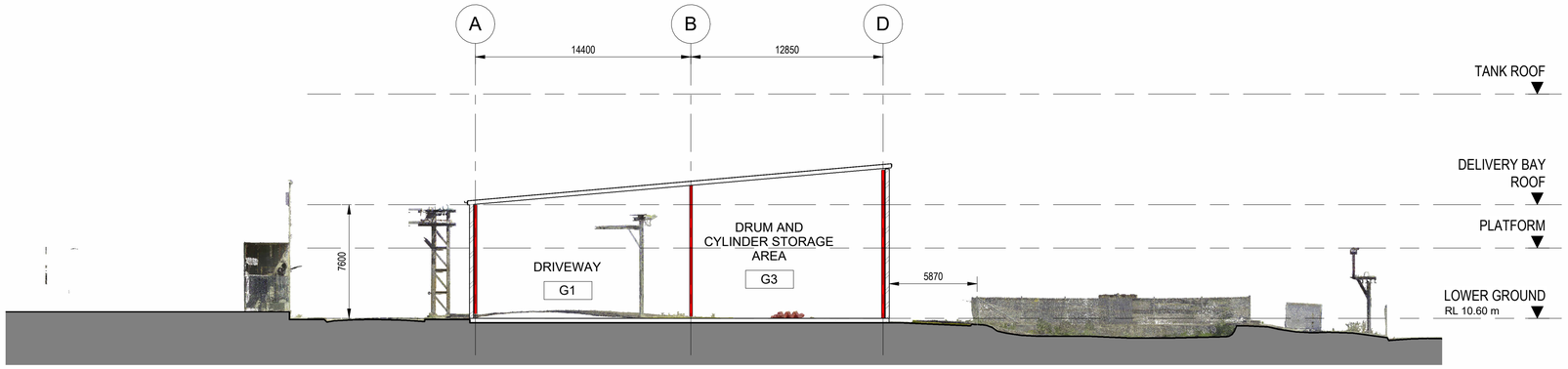
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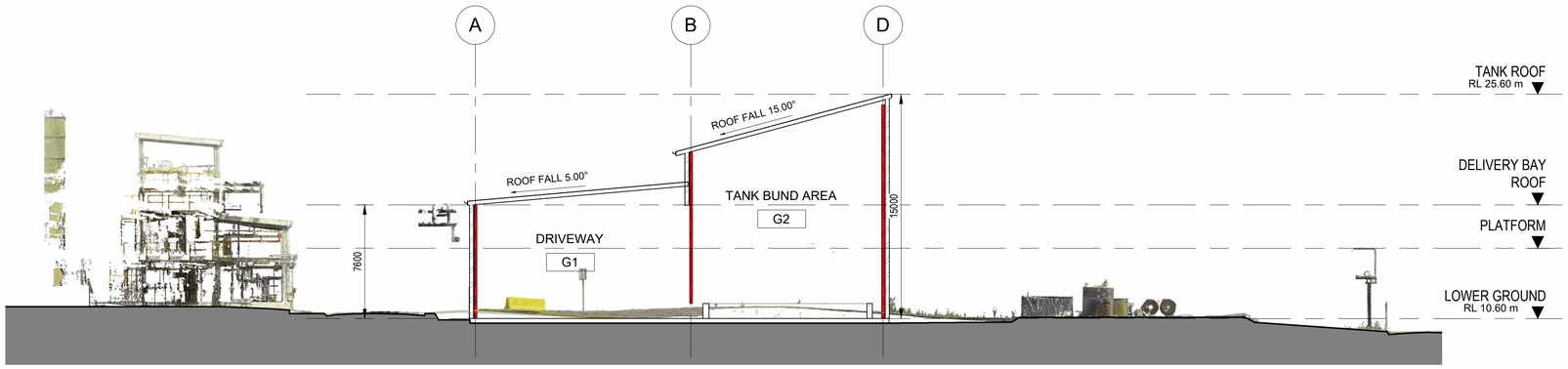
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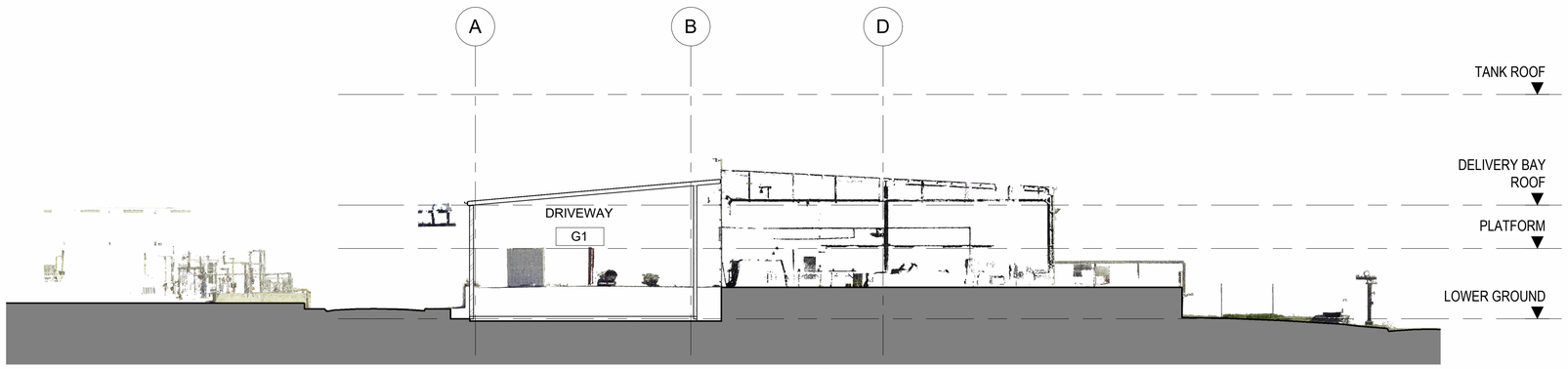
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SECTION S3
SCALE 1 : 200 0012



SECTION S4
SCALE 1 : 200 0012



SECTION S5
SCALE 1 : 200 0012

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SCALE 1: 200 SCALE IN mm

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