Douglas PARTNERS

GROUNDED EXPERTISE

Factual Report on Contamination Testing

Leichhardt Oval Refurbishment

68 Mary Street, Lilyfield NSW

Prepared for Inner West Council

Project 236743.01

12 November 2025

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The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

Signature	Date
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FS604853

Douglas Partners acknowledges Australia's First Peoples as the Traditional Owners of the Land and Sea on which we operate. We pay our respects to Elders past and present and to all Aboriginal and Torres Strait Islander peoples across the many communities in which we live, visit and work. We recognise and respect their ongoing cultural and spiritual connection to Country.

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Report on Factual Report on Contamination Testing
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

1. Introduction

Douglas Partners Pty Ltd (Douglas) has been engaged by Inner West Council (Council) to prepare this factual report on contamination testing for a Leichhardt Oval Refurbishment project located within Leichhardt Park at 68 Mary Street, Lilyfield NSW. The approximate boundary of the Leichhardt Oval (herein after referred as the Oval) and the Leichhardt Park are shown on Drawing R.001.D.01, Appendix A.

The investigation was undertaken in accordance with Douglas' proposal 236743.00.P.002.Rev1 dated 13/08/2025.

The proposed development includes the refurbishment of the existing Leichhardt Oval to provide new and upgraded spectator and player amenities, broadcasting facilities and improved accessibility.

No change in land use is proposed. A Long-Term Environmental Management Plan (LTEMP) (CONSARA, 2025) has previously been prepared and addresses the suitability of the Oval for its current (and proposed continued) use.

The objective of this investigation it to assess potential contaminants at the subject site. It is understood that the results will be used to inform construction phase management requirements for the proposed development in accordance with the LTEMP, noting that this is not part of the scope of this report.

This investigation targeted the areas where the proposed development is expected to disturb the underlying soil. Based on the concept design provided, these areas comprised:

- The proposed Northern Grandstand;
- The existing north amenities (toilets), proposed to be removed to allow the construction of new seating bowl plats;
- The Western Grandstand players amenities; and
- The accessible platform seating area in south-western corner to be removed to allow the construction of new seating bowl plates.

The above targeted areas are shown on Drawing R.001.D.01, Appendix A (henceforth referred to as the subject site).

This report must be read in conjunction with all appendices including the notes provided in Appendix B.

The following key guidelines were consulted in the preparation of this report:

- NEPC National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM] (NEPC, 2013); and
- NSW EPA Guidelines for Consultants Reporting on Contaminated Land (NSW EPA, 2020).

The investigation was undertaken in conjunction with a geotechnical investigation which is reported separately in Douglas Report 236743.00. R.001.

It is understood the proposed works are subject to a State Significant Development (SSD-85149458) Application. This report has been prepared to respond to the Secretary's Environmental Assessment Requirements (SEARs) issued for the project on 23 June 2025 for SSD-85149458, specifically for the item listed in Table 1 below.

Table 1: SEARs Declaration

Declaration		
Name	Cathy Li	
Professional Qualifications	Environmental Engineer	
	The undersigned declares that this Factual Report on Contamination Testing has been prepared to facilitate implementation of the LTEMP (CONSARA, 2025). The LTEMP addresses the following SEARs requirements issued for the project on 23 June 2025 for SSD-85149458, as described below:	
SEARs item	SEARs Issue and Assessment Requirement	Relevant Section of this Report that addresses SEARs Requirement
17	In accordance with Chapter 4 of SEPP (Resilience and Hazards) 2021, assess and quantify any soil and groundwater contamination and demonstrate that the subject site is suitable (or will be suitable, after remediation) for the development. Documentation required: • Preliminary Site Investigation If required: • Detailed Site Investigation • Remediation Action Plan including Interim Audit advice from an EPA	The SEARs condition for a Preliminary Long-term Environmental Management Plan is addressed by the LTEMP (CONSARA, 2025). The LTEMP (CONSARA, 2025) includes the requirements for the management of the potential risks to human health associated with the presence and potential presence of contamination in fill materials. Given the pre-existing LTEMP, no preliminary site investigation, detailed site investigation or remediation action plan were prepared for the project. The proposed works are considered to be classified as 'Major Works' in accordance with the requirements of the LTEMP. The LTEMP provides required management to be implemented for Major Works. To facilitate implementation of the LTEMP requirements and support management of contamination for the project the following documents have been prepared: • Report on factual contamination testing (**this report, in its entirety**), which includes a review of

Declaration		
	accredited Site Auditor certifying the RAP as appropriate • Preliminary Long-term Environmental Management Plan	site history information and provides the results of intrusive sampling and analysis of soil and groundwater for the identified contaminants of potential concern. • A Construction Environmental Management Plan (CEMP) (Douglas, 2025a), which provides construction phase control measures for contaminated soil and groundwater. • Letter on Suitability (Douglas , 2025b), which discusses the contamination testing results, and provides a statement regarding the suitability of the site for the proposed development, from a contamination perspective and with reference to the requirements of Chapter 4 of SEPP (Resilience and Hazards) 2021.
Signed		
Dated	12 November 2025	

2. Proposed development

The following project description was prepared by Planning & CO.

Refurbishment of the existing Leichhardt Oval at 68 Mary Street, Lilyfield to provide new and upgraded spectator and player amenities, broadcasting facilities, improved accessibility and increased number of fixed seating (no change to overall spectator capacity), including:

- *Upgrades to the existing Western Grandstand, including:*
  - *Demolition of the existing spectator and player amenities located on the ground floor, existing seating, broadcast areas, hospitality and coaching facilities on level 2, existing stairs at the front of the grandstand and some facade elements,*
  - *Upgrades to the existing ground floor to provide new player change rooms and facilities, medical facilities, facilities for match officials and coaching staff, spectator amenities, utilities and other 'match day' related facilities,*
  - *Upgrades to and expansion of the mezzanine level within the grandstand to provide a new 'Grandstand Bar', gym, spectator amenities, stairs and storage, as well as the relocation of the existing telecommunications server,*
  - *Upgrades to the existing level 2 to deliver new spectator seating, corporate suites, television and radio broadcasting facilities, spectator amenities and the upgrading of the existing Centurions Lounge corporate area,*
  - *Improved spectator circulation and egress arrangements to meet standards and general upgrades and maintenance to the existing building.*
- *The construction of a new 'Northern Grandstand', including:*

  - *Earthworks and modification of existing retaining wall and embankment,*
  - *A new concourse to provide spectator amenities and food and beverage offerings,*
  - *New spectator seating to level 1 of the grandstand above the concourse,*
  - *The removal of 13 trees to facilitate the new grandstand,*
- *The replacement of existing seating to the lower seating bowl surrounding the playing field to provide greater amenity and improved wheelchair accessibility.*

3. Scope of work

The scope of work comprised:

- A review of development plan, previous reports and documentation provided by the client. It is noted that the only previous report provided relevant to the current investigation was the LTEMP (CONSARA, 2025);
- A review of geological, topographic, soil, acid sulfate soil mapping and groundwater registered bores to assess and document the site 's environmental setting.
- Obtain and review of the site history comprising:
  - Historical aerial photographs;
  - NSW EPA public registers for notices and licences issued under the Contaminated Land Management Act 1997 (CLM Act) and the Protection of the Environment Operations Act 1997 (POEO Act); and
  - Council records.
- A site walkover to observe signs or indicators of areas of potential environmental concern (APEC);
- Collection of soil samples at regular depth intervals, changes in strata, or upon signs of contamination (e.g. staining, odours) from the three combined geotechnical / contamination boreholes (BH101a, BH102a and BH103).
- Drilling of additional six boreholes (BH01 to BH05, and BH06a)) for contamination investigation purpose as below:
  - Three boreholes BH01 to BH03 within Western Grandstand Players Amenities by using track mounted rig to a targeted depth of 2 m bgl, with borehole BH02 extended to 5.7 m bgl for the installation of a gas well;
  - One borehole BH04 within the proposed new seating bowl plates in the south-western corner by using hand auger to 0.7 m (hand auger refusal);
  - One borehole BH05 within north amenities that proposed to be demolished, by using hand auger to 0.8 m (hand auger refusal); and
  - One borehole BH06a within proposed Northern Grandstand to a 6 m for the installation of a gas well.
- Collection of soil samples from the above boreholes (BH01 to BH06) at regular depth intervals, changes in strata, or upon signs of contamination (e.g. staining, odours);

- Drilling of three shallow additional boreholes (BH101, BH102 and BH6) within the Northern Grandstand area targeted the soft embankment area by using shovel / hard auger to varied depths of between 0.3 m and 0.7 m.
- Conducted field potential asbestos containing material (ACM) assessment as below:
    - Collection of one ~10L soil samples from each borehole BH101, BH102 and BH6 located on soft stand area for potential asbestos containing material (ACM) assessment; and
    - For the remaining contamination boreholes (BH01 to BH05), collection of one bulk sample across the first meter of fill layer for potential ACM assessment.
- Field screening of recovered soil samples for volatile organic compounds (VOC) using a photo-ionisation detector (PID);
- Conduct surface landfill gas (LFG) screening by performing a grid-based walkover within the existing amenities areas and above the selected open contamination boreholes during the drilling process. LFG readings were collected using a Huber Laser One© instrument;
- Collection of groundwater samples from two groundwater wells constructed as part of the geotechnical investigation (BH102a and BH103). Samples were collected following well development and stabilisation of field parameters;
- Collection of one surface water sample from the anticipated receiving water body (Iron Cove).
- Dispatch selected soil samples to a National Association of Testing Authorities (NATA) accredited laboratory for analysis of identified contaminants of potential concern (CoPC), as follows:
    - Metals (including arsenic (As), cadmium (Cd), total chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), nickel (Ni) and zinc (Zn));
    - Total recoverable hydrocarbons (TRH);
    - Benzene, toluene, ethyl benzene, total xylenes (BTEX);
    - Polycyclic aromatic hydrocarbons (PAH);
    - Organochlorine pesticides (OCP);
    - Organophosphorus pesticides (OPP);
    - Polychlorinated biphenyls (PCB);
    - Per- and poly-fluoroalkyl substances (PFAS);
    - Phenols;
    - Asbestos;
    - pH and cation exchange capacity (CEC);
    - Volatile Organic Compound (VOCs);
    - Acid Sulfate Soil (ASS) field screening (pH and pH_{FOX});
    - Toxicity characteristic leaching procedure (TCLP) (metals, PFAS and PAH);
    - Silica Gel clean of TRH (TPH-SG); and
    - Quality assurance and quality control (QA / QC) samples including inter / intra-laboratory replicate, trip spike and trip blank.

- Dispatch collected water samples to a NATA accredited laboratory for analysis of identified CoPC as follows:
  - Heavy metals, TRH, BTEX, PAH, OCP / OPP, PCB, PFAS, VOC, phenol, cyanide, nutrients (groundwater samples);
  - Hardness (Iron Cove sample); and
  - QA / QC samples including inter-laboratory replicate, trip spike and trip blank and rinsate samples.
- Preparation of this report.

4. Site information

Site address	68 Mary Street, Lilyfield NSW
Legal description	Part of the broader land parcel denoted as Lot 6643 Deposited Plan 1137663 (Leichhardt Park)
Area of the subject site	Approximately 2,000 m^2
Zoning	RE1 - Public Recreation
Local Council Area	Inner West Council
Current use	Leichhardt Oval
Surrounding uses of the subject site	North – Recreational, then Iron Cove Bay East – We Help Ourselves (WHOS) health campus including health, educational, short-term residential and recreational uses South – Public roads and residential West – Leichhardt Park carpark, recreational, then Iron Cove

The subject site, the Leichhardt Oval Refurbishment Project Site and the Leichhardt Park boundaries are shown on Figure 1.

Figure 1: The subject site boundaries (red dash lines), the Leichhardt Oval Refurbishment Project Site boundary (green dash line), and the Leichhardt Park boundary (orange line).

5. Environmental setting

5.1 Topography

The subject site is situated on the edge of a local crest with the regional topography sloping downwards to west towards Iron Cove (approximately 173 m downgradient to the west of the subject site), and to east towards Rozelle Bay and White Bay.

The subject site topography ranges between 20 m Australian Height Datum (m AHD) in the west, up to 24 m AHD in the Western Grandstand area and 22 m AHD towards the playing field in the centre of Oval. The Oval is elevated above adjacent land to the north, east and west.

5.2 Site geology

Reference to the Sydney 1:100 000 Geological Series Sheet (Wilson, 1983) indicates that the subject site is underlain by Hawkesbury Sandstone of Triassic age, comprising medium to coarse-grained quartz sandstone with minor shale lenses. Hawkesbury Sandstone typically is pale to mid grey in colour, when fresh, and has both massive and cross bedded units with strength properties mainly

in the medium to high strength range. The rock is prone to weathering with red brown or brown iron staining common in the upper beds.

5.3 Soil Landscape

Reference to the Sydney 1:100,000 Soils Landscape Sheet indicates that bedrock at the development site is predominantly overlain by the Gymea erosional landscape, typically comprising undulating to rolling rises and low hills on Hawkesbury Sandstone. These areas generally contain shallow to moderately deep clay and sandy soils. The Blacktown (bt) residual landscape occurs in the southern portion of the subjcet site, while the Hawkesbury (ha) colluvial landscape bounds the subject site to the north and east.

Fieldwork results indicated that filling is present across much of the development site, with a thin layer of natural clayey sand occurring between the fill and bedrock at several borehole locations.

5.4 Acid sulfate soils

Reference to the 1:25,000 Acid Sulfate Soils (ASS) Risk map indicates that the subject site is within an area mapped as no known occurrence of acid sulfate soils. The nearest mapped 'high probability of occurrence' of ASS is within the sediments of Iron Cove, which is approximately 200 m north and west of the subject site, with an area adjacent to the Cove and approximately 20 m northeast to the subject site mapped as being disturbed terrain of unknown risk.

Reference to ASS Map Sheet ASS_004 of the Inner West Local Environmental Plan (LEP) 2022 indicated that the suject site is mapped as Class 5. The map is included in Appendix C1.

According to the LEP 2022, for class 5 land, development consent is required for the carrying out of works within 500m of adjacent Class 1, 2, 3 or 4 land that is below 5 m Australian Height Datum and by which the water table is likely to be lowered below 1m Australian Height Datum on adjacent Class 1, 2, 3 or 4 land. The proposed development is not expected to lower groundwater, and as such does not appear to trigger the LEP 2022 ASS clause.

Based on the above and given the subject site's topography (above 20 m AHD), the absence of bulk excavation or dewatering for the proposed development, and no signs of ASS was observed during the drilling process (as reported herein), further ASS assessment is not considered warranted.

5.5 Surface water and groundwater

The closest water body is Iron Cove, located approximately 170 m downgradient (west) of the subject site. Surface water runoff from the subject site is expected to follow the general regional topography, flows to the local stormwater system, or into the unpaved ground.

The groundwater is anticipated to follow the regional topography and flow to the Iron Cove.

A search of the publicly available registered groundwater bore database indicated that there are three registered groundwater bores within 1 km of the subject site. Information from these bores is summarised in Table 2, with further details included in Appendix C2.

Table 2: Summary of available information from nearby registered groundwater bores

Bore ID	Authorised purpose	Completion year	Status	Location relative to site	Final depth (m)	Standing water level (m bgl)
GW111653	Monitoring bore	2011	Equipped	680 m southwest downgradient	2.4	-
GW111654	Monitoring bore	2011	Equipped	640 m southeast downgradient	3	
GW111663	Monitoring bore	2011	Equipped	675 m south downgradient	4	-

The three registered bores are located near Leichhardt North Light Rail corridor, which is downgradient of the subject site. As shown in Table 2, these registered groundwater bores were used for monitoring purposes. Based on the distance and location of the wells relative to the subject site, they are not considered to indicate a potential source of contamination to the subject site, or receptor of contamination from the site.

Given the local geology (i.e. Hawkesbury Sandstone), the groundwater in the fractured rock beneath the subject site is anticipated to be relatively fresh. Accordingly, potential beneficial uses could include irrigation, although the future use of the groundwater for these purposes in the vicinity of the subject site is considered unlikely given the urban setting. It is understood that there is no access to or use of groundwater by the council within the subject site or in general Leichhardt Park area.

6. Site history

6.1 Historical aerial photographs

Several historical aerial photographs were obtained from public databases. Extracts of the aerial photographs are included in Appendix C3. A summary of key features observed for the subject site and surrounding land is summarised as below, along with reference to other information sources reviewed herein where relevant to understanding the photographs:

- 1930 - 1955: A search of the history of the Leichhardt Oval indicated that the Oval was first used as a rugby league ground in 19341. The shape of the Oval can be observed in 1930 aerial. The subject site appeared to form part of the Oval, functioning as a playground area, open space, amenity or driveway in the 1943 aerial. The land to the west and north of the subject site appeared to be under development. The land to the south appeared to be residential area. The land to the east of the Oval appeared to be largely open parkland with some institutional style buildings (consistent with the former Rozelle Hospital use) with many of the structures / layouts generally consistent with the 2025 aerial photograph.

[1] https://www.innerwest.nsw.gov.au/explore/parks-sport-and-recreation/sporting-grounds/leichhardt-oval, date accessed 11 September 2025

- 1955 – 1970: The Oval was further developed and expanding towards the north and west. One structure (possible amenity building) was constructed within the current proposed new Northern Grandstand area. The current Leichhardt Park Aquatic Centre to the north of the subject site was observed from the 1961 aerial. Possible commercial buildings were observed to have been constructed to the west of the Oval (on the shore of Iron Cove) by 1961 and demolished prior to 1965.
- 1970 – 1986: Major development of the Oval appeared to have been occurred between 1970 and 1982. A search of the history of the Leichhardt Oval[2] indicated the ground underwent a series of major changes in 1970s, including the installation of better lighting and repositioning of the field to run from north-to-south rather than east-to-west. The layout of the field in 1982 aerial photograph appeared to be consistent with the 2025 aerial. The eastern portion of the Western Grandstand was present in 1982. No significant changes were observed to the south and east of the site. The land to the north of the subject site (with the exception of the Aquatic Centre) appeared to be open space during this period.
- 1986 – 2011: No significant changes were observed to the Oval during 1986 to 2004. The current investigated area as part of the Western Grandstand had been constructed by 2011. No significant changes were observed to the surrounding area with the exception of the land to the immediate west of the oval appeared to be used as a car park (from at least 1986), and was refurbished with asphalt hardstand by 2004. The current LPAC Gym to the northwest of the Oval appeared to be constructed during 2009 to 2011.
- 2011 – 2025: No significant changes were observed to the Oval during this period. No significant changes were observed to the land to the south and east of the site. The land to the west and north appeared to be under gradual development between 2011 and 2024 including the construction of the Leichhardt Oval Number 2 to the north of the Oval, the Leichhardt Park Early Learning Centre to the southwest of the site, the footpath, carparking along the cove, and recreation related facilities.

6.2 **Public registers and planning records**

EPA Notices available under Section 58 of the Contaminated Land Management Act (CLM Act) Database searched 10 September 2025	There were no records of notices for the subject site or adjacent properties within 500 m of the site.
Sites notified to EPA under Section 60 of the CLM Act Database searched 10 September 2025	The subject site and adjacent properties within 500 m of the subject site were not listed as a notified contaminated site.

Licences listed under Section 308 of the Protection of the Environment Operations Act 1997 (POEO Act) Database searched 10 September 2025	There were no records issued for the subject site or adjacent properties.
PFAS Investigation Sites listed on the EPA website Database searched 10 September 2025	The subject site was not listed or adjacent to a site listed under: • NSW EPA PFAS Investigation Program; • Defence PFAS Investigation Program; • Defence PFAS Management Program; and • Airservices Australia National PFAS Management Program.

6.3 **Council Records**

Douglas was advised by the Council that a record search was conducted by the council in response to an informal application under the Government Information Public Access (GIPA) Act. Douglas did not conduct the GIPA search but only reviewed the results provided by the Council.

The search did not identify any contamination investigation reports related to the subject site. The Stage 3 Statement of Environment Effects did not note any known geotechnical, industrial contamination or natural hazards.

The Building Application (BA) card dating back to the 1969 was also provided by the Council. No contamination related activities were identified through the BA card with the exception of one application related to the construction of fuel storage shed and fencing (date: 11 December 1992). The shed was intended for the storage of a steel cabinet containing flammable chemicals. A site plan (240-A2) for the fuel storage shed, provided by Council and included in Appendix C4, indicated that the fuel storage area was located outside the subject site.

The site walkover by Douglas on 26 August 2025 did not identify evidence of bulk liquid or other chemical storage / handling within or adjacent to the subject site.

The records provided by the Council were included in Appendix C4.

6.4 **Site history integrity assessment**

The information used to establish the history of the subject site was sourced from reputable and reliable reference documents, many of which were official records held by Government departments / agencies. The databases maintained by various Government agencies potentially can contain high quality information, but some of these do not contain any data at all.

In particular, aerial photographs can provide high quality information that is generally independent of memory or documentation. They are only available at intervals of several years, so some gaps exist in the information from this source. The observed site features are open to different interpretations and can be affected by the time of day and/or year at which they were

taken, as well as specific events, such as flooding. Care has been taken to consider different possible interpretations of aerial photographs and to consider them in conjunction with other lines of evidence.

6.5 Summary of site history

The site history information suggests that the subject site has been part of Leichhardt Oval since 1934. The Oval was gradually developed since 1943, with ground undergoing a series of major changes in the 1970s, including the installation of better lighting and repositioning of the field to run from north-to-south rather than east-to-west. The subject site has historically been used as part of the Oval ground area, amenities, and open space, driveway, seating bowl area, and part of the Western Grandstand from 2011.

7. Site walkover

A site walkover was undertaken by an environmental scientist on 26 August 2025. The general site topography was consistent with that described in Section 5.1. The site layout appears to have remained unchanged from the 2011 aerial photograph. The following key site features pertinent to this investigation were observed (also refer to photographs in Appendix D).

- Potential ACM was not observed at the ground surface during the site walkover;
- No evidence of possible underground storage tank (UST) was observed;
- No evidence of bulk liquid or other chemical storage / handling was observed;
- The area proposed for the new Northern Grandstand comprised an elevated area above the sitting bowls of the Oval, and off-site areas to the north. The area comprised a concrete footpath on the southern side and an elevated grass area on the northern side with a concrete retaining wall between these two features (refer to photograph 1 and 2);
- The existing north amenity building contained male and female toilets located between the seating bowls. The structure was observed to have concrete walls and a concrete slab in fair condition (refer to photograph 3 to 6);
- The proposed new seating bowl plate area was being used as an accessible platform seating area with an asphalt paved hardstand (refer to photograph 7 and 8); and
- The proposed Western Grandstand players amenities area were at-grade car park with roof cover, and storage area. The area was observed to be asphalt / concrete paved hardstand and in fair condition (refer to photograph 9 to 12).

The adjacent properties were also observed during the walkover and no readily discernible high-risk activities were observed.

8. Long term environmental management plan (LTEMP)

The following previous report relevant to the current investigation was available for review:

- CONSARA Pty Ltd (2025), *Long-Term Environmental Management Plan for Parks and Playgrounds, prepared for Inner West Council 7-5 Wetherill Street, Leichhardt NSW*, reference: C191011_LTEMP_29 OCT2025 (CONSARA, 2025)(the LTEMP).

The LTEMP outline the requirements for managing potential risks to human health associated with the presence, or potential presence, of contamination in fill materials used to establish parts of Council's parks, playgrounds, and other open space/recreational areas, including Leichhardt Oval.

Due to the size of the Council area and the large number of parks, playgrounds, and recreational spaces owned and/or operated by Council, the LTEMP notes that it is neither practicable nor feasible to complete comprehensive assessments of all fill materials. However, the LTEMP notes that typical contaminants in these areas can include heavy metals (particularly lead, historically used in paint, pipes, and solder), polycyclic aromatic hydrocarbons (PAH) generated from the partial burning of coal and coke, and heavy petroleum products resulting from the use of oils, fuels, and lubricants. Asbestos-containing materials (ACM) was also noted as potentially present as fragments, particularly where demolition-type materials such as brick, clay pipes, and glass are found.

The LTEMP sets out the control measures and procedures to be implemented by Council to ensure the health and safety of users of the parks, playgrounds, and open space / recreational areas, including both the public and maintenance or construction workers, are protected.

The LTEMP relies on the presence and integrity of existing surface covering across the Council areas to provide an effective physical barrier or cap between the users of these areas and the underlying contained and retained contaminated / potentially contaminated fill materials. The LTEMP was prepared to ensure that:

- The surface coverings present across the councils' areas are maintained to ensure that users are not exposed to potentially contaminated soils located beneath these surface coverings; and;
- Works that require disturbance of surface coverings are undertaken in a manner that protects the health of the workers, users of these areas being the local community and general public and any Council Staff, contractors or workers.

The principal elements of the LTEMP are to:

- Describe appropriate surface coverings and detail the measures to be undertaken to ensure the integrity of these surface coverings;
- Assign responsibilities for implementation of the LTEMP;
- Protect the health of users of these areas by ensuring maintenance of the surface coverings to prevent exposure to contaminants that may be present in the sub-surface environment; and
- Protect the health of maintenance workers if the surface coverings are disturbed by works.

The LTEMP is required to be implemented by Council on an ongoing and continual basis (in perpetuity) to ensure that the parks, playgrounds and other open space / recreational areas within the Council area remain suitable for open space and recreational land use.

It is understood that all maintenance or construction works within the Councils' park, playgrounds and other open space / recreational area need to follow the LTEMP to ensure that the area remains suitable for open space and recreational use.

9. Potential contamination sources

Based on the current investigation, the following potential sources of contamination and associated contaminants of potential concern (CoPC) have been identified and summarised in Table 3.

Table 3: Summary of potential contamination risks

Potential sources and associated CoPC
On-site sources
S1: Fill: Associated with historically uncontrolled filling used to build the Oval and historical construction activities CoPC: metals, PFAS, TRH, BTEX, PAH, PCB, OCP, OPP, phenols, asbestos and landfill gas (LFG) Potential impacted media: soil, soil vapour, air in enclosed structures, groundwater **S2:** Existing buildings CoPC: asbestos, synthetic mineral fibres (SMF), lead (in paint) and PCB Potential impacted media: building materials, adjacent surface soils
Off-site sources
S3: Off-site fill: Associated with historically uncontrolled filling to the west and north of the subject site CoPC: metals, PFAS, TRH, BTEX, PAH, PCB, OCP, OPP, phenols and LFG Potential impacted media: soil vapour, air in enclosed structures, groundwater

10. Sampling and analysis plan

10.1 Data quality objectives

The investigation was devised with reference to the seven-step data quality objectives (DQO) process which is provided in Appendix B Schedule B2, NEPC (2013). The DQO process is outlined in Appendix E.

10.2 Soil sampling and analysis rationale

A judgemental sampling strategy to determine borehole locations was adopted. Locations were placed to target the proposed development area where soil disturbance is likely to occur during the construction phase. Borehole locations are shown on Drawing R.001.D.01, in Appendix A. The rationale for the borehole's locations is summarised as below.

BH1 to BH3	Targeted Western Grandstand Amenities
BH101a, BH102a, BH103	Opportunistically sampling from Geotechnical investigation boreholes, with BH101a and BH102a targeted proposed new Northern Grandstand, and BH103 targeted the proposed extension area (potentially deep piling area)
BH6a	Targeted proposed new Northern Grandstand

BH101, BH102 and BH6	Targeted soft stand area within the Northern Grandstand for the asbestos assessment
BH4	Targeted proposed new seating bowl
BH5	Targeted the Northern Grandstand amenity that to be demolished

Soil samples were collected from each borehole at depths of approximately 0.1 m and every half meter thereafter, and changes in lithology or signs of contamination. A bulk sample (~ 10 L or less depending on the soil recovery) was collected from each contamination investigation purpose boreholes for the potential asbestos assessment.

The general sampling methods are described in the field work methodology in Appendix F.

Samples were selected for analysis based upon field observations and PID screening results, and to provide lateral and vertical coverage of the subject site. The selected samples were analysed for the CoPC in the CSM and for physical parameters, cation exchange capacity (CEC) and pH.

10.3 LFG Screening

10.3.1 Surface LFG

Surface LFG screening was conducted by performing a grid-based walkover within the existing enclosed area (e.g. amenities areas) and above open boreholes during drilling to assess the presence of LFG accumulated in current structures.

The surface gas survey included the following areas with a focus on rooms and opened investigation boreholes:

- Within Western Grandstand Amenities building;
- Opened investigation boreholes BH1, BH101, BH6, BH5, BH102a, and BH102; and
- Existing northern amenity.

The general screening methods are described in the field work methodology in Appendix F.

10.3.2 Gas well

Two gas wells BH2 and BH6a were installed for the LFG Screening as below:

BH2	Targeted Western Grandstand Amenities
Bh6a	Targeted the proposed new Northern Grandstand

The LFG screening was also opportunistically conducted from the two groundwater wells (BH102a and BH103) installed as part of the geotechnical investigation.

LFG screening was conducted using a portable landfill gas metre to analyse gas flow rates and concentrations of general gases including CH4, CO_2, CO, O_2 and H_2S.

The general sampling methods are described in the field work methodology in Appendix F.

10.4 Groundwater sampling and analysis rationale

In order to assess the current groundwater contamination status at the subject site and evaluate whether historical / current / off-site land uses have impacted on groundwater, groundwater samples were opportunistically sampled from the two groundwater wells (BH102a and BH103) installed for geotechnical purpose to provide a preliminary understanding of the groundwater conditions at the subject site.

The locations were selected based on the following rationale:

- BH102a was positioned hydraulically up-gradient of the subject site to provide data on the concentration of contaminants in groundwater entering the subject site; and
- BH103 was positioned hydraulically down-gradient of the subject site to provide data on the concentration of contaminants in groundwater within the subject site.

The general sampling methods are described in the field work methodology in Appendix F.

All samples were analysed for the applicable identified CoPC (refer to Section 9).

11. Site assessment criteria

The site assessment criteria (SAC) applied in the current investigation are informed by the LTEMP (Section 8) which identified the need to manage potential contamination during minor and major construction works to ensure that the health of the users of the Oval including the public and maintenance or construction works are protected and the subject site is suitable for the ongoing recreational open space use.

Analytical results are assessed (as a Tier 1 assessment) against the SAC comprising primarily the investigation and screening levels of Schedule B1 of NEPC (2013). The derivation of the SAC is in Appendix G, and the adopted SAC are listed on the summary analytical results tables in Appendix H1 and H2.

The investigation and screening levels applied in the current investigation comprise levels adopted for:

- Construction and maintenance workers, based on generic intrusive maintenance worker and commercial land use scenarios. It is noted that other than for TRH and BTEX, these SAC are based on 'standard' commercial use, which is likely to underestimate the soil contact relative to some construction and intrusive maintenance workers; and
- Ongoing use (to inform capping requirements): a generic recreational land use scenario, with commercial land use scenario parameters adopted for potential vapour intrusion into buildings. SAC for ecological criteria were also referenced to inform management requirements.

12. Results

12.1 Field work results

12.1.1 Soil

The borehole logs for this assessment are provided in Appendix I. The logs recorded the following general sub-surface profile:

Asphalt / concrete hardstand:	In all boreholes with the exception of BH101, BH102 and BH06 to depths of between 0.05 m and 0.3 m below ground level (bgl).
Fill:	At all locations beneath the concrete and asphalt, to depths in the range of 0.3 m bgl (termination depth of shallow boreholes, terminated in fill) and 8.6 m bgl. The fill generally comprises variably compacted material comprised sandy, silty, and clayey materials containing gravel and cobbles, with frequent inclusions of building rubble (i.e. brick, tile, ceramic, glass, concrete fragments, metal and charcoal); over
Residual:	Clayey sand encountered in BH102a and BH103, at depths of 8.76 m and 5.75 m, respectively; over
Mittagong Formation:	Encountered in BH103 only, extending to a depth of approximately 6.35 m, comprising generally thinly laminated, distinctly bedded with clay-infilled defects; over
Hawkesbury Sandstone:	Generally medium strength (or stronger sandstone), predominantly moderately weathered, then slightly weathered to fresh, with occasional clay seams, carbonaceous laminations and clay seams. The Hawkesbury Sandstone extended to the base of all cored boreholes.

BH02 did not recover soils below apparent sheet metal encountered at around 3 – 4 m, indicative of potential voids in BH02. Two more boreholes were drilled approximately 0.5 m away from BH02 directly to the same depth to confirm the presence of the void. No soil recovery from 3-4 m in both additional boreholes drilled, considered to be indicative of potential voids in this area near BH02. BH06A encountered asbestos containing material (apparent rope) at depth.

No asbestos was visually observed while conducting the field asbestos sieving. The field record was included in Appendix J.

The PID screening recorded values of less than 1 ppm suggesting the general absence, or very low concentrations, of VOC in the samples screened.

12.1.2 Groundwater

Groundwater was measured at 8.6 m in both BH101a and BH102a, at the completion of auger drilling. No free groundwater was encountered during auger drilling through the soil profile of the remaining boreholes. It should be noted that groundwater levels are affected by climatic conditions and soil permeability and will therefore vary with time.

Groundwater levels were gauged on 27 August 2025 (BH102a) and 28 August 2025 (BH103) using an electronic oil / water interface meter prior to developing the wells and again on 2 September 2025 prior to sampling. The measured water levels prior to sampling are shown in Table 4.

Table 4: Summary of groundwater level measurements on 2 September 2025

Well ID	Location of monitoring well	Ground level * m (AHD)	SWL m (bgl)	SWL m (AHD)
BH102a	up-gradient	23.4	10.06	13.34
BH103	down-gradient	22.2	5.54	16.54

Notes:
*Surveyed by dGPS
AHD – Australian Height Datum
SWL – standing water level
bgl – below ground level

The stabilised groundwater field parameters recorded prior to sampling are shown on the groundwater field sheets provided in Appendix J and summarised below.

One surface water sample (SW1) was also collected from the excepted receiving water body Iron Cove to assess the pH and hardness to inform the SAC.

Physical parameters were measured whilst sampling (where possible) and are summarised in Table 5.

Table 5: Summary of field parameters (groundwater and surface water)

Well / Sample ID	Temp. (°C)	DO (mg/L)	Turbidity (NTU)	EC (µS/cm)	pH	Redox (mV)
BH102a	18.9	0.12	397	394.2	4.3	213.6
BH103	19.7	0.68	188	761	5.04	159.2
SW1	15.5	7.62	500.56	35401	7.54	194.6

The field parameter of the groundwater indicated that:

- The dissolved oxygen levels indicated generally anaerobic conditions. The pH was slightly acidic. The electrical conductivity values are typical of fresh water. Redox potential (Eh) indicates slightly oxidising conditions.

The field parameter of the surface water indicated a typical marine water condition with approximately neutral pH.

No light non-aqueous phase liquid (LNAPL) was observed whilst sampling.

12.1.3 Landfill gas

Surface gas screening

The results of the surface gas screening are summarised in Table 6 below.

Table 6: Summary of surface gas screening results

Date	Area assessed	Weather conditions	Methane range of results (ppm)
26 August 2025	Within Western Grandstand Amenities building	Sunny The Bureau of Meteorology (BoM) station's recorded air pressure readings at 9am then 3pm of 1017.1 mb then 1010.0 mb at Observatory Hill (included in Appendix K)	Between 1.4-1.8
	Above the open boreholes (BH1, BH101, BH6, BH5, BH102a, and BH102)		Between 1.4 to 2.3
	Existing northern amenity and proposed Northern Grandstand		Between 1.3 to 1.7

Landfill gas screening from wells

Landfill gas screening from four wells including two gas wells (BH2 and BH6a) and two groundwater wells (BH102a and BH103) was undertaken on 2 September 2025. The recorded atmospheric pressures during the screening event were consistent at 1022 mb. The Bureau of Meteorology (BoM) station's recorded air pressure readings at 9am then 3pm of 1024.5 mb then 1020.2 mb at Observatory Hill indicated generally falling air pressure throughout the day.

Measured flowrates were zero for all wells screened. No methane or H_2S were detected. Carbon dioxide (CO_2) up to 4.9% was detected in BH6a. Carbon monoxide (CO) up to 42% was detected in BH103 at the starting of the screening and dropped to 11% at the completion of the screening.

Results of the landfill gas screening are attached in the field sheets in Appendix J and summarised on Table H5, Appendix H.

12.2 Laboratory analytical results

The results of laboratory analysis are summarised in the following tables in Appendix H:

- Table H1: Summary of results of soil analysis – SAC for construction and maintenance workers;
- Table H2: Summary of results of soil analysis – SAC for generic recreational land use;

- Table H3: PAH footprint analysis input and output;
- Table H4: Summary of results of waste classification analysis;
- Table H5: Summary of results of water analysis; and
- Table H6: Summary of LFG screening results

The laboratory certificates of analysis together with the chain of custody and sample receipt information are provided in Appendix L.

12.3 Data quality assurance and quality control

The data quality assurance and quality control (QA / QC) results are provided in Appendix M. Based on the results of the field QA and field and laboratory QC, and evaluation against the data quality indicators (DQI) it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.

13. Comments

13.1 General

This is a factual report, and the comments note the results of a factual screen of the results against the 'Tier 1' guidelines criteria. An exceedance of the Teir 1 criteria does not mean that there is an unacceptable risk, but rather a need for further consideration of the potential risk. Assessment of the significance of the exceedances is beyond the scope of this report. Other reports have been prepared by Douglas which assess the implications of the results for the construction stage management and site suitability.

13.2 Soils

13.2.1 Chemical contaminants – Construction guidance

The concentration of BTEX, VOC, phenols, OCP, OPP and PCB in all samples tested were below the laboratory practical quantitation limit (PQL).

The recorded concentrations of all chemical contaminant in the samples tested were below the adopted SAC for construction and maintenance workers.

As noted above that other than for TRH and BTEX, these SAC are based on passive commercial use, which is likely to underestimate the soil contact relative to some construction and intrusive maintenance workers.

13.2.2 Chemical contaminants – Generic recreational land use scenario

The concentrations of cooper, zinc, B(a)P, TRH- F3 (>C16-C34) were recorded above the SAC for generic recreational land use in number of samples summarised as Table 7 below.

Table 7: Summary of exceedances

Contaminant	Criteria Exceeded (mg/kg)	No of exceedances	Maximum concentration recorded (mg/kg)
Health based exceedance			
PAH - B(a)P TEQ	3 (HIL-C)	9	32
Ecological based exceedance			
Copper	210 (EIL)	1	660
Zinc	510 (EIL)	4	770
PAH - B(a)P	0.7 (ESL)	14	20
TRH - TRH- F3 (>C16-C34)	300 (ESL)	6	2500

Notes:
HIL-C: health investigation level (for ongoing recreational use)
EIL: ecological investigation level (for ongoing recreational use)
ESL: ecological screening level (for ongoing recreational use)

The following is noted regarding the above ecological criteria exceedances:

- The significance of the ecological exceedances should be assessed as part of the assessment of site suitability. It is noted that the ecological thresholds are only applicable to the upper 2 metres of soil in the (post development) soil profile.
- PAH fingerprint analysis was conducted on PAH results for all fill samples. The results indicated that the source of the PAH was possibly related to ash and coke, with one method also recording a reasonable fit for petroleum product profile. The low leachability of PAH (based on the TCLP testing, as summarised in Table H4, Appendix H) in samples tested also suggest that ash is the possible source of the PAH. The input data and output for the analysis in included in Appendix H3;
- The B(a)P ESL is a low reliability value. All results were within higher reliability screening levels published in CRC CARE Risk-based Management and Remediation Guidance for Benzo(a)pyrene (CRC CARE, 2017). The high reliability value of 33 mg/kg (or ranging from 21 mg/kg to 135 mg/kg) for fresh B(a)P for urban residential and public open space use;
- For the TRH, silica gel clean-up testing, which aims to remove natural organic interference and provide a better assessment of petroleum hydrocarbon related compounds, was conducted on three selected 'worst case' samples (BH101a/5.2-5.5, BH102a/4-4.1 and BH3/0.05-0.15) with TRH F3 (>C16-C34) exceedance. Following silica gel clean up, the concentration still exceeded the adopted SAC; and
- For the TRH, the chromatograms of these three samples (BH101a/5.2-5.5, BH102a/4-4.1 and BH3/0.05-0.15) were also requested from the laboratory and compared to the Hydrocarbon Reference Library provided by the laboratory. The chromatogram of sample BH101a/5.2-5.5 and BH102a/4-4.1 indicated a potential match of asphalt product. The chromatogram of

sample BH3/0.05-0.15 did not clearly correlated to any of the products in the reference library. The laboratory noted the soil potentially contains a mixture of two heavier products like an oil or grease. The chromatogram and an extract of the Hydrocarbon Reference Library are included in Appendix I.

13.2.3 Asbestos

Asbestos was detected by laboratory analysis in the following samples (note: no asbestos HSL has been provided for construction and maintenance workers, and any detection should trigger consideration of the need for appropriate WHS controls.):

- Fibrous chrysotile asbestos in sample BH101a/0.5-0.7 at concentration of 0.0132% w/w. This exceeded the adopted SAC for recreational land use of 0.001% w/w;
- Bonded chrysotile, amosite, and crocidolite asbestos in the form of fibre cement material > 7mm in sample BH101a/5.2-5.5 at 1.0317g;
- Bonded chrysotile asbestos was recorded in sample BH101a/6.5-7 within the 40g soil sample tested;
- Fibrous chrysotile asbestos was recorded in sample BH101a/8.2-8.5 within the 40g soil sample tested;
- Fibrous chrysotile asbestos in sample BH102a/4-4.1 at concentration of 0.0041% w/w. This exceeded the adopted SAC for recreational land use of 0.001% w/w;
- Fibrous chrysotile asbestos in sample BH01/0.2-0.4 at concentration of 0.0031% w/w. This exceeded the adopted SAC for recreational land use of 0.001% w/w; and
- Fibrous chrysotile asbestos in sample BH06a/5.8-6 at concentration of 12.0559% w/w. This exceeded the adopted SAC for recreational land use of 0.001% w/w.

Building debris including brick, tile, ceramic, glass, concrete fragments and metal were recorded in fill at most borehole locations. As asbestos contamination is often associated with building debris, and small diameter boreholes are not efficient sampling at detecting asbestos, there is considered to be a high potential for undetected asbestos to be present at other locations in the fill.

13.2.4 Acid sulfate soil

The Acid Sulfate Management Advisory Committee (ASSMAC) prepared an Acid Sulfate Soil Manual (1998) which includes guidelines for assessing Actual Acid Sulfate Soils (AASS) and Potential Acid Sulfate Soils (PASS).

One ASS check sample was collected from BH101a/8.2-8.5 where natural soil was encountered near the water for the ASS screening test. The soil was recorded as dark brown and pale grey clayey sand. No odour of ASS was noticed.

Based on the screening results with pH_F at 7.7 and pH_{FOX} at 6.7, the following is noted:

- The pHF value were above pH 4 indicating that prior oxidisation was less likely;
- The pHFOX value was above pH 3 and indicating that potential ASS (PASS) was less likely; and
- The change in pH was at threshold 1 between pHF and pHFOX values.

The above results were not considered to be indicative of the potential presence of ASS, which is consistent with the ASS mapping, and as such quantitative ASS testing was not conducted.

Reaction rates in the sample tested was volcanic.

13.2.5 Comments on waste classification

The following Table 8 presents a preliminary assessment of the results based on the six-step procedure outlined in NSW EPA (2014) for determining the type of waste and the waste classification. This process applies to the fill (including surface soils) at the subject site, which do not meet the definition of virgin excavated natural material (VENM).

Table 8: Six step classification procedure

Step	Comments	Rationale
1. Is the waste special waste?	Yes	Asbestos was detected by the analytical laboratory in sample BH101a/0.5-0.7, BH101a/5.2-5.5, BH101a/6.5-7, BH101a/8.2-8.5, BH102a/4-4.1, BH1/0.2-0.4, BH6a/5.8-6. The result may be indicative of a wider contamination issue.
2. Is the waste liquid waste?	No	The fill comprised a soil matrix.
3. Is the waste "pre-classified"?	No	The fill is not pre-classified with reference to NSW EPA (2014).
4. Does the waste possess hazardous waste characteristics?	No	The fill was not observed to contain of considered at risk to contain explosives, gases, flammable solids, oxidising agents, organic peroxides, toxic substances, corrosive substances, coal tar, batteries, lead paint or dangerous goods containers.
5. Determining a wastes classification using chemical assessment.	Conducted	Refer to Table H4, Appendix H.
6. Is the waste putrescible or non-putrescible?	Non-putrescible	The fill does not contain materials considered to be putrescible*.

*Note: Wastes that are generally not classified as putrescible include soils, timber, garden trimmings, agricultural, forestry and crop materials, and natural fibrous organic and vegetative materials (NSW EPA, 2014).

As shown in Table H3, Appendix H, all contaminant concentrations for the analysed fill samples were below the contaminant thresholds (CT1) with the exception of the concentration of lead and B(a)P in some samples, and the total PAH in sample BH102a / 4-4.1 m. No CT1 thresholds apply for PFAS.

TCLP analyses were conducted on representative 'worst case' results for lead, PAH (including B(a)P and PFAS. In summary:

- All TCLP results were within the TCLP1 thresholds.

- All lead and PFAS results were within the available SCC1 thresholds.
- B(a)P exceeded the specific contaminant concentration (SCC) 1 threshold, but was within the SCC2 threshold in samples BH101a/0.5-0.7 at 14 mg/kg, BH101a/5.2-5.5 at 11 mg/kg, and BH102a/4-4.1 at 20 mg/kg.
- Total PAH: exceeded the SCC 1 threshold, but was within the SCC2 threshold in samples BH102a/4-4.1 at 280 mg/kg.

Asbestos was detected by laboratory analysis in sample BH101a/0.5-0.7, BH101a/5.2-5.5, BH101a/6.5-7, BH101a/8.2-8.5, BH102a/4-4.1, BH1/0.2-0.4, BH6a/5.8-6.

Based on the observations at the time of sampling and the reported analytical results, the following comments are provided:

- Fill impacted by asbestos would be classifiable as special waste (asbestos), with respect to asbestos;
- Fill with results above the SCC1 and TCLP1 thresholds, but below the SCC2 and TCLP2 thresholds generally classifies as restricted solid waste with respect to chemical contaminants. However, exceptions apply for some sources of total PAH and B(a)P[3]. The applicability of these to fill at the subject site could be assessed as part of any future waste classification; and
- Fill soils with results below the SCC1 and TCLP1 thresholds would generally classify as general solid waste with respect to chemical contaminants.

13.3 Groundwater

13.3.1 Construction workers guidance

Recreational guidance value (GV) outlined in NHMRC (2008) was used as a screening level for construction workers.

All results were below the GV, with the exception of B(a)P in sample BH103 at 0.7 µg/L and it's duplicate at 0.6 µg/L which exceeded GV of 0.1 µg/L.

The concentration of vinyl chloride was below the PQL, however, it is noted that the PQL was above than the GV.

13.3.2 Aquatic ecosystem

Results were compared against thresholds for aquatic ecosystems to inform water management during construction works (eg, considerations for disposal to stormwater) and general site suitability assessment. As discussed in Section13.1, an exceedance of a Tier 1 thresholds does not mean that there is an unacceptable risk, but rather that further assessment, including of potential exposure pathways, is required. This further assessment is beyond the scope of this report.

All results were below the SAC, with the exception of:

[3] NSW EPA (1999; 2014)

- Copper in sample BH102a at 50 µg/L, BH103 at 27 µg/L and it's duplicate at 28 µg/L which exceeded the ANZG (2018) marine water guideline (MWG) for the protection of slightly to moderately disturbed marine water aquatic ecosystems of 1.3 µg/L;
- Lead in sample BH102a at 8 µg/L which exceeded the MWG of 4.4 µg/L; and
- Zinc in sample BH102a at 260 µg/L, BH103 and it's duplicate at 150 µg/L which exceeded MWG of 8 µg/L.
- PAH exceedances including:
    - Anthracene in sample BH102a at 0.2 µg/L, BH103 at 0.8 µg/L and it's duplicate at 0.4 µg/L which exceeded MWG of 0.01 µg/L;
    - B(a)P in sample BH103 at 0.7 µg/L and it's duplicate at 0.6 µg/L which exceeded MWG of 0.1 µg/L;
    - Fluoranthene in sample BH103 at 2.9 µg/L and it's duplicate at 1.6 µg/L which exceeded MWG of 1 µg/L; and
    - Phenanthrene in sample BH102a at 0.9 µg/L, BH103 at 4.2 µg/L and it's duplicate at 1.5 µg/L which exceeded MWG of 0.6 µg/L.
- PFOS in sample BH102a at 0.0006 µg/L and BH103 at 0.012 µg/L which exceeded HEPA (2025) MWG of 0.00023 µg/L; and
- Nitrate as N in sample BH103 at 40,000 µg/L which exceeded the default guideline value for freshwater of 700 µg/L (adopted in the absence of MWG).

It is noted that the laboratory PQL of DDT and heptachlor (OCPs), chlorpyrifos and fenitrothion (OPPs) was above the adopted SAC.

The following organic compounds were also recorded above the PQL:

- VOCs including:
    - Chloroform (14 µg/L) in sample BH103 compared to the MWG of 770 µg/L;
    - Bromodichloromethane (2 µg/L) in sample BH103 (no criteria for this contaminant); and
    - Cyclohexane (2 µg/L) in sample BH102a (no criteria for this contaminant).
- TRH including:
    - TRH F2 in sample BH102a recorded at 73 µg/L, which is above the PQL;
    - TRH F1 in sample BH103 recorded at 12 µg/L and its duplicate BD01/20250902 at 13 µg/L, which is marginally above the PQL. The minor TRH F1 faction is likely correlated with the Chloroform and Bromodichloromethane detections; and
    - Whilst no MWG are available for TRH, noting the marginal level of the detection, the detection is not considered to be significant.

13.4 Landfill gas

13.4.1 Surface gas screening

The highest recorded methane concentration during surface gas screening was 2.3 ppm, well within the adopted surface gas assessment screening criteria of 100 ppm.

The BoM station's recorded air pressure readings at 9am then 3pm of 1017.1 mb then 1010.0 mb at Observatory Hill indicated a decreasing atmospheric pressure trend throughout the day. Such conditions can be conducive to elevated gas levels.

13.4.2 Gas well screening value assessment

A gas screening value (GSV) of 0.015 was calculated in accordance with NSW EPA (2020b) utilising the highest of CH_4 or CO_2 concentrations and the maximum flow rate (noting a flow of 0.3 L/hr was adopted given not bore flow was recorded).

A characteristic situation (CS) of 1 (very low risk) was assessed to apply based on the GSV of 0.015, and the maximum CH_4 / CO_2 concentrations within 1% and 5% respectively.

Measured relative borehole pressures ranged between 0.02-0.16 mbar during sampling, which indicated the atmospheric pressure was slightly lower than that measured in the monitoring wells. The recorded atmospheric pressures during the screening event were measured consistently at 1022 mb.

The Bureau of Meteorology (BoM) station's recorded air pressure readings at 9am then 3pm of 1024.5 mb then 1020.2 mb at Observatory Hill indicated generally falling air pressure throughout the day. This corresponds to a 3 hourly pressure drop of approximately 2 mbar, which is slightly less than the typical 95th percentile pressure drop recommended in NSW EPA (2022) for 'worst case' weather conditions (i.e. approximately 4 mbar). Higher falling air pressure rates can be conducive to elevated gas levels or flow rate.

13.4.3 Summary

In summary:

- No significant quantities of putrescible materials were recorded in the fill;
- The calculated characteristic situation CS of 1 is 'very low risk' in accordance with NSW EPA (2020b). CS1 results are associated with natural soils with low organic content and typical fill. CS1 does not trigger gas protection;
- No methane was detected above the limit of detection in the monitoring wells; and
- The surface gas results during the current round of monitoring within the structures were within the adopted surface gas assessment criteria.

Based on the above, it is considered that the results do not trigger a requirement for management for bulk landfill gases.

14. References

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15. Limitations

Douglas Partners Pty Ltd (Douglas) has prepared this report for this project at 68 Mary Street, Lilyfield NSW in line with Douglas' proposal dated 13/08/2025 and acceptance received from Joel Giblin of Inner West Council dated 14/08/2025. The work was carried out under Consultancy Agreement (Ref: RFQ 196-25). This report is provided for the exclusive use of Inner West Council for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of Douglas, does so entirely at its own risk and without recourse to Douglas for any loss or damage. In preparing this report Douglas has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions on the subject site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after Douglas' field testing has been completed.

Douglas' advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by Douglas in this report may be affected by undetected variations in ground conditions across the subject site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

The assessment of atypical safety hazards arising from this advice is restricted to the environmental components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. Douglas cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by Douglas. This is because this report has been written as advice and opinion rather than instructions for construction.

Asbestos has been confirmed by laboratory analysis. As such, the potential exists for asbestos to be present elsewhere at the subject site. Building demolition materials, such as brick and tile, were observed in fill, and these are considered as indicative of the possible presence of hazardous building materials (HBM), including asbestos. Although the sampling plan adopted for this investigation is considered appropriate to achieve the stated project objectives, there are necessarily parts of the subject site that have not been sampled and analysed. This is either due to undetected variations in ground conditions, parts of the subject site being inaccessible and not available for inspection / sampling, or to vegetation preventing visual inspection and reasonable access. It is therefore considered possible that HBM, including asbestos, may be

present in unobserved or untested parts of the subject site, between and beyond sampling locations, and hence no warranty can be given that asbestos is not present.

Appendix A

Drawings

SITE LOCATION

LEGEND

- Leichhardt Park Boundary
- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site Boundary

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56, adapted from aerial imagery from MetroMAP dated 16.09.2025

0 30 60 90 m

Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:3500 @A3	DATE: 12.November.2025	

TITLE: **Subject Site Location Plan**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

PROJECT:	236743.01
DRAWING No:	R.001.D.01
REVISION:	2

SITE LOCATION

LEGEND

- Leichhardt Park Boundary
- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site Boundary

Test Location Plan

- Geotechnical Borehole
- Contamination Investigation Borehole
- Gas Well
- Geotechnical Borehole / Groundwater Well

0 10 20 30 40 50 m

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56, adapted from aerial imagery from MetroMAP dated 16.09.2025
2. Test locations are approximate only and were located using differential GPS typically accurate to ± 0.1 m depending on satellite coverage

Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:1300 @A3	DATE: 12.November.2025	

TITLE: **Test Location Plan**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	R.001.D.02
REVISION:	2

Appendix B

About This Report

About this Report

November 2023

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

continued next page

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

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Appendix C

Site Information

C1: ASS Map

C2: Bore Search

C3: Historical Aerial

C4: Council Records

Inner West Local Environmental Plan 2022

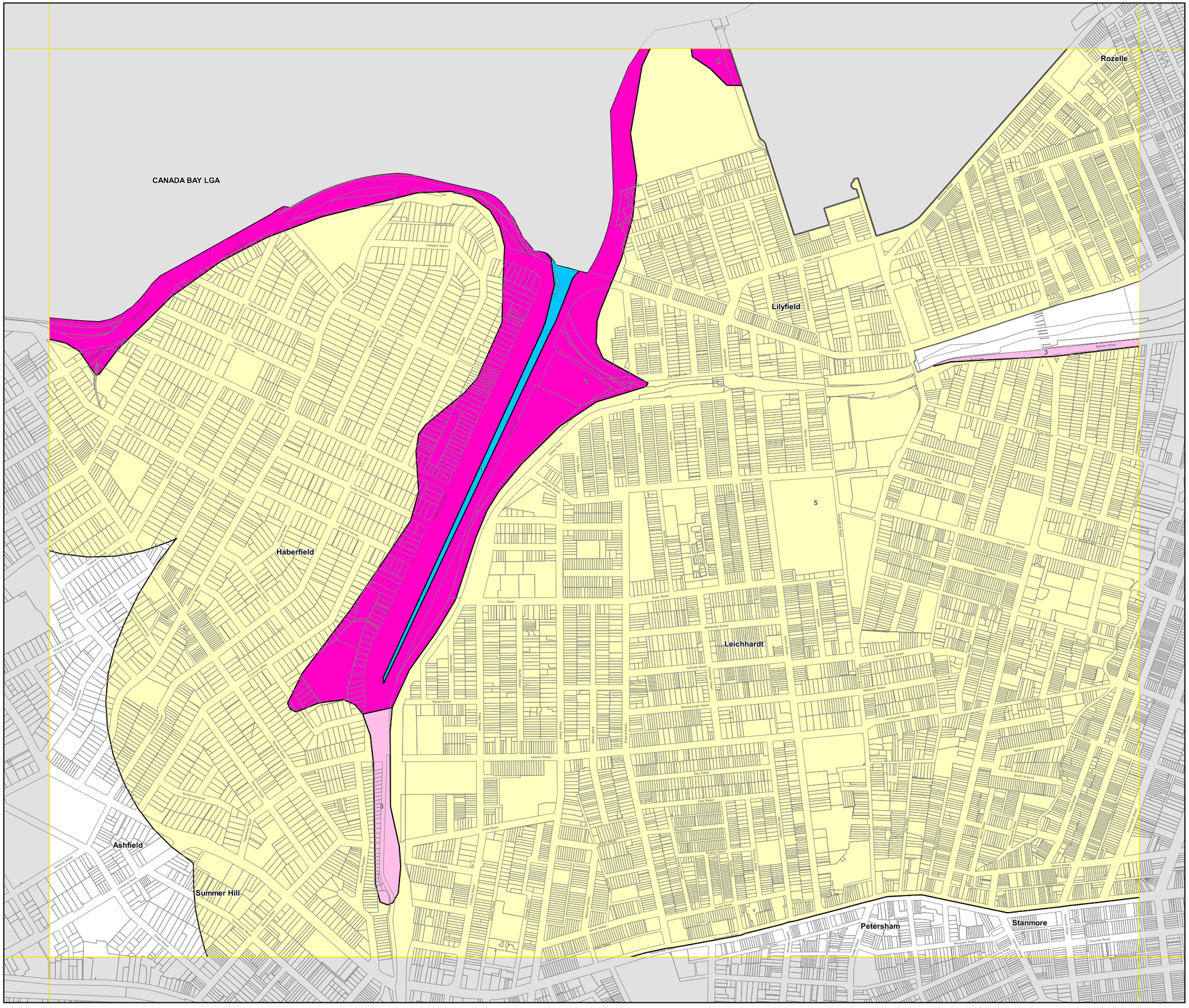
Acid Sulfate Soils Map - Sheet ASS_004

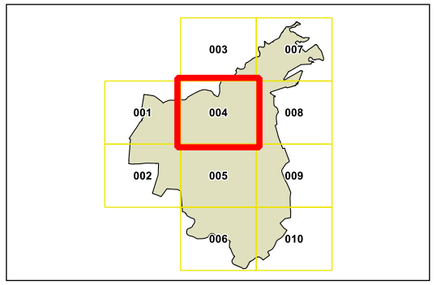
Acid Sulfate Soils

- 1 Class 1
- 2 Class 2
- 3 Class 3
- 4 Class 4
- 5 Class 5

Cadastre

Cadastre 14/04/2022 © Spatial Services





N

0 100 200 300 400

Metres

Projection GDA 1994
MGA Zone 56

Scale: 1:10,000 @ A3

Map identification number: 4170_COM_ASS_004_010_20220414

WaterNSW
Work Summary

GW111653

Licence: 10BL605002
Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method: Auger - Solid
Owner Type: Other Govt

Commenced Date:
Completion Date: 09/11/2011
Final Depth: 2.40 m
Drilled Depth: 2.50 m

Contractor Name: (None)
Driller: Wayne Betts
Assistant Driller:

Property: RAIL CORPORATION Railway Land Darley Rd LILYFIELD 2040 NSW
GWMA: -
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	PETERSHAM	42/9/2279
Licensed:	CUMBERLAND	PETERSHAM	Whole Lot 42/9/2279

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250135.000
Easting: 329146.000
Latitude: 33°52'31.1"S
Longitude: 151°09'09.7"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

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

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	2.40	50			Auger - Solid Flight
1		Annulus	Waterworn/Rounded	0.50	2.40				Graded
1	1	Casing	Pvc Class 18	1.00	2.40	40			Seated on Bottom

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
1.80	2.40	0.60	Unknown						

Drillers Log

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

0.00	0.10	0.10	GRAVEL,SAND,CLAY	Gravel	
0.10	0.40	0.30	FILL CLAYEY SAND,ORANGE,WHITE,PINK,SANDSTONE	Fill	
0.40	0.90	0.50	SAND CLAYEY,BROWN,GRAINED GRAVELS	Clayey Sand	
0.90	1.50	0.60	SAND ORANGE,M/GRAINED DRY	Sand	
1.50	1.80	0.30	BECOMING MOIST	Sand	
1.80	2.50	0.70	SAND GREY MOIST TO WET,HARD SANDSTONE	Sand	

***** End of GW111653 *****

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

WaterNSW
Work Summary

GW111654

Licence: 10BL605000
Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Other Govt

Commenced Date:
Completion Date: 09/11/2011
Final Depth: 3.00 m
Drilled Depth: 3.00 m

Contractor Name: Macquarie Drilling
Driller: Wayne Betts
Assistant Driller:

Property: RAIL CORPORATION Railway Land 7 Darley Rd LILYFIELD 2040 NSW
GWMA: -
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	PETERSHAM	4//1014318
Licensed:	CUMBERLAND	PETERSHAM	Whole Lot 4//1014318

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250163.000
Easting: 329345.000
Latitude: 33°52'30.3"S
Longitude: 151°09'17.5"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

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

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	3.00	50			Unknown
1		Annulus	Waterworn/Rounded	0.50	3.00				Graded
1	1	Casing	Pvc Class 18	1.00	3.00	40			Seated on Bottom, Welded - Collar

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
1.80	3.00	1.20	Unknown						

Drillers Log

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

0.00	0.10	0.10	FILL,SANDY GRAVELLY CLAY,BROWN	Fill	
0.10	0.85	0.75	FILL,SAND, PALE BROWN,GRAVELS,SANDSTONES	Fill	
0.85	1.10	0.25	SANDSTONE WEATHERED,ORANGE,BROWN	Sandstone	
1.10	3.00	1.90	SANDSTONE WHITE POWDERY	Sandstone	

***** End of GW111654 *****

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

WaterNSW
Work Summary

GW111663

Licence: 10BL605001
Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method: Auger - Solid
Owner Type: Other Govt

Commenced Date:
Completion Date: 09/11/2011
Final Depth: 4.00 m
Drilled Depth: 4.00 m

Contractor Name: Macquarie Drilling
Driller: Wayne Betts
Assistant Driller:

Property: RAIL CORPORATION Railway Land Walter St LILYFIELD 2040 NSW
GWMA: -
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	PETERSHAM	39/7/1162
Licensed:	CUMBERLAND	PETERSHAM	Whole Lot 39/7/1162

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250138.000
Easting: 329182.000
Latitude: 33°52'31.0"S
Longitude: 151°09'11.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

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

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	4.00	50			Auger - Solid Flight
1		Annulus	Waterworn/Rounded	1.20	4.00				Graded
1	1	Casing	Pvc Class 18	1.50	4.00				Seated on Bottom

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
2.30	4.00	1.70	Unknown						

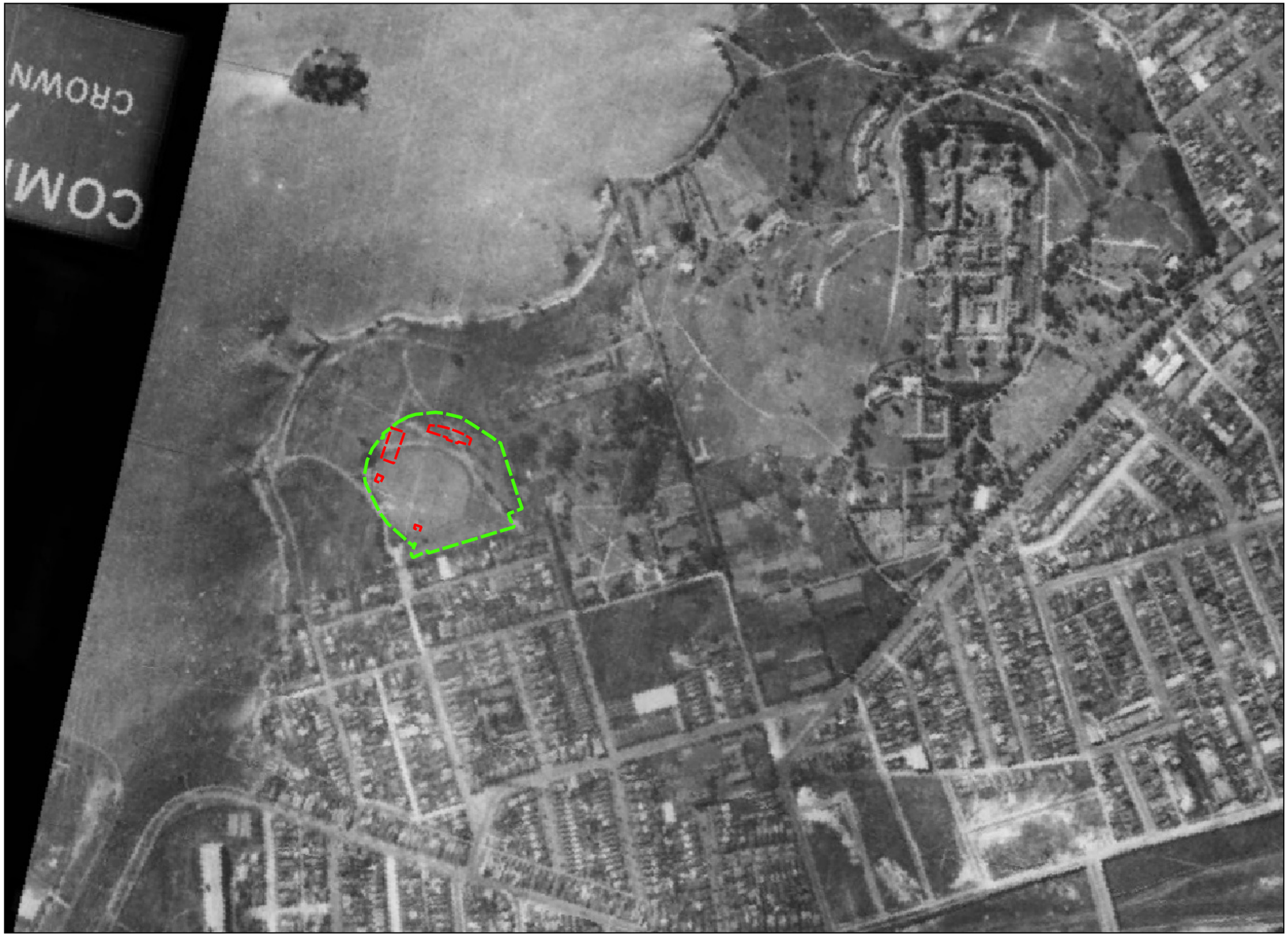
Drillers Log

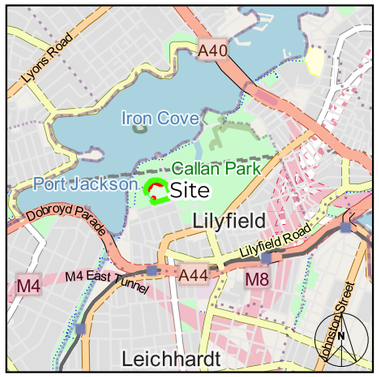
From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	0.10	0.10	ROAD BASE FILL GRAVELLY CLAY GREY,MOIST	Fill	
0.10	1.10	1.00	SANDY CLAY,ORANGE BROWN,MOIST	Sandy Clay	
1.10	2.30	1.20	PALE GREY AND RED HIGH PLASTICITY,SLIGHTLY MOIST	Sandy Clay	
2.30	3.80	1.50	SANDSDTONE WHITE	Sandstone	
3.80	4.00	0.20	SANDSTONE ORANGE/GREY AND SATURATED	Sandstone	

***** End of GW111663 *****

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





SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

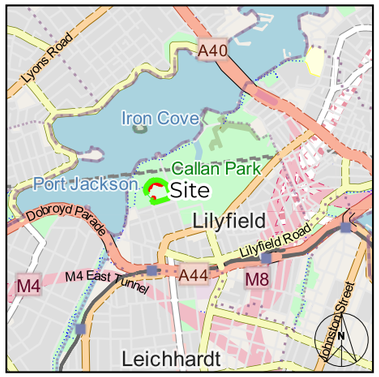
Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1930 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	A
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

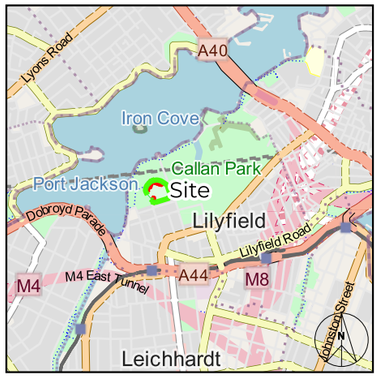
Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1943 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	B
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

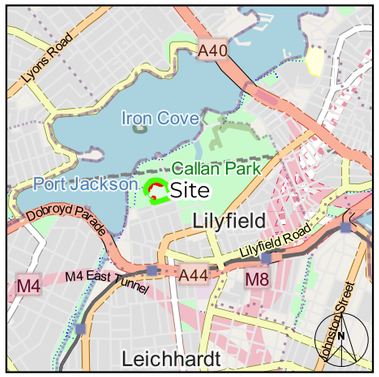
Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1955 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	C
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1961 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

PROJECT:	236743.01
DRAWING No:	D
REVISION:	0

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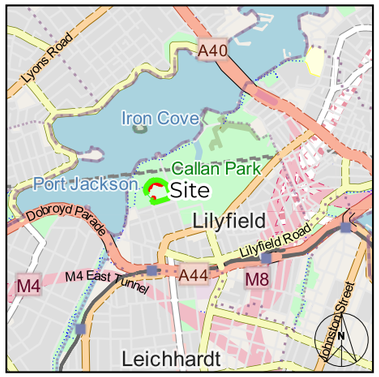


SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

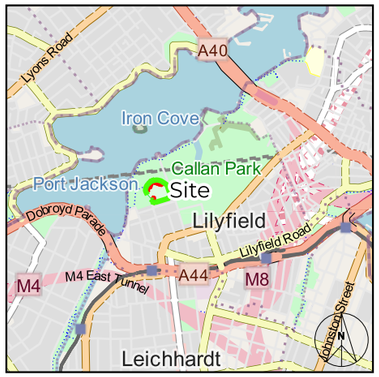
Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1965 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	E
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1970 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

PROJECT:	236743.01
DRAWING No:	F
REVISION:	0

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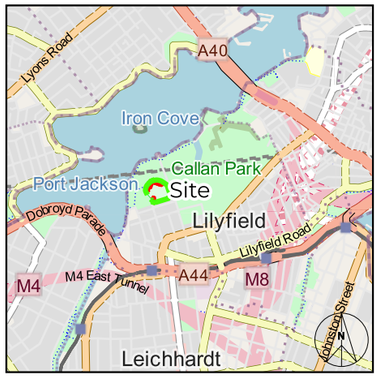


SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

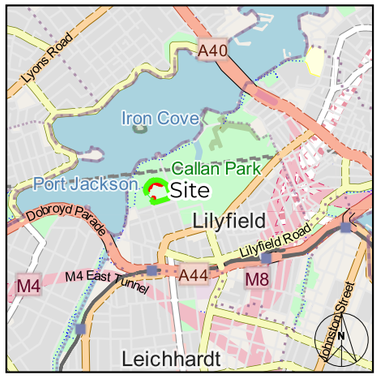
Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1975 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	G
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		TITLE: **1982 Historical Aerial Imagery**	PROJECT: 236743.01
OFFICE: SYD	DRAWN BY: CL	**Leichhardt Oval Refurbishment**	DRAWING No: H
SCALE: 1:5429 @A3	DATE: 12.November.2025	**68 Mary Street, Lilyfield NSW**	REVISION: 0

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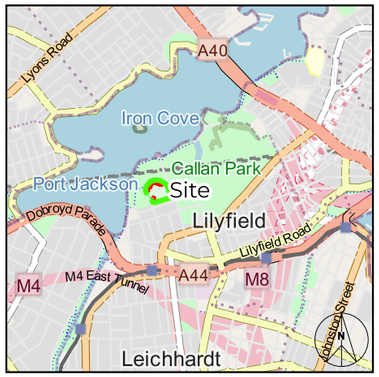

SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		TITLE: **1986 Historical Aerial Imagery**	PROJECT: 236743.01
OFFICE: SYD	DRAWN BY: CL	**Leichhardt Oval Refurbishment**	DRAWING No: I
SCALE: 1:5429 @A3	DATE: 12.November.2025	**68 Mary Street, Lilyfield NSW**	REVISION: 0

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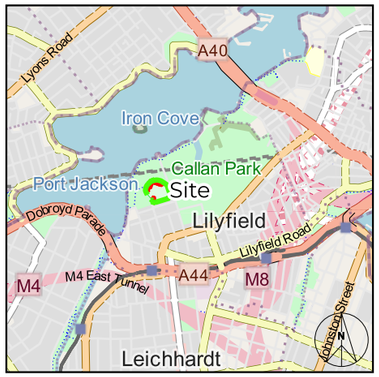


SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

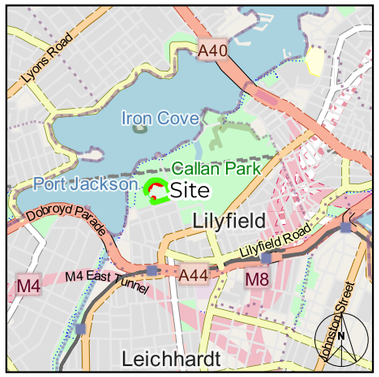
Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **1996 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	J
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		TITLE: **2000 Historical Aerial Imagery**	PROJECT: 236743.01
OFFICE: SYD	DRAWN BY: CL	**Leichhardt Oval Refurbishment**	DRAWING No: K
SCALE: 1:5429 @A3	DATE: 12.November.2025	**68 Mary Street, Lilyfield NSW**	REVISION: 0

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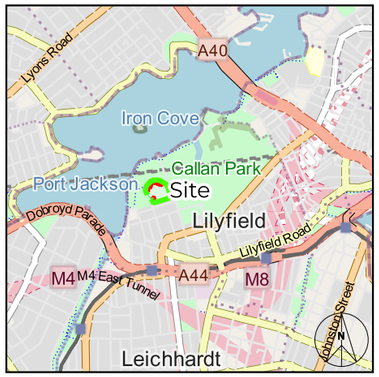

SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **2004 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

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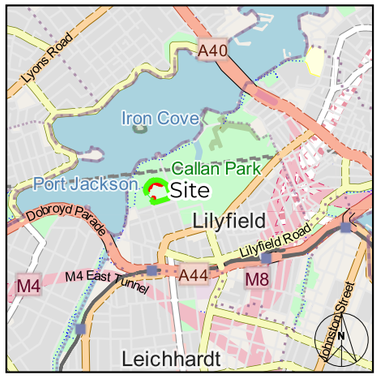
PROJECT:	236743.01
DRAWING No:	L
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **2009 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

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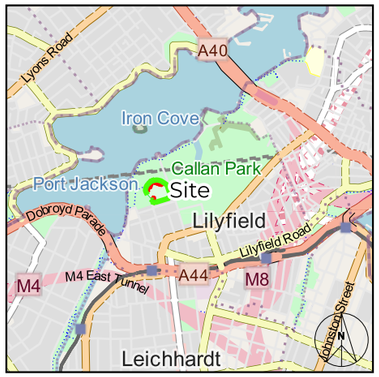
PROJECT:	236743.01
DRAWING No:	M
REVISION:	0



SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

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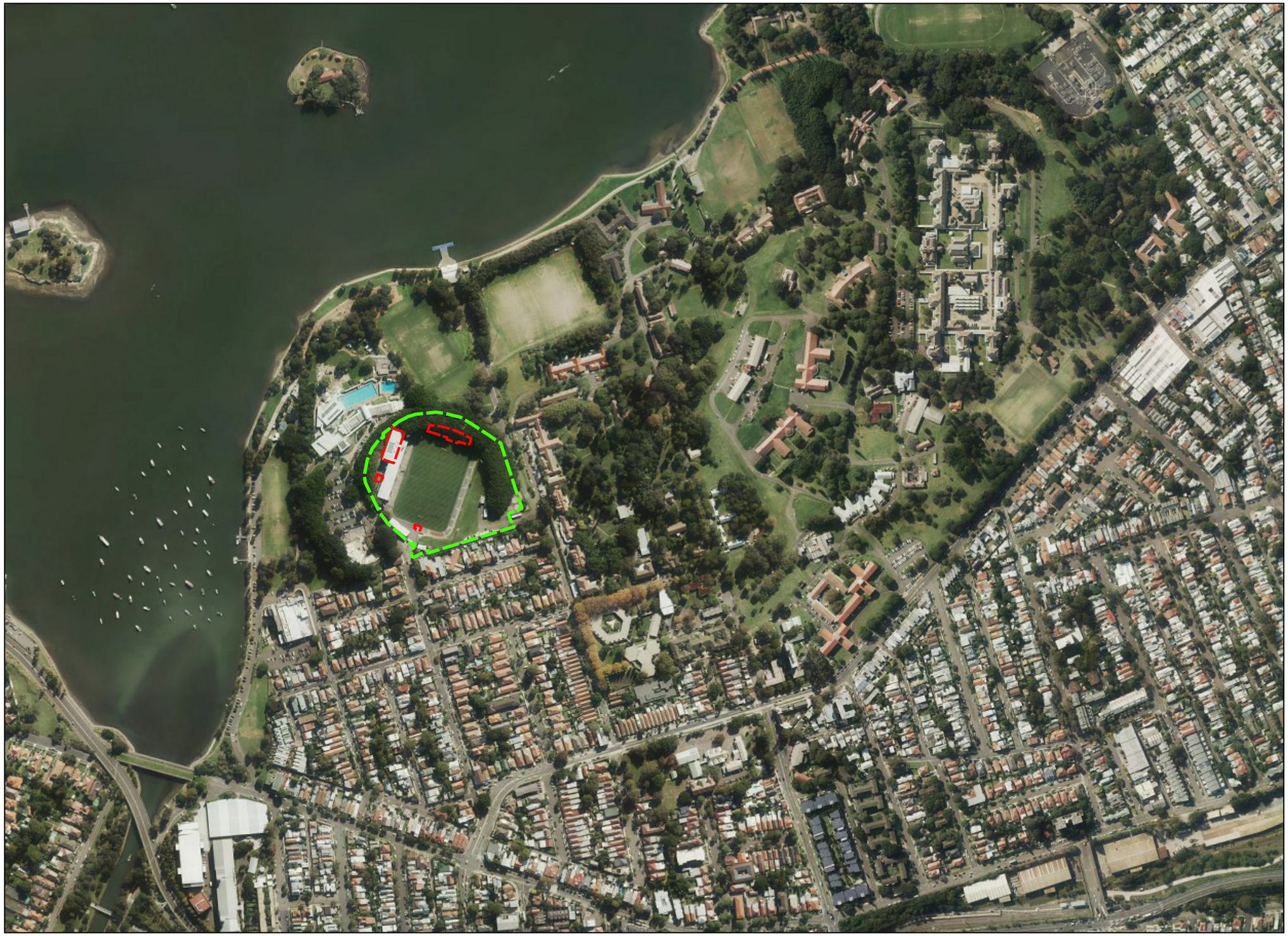
Douglas PARTNERS

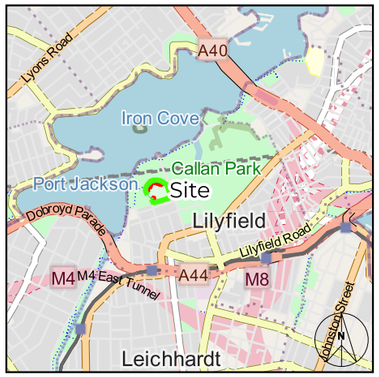
CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **2011 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	N
REVISION:	0





SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		TITLE: **2016 Historical Aerial Imagery**	PROJECT: 236743.01
OFFICE: SYD	DRAWN BY: CL	**Leichhardt Oval Refurbishment**	DRAWING No: O
SCALE: 1:5429 @A3	DATE: 12.November.2025	**68 Mary Street, Lilyfield NSW**	REVISION: 0

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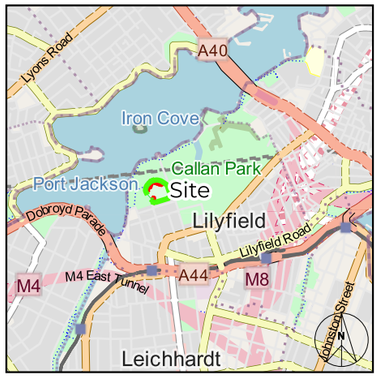

SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		TITLE: **2024 Historical Aerial Imagery**	PROJECT: 236743.01
OFFICE: SYD	DRAWN BY: CL	**Leichhardt Oval Refurbishment**	DRAWING No: P
SCALE: 1:5429 @A3	DATE: 12.November.2025	**68 Mary Street, Lilyfield NSW**	REVISION: 0

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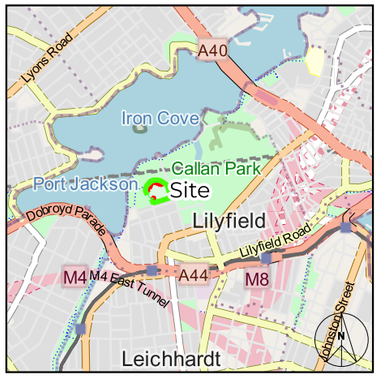

SITE LOCATION

LEGEND

- Leichhardt Oval Refurbishment Project Site Boundary
- Subject Site

NOTE:
1. Drawing projection in GDA2020 / MGA zone 56,20250000

0 40 80 120 m

Douglas PARTNERS

CLIENT: Inner West Council		
OFFICE: SYD	DRAWN BY: CL	
SCALE: 1:5429 @A3	DATE: 12.November.2025	

TITLE: **2025 Historical Aerial Imagery**
Leichhardt Oval Refurbishment
68 Mary Street, Lilyfield NSW

N

PROJECT:	236743.01
DRAWING No:	Q
REVISION:	0

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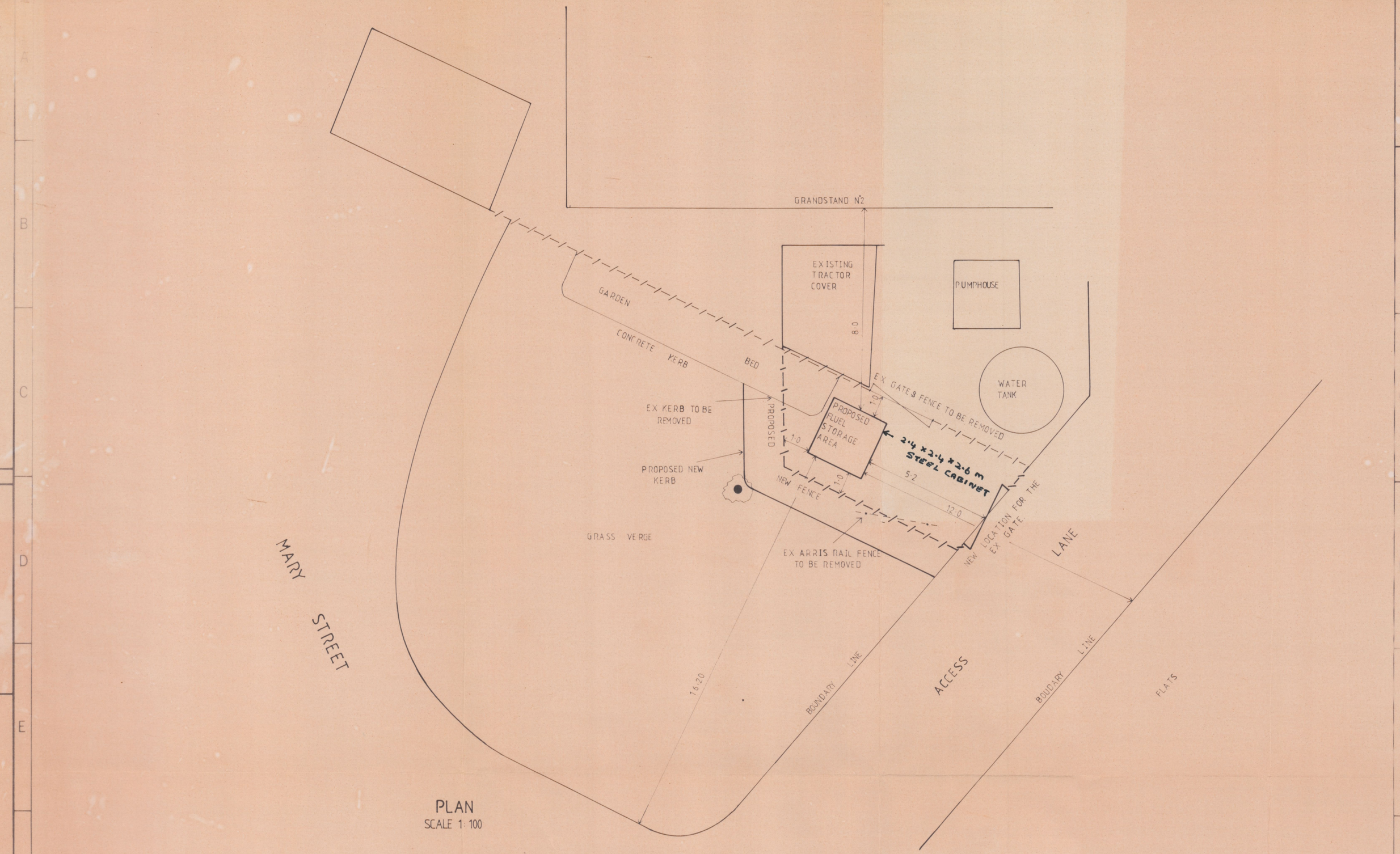

PLAN
SCALE 1:100

SCALES 1:100	APPROVED	MUNICIPALITY OF LEICHHARDT	FILE No.	No. OF SHEETS 1 / SHEET No. 1
DATUM / SURVEYED / FIELD BOOK / LEVEL BOOK / DESIGNED K.S. / DRAWN JA. / CHECKED	DATE / ENGINEER	SITE PLAN FOR FUEL STORAGE AT LEICHHARDT OVAL	DRAWING No.	240 - A2

Premises: MARY STREET LEICHHARDT.
(LEICHHARDT OVAL)

Date	Type of Construction	No.	Date Completed
26/2/85	Seven V.I.P Boxes M/F	85/21	
13/2/86	Alter bar area club room etc	86/67	
26/2/90	Alterations to Latchem Robinson G'stand	90/123	
28/3/90	Alt to southern side grandstand	90/208	
11/12/92	fuel storage shed & fencing	92/859	

Premises: MARY STREET, LEICHHARDT

(LEICHHARDT PARK SWIMMING POOL AREA)

Date	Type of Construction	No.	Date Completed
29/10/90	Skateboard ramp in park	90/600	
16/2/93	Alterations & additions	92/688	

Premises: Glover Street, Leichhardt
Leichhardt Oval

Date	Type of Construction	No.	Date Completed
8:12:98	Refurbishment of space beneath gym	D980311	Approved

Premises Portion 1192, Glover Street, Leichhardt
(Leichhardt Rowing Club)

Date	Type of Construction	No.	Date Completed
10.12.69	Extension to Club house	9386	DISAPPROVED
29.9.70	Amended Plan. (Approved)	9386	[illegible] 21-6-72
2.12.80	Extensions club house	19008	WKS CMT.
16/12/80	Extensions club house	19008	

FORM H 14

Jelica Ljubic

From: Joel Giblin <Joel.Giblin@innerwest.nsw.gov.au>
Sent: Tuesday, 16 September 2025 8:16 AM
To: Cathy Li
Cc: Mikayla Bayliss; Sandra Lim
Subject: RE: Leichhardt Oval Refurbishment-Environment & Geotechnical Information
Attachments: Bulk_20250912144802.pdf; Building Application Card - Leichhardt Park Final.pdf

Hi Cathy

Thanks for your email.
I am waiting on some further information and files to arrive but I can confirm the following

The previous DA (which I think is *D/2009/60 - Additions and alterations to existing grandstand, including new gym, media and storage facilities, new roof to grandstand and expansion of function facilities.)* is probably the best place to look. I've done a quick look through the app and can't see any contamination or site investigation reports in it. The Stage 3 Statement of Environment Effects notes they're not aware of any geotechnical, industrial contamination or natural hazards (see screenshot below.) A Geotechnical report was submitted see attached.

I also attach the BA application card dating back to the 50s – let me know if there is anything of interest there.

Below is a table of other files available

Precis	D
PK 386/11 - Leichhardt Park Foreshores Road - Complete Image of Physical File	
PK 386-9-4 - Parks - Leichhardt Park - No 1 Oval - Broadcasting Rights A B C Channel 2 - Complete Image of Physical File	
PK 386-10-9 - Parks - Leichhardt Park - No 1 Oval Redevelopment & Improvement of Facilities - 1990 - Complete Image of Physical File	
DA/2006/0756 - Leichhardt Park Glover Street Lilyfield - Complete Image of Physical File	
DW/2006/756 - Leichhardt Park Aquatic Lilyfield - Complete Image of Physical File	
PK 386/4/1 - Leichhardt Park - Complete Image of Physical File	
PK/386/4/4 - N0.1 Oval Grandstand - Leichhardt Oval - Complete Image of Physical File	
Leichhardt Oval Grandstand Plans - Complete Image of Physical File	
Leichhardt Oval Grandstand Plans - Complete Image of Physical File	
PK 386/11 - Leichhardt Park Foreshores Road - Complete Image of Physical File	
PK 386-9-4 - Parks - Leichhardt Park - No 1 Oval - Broadcasting Rights A B C Channel 2 - Complete Image of Physical File	

DA/2006/0756 - Leichhardt Park Glover Street Lilyfield - Complete Image of Physical File
DW/2006/756 - Leichhardt Park Aquatic Lilyfield - Complete Image of Physical File
PK 386/4/1 - Leichhardt Park - Complete Image of Physical File

Joel Giblin
Property Officer - Leichhardt Oval
p +61 2 9392 5797 e Joel.Giblin@innerwest.nsw.gov.au m 0481 438 612

We acknowledge that this land area traditionally belonged to the Gadigal and Wangal peoples of the Sydney Basin.

From: Cathy Li <Cathy.Li@douglaspartners.com.au>
Sent: Monday, 15 September 2025 4:58 PM
To: Joel Giblin <Joel.Giblin@innerwest.nsw.gov.au>
Cc: Mikayla Bayliss <Mikayla.Bayliss@parthenon.ey.com>; Sandra Lim <Sandra.Lim@parthenon.ey.com>
Subject: RE: Leichhardt Oval Refurbishment-Environment & Geotechnical Information

Hi Joel,

I hope you are well.

I am just following up on the GIPA requests below. Could you please forward them when available? We will need some time to review and incorporate the information into our report. Thank you.

Kind regards,

Cathy Li | Environmental Engineer

02 9809 0666 0484 789 919 Cathy.Li@douglaspartners.com.au

www.douglaspartners.com.au 96 Hermitage Road, West Ryde
NSW 2114 | Wallumedegal Country
PO Box 472, West Ryde, NSW 1685

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Appendix D

Site Photos

Photo 1: Proposed Northern Grandstand area – facing northwest

Photo 2: Proposed Northern Grandstand area – facing northeast

Douglas PARTNERS	**Site Photographs**	PROJECT:	236743.01
	Leichhardt Oval Refurbishment	PLATE No:	1
	68 Mary Street, Lilyfield NSW	REV:	0
	CLIENT	Inner West Council	

Photo 3: Existing northern amenity area – facing southeast

Photo 4: Existing northern amenity with concrete slab

Douglas PARTNERS	**Site Photographs**	PROJECT:	236743.01
	Leichhardt Oval Refurbishment	PLATE No:	2
	68 Mary Street, Lilyfield NSW	REV:	0
	CLIENT	Inner West Council	

Photo 5: Existing northern amenity area – facing east

Photo 6: Location of Borehole 5 inside the northern amenity area

Douglas PARTNERS	**Site Photographs**	PROJECT:	236743.01
	Leichhardt Oval Refurbishment	PLATE No:	3
	68 Mary Street, Lilyfield NSW	REV:	0
	CLIENT	Inner West Council	

Photo 7: Proposed new Seating Bowl area – facing north

Photo 8: Borehole 4 location – within the proposed new Seating Bowl area

Douglas PARTNERS	**Site Photographs**	PROJECT:	236743.01
	Leichhardt Oval Refurbishment	PLATE No:	4
	68 Mary Street, Lilyfield NSW	REV:	0
	CLIENT	Inner West Council	

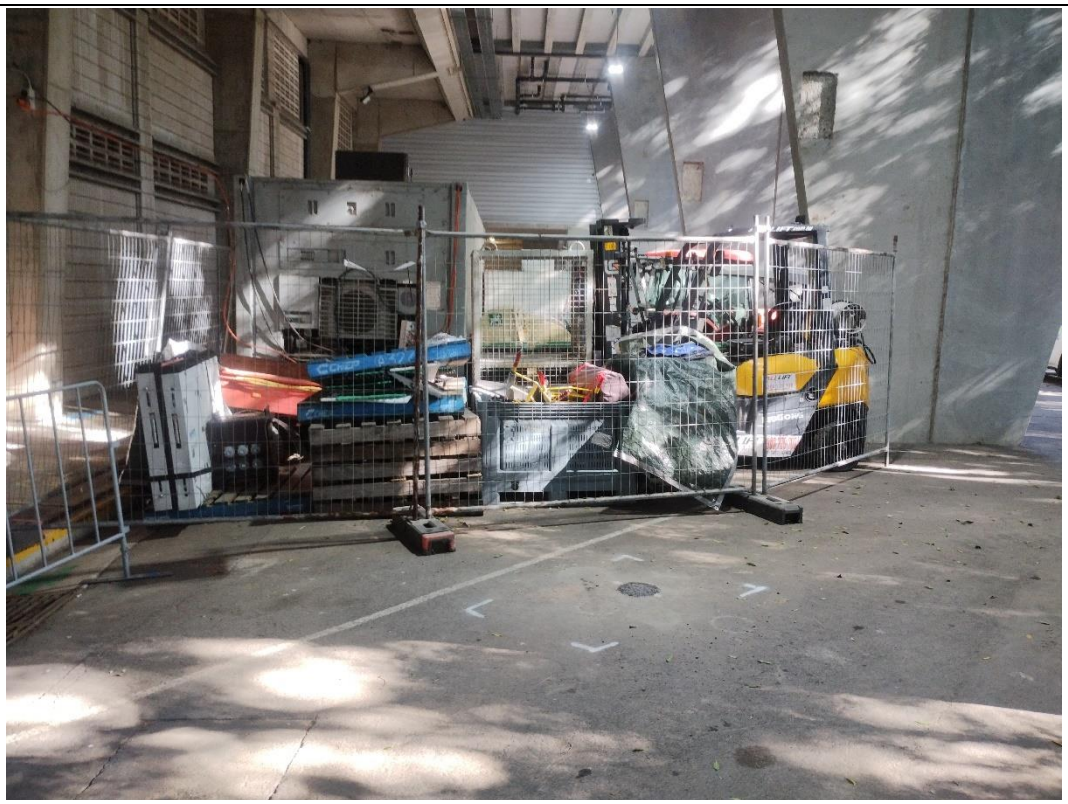

Photo 9: Western Grandstand storage area

Photo 10: Western Grandstand within concrete surface in fair condition – facing south

Site Photographs		PROJECT:	236743.01
Leichhardt Oval Refurbishment		PLATE No:	5
68 Mary Street, Lilyfield NSW		REV:	0
CLIENT	Inner West Council		

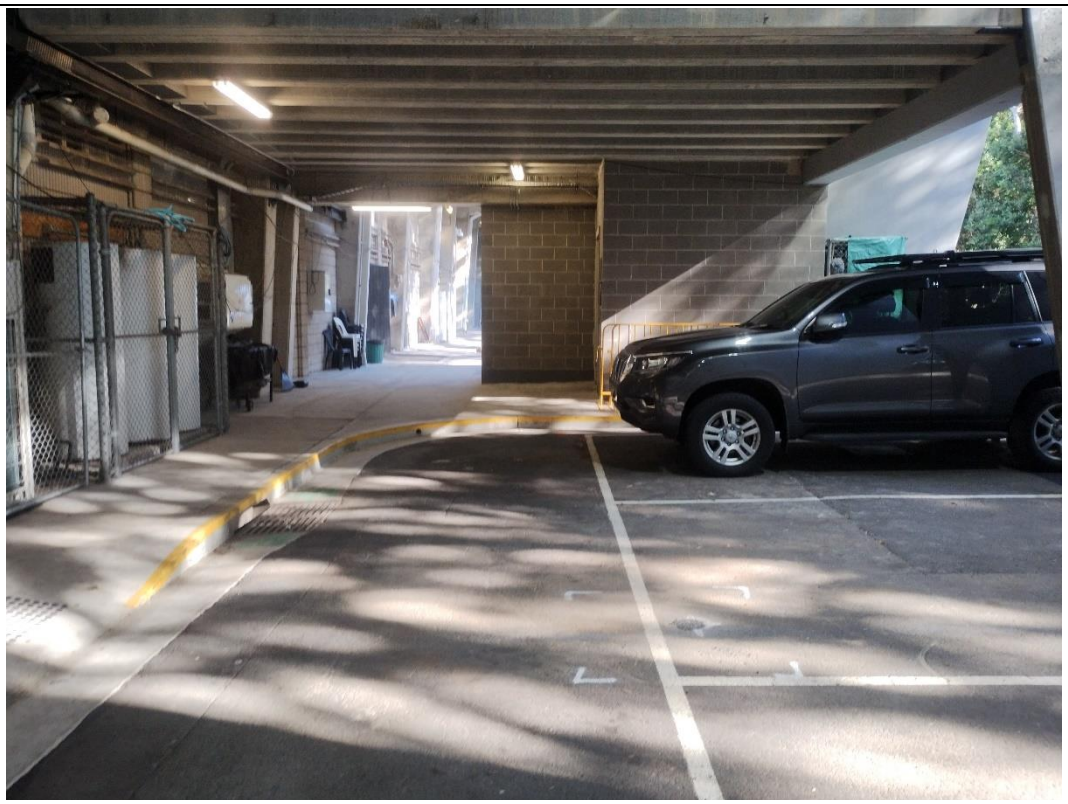

Photo 11: Western Grandstand car park area – facing south

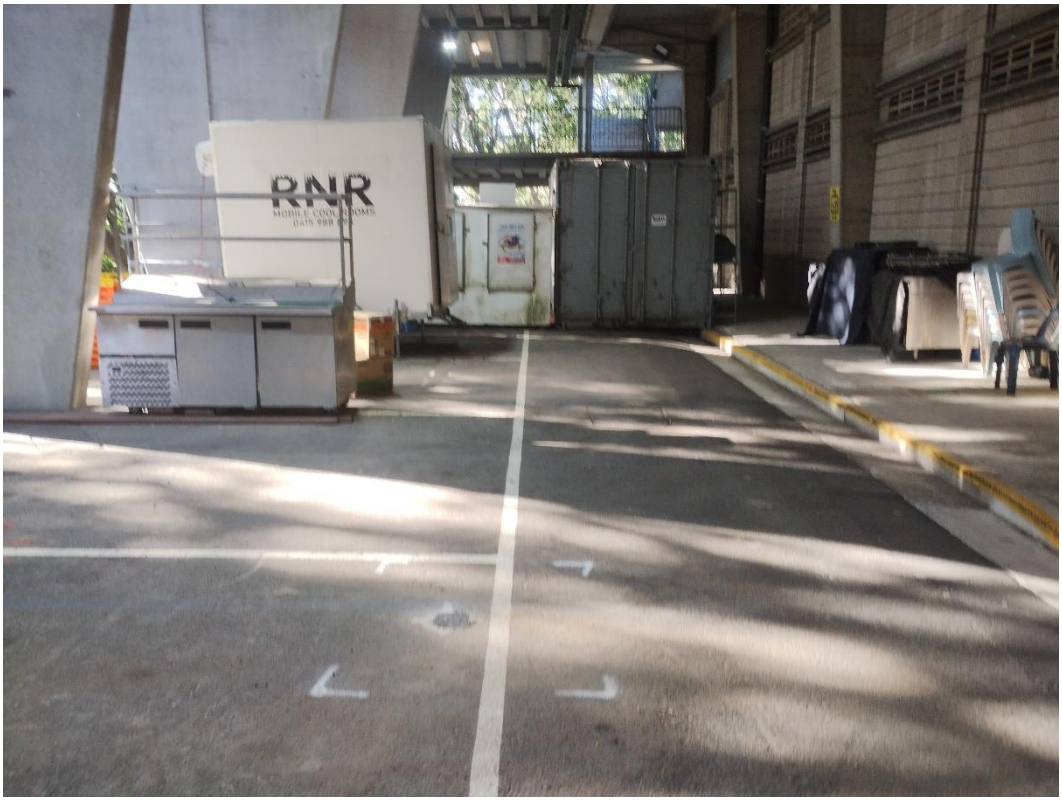

Photo 12: Western Grandstand car park area – facing south

Douglas PARTNERS	**Site Photographs**	PROJECT:	236743.01
	Leichhardt Oval Refurbishment	PLATE No:	6
	68 Mary Street, Lilyfield NSW	REV:	0
	CLIENT	Inner West Council	

Appendix E

Data Quality Objectives

1. Data quality objectives

The contamination testing has been devised broadly in accordance with the seven-step data quality objectives (DQO) process which is provided in Appendix B, Schedule B2 of NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).

Table 1: Data quality objectives

Step	Summary
1: State the problem	The objective of this investigation it to assess potential contaminants at the subject site. It is understood that the results will be used to inform construction phase management requirements for the proposed development in accordance with the LTEMP, noting that this is not part of the scope of this report. The investigation is being undertaken as the site is to be refurbished. The project team consist of experienced environmental engineers and scientists working in the roles of Project Principal, Project Reviewer, Project Manager and field staff.
2: Identify the decisions / goal of the study	The site history has identified possible contaminating previous (Section 9). Associated contaminants of potential concern (CoPC) and the likely impacted media. The site assessment criteria (SAC) for each of the CoPC are detailed in Appendix G. The decision is to establish whether or not the results fall below the SAC. On this basis, to determine the contaminants that need to be managed during the construction phase.
3: Identify the information inputs	Inputs will be the analytical results for the CoPC and media (identified in Section 9) from NATA accredited laboratories and methods, where possible. The SAC for each of the CoPC are detailed in Appendix G. Field results and observations such as photoionisation detector (PID), landfill gas screening results and asbestos sieve results and observations of building debris, ash, odours, staining etc will be used to inform sample selection for laboratory analysis.
4: Define the study boundaries	The lateral boundaries of the investigation area are shown on Drawing R.001.D.01, Appendix A. The vertical boundaries are to the depth of drilling. The assessment is limited to the timeframe over which the field works were undertaken. Constraints to the assessment are identified and discussed in the limitations of the report, Section 13.
5: Develop the analytical approach (or decision rule)	The decision rule is to compare all analytical results with the SAC (Appendix G, based on NEPC (2013)). Where guideline values are absent, other sources of guideline values accepted by NEPC (2013) shall be adopted where available and warranted. Where a sample result exceeds the adopted criterion, a further qualitative site-specific assessment will be made as to the risk posed by the presence of that contaminant(s).

Step	Summary
	Initial comparisons will be with individual results then, where appropriate, summary statistics (including mean, standard deviation and 95% upper confidence limit (UCL) of the arithmetic mean (95% UCL)) to further assess potential risks posed by the site contamination. Quality control results are to be assessed according to their relative percent difference (RPD) values. For field duplicates, triplicates and laboratory results, RPD values should generally be below 30%; for field blanks and rinsates, results should be at or less than the limits of reporting (NEPC, 2013). The field and laboratory quality assurance assessment is included in Appendix M.
6: Specify the performance or acceptance criteria	Baseline condition: Contaminants at the site exceed the human health SAC and require management under the LTEMP (null hypothesis). Alternative condition: Contaminants at the site comply with the human health SAC and do not require management (alternative hypothesis). Unless conclusive information from the collected data is sufficient to reject the null hypothesis, it will be assumed that the baseline condition is true.
7: Optimise the design for obtaining data	As the purpose of the investigation is to assess the contamination status of the site, the sampling program is reliant on professional judgement to identify and sample the potentially affected areas. Further details regarding the sampling plan are in Section 10.

2. References

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

Appendix F

Field Work Methodology

1. Guidelines

The following key guidelines were consulted for the field work methodology:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).
- HEPA *PFAS National Environmental Management Plan (NEMP)* (HEPA, 2025).
- NSW EPA *Assessment and Management of Hazardous Ground Gases* (NSW EPA, 2020).

2. Soil sampling

Soil sampling is carried out in accordance with Douglas' standard operating procedures. The general sampling and sample management procedures comprise:

- Collect soil samples directly from solid flight auger / hand auger from the nominated depths;
- Transfer samples in laboratory-prepared glass jars with Teflon lined lids by hand, capping immediately and minimising headspace within the sample jar;
- Transfer samples in laboratory-prepared container (specific for PFAS) by hand, capping immediately and minimising headspace within the sample jar;
- Collect replicate samples in zip-lock bags for photoionisation detector (PID) screening;
- Collect ~500 ml samples for fibrous asbestos and asbestos fines (FA and AF) analysis (where sufficient soil recovered);
- Collect bulk (~10 L) soil samples for bonded asbestos containing material (ACM) field sieve test;
- Collect ~40 g to 50 g samples in zip-lock bags for asbestos (presence / absence) analysis (where sufficient soil not recovered for 500 mL sample);
- Wear a new disposable nitrile glove for each sample point thereby minimising potential for cross-contamination;
- Collect 10% replicate samples for quality control (QC) purposes;
- Label sample containers with individual and unique identification details, including project number, sample location and sample depth (where applicable);
- Place samples into a cooled, insulated and sealed container for transport to the laboratory;
- Collect soil samples for acid sulfate soils analysis at where signs of ASS are suspected. Place immediately into zip-lock plastic bags after minimising air content and potential for moisture loss and immediately place on ice in a cooled, insulated and sealed container for transport to the laboratory. Once in the laboratory place the samples in a freezer; and
- Use chain of custody documentation.

Reference was made to HEPA (2025) for requirements specific to PFAS.

2.1 Field testing

Field testing is carried out in accordance with Douglas' standard operating procedures. The general sampling and sample management procedures comprise:

PID field test

- Calibrate the PID with isobutylene gas at 100 ppm and with fresh air prior to commencement of each successive day's field work;
- Allow the headspace in the PID zip-lock bag samples to equilibrate; and
- Screen using the PID.

Assessment of subsurface ACM

- Collect one bulk (~10 L or less) soil sample from first one metre of fill from each contamination investigation borehole;
- Weigh each bulk sample;
- Screen each bulk sample through a ≤7 mm aperture sieve;
- Weigh all retrieved potential ACM fragments; and
- Calculate the asbestos concentration (% w/w) in soil as per the procedure described in NEPC (2013).

3. Groundwater sampling

3.1 Monitoring well installation

Monitoring wells are constructed using class 18 uPVC machine slotted screen and blank sections with screw threaded joints. The screened section of each well is backfilled with a washed sand filter pack to approximately 0.5 m above the screened interval. Each well is completed with a hydrated bentonite plug of at least 0.5 m thick and then bentonite to the surface, finished with cast iron road-box.

3.2 Monitoring well development

Groundwater monitoring wells are developed as soon as practicable following well installation. The purpose of well development is to remove sediments and/or drilling fluid introduced to the well during drilling and to facilitate connection of the monitoring well to the aquifer. The wells are developed by pumping / bailing to remove a minimum of five well volumes, or until dry.

3.3 Groundwater sampling

Bladder pump

Groundwater sampling is carried out in accordance with Douglas' standard operating procedures. Groundwater samples are collected using a positive displacement low flow bladder pump via the micro-purge (minimal drawdown) method. The method minimises aeration of the sample and disturbance to the water column thereby enhancing the quality of results for oxygen sensitive analytes. The sampling method is described as follows:

- Measure the static water level using an electronic interface probe and record the thickness of LNAPL (if encountered);
- Decontaminate the interface probe and cable between monitoring wells by rinsing in a diluted Liquinox solution and then rinsing in demineralised water;
- Fit the pump with a well-dedicated bladder and tubing. Lower the pump into the well then clamp at a level estimated to be 1 m below the top of the water column (provided the depth of the pump is within the screened section) or to the approximate mid-point of the well screen;
- Set the pump at the lowest rate possible that could produce laminar flow to minimise drawdown of the water column;
- Measure physical parameters by continuously passing the purged water through a flow cell; and
- Following stabilisation of the field parameters, collect samples in laboratory-prepared bottles minimising headspace within the sample bottle and cap immediately.

Sample handling, all methods

The general groundwater sample handling and management procedures comprise:

- Collect 10% replicate samples for QC purposes;
- Label sample containers with individual and unique identification details, including project number and sample location;
- Place the sample jars into a cooled, insulated and sealed container for transport to the laboratory; and
- Use chain of custody documentation.

4. Surface water sampling

Surface water sampling is carried out in accordance with Douglas' standard operating procedures. Sample collection is completed using a telescopic pole and decontaminated sample container. A new pair of disposable nitrile gloves are worn at each sample site to minimise potential for cross-contamination. The sampling method is described as follows:

- Where possible, select a sampling point that is a reasonable distance from the edge;
- Immerse the sample container to at least 1 m below the surface, with the opening pointing directly down to maintain a volume of air in the container, thereby avoiding the collection of any surface films;

- Once under the surface of the water, point the mouth of the sample container up stream so that gloved hands, sample container and/or sample collection device are downstream of the sample being collected;
- If the water is still, move the sample container forward away from the sampler and any equipment to collect a continuous uncontaminated sample;
- Use a sample location specific laboratory-prepared glass bottle without preservatives;
- Decant the water sample into laboratory-prepared bottles, minimising headspace within the sample bottle and cap immediately. The sample location specific laboratory-prepared glass bottle can be used as the sample container for the last sample from that location;
- Dispose of any excess water downstream of the sampling point or at a reasonable distance from sample site;
- Label sample containers with individual and unique identification details, including project number and sample location;
- Place the sample jars into a cooled, insulated and sealed container for transport to the laboratory; and
- Use chain of custody documentation.

5. Landfill gas monitoring

5.1 Surface LFG

Surface LFG screening was conducted by performing a grid-based walkover within the existing enclosed area (e.g. amenities areas) and above open boreholes during drilling. LFG readings were collected using a Huber Laser One© instrument.

The surface gas screening involved an experienced scientist traversing the site surface along a series of parallel lines on foot, taking measurements of methane concentration close to the ground surface (<0.05 m above surface level) at intervals equivalent to the line spacing, therefore creating a square grid of measurements (a maximum of 25 m spacings). The transects walked during the monitoring event was adjusted to account for access constraints associated with building layouts.

5.2 Monitoring well installation

Monitoring wells are constructed using class 18 uPVC machine slotted screen and blank sections with screw threaded joints. The screened section of each well is backfilled with a washed sand filter pack to approximately 0.5 m above the screened interval. Each well is completed with a hydrated bentonite plug to the surface, finished with cast iron road-box. The well is fitted with a gas-tight cap with a quick connect gas fitting.

5.3 Landfill gas monitoring

Landfill gas monitoring was carried out in accordance with Douglas' standard operating procedures and NSW EPA (2020). The monitoring method is described as follows:

- Record the barometric pressure;

- Connect the tube on the calibrated landfill gas analyser to the quick connect gas fitting on the well cap;
- Connect the landfill gas analyser and record the gas flow rate [flow rate is recorded before the concentration because the pump which is activated during the recording of concentration can affect the subsurface pressure equilibrium]; and
- Set the analyser pump on and record concentrations of methane, carbon dioxide, oxygen, carbon monoxide and hydrogen sulphide, generally at 30 second intervals, for a minimum of ten minutes and until concentrations have generally stabilised.

Note the general weather conditions and record the atmospheric pressure during the monitoring event.

6. References

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Appendix G

Site Assessment Criteria

1. Introduction

1.1 Guidelines

The following key guidelines were consulted for deriving the site assessment criteria (SAC):

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).
- CRC CARE *Health screening levels for petroleum hydrocarbons in soil and groundwater* (CRC CARE, 2011).
- HEPA *PFAS National Environmental Management Plan (NEMP)* (HEPA, 2025).
- ANZG *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG, 2018).
- NHMRC *Guidelines for Managing Risks In Recreational Water* (NHMRC, 2008).
- NHMRC, NRMMC *Australian Drinking Water Guidelines 6 2011, Version 3.2* (NHMRC, NRMMC, 2022).
- ANZECC *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC, 2000).
- NSW EPA *Assessment and management of Hazardous Ground Gases* (NSW EPA, 2020)
- NSW EPA *Environmental Guidelines, Solid Waste Landfills, Second Edition, 2016.* NSW Environment Protection Authority. (NSW EPA, 2016).

1.2 General

The SAC applied in the current investigation are informed by the existing LTEMP which identified the need to manage potential contamination during minor and major construction works, to ensure that the health of the users of the oval including the public and maintenance or construction works, are protected. Analytical results are assessed (as a Tier 1 assessment) against the SAC comprising primarily the investigation and screening levels of Schedule B1 of NEPC (2013).

The following inputs are relevant to the selection and/or derivation of the SAC:

- Construction and maintenance workers:
  - Intrusive maintenance worker; and
  - Land use category 'D', commercial (where no guidance for intrusive maintenance workers available). It is noted that these SAC are based on 'standard' commercial use, which is likely to underestimate the soil contact relative to some construction and intrusive maintenance workers.
- Land use: recreational:
  - Corresponding to land use category 'C', public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. It does not include undeveloped public open space (such as urban bushland and reserves) which should be subject to a site-specific assessment where appropriate.

- Note: land use category 'C' does not assess for enclosed spaces, and it is considered that land use category 'D' is the most appropriate category for assessing for potential vapour intrusion into buildings.

- Soil type: sand.

2. Soils

2.1 Health investigation and screening levels

The generic health investigation levels (HIL) and health screening levels (HSL) are considered to be appropriate for the assessment of human health risk via all relevant pathways of exposure associated with contamination at the site. The adopted soil HIL and HSL for the contaminants of concern are in Table 1 and Table 2.

Table 1: Health investigation levels (mg/kg)

Contaminant	HIL-C	HIL-D
Metals		
Arsenic	300	3000
Cadmium	90	900
Chromium (VI)	300	3600
Copper	17 000	240 000
Lead	600	1500
Mercury (inorganic)	80	730
Nickel	1200	6000
Zinc	30 000	400 000
PAH		
B(a)P TEQ	3	40
Total PAH	300	4000
Phenols		
Phenol	40 000	240 000
Pentachlorophenol	120	660
OCP		
DDT+DDE+DDD	400	3600
Aldrin and dieldrin	10	45
Chlordane	70	530
Endosulfan	340	2000
Endrin	20	100

Contaminant	HIL-C	HIL-D
Heptachlor	10	50
HCB	10	80
Methoxychlor	400	2500
Mirex	20	100
OPP		
Chlorpyrifos	250	2000
PCB		
PCB	1	7
VOC (various analytes)	-	-

Table 2: Health screening levels (mg/kg)

Contaminant	HSL-C	HSL-D	IMW (shallow trench)
SAND	**0 m to <1 m**	**0 m to <1 m**	**0 m to <2 m**
Benzene	NL	3	77
Toluene	NL	NL	NL
Ethylbenzene	NL	NL	NL
Xylenes	NL	230	NL
Naphthalene	NL	NL	NL
TRH F1	NL	260	NL
TRH F2	NL	NL	NL

Notes: TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} minus naphthalene

IMW: Intrusive Maintenance Worker
The soil saturation concentration (Csat) is defined as the soil concentration at which the porewater phase cannot dissolve any more of an individual chemical. The soil vapour that is in equilibrium with the porewater will be at its maximum. If the derived soil HSL exceeds Csat, a soil vapour source concentration for a petroleum mixture could not exceed a level that would results in the maximum allowable vapour risk for the given scenario. For these scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or 'NL'

Table 3: Health screening levels for direct contact (mg/kg)

Contaminant	DC HSL-C	DC HSL-IMW
Benzene	120	1100
Toluene	18 000	120 000
Ethylbenzene	5300	85 000
Xylenes	15 000	130 000
Naphthalene	1900	29 000
TRH F1	5100	82 000

Contaminant	DC HSL-C	DC HSL-IMW
TRH F2	3800	62 000
TRH F3	5300	85 000
TRH F4	7400	120 000

Notes: TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} minus naphthalene
IMW intrusive maintenance worker

2.2 Health investigation levels for per- and poly-fluoroalkyl substances in soil

The laboratory analytical results for per- and poly-fluoroalkyl substances (PFAS) in soil have been assessed against HIL published in HEPA (2025). The HIL represent a nationally-agreed suite that should be used to inform site investigations. The HIL are intentionally conservative, and an exceedance of these criteria may not constitute a risk if other exposure pathways are controlled. An exceedance of the HIL should trigger further investigations, such as a site-specific risk assessment. At the time of this investigation, screening values were available only for perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS).

The HIL derived from Table 5 of HEPA (2025) are in Table 4.

Table 4: Health investigation levels (mg/kg)

Contaminant	HIL-C	HIL-D
PFOS and PFHxS *	1	20
PFOA	10	50

Notes: * Includes PFOS only, PFHxS only and the sum of the two.

2.3 Asbestos in soil

The HSL for asbestos in soil are based on likely exposure levels for different scenarios published in NEPC (2013) for the following forms of asbestos:

- Bonded asbestos containing material (ACM); and
- Fibrous asbestos and asbestos fines (FA and AF).

The HSL are in Table 5. No asbestos HSL has been provided for construction and maintenance workers, and any detection should trigger consideration of the need for appropriate WHS controls.

Table 5: Health screening levels for asbestos

Form of asbestos	HSL-C
ACM	0.02%
FA and AF	0.001%
FA and AF and ACM	No visible asbestos for surface soil *

Notes: Surface soils defined as top 10 cm.
* Based on site observations at the sampling points and the analytical results of surface samples.

Where insufficient sample recovery is possible for FA and AF analysis the presence or absence of asbestos at a limit of reporting of 0.1 g/kg (AS:4964) will be adopted for the assessment as an initial screen.

2.4 Ecological investigation levels

Schedule B5A of NEPC (2013) states that the aim of the EIL is that varying levels of protection will be provided to the following ecological receptors at all sites:

- Biota supporting ecological processes, including microorganisms and soil invertebrates;
- Native flora and fauna;
- Introduced flora and fauna; and
- Transitory or permanent wildlife.

In determining the relevance of EIL (and ESL / EGV) the presence or absence of sensitive ecological receptors must be considered. In this regard both the potential ecological receptors on and off-site must be considered in conjunction with the proposed development.

Generally, the ecological criteria apply to the upper 2 m of the soil profile.

Ecological investigation levels (EIL) and added contaminant limits (ACL), where appropriate, have been derived in NEPC (2013) for arsenic, copper, chromium (III), nickel, lead, zinc, DDT and naphthalene. The adopted EIL, derived using the interactive (excel) calculation spreadsheet on the NEPM toolbox website are shown in Table 7, with inputs into their derivation shown in Table 6.

Table 6: Inputs to the derivation of the ecological investigation levels

Variable	Input	Rationale
Age of contaminants	“Aged” (>2 years)	Assumed based on site history
pH	7.13	Average of laboratory results
CEC	9.7 $cmol_c/kg$	Average of laboratory results
Clay content	1%	Assumed based on soil profile
Traffic volumes	high	The site is bounded by public roads
State / Territory	NSW	Site locality

Table 7: Ecological investigation levels (mg/kg)

Contaminant	EIL-A-B-C
Metals	
Arsenic	100
Copper	210
Nickel	160
Chromium III	200
Lead	1100

Contaminant	EIL-A-B-C
Zinc	510
PAH	
Naphthalene	170
OCP	
DDT	180

Notes: EIL-A-B-C urban residential and public open space

2.5 Ecological screening levels

Ecological screening levels (ESL) are used to assess the risk of selected petroleum hydrocarbon compounds, BTEX and benzo(a)pyrene to terrestrial ecosystems. The adopted ESL are shown in Table 8.

The applicability of ecological criteria is discussed in Section 2.4, noting that generally, the ecological criteria apply to the upper 2 m of the soil profile.

Table 8: Ecological screening levels (mg/kg)

Contaminant	Soil type	ESL-A-B-C
Benzene	Coarse	50
Toluene	Coarse	85
Ethylbenzene	Coarse	70
Xylenes	Coarse	105
TRH F1	Coarse/ Fine	180*
TRH F2	Coarse/ Fine	120*
TRH F3	Coarse	300
TRH F4	Coarse	2800
B(a)P	Coarse	0.7

Notes: ESL are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability
TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} including naphthalene

2.6 Ecological soil guideline values

The interim ecological soil guideline values (EGV) derived from Table 6 of HEPA (2025) are in Table 9. The applicability of ecological criteria is discussed in Section 2.4, noting that generally, the ecological criteria apply to the upper 2 m of the soil profile.

Table 9: Ecological soil guideline values (mg/kg) – all land uses

Contaminant	Direct exposure	Indirect exposure
PFOS	1	0.003

PFOA	10 (0.005 for reptiles)	0.003
PFHxS	NC	NC

Notes: NC no criterion
*For intensely developed sites with no secondary consumers and minimal potential for indirect ecological exposure, a higher criterion of up to 0.14 mg/kg PFOS may be appropriate.

2.7 Management limits

In addition to appropriate consideration and application of the HSL and ESL, there are additional considerations which reflect the nature and properties of petroleum hydrocarbons, including:

- Formation of observable light non-aqueous phase liquids (LNAPL);
- Fire and explosion hazards; and
- Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services.

The adopted management limits are in Table 10.

Table 10: Management limits (mg/kg)

Contaminant	Soil type	ML-A-B-C
TRH F1	Coarse	700
TRH F2	Coarse	1000
TRH F3	Coarse	2500
TRH F4	Coarse	10 000

Notes: TRH F1 is TRH C_6-C_{10} including BTEX
TRH F2 is TRH >C_{10}-C_{16} including naphthalene
ML-A-B-C residential, parkland and public open space

3. Groundwater

3.1 Introduction

The groundwater investigation levels (GIL) used for interpretation of the groundwater data (as a Tier 1 assessment) have been selected based on the potential risks posed from contamination sourced from the site to receptors at or down-gradient of the site, as identified by the conceptual site model (CSM). The receptors, exposure points and pathways are summarised in Table 11.

Table 11: Summary of potential receptors and potential risks

Receptor	Location	Exposure point	Exposure pathway
Surface water aquatic ecosystem	Down-gradient from site.	Receiving surface water body at the groundwater discharge point.	Exposure to contaminants.
Occupants of buildings	On site and down-gradient from site.	Enclosed buildings (existing).	Inhalation of VOC (including TRH and BTEX) overlying VOC impacted groundwater via the vapour intrusion pathway.

Receptor	Location	Exposure point	Exposure pathway
Construction workers	On-site	At works location when recovering soils / liquid from below the water table (e.g. During piling)	Direct contact with water

The rationale for the selection of GIL is in Table 12.

Table 12: Groundwater investigation level rationale

Receptor / beneficial use	GIL	Source	Comments / rationale
Aquatic ecosystem	DGV	ANZG (2018)	Marine water 99% LOP for bioaccumulative contaminants 95% LOP for non-bioaccumulative contaminants
Aquatic ecosystem	DGV	HEPA (2025)	Marine water 99% LOP as recommended for potential bioaccumulation. Screening values were only available for PFOS and PFOA at the time of this investigation.
Building occupants (vapour intrusion)	HSL	NEPC (2013)	2 m to <4 m
Construction workers	GV	NHMRC (2008)	Recreational guidance used as a screening level. Based on the NHMRC (2022) values x10 (lower limit of recommended 10-20x) to account for ingestion of water whilst undertaking recreational activities. PFAS GV adopted as per NHMRC (2019) guidance note.

Notes: DGV default guideline value
% LOP percentage level of protection of species
HSL health screening level
GV guideline value

3.2 Groundwater investigation levels for aquatic ecosystems

The DGV for the protection of aquatic ecosystems derived from ANZG (2018) are in Table 13.

Table 13: Groundwater investigation levels for protection of aquatic ecosystems (µg/L)

Contaminant	Marine DGV 95% LOP	Notes
Metals / metalloids		
Arsenic	24 / 13	Levels provided for As III / As IV respectively as adopted from freshwater criteria in absence of marine criteria. Unknown reliability.

Contaminant	Marine DGV 95% LOP	Notes
Cadmium	0.7	99% LOP adopted as recommended due to potential for bioaccumulation. Very high reliability.
Chromium (VI)	4.4	Chromium VI levels adopted as initial screen for total chromium. Very high reliability.
Copper	1.3	Very high reliability.
Cyanide	4	Very low reliability.
Lead	4.4	Low reliability.
Mercury (inorganic)	0.1	99% LOP adopted as recommended due to potential for bioaccumulation. Very high reliability.
Nickel	7	99% LOP adopted as recommended to protect key species from chronic toxicity. Very high reliability.
Zinc	8	Very high reliability.
BTEX		
Benzene	500	99% LOP adopted as recommended to protect key species from chronic toxicity. Moderate reliability.
Ethylbenzene	80	Unknown reliability.
m-Xylene	75	Unknown reliability.
o-xylene	350	Adopted from freshwater criteria for in absence of marine criteria. Unknown reliability.
p-Xylene	200	Adopted from freshwater criteria for in absence of marine criteria. Unknown reliability.
Toluene	180	Unknown reliability.
PAH		
Anthracene	0.01	99% LOP adopted as recommended due to potential for bioaccumulation. Unknown reliability.
Benzo(a)pyrene	0.1	99% LOP adopted as recommended due to potential for bioaccumulation. Unknown reliability.
Fluoranthene	1	99% LOP adopted as recommended due to potential for bioaccumulation. Unknown reliability.
Naphthalene	50	99% LOP adopted as recommended to protect key species from chronic toxicity. Moderate reliability.
Phenanthrene	0.6	99% LOP adopted as recommended due to potential for bioaccumulation. Unknown reliability.
OCP		
Aldrin	0.003	Unknown reliability and LOP.

Contaminant	Marine DGV 95% LOP	Notes
Chlordane	0.001	Unknown reliability and LOP.
DDT	0.0004	Unknown reliability and LOP.
Dieldrin	0.01	Freshwater criteria adopted in absence of marine criteria. Unknown reliability and LOP.
Endosulfan	0.005	99% LOP adopted as recommended due to potential for bioaccumulation. Moderate reliability.
Endrin	0.004	99% LOP adopted as recommended due to potential for bioaccumulation. Moderate reliability.
Heptachlor	0.0004	Unknown reliability and LOP.
Methoxychlor	0.004	Unknown reliability and LOP.
OPP		
Chlorpyrifos	0.009	Low reliability.
Diazinon	0.01	Freshwater criteria adopted in absence of marine criteria. Unknown reliability.
Dimethoate	0.15	Freshwater criteria adopted in absence of marine criteria. Unknown reliability.
Fenitrothion	0.001	Unknown reliability and LOP.
Malathion	0.05	Freshwater criteria adopted in absence of marine criteria. Unknown reliability.
Parathion	0.004	Freshwater criteria adopted in absence of marine criteria. Unknown reliability.
PCB		
Aroclor 1242	0.3	Adopted from freshwater criteria for in absence of marine criteria. 99% LOP adopted as recommended due to potential for bioaccumulation. Unknown reliability.
Aroclor 1254	0.01	Adopted from freshwater criteria for in absence of marine criteria. 99% LOP adopted as recommended due to potential for bioaccumulation. Unknown reliability.
VOC		
Tetrachloroethene (PCE)	70	Unknown reliability.
Trichloroethene (TCE)	330	Unknown reliability.
cis-1,2-dichloroethene (DCE)	700	Unknown reliability.

Contaminant	Marine DGV 95% LOP	Notes
Chloroethene (vinyl chloride / VC)	100	Unknown reliability.
Tetrachloromethane (carbon tetrachloride / CT)	240	Unknown reliability.
Trichloromethane (chloroform / TCM)	370	99% LOP adopted as recommended to protect key species from chronic toxicity. Unknown reliability.
Inorganics		
Ammonia	2150	At a receiving body pH of 7.54. Note: ammonia toxicity is pH and temperature dependent. Very high reliability.
Nitrate	700	Freshwater criteria adopted in absence of marine criteria.

Notes: 95% LOP for non-bioaccumulative contaminants
99% LOP for bioaccumulative contaminants

The DGV for the protection of aquatic ecosystems derived from HEPA (2025) are in Table 14.

Table 14: Groundwater investigation levels for protection of aquatic ecosystems (µg/L)

Contaminant / LOP	Interim marine water DGV
PFOS 99% LOP	0.00023
PFOA 99% LOP	19

3.3 Health screening levels for vapour intrusion

The HSL to evaluate potential vapour intrusion risks derived from NEPC (2013) are in Table 15. There are no generic HSL for groundwater within 2 m of the ground (or basement) level.

Table 15: Groundwater health screening levels for vapour intrusion (µg/L)

Contaminant	HSL-C	HSL-D	IMW (shallow trench)
SAND	**2 m to <4 m**	**2 m to <4 m**	**2 m to <4 m**
Benzene	NL	5000	NL
Toluene	NL	NL	NL
Ethylbenzene	NL	NL	NL
Xylenes	NL	NL	NL
Naphthalene	NL	NL	NL
TRH F1	NL	6000	NL
TRH F2	NL	NL	NL

Notes: TRH F1 is TRH C_6-C_{10} minus BTEX
TRH F2 is TRH >C_{10}-C_{16} minus naphthalene

The solubility limit is defined as the groundwater concentration at which the water cannot dissolve any more of an individual chemical based on a petroleum mixture. The soil vapour that is in equilibrium with the groundwater will be at its maximum. If the derived groundwater HSL exceeds the water solubility limit, a soil vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario. For these scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or 'NL'.

3.4 Construction worker exposure

The GV for recreational water derived from NHMRC (2008) are in Table 16.

Table 16: Groundwater investigation levels for protection of recreational waters (µg/L)

Contaminant	Recreational water guideline values
Metals / metalloids	
Arsenic	100
Cadmium	20
Chromium (VI)	500
Copper	20000
Cyanide	800
Lead	100
Manganese	5000
Mercury (inorganic)	10
Nickel	200
Zinc	30000 (aesthetic only)
BTEX	
Benzene	10
Ethylbenzene	3000
Xylenes	6000
Toluene	8000
PAH	
Benzo(a)pyrene	0.1
OCP	
Aldrin + Dieldrin	3
Chlordane	20
DDT	90
Endosulfan	200
Heptachlor	3
Methoxychlor	3000
OPP	

Contaminant	Recreational water guideline values
Chlorpyrifos	100
Diazinon	40
Dimethoate	70
Fenitrothion	70
Malathion	700
Parathion	200
PFAS	
PFOS + PFHxS*	2
PFOA	10
VOC	
Tetrachloroethene (PCE)	500
cis-1,2-dichloroethene (DCE)	300
Chloroethene (vinyl chloride / VC)	3
Tetrachloromethane (carbon tetrachloride / CT)	30
Trihalomethanes (THM) (including trichloromethane (chloroform / TCM), bromodichloromethane, dibromochloromethane and tribromomethane (bromoform)	2500
Physical properties / aesthetics	
pH	6.5-8.5 (aesthetic only)
Dissolved oxygen	>80% saturation (aesthetic only)

Notes: * Includes PFOS only, PFHxS only and the sum of the two.

4. Landfill gas

4.1 Surface gas screening

Guidance levels for landfill gas at surface were sourced from the NSW EPA *Solid Waste Landfill guidelines* (NSW EPA, 2016) and listed as below:

- The threshold level for further investigation and corrective action is 500 ppm methane (0.05% v/v methane) at any point on the surface investigated; and
- For site is not an operating landfill, it was recommended that should consistent readings greater than 100 ppm be observed, a further review of the protection measures be undertaken by a suitably qualified environmental consultant.

4.2 Gas well screening value assessment

Guidance levels for inground landfill gas was sourced from the Wilson and Card method (NSW EPA, 2020).

Results were assessed using a gas screening value (GSV) calculated in accordance with the method (NSW EPA, 2020):

GSV = peak flow (L/hr) * peak concentration (% v/v)

Where:

Peak flow = the maximum flowrate recorded in any bore

Peak concentration = the highest of CH_4 or CO_2 concentration recorded in any bore

Based on the calculated GSV, the characteristic situation (CS) was determined from Table 17 below in accordance with (NSW EPA, 2020).

Table 17: Wilson and Card classification (NSW EPA, 2022)

GSV (L/h)	CS	Risk Classification	Additional factors	Typical sources
<0.07	1	Very low risk	Typically, methane <1% v/v and/or carbon dioxide <5% v/v; otherwise consider increase to CS 2	Natural soils with low organic content Typical fill
<0.7	2	Low risk	Borehole flow rate not to exceed 70 L/hr; otherwise consider increase to CS 3	Natural soils with high organic content Recent deep fill
<3.5	3	Moderate risk		Old inert waste landfill Flooded mine workings
<15	4	Moderate to high risk	Consider need for Level 3 risk assessment	Mine workings susceptible to flooding Closed putrescible waste landfill
<70	5	High risk	Level 3 risk assessment required	Shallow, unflooded abandoned mine workings
>70	6	Very high risk		Recently used putrescible waste landfill

The CS obtained from Table 17 and the nature of the existing buildings or proposed development on the site can be used to obtain an appropriate guidance value from Table 18 below.

Table 18: Guidance values for gas protection

CS	Required gas protection guidance value				
	Low-density residential	Medium-to high-density residential (strata title)	Public buildings, schools, hospitals and shopping centres	Standard commercial buildings (offices, etc.)	Large commercial (warehousing) and industrial buildings
1	0	0	0	0	0
2	3	3	3	2	1(a)
3	4	3	3	2	2
4	6(b)	5(b)	5	4	3
5	-(b)	6(b)	6(c)	5	4
6	-(d)	-(d)	6(c)	6	6

(a) If maximum measured methane concentration exceeds 20% v/v, increase to CS 3.

(b) Residential development is not recommended at CS 4 and above without pathway intervention (for example, source depressurization or control of lateral migration) external to the buildings and a high level of management. These requirements necessarily preclude low-density residential (NEPM HIL A residential) development.

(c) Evacuation issues and social risks must be considered.

(d) Level 3 risk assessment is required.

5. References

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Appendix H

Summary Tables

Table H1: Summary of Laboratory Results – SAC for construction and maintenance workers

				Priority metals								Priority PAH				Priority TRH						BTEX			
				Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	Naphthalene [b]	Benzo(a)pyrene (B(a)P)	Benzo(a)pyrene TEQ (B(a)P TEQ)	Total PAH	TRH C6 - C10	TRH >C10-C16	FI ((C6-C10)- BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	Total Xylenes
			PQL	4	0.4	1	1	1	0.1	1	1	1	0.05	0.5	0.05	25	50	25	50	100	100	0.2	0.5	1	1
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH101	0 - 0.3 m	FILL	26/08/25	**13**	<0.4	**11**	**47**	**140**	**0.1**	**7**	**130**	<1	**3.7**	**5.2**	**31**	<25	<50	<25	<50	**190**	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	**14**	<0.4	**12**	**53**	**140**	**0.1**	**6**	**120**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	0.5 - 0.7 m	FILL	26/08/25	**31**	**2**	**13**	**98**	**280**	**0.3**	**12**	**280**	<1	**14**	**19**	**130**	<25	<50	<25	<50	**740**	**250**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH101a	5.2 - 5.5 m	FILL	26/08/25	**10**	**1**	**18**	**660**	**340**	**0.2**	**38**	**770**	<1	**11**	**16**	**110**	<25	<50	<25	<50	**1000**	**280**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	8.2 - 8.5 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	<0.5	<1	<1
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	3 -	20 000 -	85000 -	230 -
BH102	0 - 0.2 m	FILL	26/08/25	**14**	<0.4	**8**	**60**	**150**	**0.1**	**7**	**120**	<1	**8.4**	**13**	**77**	<25	<50	<25	<50	**470**	**180**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH102a	0.1 - 0.3 m	FILL	26/08/25	**10**	<0.4	**10**	**66**	**74**	**0.1**	**19**	**95**	<1	**2**	**2.9**	**22**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	4 - 4.1 m	FILL	26/08/25	**11**	**1**	**19**	**160**	**490**	**0.6**	**19**	**620**	**2.4**	**20**	**32**	**280**	<25	**51**	<25	<50	**1,400**	**410**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	7.5 - 8 m	Natural	26/08/25	<4	<0.4	**6**	**8**	**19**	<0.1	**5**	**32**	<1	**0.73**	**1.1**	**8.8**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH103	1 - 1.2 m	FILL	26/08/25	**7**	<0.4	**11**	**20**	**92**	<0.1	**4**	**57**	<1	**0.91**	**1.3**	**8.6**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	370 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH1	0.2 - 0.4 m	FILL	28/08/25	**9**	<0.4	**16**	**47**	**110**	**0.1**	**21**	**69**	<1	**1.6**	**2.2**	**14**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	**10**	<1	**17**	**48**	**123**	**0.1**	**25**	**76**	<1	**2.2**	**2.8**	**17.1**	<10	<50	<10	<50	<100	<100	<0.2	<0.5	<0.5	<0.5
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH2	0.7 - 0.9 m	FILL	28/08/25	**9**	<0.4	**19**	**23**	**46**	<0.1	**20**	**38**	<1	**0.5**	**0.6**	**5.4**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH3	0.05 - 0.15 m	FILL	28/08/25	<4	<0.4	**6**	**51**	**7**	<0.1	**10**	**26**	<1	**0.06**	<0.5	**0.94**	<25	<50	<25	<50	**2,500**	**1,700**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH3	0.8 - 1 m	FILL	28/08/25	<4	<0.4	**11**	**31**	**13**	<0.1	**40**	**25**	<1	**0.2**	<0.5	**2.1**	<25	<50	<25	<50	**260**	**180**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -

Table H1: Summary of Laboratory Results – SAC for construction and maintenance workers

				Priority metals								Priority PAH				Priority TRH						BTEX			
				Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	Naphthalene [b]	Benzo(a)pyrene (B(a)P)	Benzo(a)pyrene TEQ (B(a)P TEQ)	Total PAH	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)- BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	Total Xylenes
			PQL	4	0.4	1	1	1	0.1	1	1	1	0.05	0.5	0.05	25	50	25	50	100	100	0.2	0.5	1	1
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH4	0.2 - 0.4 m	FILL	28/08/25	**6**	<0.4	**13**	**20**	**21**	<0.1	**27**	**24**	<1	**0.67**	**1**	**6.2**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH5	0.3 - 0.5 m	FILL	26/08/25	**6**	<0.4	**15**	**100**	**140**	<0.1	**9**	**83**	<1	**5.6**	**8.3**	**45**	<25	<50	<25	<50	**280**	**120**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH6	0 - 0.2 m	FILL	26/08/25	**14**	<0.4	**10**	**93**	**150**	<0.1	**13**	**110**	<1	**3**	**4.2**	**24**	<25	<50	<25	<50	**220**	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH6a	0.2 - 0.3 m	FILL	28/08/25	<4	<0.4	**2**	**10**	**5**	<0.1	**1**	**13**	<1	**0.1**	<0.5	**0.76**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	<4	<0.4	**2**	**7**	**7**	<0.1	**2**	**15**	<1	**0.09**	<0.5	**0.3**	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH6a	1.1 - 1.3 m	FILL	28/08/25	**11**	**0.8**	**17**	**69**	**230**	**0.2**	**14**	**560**	<1	**5.6**	**8.5**	**55**	<25	<50	<25	<50	**390**	**120**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH6a	2.8 - 3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	3.8 - 4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	4.8 - 5 m	FILL	28/08/25	**24**	**0.8**	**21**	**210**	**530**	**0.3**	**27**	**690**	<1	**6.2**	**8.6**	**56**	<25	<50	<25	<50	**400**	**140**	<0.2	<0.5	<1	<1
				3,000 -	900 -	3,600 -	240,000 -	1,500 -	730 -	6,000 -	400,000 -	29000 -	- -	40 -	4,000 -	- -	- -	260 -	62000 -	85000 -	1.2E+05 -	3 -	20 000 -	85000 -	230 -
BH6a	5.8 - 6 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Commercial/ industrial D

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-D (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-D (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL C Recreational /Open space (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table H1: Summary of Laboratory Results – SAC for construction and maintenance workers

				VOC	Priority phenols	Priority OCP									Priority OPP	PCB	Priority PFAS				
				Summary	Total Phenolics	DDT+DDE+DDDc	Aldrin + Dieldrin	Total Chlordane	Total Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Mirex	Chlorpyriphos	Total PCB	Total Positive PFAS	PFOA	PFOS + PFHxS	PFOS	PFHxS
			PQL	1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.0001	0.0001	0.0001	0.0001
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH101	0 - 0.3 m	FILL	26/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.0025**	**0.0003**	**0.0022**	**0.0022**	<0.0001
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	50 -	20 -	20 -	20 -
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	0.5 - 0.7 m	FILL	26/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -
BH101a	5.2 - 5.5 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	8.2 - 8.5 m	FILL	26/08/25	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102	0 - 0.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	0.1 - 0.3 m	FILL	26/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	4 - 4.1 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	7.5 - 8 m	Natural	26/08/25	<1	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 -	20 -	20 -	20 -
BH103	1 - 1.2 m	FILL	26/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH1	0.2 - 0.4 m	FILL	28/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.0001**	<0.0001	**0.0001**	**0.0001**	<0.0001
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	50 -	20 -	20 -	20 -
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	<0.0002	<0.0002	<0.0002
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 -	20 -	20 -	20 -
BH2	0.7 - 0.9 m	FILL	28/08/25	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 -	20 -	20 -	20 -
BH3	0.05 - 0.15 m	FILL	28/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -
BH3	0.8 - 1 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Table H1: Summary of Laboratory Results – SAC for construction and maintenance workers

				VOC	Priority phenols	Priority OCP									Priority OPP	PCB	Priority PFAS				
				Summary	Total Phenolics	DDT+DDE+DDD c	Aldrin + Dieldrin	Total Chlordane	Total Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Mirex	Chlorpyriphos	Total PCB	Total Positive PFAS	PFOA	PFOS + PFHxS	PFOS	PFHxS
			PQL	1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.0001	0.0001	0.0001	0.0001
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH4	0.2 - 0.4 m	FILL	28/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -
BH5	0.3 - 0.5 m	FILL	26/08/25	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6	0 - 0.2 m	FILL	26/08/25	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -
BH6a	0.2 - 0.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 -	20 -	20 -	20 -
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	50 -	20 -	20 -	20 -
BH6a	1.1 - 1.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	2.8 - 3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	3.8 - 4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	4.8 - 5 m	FILL	28/08/25	<1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				- -	660 -	3,600 -	45 -	530 -	2,000 -	100 -	50 -	80 -	2,500 -	100 -	2,000 -	7 -	- -	- -	- -	- -	- -
BH6a	5.8 - 6 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Commercial/ industrial D

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-D (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-D (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL C Recreational /Open space (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table H1: Summary of Laboratory Results – SAC for construction and maintenance workers

				Asbestos (500mL)							Asbetsos (40g)		pH, EC and CEC	
				Asbestos ID in soil >0.1g/kg	Trace Analysis (NEPC)	Total Asbestos#1	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation	Trace Analysis (AS)	Asbestos ID in soil >0.1g/kg	pH 1:5 soil:water	Caton Exchange Capacity
			PQL			0.1				0.001				1
Sample ID	Depth	Soil Matrix	Sample Date	-	-	g/kg	-	g	g	%(w/w)	-	-	pH Units	cmol/kg
BH101	0 - 0.3 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	**6.8**	**10**
								- -	- -	0.001 -			- -	- -
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH101a	0.5 - 0.7 m	FILL	26/08/25	**Detected**	NAD	**0.1323**	NAD	-	**0.071**	**0.0132**	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH101a	5.2 - 5.5 m	FILL	26/08/25	**Detected**	NAD	**1.0603**	NAD	**1.0317**	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	**Detected**	-	-
								- -	- -	- -			- -	- -
BH101a	8.2 - 8.5 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	**Detected**	-	-
								- -	- -	- -			- -	- -
BH102	0 - 0.2 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	**6.6**	**8.1**
								- -	- -	0.001 -			- -	- -
BH102a	0.1 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH102a	4 - 4.1 m	FILL	26/08/25	NAD	NAD	<0.1	**Detected**	-	**0.0176**	**0.0041**	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH102a	7.5 - 8 m	Natural	26/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH103	1 - 1.2 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH1	0.2 - 0.4 m	FILL	28/08/25	NAD	NAD	<0.1	**Detected**	-	**0.0185**	**0.0031**	-	-	-	-
								- -	- -	0.001 -			- -	- -
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH2	0.7 - 0.9 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH3	0.05 - 0.15 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH3	0.8 - 1 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -

Table H1: Summary of Laboratory Results – SAC for construction and maintenance workers

				Asbestos (500mL)							Asbetsos (40g)		pH, EC and CEC	
				Asbestos ID in soil >0.1g/kg	Trace Analysis (NEPC)	Total Asbestos#1	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation	Trace Analysis (AS)	Asbestos ID in soil >0.1g/kg	pH 1:5 soil:water	Cation Exchange Capacity
			PQL			0.1				0.001				1
Sample ID	Depth	Soil Matrix	Sample Date	-	-	g/kg	-	g	g	%(w/w)	-	-	pH Units	cmol/kg
BH4	0.2 - 0.4 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH5	0.3 - 0.5 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6	0 - 0.2 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6a	0.2 - 0.3 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH6a	1.1 - 1.3 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	**8**	**11**
								- -	- -	0.001 -			- -	- -
BH6a	2.8 - 3 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6a	3.8 - 4 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6a	4.8 - 5 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6a	5.8 - 6 m	FILL	28/08/25	**Detected**	NAD	**120.5590**	NAD	-	**73.5**	**12.0559**	-	-	-	-
								- -	- -	0.001 -			- -	- -

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Commercial/ industrial D

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-D (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-D (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL C Recreational /Open space (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table H2: Summary of Laboratory Results – SAC for generic recreational land use

				Priority metals								Priority PAH				Priority TRH						
				Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	Naphthalene [b]	Benzo(a)pyrene (B(a)P)	Benzo(a)pyrene TEQ (B(a)P TEQ)	Total PAH	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)- BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	Silica Gel Clean F3 (>C16-C34)	F4 (>C34-C40)
			PQL	4	0.4	1	1	1	0.1	1	1	1	0.05	0.5	0.05	25	50	25	50	100	50	100
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH101	0 - 0.3 m	FILL	26/08/25	**13**	<0.4	**11**	**47**	**140**	**0.1**	**7**	**130**	<1	**3.7**	**5.2**	**31**	<25	<50	<25	<50	**190**	**-**	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	**14**	<0.4	**12**	**53**	**140**	**0.1**	**6**	**120**	-	-	-	-	-	-	-	-	-	-	-
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	0.5 - 0.7 m	FILL	26/08/25	**31**	**2**	**13**	**98**	**280**	**0.3**	**12**	**280**	<1	**14**	**19**	**130**	<25	<50	<25	<50	**740**	**-**	**250**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH101a	5.2 - 5.5 m	FILL	26/08/25	**10**	**1**	**18**	**660**	**340**	**0.2**	**38**	**770**	<1	**11**	**16**	**110**	<25	<50	<25	<50	**1000**	**620**	**280**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	8.2 - 8.5 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102	0 - 0.2 m	FILL	26/08/25	**14**	<0.4	**8**	**60**	**150**	**0.1**	**7**	**120**	<1	**8.4**	**13**	**77**	<25	<50	<25	<50	**470**	-	**180**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH102a	0.1 - 0.3 m	FILL	26/08/25	**10**	<0.4	**10**	**66**	**74**	**0.1**	**19**	**95**	<1	**2**	**2.9**	**22**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	4 - 4.1 m	FILL	26/08/25	**11**	**1**	**19**	**160**	**490**	**0.6**	**19**	**620**	**2.4**	**20**	**32**	**280**	<25	**51**	<25	<50	**1,400**	**980**	**410**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	7.5 - 8 m	Natural	26/08/25	<4	<0.4	**6**	**8**	**19**	<0.1	**5**	**32**	<1	**0.73**	**1.1**	**8.8**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH103	1 - 1.2 m	FILL	26/08/25	**7**	<0.4	**11**	**20**	**92**	<0.1	**4**	**57**	<1	**0.91**	**1.3**	**8.6**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH1	0.2 - 0.4 m	FILL	28/08/25	**9**	<0.4	**16**	**47**	**110**	**0.1**	**21**	**69**	<1	**1.6**	**2.2**	**14**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- -	- 2,800
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	**10**	<1	**17**	**48**	**123**	**0.1**	**25**	**76**	<1	**2.2**	**2.8**	**17.1**	<10	<50	<10	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- -	- 2,800
BH2	0.7 - 0.9 m	FILL	28/08/25	**9**	<0.4	**19**	**23**	**46**	<0.1	**20**	**38**	<1	**0.5**	**0.6**	**5.4**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- -	- 2,800
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH3	0.05 - 0.15 m	FILL	28/08/25	<4	<0.4	**6**	**51**	**7**	<0.1	**10**	**26**	<1	**0.06**	<0.5	**0.94**	<25	<50	<25	<50	**2,500**	**2,500**	**1,700**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH3	0.8 - 1 m	FILL	28/08/25	<4	<0.4	**11**	**31**	**13**	<0.1	**40**	**25**	<1	**0.2**	<0.5	**2.1**	<25	<50	<25	<50	**260**	-	**180**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH4	0.2 - 0.4 m	FILL	28/08/25	**6**	<0.4	**13**	**20**	**21**	<0.1	**27**	**24**	<1	**0.67**	**1**	**6.2**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH5	0.3 - 0.5 m	FILL	26/08/25	**6**	<0.4	**15**	**100**	**140**	<0.1	**9**	**83**	<1	**5.6**	**8.3**	**45**	<25	<50	<25	<50	**280**	-	**120**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH6	0 - 0.2 m	FILL	26/08/25	**14**	<0.4	**10**	**93**	**150**	<0.1	**13**	**110**	<1	**3**	**4.2**	**24**	<25	<50	<25	<50	**220**	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800

Table H2: Summary of Laboratory Results – SAC for generic recreational land use

				Priority metals								Priority PAH				Priority TRH						
				Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	Naphthalene [b]	Benzo(a)pyrene (B(a)P)	Benzo(a)pyrene TEQ (B(a)P TEQ)	Total PAH	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)- BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	Silica Gel Clean F3 (>C16-C34)	F4 (>C34-C40)
			PQL	4	0.4	1	1	1	0.1	1	1	1	0.05	0.5	0.05	25	50	25	50	100	50	100
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH6a	0.2 - 0.3 m	FILL	28/08/25	<4	<0.4	**2**	**10**	**5**	<0.1	**1**	**13**	<1	**0.1**	<0.5	**0.76**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	<4	<0.4	**2**	**7**	**7**	<0.1	**2**	**15**	<1	**0.09**	<0.5	**0.3**	<25	<50	<25	<50	<100	-	<100
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH6a	1.1 - 1.3 m	FILL	28/08/25	**11**	**0.8**	**17**	**69**	**230**	**0.2**	**14**	**560**	<1	**5.6**	**8.5**	**55**	<25	<50	<25	<50	**390**	-	**120**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	260 180	NL -	- 300	- 300	- 2,800
BH6a	2.8 - 3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	3.8 - 4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	4.8 - 5 m	FILL	28/08/25	**24**	**0.8**	**21**	**210**	**530**	**0.3**	**27**	**690**	<1	**6.2**	**8.6**	**56**	<25	<50	<25	<50	**400**	-	**140**
				300 100	90 -	300 200	17,000 210	600 1,100	80 -	1,200 160	30,000 510	NL 170	- 0.7	3 -	300 -	- -	- 120	NL 180	NL -	- 300	- 300	- 2,800
BH6a	5.8 - 6 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Recreational C including public open space

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-C (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-C (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL C Recreational /Open space (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table H2: Summary of Laboratory Results – SAC for generic recreational land use

				BTEX				VOC	Priority phenol	Priority OCP									Priority OPP	PCB	Priority PFAS				
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Summary	Total Phenolics	DDT+DDE+DDD [C]	Aldrin + Dieldrin	Total Chlordane	Total Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Mirex	Chlorpyriphos	Total PCB	Total Positive PFAS	PFOA	PFOS + PFHxS	PFOS	PFHxS
			PQL	0.2	0.5	1	1	1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.0001	0.0001	0.0001	0.0001
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH101	0 - 0.3 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.0025**	**0.0003**	**0.0022**	**0.0022**	<0.0001
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	10 0/0.001	1 -	1 1/0.003	1 -
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	0.5 - 0.7 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	- -	- -	- -	- -
BH101a	5.2 - 5.5 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH101a	8.2 - 8.5 m	FILL	26/08/25	<0.2	<0.5	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102	0 - 0.2 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	0.1 - 0.3 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	- -	- -	- -	- -
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	4 - 4.1 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH102a	7.5 - 8 m	Natural	26/08/25	<0.2	<0.5	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	10 0/0.001	1 -	1 1/0.003	1 -
BH103	1 - 1.2 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	- -	- -	- -	- -
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH1	0.2 - 0.4 m	FILL	28/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.0001**	<0.0001	**0.0001**	**0.0001**	<0.0001
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	10 0/0.001	1 -	1 1/0.003	1 -
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	<0.0002	<0.0002	<0.0002
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	10 0/0.001	1 -	1 1/0.003	1 -
BH2	0.7 - 0.9 m	FILL	28/08/25	<0.2	<0.5	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	10 0/0.001	1 -	1 1/0.003	1 -
BH3	0.05 - 0.15 m	FILL	28/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	- -	- -	- -	- -
BH3	0.8 - 1 m	FILL	28/08/25	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH4	0.2 - 0.4 m	FILL	28/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	- -	- -	- -	- -
BH5	0.3 - 0.5 m	FILL	26/08/25	<0.2	<0.5	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6	0 - 0.2 m	FILL	26/08/25	<0.2	<0.5	<1	<1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	- -	- -	- -	- -

Table H2: Summary of Laboratory Results – SAC for generic recreational land use

				BTEX				VOC	Priority phenol	Priority OCP									Priority OPP	PCB	Priority PFAS				
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Summary	Total Phenolics	DDT+DDE+DDD [c]	Aldrin + Dieldrin	Total Chlordane	Total Endosulfan	Endrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Mirex	Chlorpyriphos	Total PCB	Total Positive PFAS	PFOA	PFOS + PFHxS	PFOS	PFHxS
			PQL	0.2	0.5	1	1	1	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.0001	0.0001	0.0001	0.0001
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH6a	0.2 - 0.3 m	FILL	28/08/25	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	10 0/0.001	1 -	1 1/0.003	1 -
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	10 0/0.001	1 -	1 1/0.003	1 -
BH6a	1.1 - 1.3 m	FILL	28/08/25	<0.2	<0.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	2.8 - 3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	3.8 - 4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
BH6a	4.8 - 5 m	FILL	28/08/25	<0.2	<0.5	<1	<1	<1	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
				3 50	NL 85	NL 70	230 105	- -	120 -	400 180	10 -	70 -	340 -	20 -	10 -	10 -	400 -	20 -	250 -	1 -	- -	- -	- -	- -	- -
BH6a	5.8 - 6 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

Bold = Lab detections - = Not tested or No HIL/HSL/EIL/ESL (as applicable) or Not applicable NL = Not limiting NAD = No Asbestos detected

HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Naphthalene reported as highest detection from the BTEXN or PAH suite, or if both results <PQL as lowest PQL

c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Recreational C including public open space

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-C (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-C (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL C Recreational /Open space (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

Table H2: Summary of Laboratory Results – SAC for generic recreational land use

				Asbestos (500mL)							Asbetsos (40g)		pH, EC and CEC	
				Asbestos ID in soil >0.1g/kg	Trace Analysis (NEPC)	Total Asbestos#1	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation	Trace Analysis (AS)	Asbestos ID in soil >0.1g/kg	pH 1:5 soil:water	Cation Exchange Capacity
			PQL			0.1				0.001				1
Sample ID	Depth	Soil Matrix	Sample Date	-	-	g/kg	-	g	g	%(w/w)	-	-	pH Units	cmol/kg
BH101	0 - 0.3 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	**6.8**	**10**
								- -	- -	0.001 -			- -	- -
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH101a	0.5 - 0.7 m	FILL	26/08/25	**Detected**	NAD	**0.1323**	NAD	-	**0.071**	**0.0132**	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH101a	5.2 - 5.5 m	FILL	26/08/25	**Detected**	NAD	**1.0603**	NAD	**1.0317**	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	**Detected**	-	-
								- -	- -	- -			- -	- -
BH101a	8.2 - 8.5 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	**Detected**	-	-
								- -	- -	- -			- -	- -
BH102	0 - 0.2 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	**6.6**	**8.1**
								- -	- -	0.001 -			- -	- -
BH102a	0.1 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH102a	4 - 4.1 m	FILL	26/08/25	NAD	NAD	<0.1	**Detected**	-	**0.0176**	**0.0041**	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH102a	7.5 - 8 m	Natural	26/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH103	1 - 1.2 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	NAD	NAD	-	-
								- -	- -	- -			- -	- -
BH1	0.2 - 0.4 m	FILL	28/08/25	NAD	NAD	<0.1	**Detected**	-	**0.0185**	**0.0031**	-	-	-	-
								- -	- -	0.001 -			- -	- -
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH2	0.7 - 0.9 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH3	0.05 - 0.15 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH3	0.8 - 1 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH4	0.2 - 0.4 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH5	0.3 - 0.5 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6	0 - 0.2 m	FILL	26/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -

Table H2: Summary of Laboratory Results – SAC for generic recreational land use

				Asbestos (500mL)							Asbetsos (40g)		pH, EC and CEC	
				Asbestos ID in soil >0.1g/kg	Trace Analysis (NEPC)	Total Asbestos#1	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation	Trace Analysis (AS)	Asbestos ID in soil >0.1g/kg	pH 1:5 soil:water	Cation Exchange Capacity
			PQL			0.1				0.001				1
Sample ID	Depth	Soil Matrix	Sample Date	-	-	g/kg	-	g	g	%(w/w)	-	-	pH Units	cmol/kg
BH6a	0.2 - 0.3 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-
								- -	- -	- -			- -	- -
BH6a	1.1 - 1.3 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	**8**	**11**
								- -	- -	0.001 -			- -	- -
BH6a	2.8 - 3 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6a	3.8 - 4 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6a	4.8 - 5 m	FILL	28/08/25	NAD	NAD	<0.1	NAD	-	-	<0.001	-	-	-	-
								- -	- -	0.001 -			- -	- -
BH6a	5.8 - 6 m	FILL	28/08/25	**Detected**	NAD	**120.5590**	NAD	-	**73.5**	**12.0559**	-	-	-	-
								- -	- -	0.001 -			- -	- -

Lab result

HIL/HSL value EIL/ESL/EGV value

HIL/HSL exceedance EIL/ESL exceedance HIL/HSL and EIL/ESL exceedance ML exceedance ML and HIL/HSL or EIL/ESL exceedance

Indicates that asbestos has been detected by the lab, refer to the lab report **Blue** = DC exceedance **Red** = EGV-indirect exceedance HSL 0-<1 Exceedance

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HIL = Health investigation level HSL = Health screening level (excluding DC) EIL = Ecological investigation level ESL = Ecological screening level EGV = Environmental Guideline Value ML = Management Limit DC = Direct Contact HSL

Notes:

a QA/QC replicate of sample listed directly below the primary sample

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c EIL criteria applies to DDT only

Site Assessment Criteria (SAC):

SAC based on generic land use thresholds for Recreational C including public open space

Refer to the SAC section of report for information of SAC sources and rationale. Summary information as follows:

HIL	HIL-C (NEPC, 2013 or HEPA, 2025 (PFAS only))	EGV	EGV, all land uses, direct exposure (HEPA, 2025)
HSL (vapour intrusion)	HSL-C (NEPC, 2013)	ESL	Urban Residential and Public Open Space (NEPC, 2013)
DC	Direct contact HSL C Recreational /Open space (CRC CARE, 2011)	ML	Residential, Parkland and Public Open Space (NEPC, 2013)
		EGV-Indir	EGV, all land uses, Indirect exposure (HEPA, 2025)

PAH Fingerprint V1.8
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Project No: 236743.01
Project: Leichhardt Oval Refurbishment
Location: 68 Mary Street, Lilyfield NSW

Table H3: Results for PAH Fingerprinting Method A (Correlation Coefficient)

	BH101/0-0.3	BH101a/0.5-0.[illegible]	BH101a/5.2-5.[illegible]	BH102/0-0.2	BH102a/0.1-0.[illegible]	BH102a/4-4.1	BH102a/7.5-8	BH103/1-1.2	BH1/0.2-0.4	BH2/0.7-0.9	BH3/0.05-0.15
Black Coal Tar 1	-0.04	0.05	0.14	-0.03	0.18	0.19	0.18	0.00	0.02	0.27	-0.02
Black Coal Tar 2	0.43	0.55	0.64	0.46	0.63	0.67	0.57	0.54	0.52	0.67	0.27
Brown Coal Tar	-0.35	-0.29	-0.20	-0.34	-0.16	-0.18	-0.23	-0.30	-0.31	-0.17	-0.09
Steelworks Tar 1	0.26	0.40	0.52	0.27	0.51	0.57	0.43	0.41	0.36	0.57	0.13
Steelworks Tar 2	0.31	0.37	0.45	0.31	0.52	0.44	0.30	0.39	0.35	0.36	-0.15
Weathered Coal Tar	0.11	0.28	0.41	0.15	0.33	0.49	0.37	0.28	0.24	0.54	0.36
Creosote 1	0.09	0.26	0.44	0.12	0.37	0.49	0.27	0.30	0.22	0.45	0.14
Creosote 2	-0.22	-0.10	0.06	-0.21	0.03	0.10	-0.04	-0.08	-0.13	0.09	0.01
Weathered Creosote	0.18	0.34	0.52	0.21	0.43	0.56	0.36	0.38	0.30	0.53	0.23
Ash from Black Coal 1	0.85	0.91	0.96	0.85	0.95	0.95	0.78	0.94	0.89	0.82	0.28
Ash from Black Coal 2	0.83	0.92	0.98	0.86	0.95	0.98	0.87	0.93	0.90	0.93	0.34
Ash from Black Coal 3	0.88	0.94	0.96	0.88	0.97	0.96	0.85	0.94	0.92	0.89	0.27
Ash from Brown Coal	0.92	0.96	0.97	0.92	0.96	0.95	0.82	0.99	0.95	0.85	0.33
Bitumen	0.07	0.07	0.06	0.03	0.09	0.16	0.08	0.03	0.06	0.08	0.32
Coke	0.94	0.98	0.98	0.94	0.99	0.97	0.88	0.98	0.97	0.89	0.29
Waste Oil Petrol	0.58	0.53	0.38	0.54	0.44	0.52	0.55	0.41	0.52	0.47	0.32
Waste Oil Diesel	0.62	0.67	0.76	0.61	0.78	0.78	0.50	0.76	0.67	0.61	0.12

	BH3/0.8-1	BH4/0.2-0.4	BH5/0.3-0.5	BH6/0-0.2	BH6a/0.2-0.3	BH6a/1.1-1.3	BH6a/4.8-5				
Black Coal Tar 1	0.14	-0.10	-0.06	-0.05	0.06	0.05	0.08	-	-	-	-
Black Coal Tar 2	0.55	0.40	0.40	0.41	0.40	0.53	0.57	-	-	-	-
Brown Coal Tar	-0.23	-0.36	-0.37	-0.36	-0.23	-0.31	-0.27	-	-	-	-
Steelworks Tar 1	0.36	0.22	0.20	0.23	0.19	0.37	0.43	-	-	-	-
Steelworks Tar 2	0.29	0.30	0.24	0.29	0.29	0.33	0.39	-	-	-	-
Weathered Coal Tar	0.30	0.06	0.08	0.08	0.03	0.27	0.31	-	-	-	-
Creosote 1	0.22	0.06	0.01	0.05	0.02	0.22	0.30	-	-	-	-
Creosote 2	-0.06	-0.25	-0.28	-0.26	-0.17	-0.13	-0.06	-	-	-	-
Weathered Creosote	0.31	0.15	0.11	0.13	0.08	0.31	0.38	-	-	-	-
Ash from Black Coal 1	0.81	0.84	0.78	0.82	0.61	0.88	0.92	-	-	-	-
Ash from Black Coal 2	0.85	0.82	0.79	0.81	0.67	0.90	0.93	-	-	-	-
Ash from Black Coal 3	0.87	0.85	0.83	0.86	0.71	0.91	0.95	-	-	-	-
Ash from Brown Coal	0.85	0.92	0.88	0.90	0.70	0.94	0.96	-	-	-	-
Bitumen	0.20	0.07	0.03	0.04	-0.07	0.05	0.06	-	-	-	-
Coke	0.90	0.93	0.90	0.92	0.76	0.96	0.98	-	-	-	-
Waste Oil Petrol	0.62	0.63	0.57	0.56	0.37	0.54	0.47	-	-	-	-
Waste Oil Diesel	0.54	0.63	0.50	0.58	0.31	0.62	0.70	-	-	-	-

Notes

	Result ≥0.95 =	Very Good Fit
1 ≤	Result <0.95 =	Good Fit
1 ≤	Result <0.85 =	Reasonable Fit
	Result <0.75 =	Poor Fit

Table H4: Summary of Laboratory Results – Waste Classification

				Metals							TRH		BTEX				PAH				Phenols
				Total Arsenic	Cadmium	Total Chromium	Lead	TCLP- Lead	Mercury (inorganic)	Nickel	TRH C6 - C9	TRH C10-C36	Benzene	Toluene	Ethylbenzene	Total Xylenes	Benzo(a)pyrene (B(a)P)	TCLP Benzo(a)pyrene (B(a)P)	Total PAH	Total +ve PAH's	Total Phenolics
			PQL	4	0.4	1	1	0.03	0.1	1	25	50	0.2	0.5	1	1	0.05	0.0001	0.05	-	5
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/lL	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg
BH101	0 - 0.3 m	FILL	26/08/25	**13**	<0.4	**11**	**140**	**0.05**	**0.1**	**7**	<25	**130**	<0.2	<0.5	<1	<1	**3.7**	<0.0001	**31**	**0.0005**	<5
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	**14**	<0.4	**12**	**140**	**-**	**0.1**	**6**	-	-	-	-	-	-	-	-	-	**-**	-
BH101a	0.5 - 0.7 m	FILL	26/08/25	**31**	**2**	**13**	**280**	**0.3**	**0.3**	**12**	<25	**850**	<0.2	<0.5	<1	<1	**14**	<0.0001	**130**	**0.0009**	<5
BH101a	5.2 - 5.5 m	FILL	26/08/25	**10**	**1**	**18**	**340**	**0.33**	**0.2**	**38**	<25	**1,200**	<0.2	<0.5	<1	<1	**11**	<0.0001	**110**	**0.0017**	-
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH101a	8.2 - 8.5 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	<0.2	<0.5	<1	<1	-	-	-	-	-
BH102	0 - 0.2 m	FILL	26/08/25	**14**	<0.4	**8**	**150**	**0.04**	**0.1**	**7**	<25	**540**	<0.2	<0.5	<1	<1	**8.4**	<0.0001	**77**	**NIL(+) VE**	-
BH102a	0.1 - 0.3 m	FILL	26/08/25	**10**	<0.4	**10**	**74**	-	**0.1**	**19**	<25	<50	<0.2	<0.5	<1	<1	**2**	**-**	**22**	**-**	<5
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
BH102a	4 - 4.1 m	FILL	26/08/25	**11**	**1**	**19**	**490**	**0.52**	**0.6**	**19**	<25	**1,700**	<0.2	<0.5	<1	<1	**20**	<0.0001	**280**	**0.035**	-
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH102a	7.5 - 8 m	Natural	26/08/25	<4	<0.4	**6**	**19**	-	<0.1	**5**	<25	<50	<0.2	<0.5	<1	<1	**0.73**	**-**	**8.8**		-
BH103	1 - 1.2 m	FILL	26/08/25	**7**	<0.4	**11**	**92**	-	<0.1	**4**	<25	<50	<0.2	<0.5	<1	<1	**0.91**	**-**	**8.6**		<5
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
BH1	0.2 - 0.4 m	FILL	28/08/25	**9**	<0.4	**16**	**110**	**0.1**	**0.1**	**21**	<25	<50	<0.2	<0.5	<1	<1	**1.6**	<0.0001	**14**	**0.0007**	<5
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	**10**	<1	**17**	**123**	-	**0.1**	**25**	<10	<50	<0.2	<0.5	<0.5	<0.5	**2.2**	**-**	**17.1**	**-**	-
BH2	0.7 - 0.9 m	FILL	28/08/25	**9**	<0.4	**19**	**46**	-	<0.1	**20**	<25	<50	<0.2	<0.5	<1	<1	**0.5**	**-**	**5.4**	**-**	-
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-
BH3	0.05 - 0.15 m	FILL	28/08/25	<4	<0.4	**6**	**7**	-	<0.1	**10**	<25	**3,100**	<0.2	<0.5	<1	<1	**0.06**	-	**0.94**	**-**	<5
BH3	0.8 - 1 m	FILL	28/08/25	<4	<0.4	**11**	**13**	-	<0.1	**40**	<25	**260**	<0.2	<0.5	<1	<1	**0.2**	-	**2.1**	**-**	-
BH4	0.2 - 0.4 m	FILL	28/08/25	**6**	<0.4	**13**	**21**	-	<0.1	**27**	<25	<50	<0.2	<0.5	<1	<1	**0.67**	-	**6.2**	**-**	<5
BH5	0.3 - 0.5 m	FILL	26/08/25	**6**	<0.4	**15**	**140**	<0.03	<0.1	**9**	<25	**330**	<0.2	<0.5	<1	<1	**5.6**	<0.0001	**45**	**0.0006**	-
BH6	0 - 0.2 m	FILL	26/08/25	**14**	<0.4	**10**	**150**	0.05	<0.1	**13**	<25	**260**	<0.2	<0.5	<1	<1	**3**	<0.0001	**24**	**-**	<5
BH6a	0.2 - 0.3 m	FILL	28/08/25	<4	<0.4	**2**	**5**	-	<0.1	**1**	<25	<50	<0.2	<0.5	<1	<1	**0.1**	**-**	**0.76**	**-**	-
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	<4	<0.4	**2**	**7**	-	<0.1	**2**	<25	<50	<0.2	<0.5	<1	<1	**0.09**	**-**	**0.3**	**-**	-
BH6a	1.1 - 1.3 m	FILL	28/08/25	**11**	**0.8**	**17**	**230**	**-**	**0.2**	**14**	<25	**440**	<0.2	<0.5	<1	<1	**5.6**	**-**	**55**	**-**	-
BH6a	2.8 - 3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-

Table H4: Summary of Laboratory Results – Waste Classification

				Metals							TRH		BTEX				PAH				Phenols
				Total Arsenic	Cadmium	Total Chromium	Lead	TCLP- Lead	Mercury (inorganic)	Nickel	TRH C6 - C9	TRH C10-C36	Benzene	Toluene	Ethylbenzene	Total Xylenes	Benzo(a)pyrene (B(a)P)	TCLP Benzo(a)pyrene (B(a)P)	Total PAH	Total +ve PAH's	Total Phenolics
			PQL	4	0.4	1	1	0.03	0.1	1	25	50	0.2	0.5	1	1	0.05	0.0001	0.05	-	5
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/lL	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg
BH6a	3.8 - 4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-
BH6a	4.8 - 5 m	FILL	28/08/25	**24**	**0.8**	**21**	**530**	**0.61**	**0.3**	**27**	<25	**460**	<0.2	<0.5	<1	<1	**6.2**	<0.0001	**56**	**0.0013**	<5
BH6a	5.8 - 6 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-
Waste Classification Criteria [f]																					
CT1				100	20	100	100	-	4	40	650	10,000	10	288	600	1000	0.8	-	200	-	288
SCC1				500	100	1,900	1,500	-	50	1,050	650	10,000	18	518	1,080	1,800	10	-	200	-	518
TCLP1				-	-	-	-	5	-	-	-	-	-	-	-	-	-	0.04	-	-	-
CT2				400	80	400	400	-	16	160	2,600	40,000	40	1,152	2,400	4,000	3.2	-	800	-	1,152
SCC2				2,000	400	7,600	6,000	-	200	4,200	2,600	40,000	72	2,073	4,320	7,200	23	-	800	-	2,073
TCLP2				-	-	-	-	20	-	-	-	-	-	-	-	-	-	0.16	-	-	-

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance Asbestos detection

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Total chromium used as initial screen for chromium(VI).

c Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)

d Criteria for scheduled chemicals used as an initial screen

e Criteria for Chlorpyrifos used as initial screen

f NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste

PQL Practical quantitation limit

CT1 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste

SCC1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

TCLP1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

CT2 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste

SCC2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

TCLP2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Table H4: Summary of Laboratory Results – Waste Classification

				OCP				OPP	PCB	VOC														
				Scheduled Chemical Waste (standard)	Total Endosulfan	Total Analysed OCP	Mirex	Total Analysed OPP	Total PCB	carbon tetrachloride	Monochlorobenzene	Chloroform	1,2-dichlorobenzene	1,4-dichlorobenzene	1,2-dichloroethane	1,1-Dichloroethene	Styrene (vinylbenzene)	1,1,1,2-tetrachloroethane	1,1,2,2-tetrachloroethane	tetrachloroethene	1,1,1-trichloroethane	1,1,2-trichloroethane	1,1,2-trichloroethylene	Vinyl Chloride
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH101	0 - 0.3 m	FILL	26/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH101a	0.5 - 0.7 m	FILL	26/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH101a	5.2 - 5.5 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH101a	8.2 - 8.5 m	FILL	26/08/25	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BH102	0 - 0.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH102a	0.1 - 0.3 m	FILL	26/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH102a	4 - 4.1 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH102a	7.5 - 8 m	Natural	26/08/25	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BH103	1 - 1.2 m	FILL	26/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH1	0.2 - 0.4 m	FILL	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2	0.7 - 0.9 m	FILL	28/08/25	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BH2	1.8 - 2 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3	0.05 - 0.15 m	FILL	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3	0.8 - 1 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH4	0.2 - 0.4 m	FILL	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5	0.3 - 0.5 m	FILL	26/08/25	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BH6	0 - 0.2 m	FILL	26/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6a	0.2 - 0.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6a	1.1 - 1.3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6a	2.8 - 3 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Douglas PARTNERS

Table H4: Summary of Laboratory Results – Waste Classification

				OCP				OPP	PCB	VOC													
				Scheduled Chemical Waste (standard)	Total Endosulfan	Total Analysed OCP	Mirex	Total Analysed OPP	Total PCB	carbon tetrachloride	Monochlorobenzene	Chloroform	1,2-dichlorobenzene	1,4-dichlorobenzene	1,2-dichloroethane	1,1-Dichloroethene	Styrene (vinylbenzene)	1,1,1,2-tetrachloroethane	1,1,2,2-tetrachloroethane	tetrachloroethene	1,1,1-trichloroethane	1,1,2-trichloroethane	1,1,2-trichloroethylene	Vinyl Chloride
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH6a	3.8 - 4 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6a	4.8 - 5 m	FILL	28/08/25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BH6a	5.8 - 6 m	FILL	28/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste Classification Criteria [f]																							
CT1				<50	60	-	-	4	<50	10	2,000	120	86	150	10	14	60	200	26	14	600	24	10	4
SCC1				<50	108	-	-	7.5	<50	18	3,600	126	155	270	18	25	108	360	46.8	25.2	1,080	43.2	18	7.2
TCLP1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CT2				<50	240	-	-	16	<50	40	8,000	480	344	600	40	56	240	800	104	56	2,400	96	40	16
SCC2				<50	432	-	-	30	<50	72	14,400	864	620	1,080	72	100	432	1,440	187.2	100.8	4,320	172.8	72	28.8
TCLP2				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance Asbestos detection

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Total chromium used as initial screen for chromium(VI).

c Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)

d Criteria for scheduled chemicals used as an initial screen

e Criteria for Chlorpyrifos used as initial screen

f NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste

PQL Practical quantitation limit

CT1 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste

SCC1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

TCLP1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

CT2 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste

SCC2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

TCLP2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Table H4: Summary of Laboratory Results – Waste Classification

				PFAS				Asbestos (40g)		Asbestos (500mL)						
				PFOA	TCLP PFOA	PFOS + PFHxS	TCLP PFOS + PFHxS	Asbestos ID in soil >0.1g/kg	Trace Analysis (AS)	Asbestos ID in soil >0.1g/kg	Asbestos ID in soil <0.1g/kg	Trace Analysis (NEPC)	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation	Total Asbestos#1
			PQL	0.0001	0.00001	0.0001	0.00001								0.001	0.1
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/L	mg/kg	mg/L	-	-	-	-	-	g	g	%(w/w)	g/kg
BH101	0 - 0.3 m	FILL	26/08/25	**0.0003**	<0.00001	**0.0022**	**0.00001**	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH101 - [TRIPLICATE]	0 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-
BH101a	0.5 - 0.7 m	FILL	26/08/25	-	-	-	-	-	-	**Detected**	NAD	NAD	–	**0.0710**	**0.0132**	**0.1323**
BH101a	5.2 - 5.5 m	FILL	26/08/25	-	-	-	-	-	-	**Detected**	NAD	NAD	**1.0317**	–	<0.001	**1.0603**
BH101a	6.5 - 7 m	FILL	26/08/25	-	-	-	-	**Detected**	NAD	-	-	-	-	-	-	-
BH101a	8.2 - 8.5 m	FILL	26/08/25	-	-	-	-	**Detected**	NAD	-	-	-	-	-	-	-
BH102	0 - 0.2 m	FILL	26/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH102a	0.1 - 0.3 m	FILL	26/08/25	-	-	-	-	-	-	-	-	-	-	-	-	-
BH102a	3 - 3.2 m	FILL	26/08/25	-	-	-	-	NAD	NAD	-	-	-	-	-	-	-
BH102a	4 - 4.1 m	FILL	26/08/25	-	-	-	-	-	-	NAD	**Detected**	NAD	–	**0.0176**	**0.0041**	<0.1
BH102a	5 - 5.2 m	FILL	26/08/25	-	-	-	-	NAD	NAD	-	-	-	-	-	-	-
BH102a	7.5 - 8 m	Natural	26/08/25	<0.0001	-	<0.0001	-	-	-	-	-	-	-	-	-	-
BH103	1 - 1.2 m	FILL	26/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH103	1.9 - 2 m	FILL	26/08/25	-	-	-	-	NAD	NAD	-	-	-	-	-	-	-
BH103	3.5 - 4 m	FILL	26/08/25	-	-	-	-	NAD	NAD	-	-	-	-	-	-	-
BH1	0.2 - 0.4 m	FILL	28/08/25	<0.0001	<0.00001	**0.0001**	<0.00001	-	-	NAD	**Detected**	NAD	–	**0.0185**	**0.0031**	<0.1
BD2/20250828	0.2 - 0.4 m	FILL	28/08/25	<0.0002	-	<0.0002	-	-	-	-	-	-	-	-	-	-
BH2	0.7 - 0.9 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH2	1.8 - 2 m	FILL	28/08/25	<0.0001	-	<0.0001	-	-	-	-	-	-	-	-	-	-
BH3	0.05 - 0.15 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH3	0.8 - 1 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH4	0.2 - 0.4 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH5	0.3 - 0.5 m	FILL	26/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH6	0 - 0.2 m	FILL	26/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH6a	0.2 - 0.3 m	FILL	28/08/25	<0.0001	-	<0.0001	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BD1/20250828	0.2 - 0.3 m	FILL	28/08/25	<0.0001	-	<0.0001	-	-	-	-	-	-	-	-	-	-
BH6a	1.1 - 1.3 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH6a	2.8 - 3 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1

Table H4: Summary of Laboratory Results – Waste Classification

				PFAS				Asbestos (40g)		Asbestos (500mL)						
				PFOA	TCLP PFOA	PFOS + PFHxS	TCLP PFOS + PFHxS	Asbestos ID in soil >0.1g/kg	Trace Analysis (AS)	Asbestos ID in soil >0.1g/kg	Asbestos ID in soil <0.1g/kg	Trace Analysis (NEPC)	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation	Total Asbestos#1
			PQL	0.0001	0.00001	0.0001	0.00001								0.001	0.1
Sample ID	Depth	Soil Matrix	Sample Date	mg/kg	mg/L	mg/kg	mg/L	-	-	-	-	-	g	g	%(w/w)	g/kg
BH6a	3.8 - 4 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH6a	4.8 - 5 m	FILL	28/08/25	-	-	-	-	-	-	NAD	NAD	NAD	–	–	<0.001	<0.1
BH6a	5.8 - 6 m	FILL	28/08/25	-	-	-	-	-	-	**Detected**	NAD	NAD	–	**73.5000**	**12.0559**	**120.5590**
Waste Classification Criteria [f]																
CT1				-	-	-	-	-	-	-	-	-	-	-	-	-
SCC1				18	-	1.8	-	-	-	-	-	-	-	-	-	-
TCLP1				-	0.5	-	0.05	-	-	-	-	-	-	-	-	-
CT2				-	-	-	-	-	-	-	-	-	-	-	-	-
SCC2				72	-	7.2	-	-	-	-	-	-	-	-	-	-
TCLP2				-	2	-	0.2	-	-	-	-	-	-	-	-	-

CT1 exceedance TCLP1 and/or SCC1 exceedance CT2 exceedance TCLP2 and/or SCC2 exceedance Asbestos detection

- = Not tested, no criteria or not applicable NAD = no asbestos detected

Notes:

a QA/QC replicate of sample listed directly below the primary sample

b Total chromium used as initial screen for chromium(VI).

c Total recoverable hydrocarbons (TRH) used as an initial screen for total petroleum hydrocarbons (TPH)

d Criteria for scheduled chemicals used as an initial screen

e Criteria for Chlorpyrifos used as initial screen

f NSW EPA, 2014, Waste Classification Guidelines Part 1; Classifying Waste

PQL Practical quantitation limit

CT1 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: General solid waste

SCC1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

TCLP1 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: General solid waste

CT2 Maximum values of specific contaminant concentration (SCC) for classification without TCLP: Restricted solid waste

SCC2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

TCLP2 Maximum values for leachable concentration (TCLP) and specific contaminant concentration (SCC) when used together: Restricted solid waste

Table H5: Summary of Laboratory Results – Groundwater

		Metals - Dissolved								metallic Inorg	TRH				BTEX					
		Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	Cyanide (total)	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene	Total Xylenes
	PQL	1	0.1	1	1	1	0.05	1	1	4	10	50	100	100	1	1	1	1	2	1
ANZG (2018) 95% LOP Marine			5.5	4.4	1.3	4.4	**0.1**	70	8	4					700	180	80		75	
HEPA (2018) 99% LOP Marine																				
NHMRC (2012) Recreation		100	20		20,000	50	10	200		800					10	8,000	3,000			6,000
NEPC (2013) HSL 2-4m											6,000	NL			5,000	NL	NL			NL
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	<1	**0.1**	<1	**50**	**8**	<0.05	**48**	**260**	<4	<10	**73**	<100	<100	<1	<1	<1	<1	<2	<1
BH103	02/09/25	<1	<0.1	<1	**27**	**4**	<0.05	**51**	**150**	<4	**12**	<50	<100	<100	<1	<1	<1	<1	<2	<1
BD1/20250902	02/09/25	<1	<0.1	<1	**28**	**4**	<0.05	**52**	**150**	-	**13**	<50	<100	<100	<1	<1	<1	<1	<2	<1
SW1	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- No criterion / not defined / not tested / not applicable
* QA/QC replicate of sample listed directly below the primary sample
a pH adjusted criteria
NL Not limiting
PQL Practical quantitation limit

Shaded cell is exceedance of guideline value

Where one or more guideline value is exceeded, the cell is shaded to the colour of the highest guideline value exceeded

NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013), health screening level Sand 2-4m

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 95% level of protection of species for Marine aquatic ecosystems [NB: 99% level of protection adopted for bioaccumulative chemicals]

HEPA (2025) PFAS National Environmental Management Plan, Version 3.0 99% level of protection for Marine water aquatic ecosystems

NHMRC (2008) Guidelines for Managing Risk in Recreational Water

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, orange text is 'unknown' level of protection

Underlining of ANZG (2018) criteria indicates a criteria with an ‘unknown’ level of protection.

ANZG (2018) DGV adopted for most conservative species of following analytes: DGV for xylene (m) adopted for xylene (m+p); DGV for CrVI adopted for total chromium; DGV for AsV adopted for total arsenic

ANZG (2018) DGV adopted for aluminium in freshwater is for receiving waters with pH >6.5. For receiving waters with pH <6.5 suitability of the more conservative, low reliability DGV of unknown LOP should be considered

ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H5: Summary of Laboratory Results – Groundwater

		PAH																				
		Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Naphthalene	Benzo(a)pyrene (B(a)P)	Benzo(b,j+k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Sum of detected PAH	DDE	DDT	DDD	Aldrin	Dieldrin
	PQL	0.1	0.1	0.1	0.1	1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.001	0.001	0.001	0.001
ANZG (2018) 95% LOP Marine				**0.01**		70	**0.1**					**1**			**0.6**				**0.0004**		**0.003**	
HEPA (2018) 99% LOP Marine																						
NHMRC (2012) Recreation							0.1												90			
NEPC (2013) HSL 2-4m						NL																
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	**0.2**	<0.1	**0.2**	**0.2**	<1	**0.1**	**0.2**	<0.1	**0.2**	<0.1	**0.5**	**0.2**	<0.1	**0.9**	**0.5**	**3.6**	<0.001	<0.001	<0.001	<0.001	<0.001
BH103	02/09/25	**0.6**	**0.2**	**0.8**	**0.9**	<1	**0.7**	**1**	**0.4**	**0.7**	<0.1	**2.9**	**0.3**	**0.3**	**4.2**	**3.1**	**16**	<0.001	<0.001	<0.001	<0.001	<0.001
BD1/20250902	02/09/25	**0.2**	<0.1	**0.4**	**0.7**	<1	**0.6**	**0.9**	**0.4**	**0.6**	<0.1	**1.6**	**0.1**	**0.3**	**1.5**	**1.6**	**9.1**	-	-	-	-	-
SW1	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- \- No criterion / not defined / not tested / not applicable
- * QA/QC replicate of sample listed directly below the primary sample
- a pH adjusted criteria
- NL Not limiting
- PQL Practical quantitation limit

Shaded cell is exceedance of guideline value

Where one or more guideline value is exceeded, the cell is shaded to the colour of the highest guideline value exceeded

NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013), health screening level Sand 2-4m

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ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H5: Summary of Laboratory Results – Groundwater

		OCP																				
		Aldrin + Dieldrin (calculated)	alpha-chlordane	gamma-Chlordane	Endosulfan I	Endosulfan II	Endosulfan Sulphate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	alpha-BHC	beta-BHC	delta-BHC	Lindane	Sum of detected OCP	Azinphos methyl (Guthion)	Bromophos-ethyl	Chlorpyriphos	Chlorpyriphos-methyl
	PQL	0.001	0.001	0.001	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.02	0.05	0.009	0.05
ANZG (2018) 95% LOP Marine								**0.004**		**0.0004**		0.1	**0.004**				0.007				**0.0005**	
HEPA (2018) 99% LOP Marine																						
NHMRC (2012) Recreation		3								3							100		300	100	100	
NEPC (2013) HSL 2-4m																						
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.05	<0.009	<0.05
BH103	02/09/25	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	<0.05	<0.009	<0.05
BD1/20250902	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW1	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- No criterion / not defined / not tested / not applicable
* QA/QC replicate of sample listed directly below the primary sample
a pH adjusted criteria
NL Not limiting
PQL Practical quantitation limit

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ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H5: Summary of Laboratory Results – Groundwater

		OPP													PCB							
		Diazinon	Dichlorvos	Dimethoate	Ethion	Ronnel (fenchlorphos)	Fenitrothion	Fenthion	Malathion	Parathion	Parathion-methyl	Methidathion	Fenamiphos	Sum of detected OPP	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Aroclor 1260	Sum of detected PCB
	PQL	0.01	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.004	0.05	0.05	0.05	0.004	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ANZG (2018) 95% LOP Marine							0.001															
HEPA (2018) 99% LOP Marine																						
NHMRC (2012) Recreation		40	50	70	40		70	70	700	200	7	60	5									
NEPC (2013) HSL 2-4m																						
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	<0.01	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.05	<0.05	<0.05	<0.004	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BH103	02/09/25	<0.01	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.05	<0.05	<0.05	<0.004	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BD1/20250902	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW1	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- No criterion / not defined / not tested / not applicable
* QA/QC replicate of sample listed directly below the primary sample
a pH adjusted criteria
NL Not limiting
PQL Practical quantitation limit
Shaded cell is exceedance of guideline value
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ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H5: Summary of Laboratory Results – Groundwater

		1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	tetrachloroethene	1,1,2-trichloroethane	1,1,2-trichloroethylene	1,1-dichloroethane	1,1-Dichloroethene	1,1-dichloropropene	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2,4-trichlorobenzene	1,2,4-trimethyl benzene	1,2-dibromo-3-chloropropane	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3,5-trimethyl benzene	1,3-dichlorobenzene	1,3-dichloropropane	1,4-dichlorobenzene
	PQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANZG (2018) 95% LOP Marine			270	400	70	1,900	330		700				**20**				1,900	900			1,100	
HEPA (2018) 99% LOP Marine																						
NHMRC (2012) Recreation					500				300							15,000	30					400
NEPC (2013) HSL 2-4m																						
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BH103	02/09/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BD1/20250902	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW1	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- No criterion / not defined / not tested / not applicable
* QA/QC replicate of sample listed directly below the primary sample
a pH adjusted criteria
NL Not limiting
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ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H5: Summary of Laboratory Results – Groundwater

		VOC (excluding BTEX)																			
		2,2-dichloropropane	2-chlorotoluene	4-chlorotoluene	4-isopropyl toluene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	carbon tetrachloride	Chloroethane	Vinyl Chloride	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Isopropylbenzene (cumene)	Cyclohexane	dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	1,2-dibromoethane
	PQL	1	1	1	1	1	1	1	1	1	10	10	1	10	1	1	1	1	1	1	10	1
ANZG (2018) 95% LOP Marine										240		100	770				30					
HEPA (2018) 99% LOP Marine																						
NHMRC (2012) Recreation										30		3										10
NEPC (2013) HSL 2-4m																						
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10	<1	<1	<1	**2**	<1	<1	<10	<1
BH103	02/09/25	<1	<1	<1	<1	<1	<1	**2**	<1	<1	<10	<10	**14**	<10	<1	<1	<1	<1	<1	<1	<10	<1
BD1/20250902	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW1	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- No criterion / not defined / not tested / not applicable
* QA/QC replicate of sample listed directly below the primary sample
a pH adjusted criteria
NL Not limiting
PQL Practical quantitation limit

Shaded cell is exceedance of guideline value

Where one or more guideline value is exceeded, the cell is shaded to the colour of the highest guideline value exceeded

NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013), health screening level Sand 2-4m

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 95% level of protection of species for Marine aquatic ecosystems [NB: 99% level of protection adopted for bioaccumulative chemicals]

HEPA (2025) PFAS National Environmental Management Plan, Version 3.0 99% level of protection for Marine water aquatic ecosystems

NHMRC (2008) Guidelines for Managing Risk in Recreational Water

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, orange text is 'unknown' level of protection

Underlining of ANZG (2018) criteria indicates a criteria with an 'unknown' level of protection.

ANZG (2018) DGV adopted for most conservative species of following analytes: DGV for xylene (m) adopted for xylene (m+p); DGV for CrVI adopted for total chromium; DGV for AsV adopted for total arsenic

ANZG (2018) DGV adopted for aluminium in freshwater is for receiving waters with pH >6.5. For receiving waters with pH <6.5 suitability of the more conservative, low reliability DGV of unknown LOP should be considered

ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H5: Summary of Laboratory Results – Groundwater

														PFAS					
		hexachlorobutadiene	Bromomethane	Monochlorobenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene (vinylbenzene)	Tert-butyl benzene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichlorofluoromethane	Sum of detected VOC	PFOS	PFOA	PFHxS	Perfluorobutanesulfonic acid (PFBS)	6:2 FTS	8:2 FTS	Sum of detected PFAS
	PQL	1	10	1	1	1	1	1	1	1	1	10	1	0.0002	0.0002	0.0002	0.0004	0.0004	0.0004	0.0002
ANZG (2018) 95% LOP Marine				55																
HEPA (2018) 99% LOP Marine														**0.00023**	**19**					
NHMRC (2012) Recreation		7	10	3,000				300						2	10	2				
NEPC (2013) HSL 2-4m																				
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<10	**2**	**0.0006**	**0.002**	**0.002**	**0.002**	**0.002**	<0.0004	**0.008**
BH103	02/09/25	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<10	**16**	**0.012**	**0.035**	**0.014**	**0.011**	**0.002**	<0.0004	**0.074**
BD1/20250902	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW1	02/09/25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- No criterion / not defined / not tested / not applicable
* QA/QC replicate of sample listed directly below the primary sample
a pH adjusted criteria
NL Not limiting
PQL Practical quantitation limit

Shaded cell is exceedance of guideline value

Where one or more guideline value is exceeded, the cell is shaded to the colour of the highest guideline value exceeded

NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013), health screening level Sand 2-4m

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 95% level of protection of species for Marine aquatic ecosystems [NB: 99% level of protection adopted for bioaccumulative chemicals]

HEPA (2025) PFAS National Environmental Management Plan, Version 3.0 99% level of protection for Marine water aquatic ecosystems

NHMRC (2008) Guidelines for Managing Risk in Recreational Water

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, orange text is 'unknown' level of protection

Underlining of ANZG (2018) criteria indicates a criteria with an 'unknown' level of protection.

ANZG (2018) DGV adopted for most conservative species of following analytes: DGV for xylene (m) adopted for xylene (m+p); DGV for CrVI adopted for total chromium; DGV for AsV adopted for total arsenic

ANZG (2018) DGV adopted for aluminium in freshwater is for receiving waters with pH >6.5. For receiving waters with pH <6.5 suitability of the more conservative, low reliability DGV of unknown LOP should be considered

ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H5: Summary of Laboratory Results – Groundwater

		Nutrients								Anions & Cations - Dissolved	
		Nitrogen	Ammonia as N	TKN in water	Nitrate as N	Nitrite as N	NOx as N	Organic Nitrogen as N	Phosphorous	Calcium	Magnesium
	PQL	100	5	100	5	5	5	200	50	500	500
ANZG (2018) 95% LOP Marine			2150[a]		700						
HEPA (2018) 99% LOP Marine											
NHMRC (2012) Recreation					113,000	9,000					
NEPC (2013) HSL 2-4m											
Sample ID	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BH102a	02/09/25	**800**	**610**	**800**	**40**	<5	**40**	<200	**70**	-	-
BH103	02/09/25	**39,000**	**550**	<100	40,000	**310**	**40,000**	<200	**80**	-	-
BD1/20250902	02/09/25	-	-	-	-	-	-	-	-	-	-
SW1	02/09/25	-	-	-	-	-	-	-	-	**330,000**	**1,100,000**

Notes:

- No criterion / not defined / not tested / not applicable
* QA/QC replicate of sample listed directly below the primary sample
a pH adjusted criteria
NL Not limiting
PQL Practical quantitation limit

Shaded cell is exceedance of guideline value

Where one or more guideline value is exceeded, the cell is shaded to the colour of the highest guideline value exceeded

NEPC (2013) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013), health screening level Sand 2-4m

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, 95% level of protection of species for Marine aquatic ecosystems [NB: 99% level of protection adopted for bioaccumulative chemicals]

HEPA (2025) PFAS National Environmental Management Plan, Version 3.0 99% level of protection for Marine water aquatic ecosystems

NHMRC (2008) Guidelines for Managing Risk in Recreational Water

ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, orange text is 'unknown' level of protection

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ANZG (2018) DGV adopted for aluminium in freshwater is for receiving waters with pH >6.5. For receiving waters with pH <6.5 suitability of the more conservative, low reliability DGV of unknown LOP should be considered

ANZG (2018) Ammonia DGV is pH and temperature dependant. DGV for a pH of 8 provided in table.

Table H6: Sumamry of LFG screening (2 September 2025)

Atm Pressure - 1024.5 to 1020.2 mb

Gas	CH4	CO2	O2*	H2S	CO	Flow
Units	%	%	%	ppm	ppm	L/hr
ID						
BH6a	0	4.9	12.8	0	12	0
BH102a	0	3.2	14.3	0	7	0
BH103	0	0.2	17.6	0	42	0
BH2	0	3.4	16.4	0	1	0

Peak % (highest of CH4 and CO2)	4.9
Peak Flow (assumed, based on no detectable flow)	0.3
GSV (calculated)	0.0147

GSV = peak flow (L/hr) * peak concentration (% v/v)

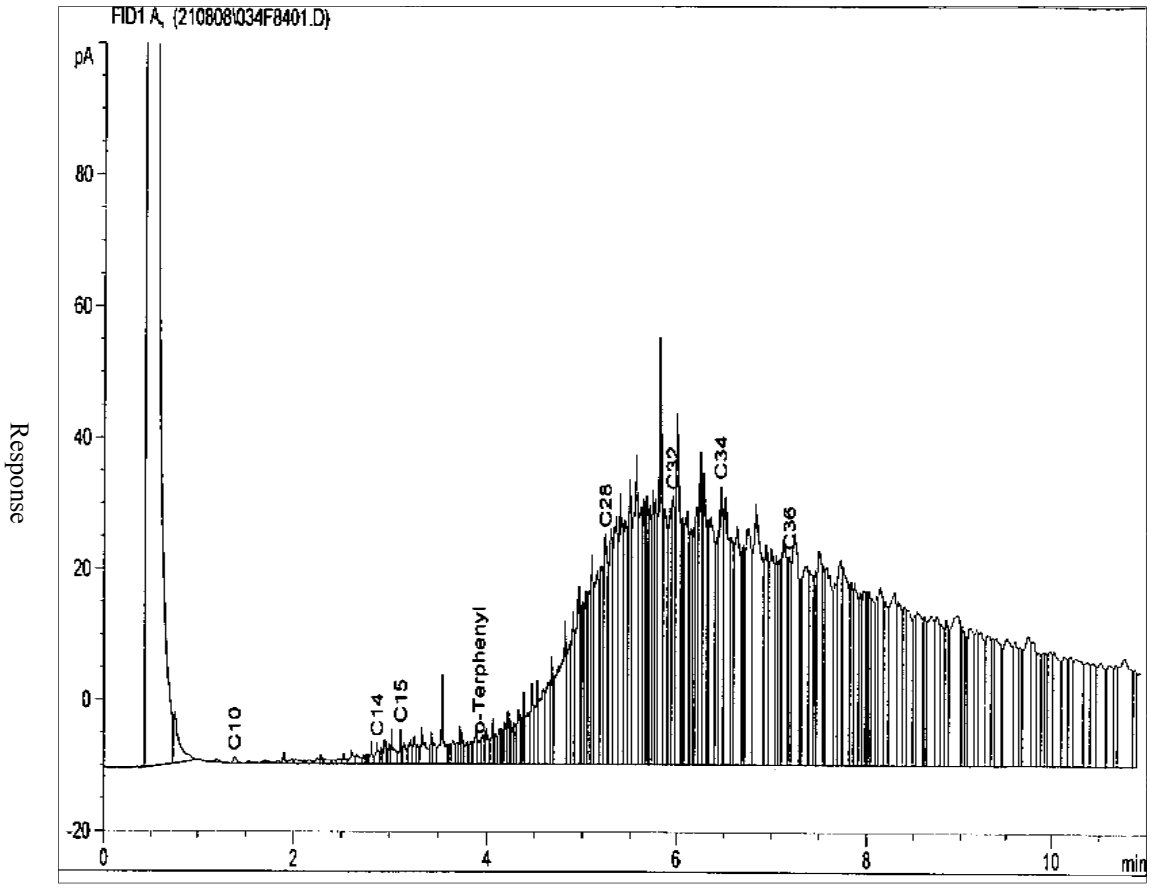
A flowrate of 0.3 L/hr was adopted given no bore flow was recorded. The flowrate was assumed based on the flowrate accuracy range of GA5000 (±0.3 L/hr)

*Note: minimum concentrations recorded during the monitoring shown for O2

The Bureau of Meteorology (BoM) station's recorded air pressure readings at 9am then 3pm of 1024.5 mb then 1020.2 mb at Observatory Hill

HYDROCARBON REFERENCE LIBRARY

ASPHALT (no coal tar)



Response

Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

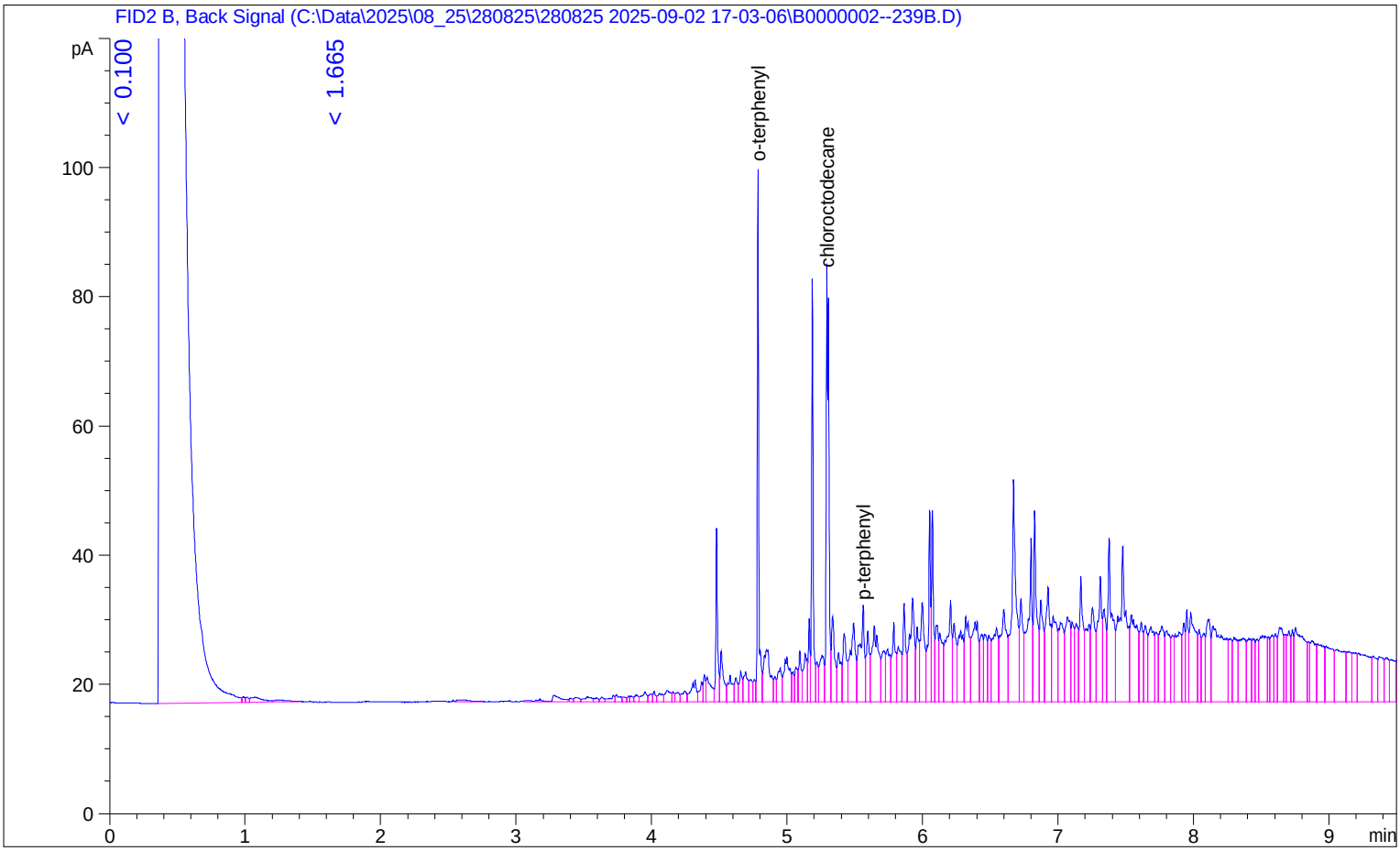
The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

Data File C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\B0000002--239B.D
Sample Name: s389639-8

```
==========================================================================
Acq. Operator   : SYSTEM                          Seq. Line : 239
Sample Operator : SYSTEM
Acq. Instrument : gc7                            Location :   129  (B)
Injection Date  : 3/09/2025 7:30:19 AM                Inj :   1
                                                 Inj Volume : 1 µl
Acq. Method     : C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\TRH_New Column 0.1uL
                  070525.M
Last changed    : 7/05/2025 5:33:18 PM by SYSTEM
Analysis Method : C:\METHODS\2025\08_25\280825-B PROCESSING.M
Last changed    : 3/09/2025 9:53:40 AM by SYSTEM
                  (modified after loading) (Current integration events modified)
Method Info     : FAST TPH WITH 15M HP5 COLUMNS
```




```
==========================================================================
                      External Standard Report
==========================================================================

Sorted By             :      Signal
Calib. Data Modified  :      29/08/2025 10:02:03 AM
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal
```

Data File C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\B0000002--239B.D
Sample Name: s389639-8

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
4.786	HH I	60.66565	2.01137e-1	12.20213		o-terphenyl
5.295	HH	90.81562	2.51635e-1	22.85239		chloroctodecane
5.562	HH I	35.55097	2.25315e-1	8.01018		p-terphenyl

Totals : 43.06470

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Summed Peaks Report

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Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.285	3.430	8.05226	1.6849
NEPM >C10-C16	1.830	4.060	37.58659	7.8650
TRH C15-C28	3.430	6.820	1244.88754	295.9708
NEPM >C16-C34	4.061	7.820	1982.87304	471.4261
TRH C29-C36	6.820	8.110	933.95972	234.6901
NEPM >C34-C40	7.820	8.665	515.77314	129.6061

Totals : 1141.2429

1 Warnings or Errors :

Warning : Reference compound(s) not found

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Final Summed Peaks Report

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Signal 1: FID2 B, Back Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	8.05226	1.6849
NEPM >C10-C16	37.58659	7.8650
TRH C15-C28	1244.88754	295.9708
NEPM >C16-C34	1982.87304	471.4261
TRH C29-C36	933.95972	234.6901
NEPM >C34-C40	515.77314	129.6061
o-terphenyl	60.66565	12.2021
chloroctodecane	90.81562	22.8524
p-terphenyl	35.55097	8.0102

Totals : 1184.3076

*** End of Report ***

Data File C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\B0000002--241B.D
Sample Name: s389639-18

```
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Acq. Operator   : SYSTEM                          Seq. Line : 241
Sample Operator : SYSTEM
Acq. Instrument : gc7                              Location :   131  (B)
Injection Date  : 3/09/2025 8:02:51 AM                  Inj :   1
                                                  Inj Volume : 1 µl
Acq. Method     : C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\TRH_New Column 0.1uL
                  070525.M
Last changed    : 7/05/2025 5:33:18 PM by SYSTEM
Analysis Method : C:\METHODS\2025\08_25\280825-B PROCESSING.M
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                  (modified after loading) (Current integration events modified)
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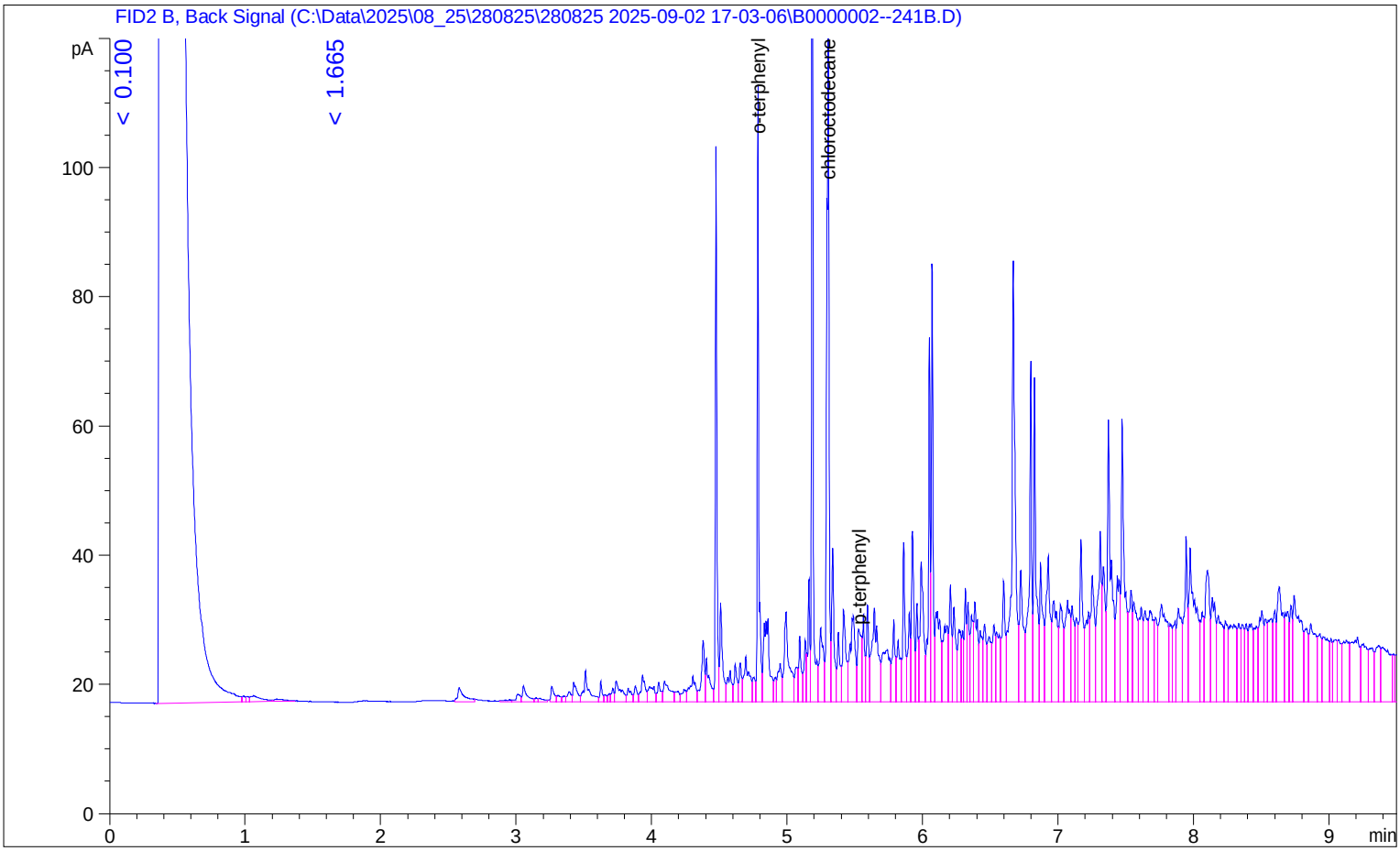


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=====================================================================
                      External Standard Report
=====================================================================

Sorted By             :      Signal
Calib. Data Modified  :      29/08/2025 10:02:03 AM
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal
```

Data File C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\B0000002--241B.D
Sample Name: s389639-18

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
4.785	HH I	71.17910	2.01137e-1	14.31678		o-terphenyl
5.304	HH	134.89783	2.51635e-1	33.94501		chloroctodecane
5.530	HH I	22.60247	2.25315e-1	5.09268		p-terphenyl

Totals : 53.35448

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Summed Peaks Report
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Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.285	3.430	38.19497	7.9923
NEPM >C10-C16	1.830	4.060	101.11640	21.1586
TRH C15-C28	3.430	6.820	1646.22098	391.3874
NEPM >C16-C34	4.061	7.820	2532.00497	601.9816
TRH C29-C36	6.820	8.110	1221.10835	306.8462
NEPM >C34-C40	7.820	8.665	681.25883	171.1901

Totals : 1500.5563

1 Warnings or Errors :

Warning : Reference compound(s) not found

==========
Final Summed Peaks Report
==========

Signal 1: FID2 B, Back Signal

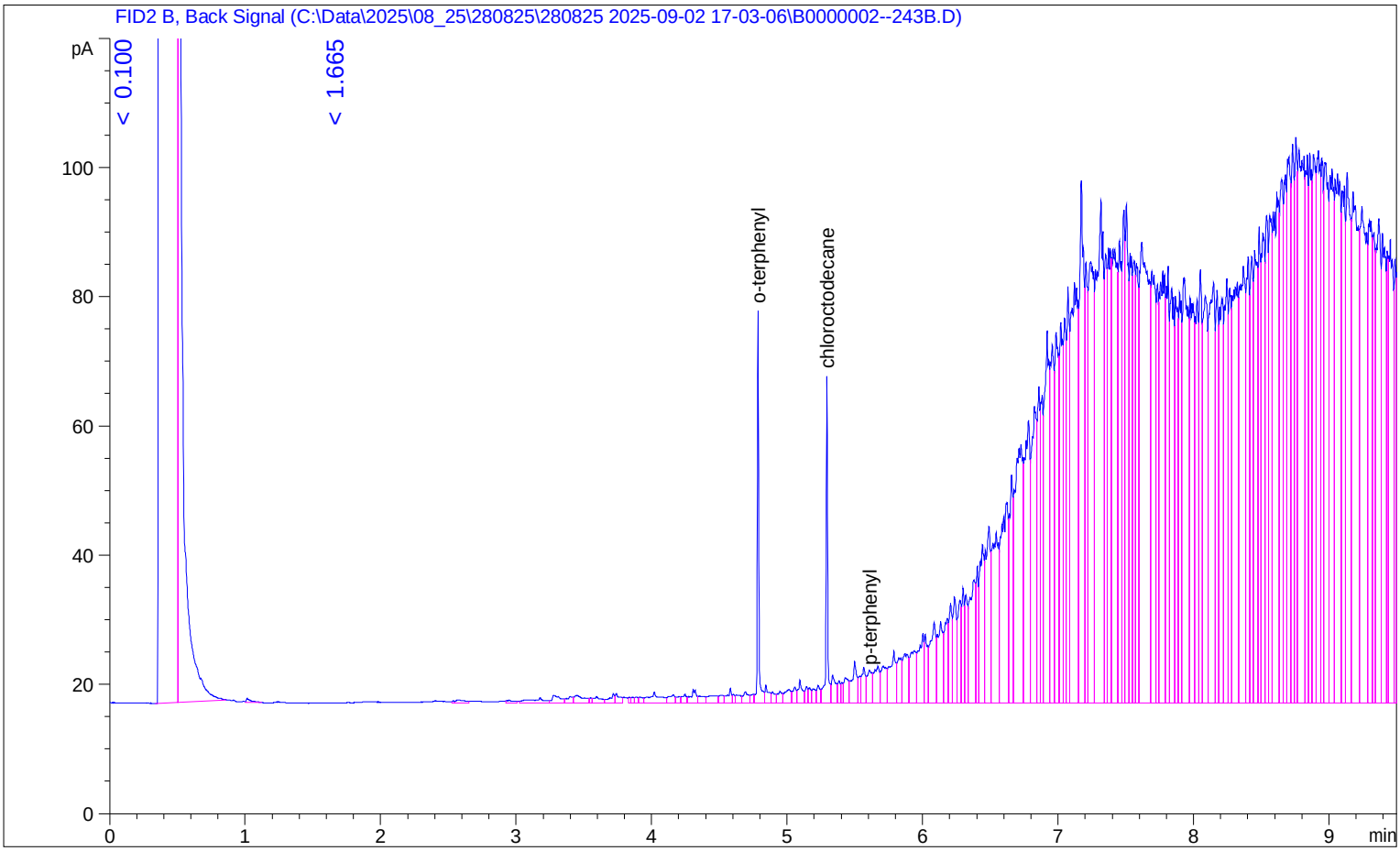
Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	38.19497	7.9923
NEPM >C10-C16	101.11640	21.1586
TRH C15-C28	1646.22098	391.3874
NEPM >C16-C34	2532.00497	601.9816
TRH C29-C36	1221.10835	306.8462
NEPM >C34-C40	681.25883	171.1901
o-terphenyl	71.17910	14.3168
chloroctodecane	134.89783	33.9450
p-terphenyl	22.60247	5.0927

Totals : 1553.9108

*** End of Report ***

Data File C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\B0000002--243B.D
Sample Name: s389639-38

```
======================================================================
Acq. Operator   : SYSTEM                          Seq. Line : 243
Sample Operator : SYSTEM
Acq. Instrument : gc7                             Location :   133  (B)
Injection Date  : 3/09/2025 8:35:34 AM                 Inj :   1
                                                 Inj Volume : 1 µl
Acq. Method     : C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\TRH_New Column 0.1uL
                  070525.M
Last changed    : 7/05/2025 5:33:18 PM by SYSTEM
Analysis Method : C:\METHODS\2025\08_25\280825-B PROCESSING.M
Last changed    : 3/09/2025 10:52:37 AM by SYSTEM
                  (modified after loading) (Current integration events modified)
Method Info     : FAST TPH WITH 15M HP5 COLUMNS
```

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======================================================================
                      External Standard Report
======================================================================

Sorted By             :      Signal
Calib. Data Modified  :      29/08/2025 10:02:03 AM
Multiplier            :      1.0000
Dilution              :      1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID2 B, Back Signal
```

Data File C:\Data\2025\08_25\280825\280825 2025-09-02 17-03-06\B0000002--243B.D
Sample Name: s389639-38

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [mg/L]	Grp	Name
4.786	HH I	43.73589	2.01137e-1	8.79692		o-terphenyl
5.294	HH	41.58597	2.51635e-1	10.46448		chloroctodecane
5.608	HH I	13.16134	2.25315e-1	2.96545		p-terphenyl

Totals : 22.22686

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Summed Peaks Report

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Signal 1: FID2 B, Back Signal

Signal 1: FID2 B, Back Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	1.285	3.430	17.02576	3.5626
NEPM >C10-C16	1.830	4.060	49.43510	10.3443
TRH C15-C28	3.430	6.820	1347.44464	320.3536
NEPM >C16-C34	4.061	7.820	5163.07057	1.228e3
TRH C29-C36	6.820	8.110	4891.79440	1.229e3
NEPM >C34-C40	7.820	8.665	3287.72778	826.1567

Totals : 3617.1666

1 Warnings or Errors :

Warning : Reference compound(s) not found

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Final Summed Peaks Report

==========

Signal 1: FID2 B, Back Signal

Name	Total Area [pA*s]	Amount [mg/L]
TRH C10-C14	17.02576	3.5626
NEPM >C10-C16	49.43510	10.3443
TRH C15-C28	1347.44464	320.3536
NEPM >C16-C34	5163.07057	1.228e3
TRH C29-C36	4891.79440	1.229e3
NEPM >C34-C40	3287.72778	826.1567
o-terphenyl	43.73589	8.7969
chloroctodecane	41.58597	10.4645
p-terphenyl	13.16134	2.9655

Totals : 3639.3935

*** End of Report ***

Appendix I

Borehole Logs

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 23.0 AHD
COORDINATE: E:329264.0, N:6250936.9
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH01
PROJECT No: 236743.01
DATE: 28/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^]	DENSITY.[^] MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
28/08/25 No Free Groundwater Observed Whilst Augering		0.10	ASPHALT; 100mm.		NA		NA				0.10		
		0.15	FILL / SAND: pale red-brown; fine to medium.		FILL				ES		0.15	PID	<1ppm
			FILL / Silty SAND trace gravel: dark brown; fine to coarse sand, fine to coarse, angular to sub-angular, sandstone and igneous gravel.		FILL		D		* ES		0.20	PID	<1ppm
											0.40		
		0.70	FILL / CLAY trace sand trace gravel: brown; low to medium plasticity; fine to medium sand; fine to coarse, angular to sub-angular, sandstone and igneous gravel.						ES		0.70	PID	<1ppm
	22	1				ND					0.90		
					FILL		w<PL		ES		1.30	PID	<1ppm
											1.50		
									ES		1.80	PID	<1ppm
	21	2	Borehole discontinued at 2.00m depth. Target depth reached.								2.00		

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
METHOD: AD/T (100 mm) to 2m
REMARKS: Duplicate sample *BD2/20250828 taken at 0.20-0.40m. Coordinate extracted from a geo-reference aerial

OPERATOR: Stratacore (M.Grima)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 22.7 AHD
COORDINATE: E:329254.2, N:6250922.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH02
PROJECT No: 236743.01
DATE: 28/08/25
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) / DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
28/08/25 No Free Groundwater Observed Whilst Augering	22	0.05	ASPHALTIC; 50mm.						ES		0.10	PID	<1ppm	Concrete	
		0.10	FILL / Gravelly SAND: dark grey; fine to coarse; fine to medium, angular to sub-angular, igneous gravel.		FILL		D		ES		0.20	PID	<1ppm		
											0.40				
	22	0.70	FILL / Silty SAND trace gravel: dark brown; fine to coarse sand, fine to coarse, sub-rounded to sub-angular, igneous gravel.						ES		0.70	PID	<1ppm	Bentonite	
	1										0.90				
			FILL / CLAY trace sand trace gravel: brown; low to medium plasticity; fine to medium sand; fine to coarse, angular to sub-angular, igneous and sandstone gravel.												
	21													Sand	
	2								ES		1.80	PID	<1ppm		
											2.00				
	20					ND									
	3								ES		2.80	PID	<1ppm		
			3.00m-4.00m: Building rubble (Sheet metal and metal wire); no soil return on auger; potential voids		FILL		ND				3.00				
	19														
	4		Soil present after 4m, but no soil return on auger								4			Backfill	
	18														
	5										5				
	17														
	6		Borehole discontinued at 5.70m depth. Refusal on possible bedrock.												
	16														
	7														
	15														
	8														
	14														
	9														
	13														

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
METHOD: AD/T (100 mm) to 5.7m
REMARKS:

OPERATOR: Stratacore (M.Grima)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 23.0 AHD
COORDINATE: E:329258.0, N:6250917.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH03
PROJECT No: 236743.01
DATE: 28/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^] / DENSITY.[^]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
28/08/25 No Free Groundwater Observed Whilst Augering		0.05	ASPHALTIC; 50mm.		NA		NA				0.05		
			FILL / Gravelly SAND: dark grey; fine to coarse sand; fine to coarse, angular to sub-angular, igneous gravel.		FILL				ES		0.15	PID	<1ppm
		0.20	FILL / Silty SAND trace gravel: dark brown; fine to coarse sand, fine to medium, sub-rounded to sub-angular, sandstone and igneous gravel.		FILL		D		ES		0.20	PID	<1ppm
											0.40		
		0.80	FILL / CLAY trace sand trace gravel: brown; low to medium plasticity; fine to medium sand; fine to medium, sub-rounded to sub-angular, sandstone and igneous gravel.		FILL	ND	w<PL		ES		0.80	PID	<1ppm
	22	1									1.00		
									ES		1.30	PID	<1ppm
											1.50		
									ES		1.80	PID	<1ppm
	21	2									2.00		
			Borehole discontinued at 2.00m depth. Target depth reached.										

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
METHOD: AD/T (100 mm) to 2m
REMARKS:

OPERATOR: Stratacore (M.Grima)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 22.5 AHD
COORDINATE: E:329297.1, N:6250812.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH04
PROJECT No: 236743.01
DATE: 28/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
28/08/25 No Free Groundwater Observed Whilst Augering	22	ASPHALT; 80mm.		NA		NA				0.10		
	0.08	FILL / Gravelly SAND: dark grey; fine to coarse sand, fine to medium, angular to sub-angular, igneous gravel.		FILL		D		ES		0.20	PID	<1ppm
	0.20	FILL / Gravelly CLAY: brown mottled grey; low to medium plasticity; fine to coarse, angular to sub-angular, igneous and sandstone gravel; and cobbles; trace fine to coarse sand; trace brick fragments and charcoal.		FILL	ND	w=PL		ES		0.40	PID	<1ppm
	0.60	FILL / Clayey SAND trace gravel: dark grey; fine to coarse; low plasticity clay; fine to medium, angular to sub-angular, igneous and sandstone gravel.		FILL		D		ES		0.60	PID	<1ppm
		Borehole discontinued at 0.70m depth. Hand auger refusal in fill.								0.70		
	1											
	21											
	2											
	20											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: HA (100mm) to 0.7m
REMARKS:

OPERATOR: (S. A. Ferguson)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 21.0 AHD
COORDINATE: E:329351.2, N:6250934.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH05
PROJECT No: 236743.01
DATE: 26/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
26/08/25 No Free Groundwater Observed Whilst Augering		CONCRETE; 300mm.		NA		NA						
	0.30	FILL / Gravelly SAND: pale brown-grey; fine to coarse sand, fine to coarse, sub-angular to sub-rounded, sandstone gravel and cobbles.		FILL	ND	D		ES		0.30 0.50	PID	<1ppm
								ES		0.60 0.80	PID	<1ppm
		Borehole discontinued at 0.80m depth. Hand auger refusal in fill.										
	20 1											
	19 2											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: HA (100mm) to 0.8m
REMARKS:

OPERATOR: (S. A. Ferguson)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 24.4 AHD
COORDINATE: E:329347.0, N:6250946.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH06
PROJECT No: 236743.01
DATE: 26/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^] / DENSITY.[^]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
26/08/25 No Free Groundwater Observed Whilst Augering	24	FILL / Sandy CLAY trace gravel: dark brown; low to medium plasticity; fine to medium sand; fine to coarse, angular to sub-angular, sandstone and igneous gravel; trace brick and metal fragments and rootlets.		FILL	ND	w=PL		* ES		0.20	PID	<1ppm
	0.40	FILL / Sandy CLAY trace gravel: brown mottled pale brown and grey; low to medium plasticity; medium to coarse sand; fine to medium, angular to sub-angular, sandstone gravel; trace brick fragments and charcoal.		FILL				ES		0.40 0.60	PID	<1ppm
	1	Borehole discontinued at 0.70m depth. Hand auger refusal in fill (possible building rubble) .										
	23											
	2											
	22											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Tools
METHOD: HA (100mm) to 0.7m
REMARKS: Duplicate sample *BD1/20250826 taken at 0-0.20m

OPERATOR: (S. A. Ferguson)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Soil Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 23.1 AHD
COORDINATE: E:329338.3, N:6250943.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH06A
PROJECT No: 236743.01
DATE: 28/08/25
SHEET: 1 of 1

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS.(*) / DENSITY.(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
28/08/25 No Free Groundwater Observed Whilst Augering	23	0.12	CONCRETE; 200mm.		NA		NA							Concrete	
		0.40	FILL / SAND: pale brown; medium to coarse; trace shell fragments.		FILL		M		* ES		0.20 0.30	PID	<1ppm		
									ES		0.40 0.50	PID	<1ppm		
		1	FILL / Sandy CLAY trace gravel: brown to pale brown; low to medium plasticity; fine to coarse sand; fine to coarse, angular to sub-angular, sandstone gravel; and cobbles.		FILL		w=PL		ES		0.90 1.00	PID	<1ppm	Bentonite	
	22	1.10	FILL / Silty SAND trace gravel: dark brown; fine to medium; fine, angular to sub-angular, sandstone gravel; trace plastic, glass and ceramic tile.						ES		1.10 1.30	PID	<1ppm		
			1.80m-2.00m: Trace clay						ES		1.80 2.00	PID	<1ppm		
	21	2													
		3				ND			ES		2.80 3.00	PID	<1ppm		
	20				FILL		D							Sand	
		4							ES		3.80 4.00	PID	<1ppm		
	19		4.80m-5.00m: Trace fine to coarse, angular to sub-angular, igneous gravel; 2mm diameter steel rod; trace ash and charcoal						ES		4.80 5.00	PID	<1ppm		
	18	5													
			5.80m-6.00m: With asbestos rope						ES		5.80 6.00	PID	<1ppm		
	17	6	Borehole discontinued at 6.00m depth. Target depth reached.												
	16	7													
	15	8													
	14	9													

NOTES: (#) Soil origin is "probable" unless otherwise stated. (*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Geoprobe
METHOD: DT (150mm) to 0.12m, then AD/T (100mm) to 6m
REMARKS: Duplicate sample *BD1/20250828 taken at 0.20-0.30m

OPERATOR: Stratacore (M.Grima)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

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BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 23.2 AHD
COORDINATE: E:329365.5, N:6250933.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101
PROJECT No: 236743.01
DATE: 26/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
	23	FILL / Sandy CLAY trace gravel: dark brown; low to medium plasticity; fine to coarse sand, fine to coarse, angular to sub-angular, sandstone gravel, trace brick fragments, ceramic tile, plastic and rootlets.		FILL	ND	w=PL						
		Borehole discontinued at 0.30m depth. Target depth reached.										
	1											
	22											
	2											
	21											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Auger
METHOD: HA (100mm) to 0.3m
REMARKS:

OPERATOR: (S. A. Ferguson)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

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Douglas PARTNERS

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW 2040

SURFACE LEVEL: 23.4 AHD
COORDINATE: E:329319.1, N:6250950.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102
PROJECT No: 236743.01
DATE: 26/08/25
SHEET: 1 of 1

CONDITIONS ENCOUNTERED								SAMPLE				TESTING AND REMARKS	
GROUNDWATER	RL (m) / DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^] / DENSITY.[^]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
	0.20	FILL / Sandy CLAY trace gravel: dark brown; low to medium plasticity; fine to coarse sand, fine to coarse, angular to sub-angular, sandstone gravel, trace brick fragments and rootlets.		FILL	ND	ND						
	23	FILL / Clayey SAND trace gravel: pale brown; fine to coarse sand, fine to medium, angular to sub-angular, sandstone gravel, trace brick fragments and rootlets.		FILL								
	1	Borehole discontinued at 0.30m depth. Target depth reached.										
	22											
	2											
	21											

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Hand Auger
METHOD: HA (100mm) to 0.3m
REMARKS:

OPERATOR: (S. A. Ferguson)

LOGGED: S. A. Ferguson
CASING: Uncased

Refer to explanatory notes for symbol and abbreviation definitions

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BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.2 AHD
COORDINATE: E:329320.3, N:6250947.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 1 of 3

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING AND REMARKS: TEST TYPE	RESULTS AND REMARKS
	23	0.12	CONCRETE; 120 mm.		NA	NA	NA		ES	0.12 - 0.20	0.12		
			FILL / SAND with gravel trace silt: dark brown; fine to coarse; fine to coarse, sub-rounded to sub-angular, igneous, sandstone and ironstone gravel.		FILL	ND	M		ES	0.50 - 0.70	0.20		
		1.00							ES	0.90 - 1.00	0.50		
	22	1.30	FILL / Sandy CLAY: orange-brown and red; low to medium plasticity; fine to coarse sand.		FILL		w<PL		SPT	1.00 - 1.45	0.70	SPT	4,6,4 N=10
			FILL / Silty SAND with clay trace gravel: grey; fine to coarse; low plasticity silt; fine to medium, sub-angular, sandstone, ironstone and igneous gravel.								0.90		
		2							ES	1.70 - 2.30	1.00		
	21				FILL	VC	W				1.45		
											1.70		
											2		
											2.30		
									SPT	2.50 - 2.95	2.50	SPT	9,13,10 N=23
		3	From 3.00m: concrete fragments						ES	2.95 - 3.20	2.95		
	20						M				3.20		
		3.50	FILL / SAND with gravel: pale yellow and dark grey-brown; fine to coarse; sub-rounded to sub-angular, igneous, ironstone and sandstone gravel.						ES	3.90 - 4.00	3.90		
		4							SPT	4.00 - 4.45	4.00	SPT	6,4,3 N=7
	19				FILL						4.45		
		5.00	FILL / Silty SAND with gravel: brown and grey; fine to coarse; coarse gravel; ironstone, sandstone, igneous, tile, glass, ceramic, and concrete rubble.						ES	5.20 - 5.50	5		
	18								SPT	5.50 - 5.95	5.20	SPT	6,2,4 N=6
		6				PC	M				5.50		
	17										5.95		
					FILL						6.50		
		7							ES	6.50 - 7.00	7		
	16								SPT	7.00 - 7.45	7.00	SPT	10,12,7 N=19
		8									7.45		
	15	8.20	FILL / Clayey SAND with gravel: dark brown and pale grey; fine to coarse; medium plasticity clay; fine to coarse, sandstone, igneous and ironstone gravel; glass and ceramic tile fragments.		FILL		W		ES	8.20 - 8.50	8		
▼ 26/08/25		8.60							D/SPT	8.50 - 8.60	8.20	SPT	6/100 R
	14	9	Continued as rock log								8.50		
											8.60		
											9		

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.12m, then AD/T (127mm) to 8.6m, then NMLC to 14.17m
CASING: HQ to 8.6m
REMARKS:

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Split Soil-Rock Log

Douglas PARTNERS

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.2 AHD
COORDINATE: E:329320.3, N:6250947.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 2 of 3

CONDITIONS ENCOUNTERED														SAMPLE				TESTING			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA (SOIL STRENGTH (where encountered) / SOIL MOISTURE)	GRAPHIC	WEATH. (PS, XW, DW, HW, MW, SW, FR)	DEPTH (m)	STRENGTH (VL, L, M, H, VH, EH)	RECOVERY (%)	RQD	FRACTURE SPACING (m) (<0.06, 0.06–0.2, 0.2–0.6, 0.6–2, >2)	DEFECTS & REMARKS	SAMPLE REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
▼ 26/08/25	14	9.00	Continued from soil log SANDSTONE: red- orange-pale grey, medium to coarse grained, 0 to 20°, thinly bedded to medium bedded; indistinctly and distinctly bedded. Hawkesbury Sandstone.		MW	8.60 9.00	M	88	85		9.20m: B, 20°, PR, VNR Clay, RF 9.27m: EW, 20mm 9.44m: B, 0°, PR, SN Fe, He 9.90m: B, 20°, PR, SN Fe, RF				9	PLT	PL(A)=0.58MPa		

NOTES: [a] Soil origin is "probable" unless otherwise stated.

Generated with CORE-GS by Geroc - Split Soil-Rock Log

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.12m, then AD/T (127mm) to 8.6m, then NMLC to 14.17m
CASING: HQ to 8.6m
REMARKS:

Douglas PARTNERS

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.2 AHD
COORDINATE: E:329320.3, N:6250947.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 3 of 3

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	WEATH.	DEPTH (m)	STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	13	10.00									9.90m: B, 20°, PR, SN Fe, RF					PLT	PL(A)=0.64MPa		
											10.36m: B, 20°, PR, CN, RF					PLT	PL(A)=0.53MPa		
	11	11						88	85						11	PLT	PL(A)=0.46MPa		
	12										11.22m: B, 10°, PR, CT Clay, RF								
											11.29m: JT, 70°, PR, CT Clay, RF								
											11.35m: B, 20°, PR, CN, RF								
					MW						11.88m: B, 20°, PR, CN, RF								
		12	12.30m-12.47m: Pale grey, indistinctly bedded, trace carbonaceous laminations and siltstone flecks				M								12	PLT	PL(A)=1.4MPa		
											12.23m: B, 0°, PR, CN, RF					PLT	PL(A)=0.29MPa		
											12.25m: B, 0°, PR, CN, RF								
											12.30m: B, 0°, PR, CT Clay 10mm					PLT	PL(A)=0.73MPa		
											12.47m: EW, Clay 30mm								
		13	From 13.10m: Pale grey, indistinctly bedded, frequent siltstone flecks					100	94		12.64m: B, 20°, PR, CN, RF				13	PLT	PL(A)=0.87MPa		
						13.30													
					FR														
	14	14	Borehole discontinued at 14.17m depth. Target Depth Reached.												14	PLT	PL(A)=0.65MPa		

NOTES: [a] Soil origin is "probable" unless otherwise stated.

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.12m, then AD/T (127mm) to 8.6m, then NMLC to 14.17m
CASING: HQ to 8.6m
REMARKS:

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Split Soil-Rock Log

CORE PHOTO LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.2 AHD
COORDINATE: E:329320.3, N:6250947.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH101a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 1 of 1

8.60-12.00 m depth

12.00-14.17 m depth

Generated with CORE-GS by Geroc - Split Soil-Rock Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.4 AHD
COORDINATE: E:329364.7, N:6250930.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 1 of 3

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[*] / DENSITY.[*]	MOISTURE	REMARKS	SAMPLE TYPE	SAMPLE INTERVAL	DEPTH (m)	TESTING AND REMARKS: TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
		0.10	CONCRETE; 100 mm.		NA	NA	NA				0.10				
	23		FILL / Silty SAND trace gravel: brown-grey; fine to coarse; fine, sandstone gravel.		FILL		W		ES		0.30				
									ES		0.50				
											0.70				
	1										1.00				
									SPT		1.45	SPT	5,4,3 N=7	Bentonite	
	22						M								
		2.00	FILL / Sandy CLAY trace gravel: pale grey, red, brown; low to medium plasticity; fine to coarse sand; fine, sandstone gravel.		FILL				ES		2.00				
	21										2.20				
											2.50				
									SPT		2.95	SPT	6,5,4 N=9		
		3.00	FILL / Gravelly SAND trace silt: dark brown; fine to medium; fine to medium, sub-angular to sub-rounded, sandstone and ironstone gravel; ceramic tile fragments.						ES		3.20				
	20					PC									
									ES		3.90				
	4										4.00			Backfill	
									SPT		4.45	SPT	2,2,2 N=4		
	19				FILL										
			From 5.00m: fragments of glass and concrete rubble						ES		5.00				
	5						D				5.20				
											5.50				
	18								SPT		5.95	SPT	4,5,5 N=10		
	6														
		6.50	FILL / SAND trace clay trace gravel: brown; fine to medium; fine to medium, sub-angular, igneous and sandstone gravel.						ES		6.50				
	17				FILL										
											7.00				
	7								SPT		7.45	SPT	5,4,2 N=6	Sand	
		7.50	Clayey SAND (SC): pale grey; fine to coarse; low to medium plasticity clay.						ES						
	16				RS possibly XWM	(MD)	M				8.00				
									ES						
▼ 26/08/25	8										8.50				
		8.70	Continued as rock log			VD	W		SPT			SPT	9,7/100 (HB)		
	15										9			Sand	
	9														
	14														

NOTES: [#] Soil origin is "probable" unless otherwise stated. [*] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.1m, then AD/T (127mm) to 8.7m, then NMLC to 14.2m
CASING: HQ to 8.7m
REMARKS:

Refer to explanatory notes for symbol and abbreviation definitions

Generated with CORE-GS by Geroc - Split Soil-Rock Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.4 AHD
COORDINATE: E:329364.7, N:6250930.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 2 of 3

CONDITIONS ENCOUNTERED														SAMPLE				TESTING			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA (SOIL STRENGTH (where encountered) / SOIL MOISTURE)	GRAPHIC	WEATH. (PS, XW, DW, HW, MW, SW, FR)	DEPTH (m)	STRENGTH (VL, L, M, H, VH, EH)	RECOVERY (%)	RQD	FRACTURE SPACING (m) (<0.06, 0.06-0.2, 0.2-0.6, 0.6-2, >2)	DEFECTS & REMARKS	SAMPLE REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	23	0													0			Bentonite	
	22	1													1				
	21	2													2				
	20	3													3				
	19	4													4				
	18	5													5				
	17	6													6				
	16	7													7			Backfill	
	15	8													8				
26/08/25			Continued from soil log																
	14	9	SANDSTONE: See next page.												8.75			Sand	
		9.06			MW	9.06	M	90	95		9.61m: B, 20°, IR, INF CBS, Ti 9.99m: B x2, 20°, PR,				9	PLT	PL(A)=0.71MPa		
																PLT	PL(A)=0.48MPa		

NOTES: [a] Soil origin is "probable" unless otherwise stated.

Generated with CORE-GS by Geroc - Split Soil-Rock Log

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.1m, then AD/T (127mm) to 8.7m, then NMLC to 14.2m
CASING: HQ to 8.7m
REMARKS:

Douglas PARTNERS

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.4 AHD
COORDINATE: E:329364.7, N:6250930.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 3 of 3

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	WEATH.	DEPTH (m)	STRENGTH	RECOVERY (%)	RQD	FRACTURE SPACING (m)	DEFECTS & REMARKS	SAMPLE REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	13	11	SANDSTONE: pale grey, pale orange, pale red, coarse grained, 0 to 20°, thinly bedded to medium bedded, 1-5% carbonaceous laminations, fine siltstone and lithic clasts; distinctly bedded. Hawkesbury Sandstone.		MW	11.20	M	90	95	SEAM	VNR Clay, RF 10.26m: B, 20°, PR, CN, RF 10.88m: B, 0°, PR, CT Clay 2mm, RF 11.15m: B, 0°, PR, CN, RF 11.20-11.30m: EW, Clay 100mm				11	PLT	PL(A)=0.29MPa		
	12	12	From 11.90m: indistinct bedding, pale grey, frequent siltstone flecks			11.30										PLT	PL(A)=0.70MPa		
	11					11.90										PLT	PL(A)=0.28MPa		
	10	13			FR		L to M	100	100		11.58m: B, 20°, UN, SN Fe, RF 11.59m: B, 20°, UN, SN Fe, RF 11.66m: B x2, 0°, UN, SN Fe, RF 11.82m: B, 0°, UN, SN Fe, RF 11.84m: B, 0°, UN, CN, RF				12	PLT	PL(A)=0.56MPa	Sar	
	9	14	Borehole discontinued at 14.20m depth. Target Depth Reached.												13	PLT	PL(A)=0.29MPa		
	15														14	PLT	PL(A)=0.53MPa		
	8	16																	
	7	17																	
	6	18																	
	5	19																	
	4																		

NOTES: [a] Soil origin is "probable" unless otherwise stated.

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.1m, then AD/T (127mm) to 8.7m, then NMLC to 14.2m
CASING: HQ to 8.7m
REMARKS:

Refer to explanatory notes for symbol and abbreviation definitions

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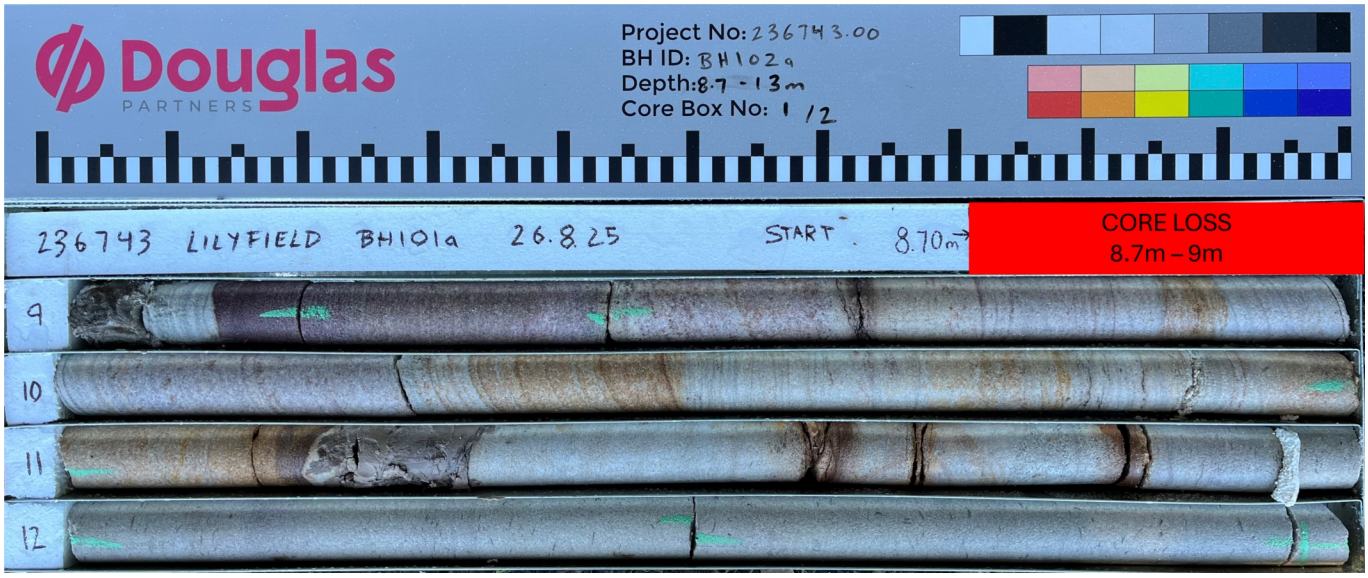
CORE PHOTO LOG

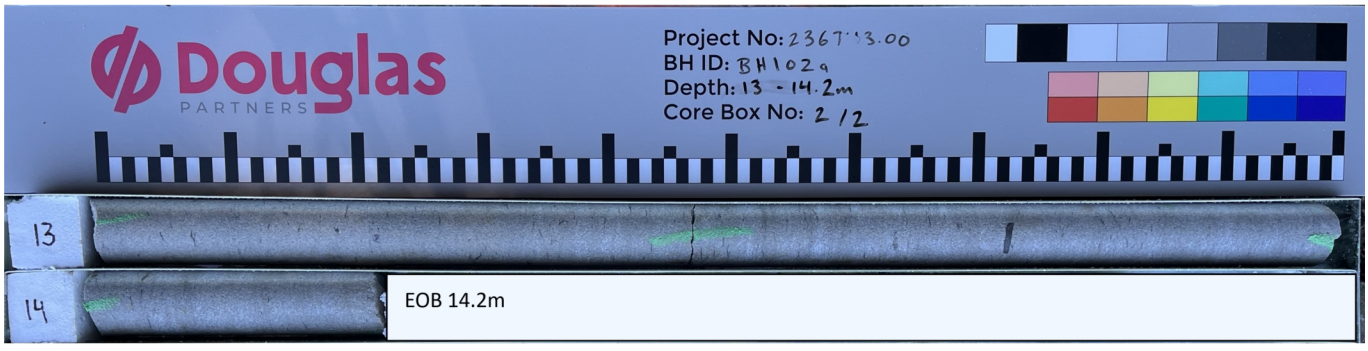
CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 23.4 AHD
COORDINATE: E:329364.7, N:6250930.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH102a
PROJECT No: 236743.00
DATE: 26/08/25
SHEET: 1 of 1



8.70-13.00 m depth



13.00-14.20 m depth

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BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 26.2 AHD
COORDINATE: E:329243.4, N:6250881.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 236743.00
DATE: 27/08/25
SHEET: 1 of 3

GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN[#]	CONSIS.[^]	DENSITY.[^]	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
27/08/25 No Free Groundwater Observed While Augering	26	0.07	ASPHALT; 70mm.					NA		ES		0.12				
			FILL / Clayey SAND trace gravel: brown; fine to coarse; low plasticity clay; fine to medium, sub-angular to sub-rounded, sandstone gravel.		FILL	ND				ES		0.50				
												0.70				
	25	1								ES		1.00				
										SPT		1.20	SPT	10,12,12 N=24		
		1.50	FILL / Clayey SAND with gravel: dark brown; fine to coarse; low plasticity clay; fine to medium, igneous, ironstone and sandstone gravel; ceramic tile fragments.									1.45				
	24	2										1.90			Bentonite	
										ES		2.20				
												2.50				
					FILL	VC		D		SPT		2.95	SPT	5,11,7 N=18		
	23	3	From 3.50m: Red-brown									3.50				
										ES						
	22	4								SPT		4.00	SPT	8,5,6 N=11		
												4.45			Sand	
	21	5.00	Clayey SAND (SC): pale brown-red; medium to coarse; low plasticity clay.		RS	(VD)				D		5.00				
										SPT		5.50	SPT	5/130 (HB)		
		5.75	Continued as rock log									5.63				
	20	6										6				
	19	7										7				
	18	8										8			Bentonite	
	17	9										9				

NOTES: [#] Soil origin is "probable" unless otherwise stated. [^] Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.07m, then AD/T(127mm) to 5.75m, then NMLC to 11.86m
CASING: HQ to 5.75m
REMARKS:

Refer to explanatory notes for symbol and abbreviation definitions

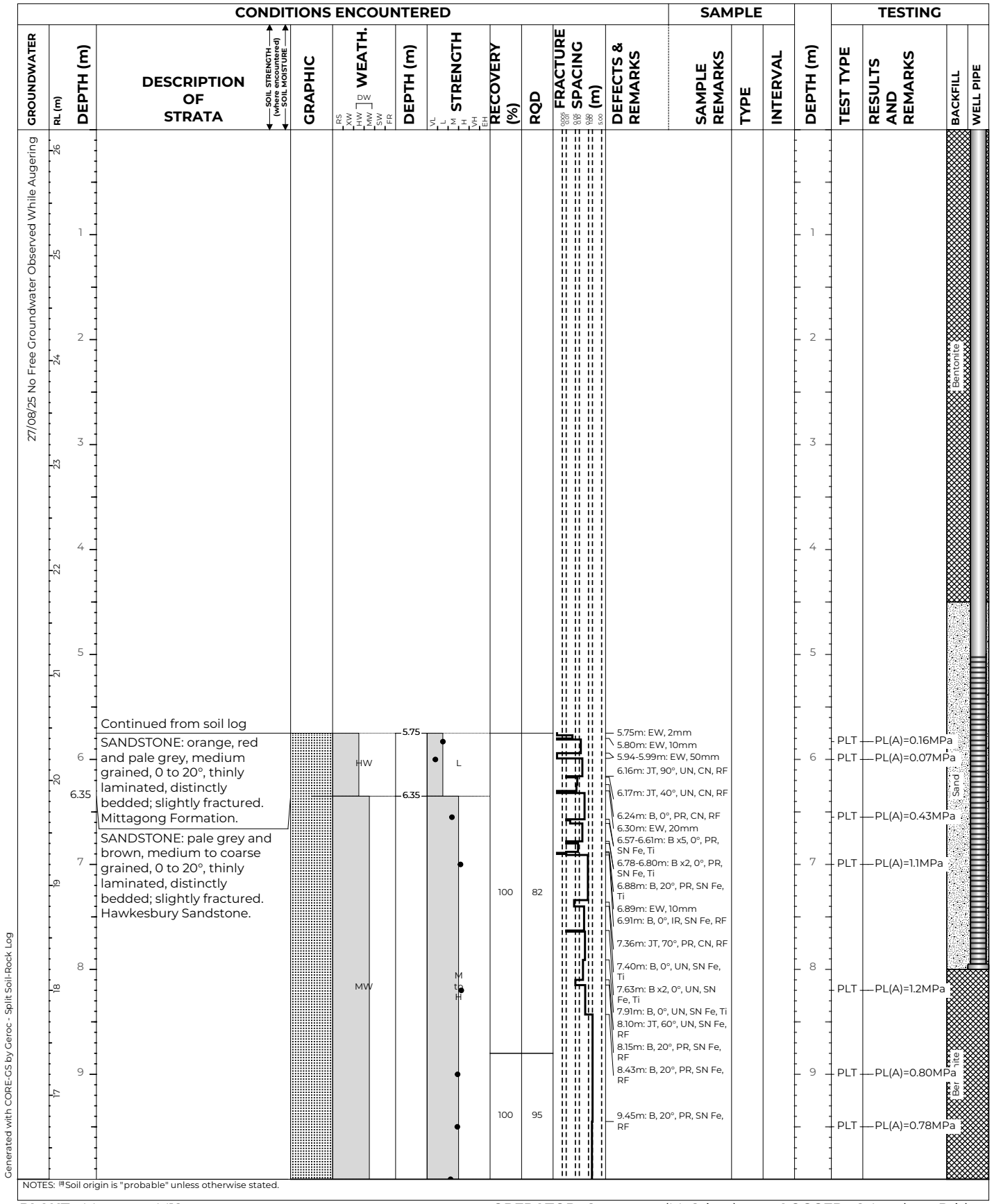
Generated with CORE-GS by Geroc - Split Soil-Rock Log

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 26.2 AHD
COORDINATE: E:329243.4, N:6250881.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 236743.00
DATE: 27/08/25
SHEET: 2 of 3



NOTES: [a] Soil origin is "probable" unless otherwise stated.

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.07m, then AD/T(127mm) to 5.75m, then NMLC to 11.86m
CASING: HQ to 5.75m
REMARKS:

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

BOREHOLE LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 26.2 AHD
COORDINATE: E:329243.4, N:6250881.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 236743.00
DATE: 27/08/25
SHEET: 3 of 3

CONDITIONS ENCOUNTERED															SAMPLE				TESTING			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA (SOIL STRENGTH (where encountered) / SOIL MOISTURE)	GRAPHIC	WEATH. (PS, XW, DW, HW, MW, SW, FR)	DEPTH (m)	STRENGTH (VL, L, M, H, VH, EH)	RECOVERY (%)	RQD	FRACTURE SPACING (m) (<0.06, 0.06-0.2, 0.2-0.6, 0.6-2, >2)	DEFECTS & REMARKS	SAMPLE REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	16		[CONT] SANDSTONE: pale grey and brown, medium to coarse grained, 0 to 20°, thinly laminated, distinctly bedded; slightly fractured. Hawkesbury Sandstone.		MW		M to H	100	95		10.37m: B, 0°, PR, SN Fe, RF 10.46m: B, 0-20°, PR, SN Fe, RF 10.53m: EW, SN Fe 10mm				11	PLT	PL(A)=0.37MPa	Bentonite	
	15	11	11.50m-11.54m: Grey siltstone band								11.07m: B, 0°, PR, CN, RF 11.20m: B, 0°, PR, CN, RF 11.54m: B, 20°, PR, CN, RF 11.55m: B, 20°, PR, CT Clay, RF 11.83m: B, 20°, PR, CN, RF					PLT	PL(A)=0.43MPa		
	14	12	Borehole discontinued at 11.86m depth. Target Depth Reached.													PLT	PL(A)=1.7MPa		
	13	13														PLT	PL(A)=1.6MPa		
	12	14																	
	11	15																	
	10	16																	
	9	17																	
	8	18																	
	7	19																	

NOTES: [a] Soil origin is "probable" unless otherwise stated.

PLANT: Massenza M12
OPERATOR: Stratacore (M. Grima)
LOGGED: C. Lambert-Bridges
METHOD: DT (260mm) to 0.07m, then AD/T(127mm) to 5.75m, then NMLC to 11.86m
CASING: HQ to 5.75m
REMARKS:

Refer to explanatory notes for symbol and abbreviation definitions

Douglas PARTNERS

Generated with CORE-GS by Geroc - Split Soil-Rock Log

CORE PHOTO LOG

CLIENT: Inner West Council
PROJECT: Leichhardt Oval Refurbishment
LOCATION: 68 Mary Street, Lilyfield, NSW

SURFACE LEVEL: 26.2 AHD
COORDINATE: E:329243.4, N:6250881.0
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: BH103
PROJECT No: 236743.00
DATE: 27/08/25
SHEET: 1 of 1

5.75-11.86 m depth

Generated with CORE-GS by Geroc - Split Soil-Rock Log

Terminology, Symbols and Abbreviations

November 2023

Introduction to Terminology, Symbols and Abbreviations

Douglas Partners' reports, investigation logs, and other correspondence may use terminology which has quantitative or qualitative connotations. To remove ambiguity or uncertainty surrounding the use of such terms, the following sets of notes pages may be attached Douglas Partners' reports, depending on the work performed and conditions encountered:

- Soil Descriptions;
- Rock Descriptions; and
- Sampling, insitu testing, and drilling methodologies

In addition to these pages, the following notes generally apply to most documents.

Abbreviation Codes

Site conditions may also be presented in a number of different formats, such as investigation logs, field mapping, or as a written summary. In some of these formats textual or symbolic terminology may be presented using textual abbreviation codes or graphic symbols, and, where commonly used, these are listed alongside the terminology definition. For ease of identification in these note pages, textual codes are presented in these notes in the following style XW. Code usage conforms with the following guidelines:

- Textual codes are case insensitive, although herein they are generally presented in upper case; and
- Textual codes are contextual (i.e. the same or similar combinations of characters may be used in different contexts with different meanings (for example `PL` is used for plastic limit in the context of soil moisture condition, as well as in `PL(A)` for point load test result in the testing results column)).

Data Integrity Codes

Subsurface investigation data recorded by Douglas Partners is generally managed in a highly structured database environment, where records "span" between a top and bottom depth interval. Depth interval "gaps" between records are considered to introduce ambiguity, and, where appropriate, our practice guidelines may require contiguous data sets. Recording meaningful data is not always appropriate (for example assigning a "strength" to a concrete pavement) and the following codes may be used to maintain contiguity in such circumstances.

Term	Description	Abbreviation Code
Core loss	No core recovery	KL
Unknown	Information was not available to allow classification of the property. For example, when auguring in loose, saturated sand auger cuttings may not be returned.	UK
No data	Information required to allow classification of the property was not available. For example if drilling is commenced from the base of a hole predrilled by others	ND
Not Applicable	Derivation of the properties not appropriate or beyond the scope of the investigation. For example providing a description of the strength of a concrete pavement	NA

Graphic Symbols

Douglas Partners' logs contain a "graphic" column which provides a pictorial representation of the basic composition of the material. The symbols used are directly representing the material name stated in the adjacent "Description of Strata" column, and as such no specific graphic symbology legend has been provided in these notes.

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Soil Descriptions

Terminology
Symbols
Abbreviations

March 2024

Introduction

All materials which are not considered to be "in-situ rock" are described in general accordance with the soil description model of AS 1726-2017 Part 6.1.3, and can be broken down into the following description structure:

The "classification" comprises a two character "group symbol" providing a general summary of dominant soil characteristics. The "name" summarises the particle sizes within the soil which most influence its behaviour. The detailed description presents more information about composition, condition, structure, and origin of the soil.

Classification, naming and description of soils require the relative proportion of particles of different sizes within the whole soil mixture to be considered.

Particle size designation and Behaviour Model

Solid particles within a soil are differentiated on the basis of size.

The engineering behaviour properties of a soil can subsequently be modelled to be either "fine grained" (also known as "cohesive" behaviour) or "coarse grained" ("non cohesive" behaviour), depending on the relative proportion of fine or coarse fractions in the soil mixture.

Particle Size Designation	Particle Size (mm)	Behaviour Model	
		Behaviour	Approximate Dry Mass
Boulder	>200	Excluded from particle behaviour model as "oversize"	
Cobble	63 - 200		
Gravel[1]	2.36 - 63	Coarse	>65%
Sand[1]	0.075 - 2.36		
Silt	0.002 - 0.075	Fine	>35%
Clay	<0.002		

[1] – refer grain size subdivision descriptions below

The behaviour model boundaries defined above are not precise, and the material behaviour should be assumed from the name given to the material (which considers the particle fraction which dominates the behaviour, refer "component proportions" below), rather than strict observance of the proportions of particle sizes. For example, if a material is named a "Sandy CLAY", this is indicative that the material exhibits fine grained behaviour, even if the dry mass of coarse grained material may exceed 65%.

Component proportions

The relative proportion of the dry mass of each particle size fraction is assessed to be a "primary", "secondary", or "minor" component of the soil mixture, depending on its influence over the soil behaviour.

Component Proportion Designation	Definition[1]	Relative Proportion	
		In Fine Grained Soil	In Coarse Grained Soil
Primary	The component (particle size designation, refer above) which dominates the engineering behaviour of the soil	The clay/silt component with the greater proportion	The sand/gravel component with the greater proportion
Secondary	Any component which is not the primary, but is significant to the engineering properties of the soil	Any component with greater than 30% proportion	Any granular component with greater than 30%; or Any fine component with greater than 12%
Minor[2]	Present in the soil, but not significant to its engineering properties	All other components	All other components

[1] As defined in AS1726-2017 6.1.4.4

[2] In the detailed material description, minor components are split into two further sub-categories. Refer "identification of minor components" below.

Composite Materials

In certain situations, a lithology description may describe more than one material, for example, collectively describing a layer of interbedded sand and clay. In such a scenario, the two materials would be described independently, with the names preceded or followed by a statement describing the arrangement by which the materials co-exist. For example, "INTERBEDDED Silty CLAY AND SAND".

Classification

The soil classification comprises a two character group symbol. The first character identifies the primary component. The second character identifies either the grading or presence of fines in a coarse grained soil, or the plasticity in a fine grained soil. Refer AS1726-2017 6.1.6 for further clarification.

Soil Name

For most soils, the name is derived with the primary component included as the noun (in upper case), preceded by any secondary components stated in an adjective form. In this way, the soil name also describes the general composition and indicates the dominant behaviour of the material.

Component [1]	Prominence in Soil Name
Primary	Noun (eg "CLAY")
Secondary	Adjective modifier (eg "Sandy")
Minor	No influence

[1] – for determination of component proportions, refer component proportions on previous page

For materials which cannot be disaggregated, or which are not comprised of rock or mineral fragments, the names "ORGANIC MATTER" or "ARTIFICIAL MATERIAL" may be used, in accordance with AS1726-2017 Table 14.

Commercial or colloquial names are not used for the soil name where a component derived name is possible (for example "Gravelly SAND" rather than "CRACKER DUST").

Materials of "fill" or "topsoil" origin are generally assigned a name derived from the primary/secondary component (where appropriate). In log descriptions this is preceded by uppercase "FILL" or "TOPSOIL". Origin uncertainty is indicated in the description by the characters (?), with the degree of uncertainty described (using the terms "probably" or "possibly" in the origin column, or at the end of the description).

Identification of minor components

Minor components are identified in the soil description immediately following the soil name. The minor component fraction is usually preceded with a term indicating the relative proportion of the component.

Minor Component Proportion Term	Relative Proportion	
	In Fine Grained Soil	In Coarse Grained Soil
With	All fractions: 15-30%	Clay/silt: 5-12% sand/gravel: 15-30%
Trace	All fractions: 0-15%	Clay/silt: 0-5% sand/gravel: 0-15%

The terms "with" and "trace" generally apply only to gravel or fine particle fractions. Where cobbles/boulders are encountered in minor proportions (generally less than about 12%) the term "occasional" may be used. This term describes the sporadic distribution of the material within the confines of the investigation excavation only, and there may be considerable variation in proportion over a wider area which is difficult to factually characterise due to the relative size of the particles and the investigation methods.

Soil Composition

Plasticity

Descriptive Term	Laboratory liquid limit range	
	Silt	Clay
Non-plastic materials	Not applicable	Not applicable
Low plasticity	≤50	≤35
Medium plasticity	Not applicable	>35 and ≤50
High plasticity	>50	>50

Note, Plasticity descriptions generally describe the plasticity behaviour of the whole of the fine grained soil, not individual fine grained fractions.

Grain Size

Type		Particle size (mm)
Gravel	Coarse	19 - 63
	Medium	6.7 - 19
	Fine	2.36 – 6.7
Sand	Coarse	0.6 - 2.36
	Medium	0.21 - 0.6
	Fine	0.075 - 0.21

Grading

Grading Term	Particle size (mm)
Well	A good representation of all particle sizes
Poorly	An excess or deficiency of particular sizes within the specified range
Uniformly	Essentially of one size
Gap	A deficiency of a particular size or size range within the total range

Note, AS1726-2017 provides terminology for additional attributes not listed here.

Soil Condition

Moisture

The moisture condition of soils is assessed relative to the plastic limit for fine grained soils, while for coarse grained soils it is assessed based on the appearance and feel of the material. The moisture condition of a material is considered to be independent of stratigraphy (although commonly these are related), and this data is presented in its own column on logs.

Applicability	Term	Tactile Assessment	Abbreviation code
Fine	Dry of plastic limit	Hard and friable or powdery	w<PL
	Near plastic limit	Can be moulded	w=PL
	Wet of plastic limit	Water residue remains on hands when handling	w>PL
	Near liquid limit	"oozes" when agitated	w=LL
	Wet of liquid limit	"oozes"	w>LL
Coarse	Dry	Non-cohesive and free running	D
	Moist	Feels cool, darkened in colour, particles may stick together	M
	Wet	Feels cool, darkened in colour, particles may stick together, free water forms when handling	W

The abbreviation code NDF, meaning "not-assessable due to drilling fluid use" may also be used.

Note, observations relating to free ground water or drilling fluids are provided independent of soil moisture condition.

Consistency/Density/Compaction/Cementation/Extremely Weathered Material

These concepts give an indication of how the material may respond to applied forces (when considered in conjunction with other attributes of the soil). This behaviour can vary independent of the composition of the material, and on logs these are described in an independent column and are generally mutually exclusive (i.e it is inappropriate to describe both consistency and compaction at the same time). The method by which the behaviour is described depends on the behaviour model and other characteristics of the soil as follows:

- In fine grained soils, the "consistency" describes the ease with which the soil can be remoulded, and is generally correlated against the materials undrained shear strength;
- In granular materials, the relative density describes how tightly packed the particles are, and is generally correlated against the density index;
- In anthropogenically modified materials, the compaction of the material is described qualitatively;
- In cemented soils (both natural and anthropogenic), the cemented "strength" is described qualitatively, relative to the difficulty with which the material is disaggregated; and
- In soils of extremely weathered material origin, the engineering behaviour may be governed by relic rock features, and expected behaviour needs to be assessed based the overall material description.

Quantitative engineering performance of these materials may be determined by laboratory testing or estimated by correlated field tests (for example penetration or shear vane testing). In some cases, performance may be assessed by tactile or other subjective methods, in which case investigation logs will show the estimated value enclosed in round brackets, for example (VS).

Consistency (fine grained soils)

Consistency Term	Tactile Assessment	Undrained Shear Strength (kPa)	Abbreviation Code
Very soft	Extrudes between fingers when squeezed	<12	VS
Soft	Mouldable with light finger pressure	>12 - ≤25	S
Firm	Mouldable with strong finger pressure	>25 - ≤50	F
Stiff	Cannot be moulded by fingers	>50 - ≤100	St
Very stiff	Indented by thumbnail	>100 - ≤200	VSt
Hard	Indented by thumbnail with difficulty	>200	H
Friable	Easily crumbled or broken into small pieces by hand	-	Fr

Relative Density (coarse grained soils)

Relative Density Term	Density Index	Abbreviation Code
Very loose	<15	VL
Loose	>15 - ≤35	L
Medium dense	>35 - ≤65	MD
Dense	>65 - ≤85	D
Very dense	>85	VD

Note, tactile assessment of relative density is difficult, and generally requires penetration testing, hence a tactile assessment guide is not provided.

Compaction (anthropogenically modified soil)

Compaction Term	Abbreviation Code
Well compacted	WC
Poorly compacted	PC
Moderately compacted	MC
Variably compacted	VC

Cementation (natural and anthropogenic)

Cementation Term	Abbreviation Code
Moderately cemented	MOD
Weakly cemented	WEK

Extremely Weathered Material

AS1726-2017 considers weathered material to be soil if the unconfined compressive strength is less than 0.6 MPa (i.e. less than very low strength rock). These materials may be identified as "extremely weathered material" in reports and by the abbreviation code XWM on log sheets. This identification is not correlated to any specific qualitative or quantitative behaviour, and the engineering properties of this material must therefore be assessed according to engineering principles with reference to any relic rock structure, fabric, or texture described in the description.

Soil Origin

Term	Description	Abbreviation Code
Residual	Derived from in-situ weathering of the underlying rock	RS
Extremely weathered material	Formed from in-situ weathering of geological formations. Has strength of less than 'very low' as per as1726 but retains the structure or fabric of the parent rock.	XWM
Alluvial	Deposited by streams and rivers	ALV
Fluvial	Deposited by channel fill and overbank (natural levee, crevasse splay or flood basin)	FLV
Estuarine	Deposited in coastal estuaries	EST
Marine	Deposited in a marine environment	MAR
Lacustrine	Deposited in freshwater lakes	LAC
Aeolian	Carried and deposited by wind	AEO
Colluvial	Soil and rock debris transported down slopes by gravity	COL
Slopewash	Thin layers of soil and rock debris gradually and slowly deposited by gravity and possibly water	SW
Topsoil	Mantle of surface soil, often with high levels of organic material	TOP
Fill	Any material which has been moved by man	FILL
Littoral	Deposited on the lake or seashore	LIT
Unidentifiable	Not able to be identified	UID

Cobbles and Boulders

The presence of particles considered to be "oversize" may be described using one of the following strategies:

- Oversize encountered in a minor proportion (when considered relative to the wider area) are noted in the soil description; or
- Where a significant proportion of oversize is encountered, the cobbles/boulders are described independent of the soil description, in a similar manner to composite soils (described above) but qualified with "MIXTURE OF".

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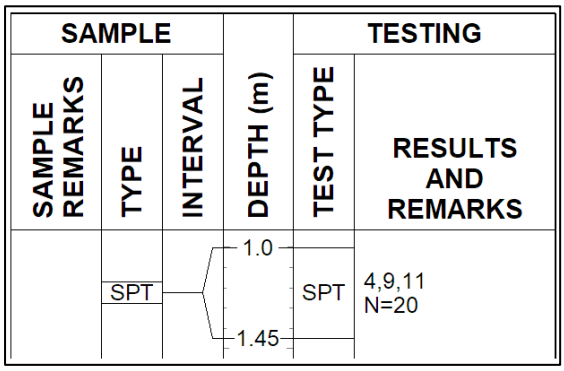
Sampling and Testing

A record of samples retained, and field testing performed is usually shown on a Douglas Partners' log with samples appearing to the left of a depth scale, and selected field and laboratory testing (including results, where relevant) appearing to the right of the scale, as illustrated below:



Sampling

The type or intended purpose for which a sample was taken is indicated by the following abbreviation codes.

Sample Type	Code
Auger sample	A
Acid Sulfate sample	ASS
Bulk sample	B
Core sample	C
Disturbed sample	D
Environmental sample	ES
Driven Tube sample	DT
Gas sample	G
Piston sample	P
Sample from SPT test	SPT
Undisturbed tube sample	U[1]
Water sample	W
Material Sample	MT
Core sample for unconfined compressive strength testing	UCS

[1] – numeric suffixes indicate tube diameter/width in mm

The above codes only indicate that a sample was retained, and not that testing was scheduled or performed.

Field and Laboratory Testing

A record that field and laboratory testing was performed is indicated by the following abbreviation codes.

Test Type	Code
Pocket penetrometer (kPa)	PP
Photo ionisation detector (ppm)	PID
Standard Penetration Test x/y =*x* blows for *y* mm penetration HB = hammer bouncing HW = fell under weight of hammer	SPT
Shear vane (kPa)	V
Unconfined compressive strength, (MPa)	UCS
Point load test, (MPa), axial (A), diametric (D), irregular (I)	PLT(_)
Dynamic cone penetrometer, followed by blow count penetration increment in mm (cone tip, generally in accordance with AS1289.6.3.2)	DCP9/150
Perth sand penetrometer, followed by blow count penetration increment in mm (flat tip, generally in accordance with AS1289.6.3.3)	PSP/150
Dynamic probe super heavy, followed by blow count penetration increment in mm	DPSH/100

Groundwater Observations

	water seepage/inflow
	water seepage/outflow
	standing or observed water level
NFGWO	no free groundwater observed
OBS	observations obscured by drilling fluids

Drilling or Excavation Methods/Tools

The drilling/excavation methods used to perform the investigation may be shown either in a dedicated column down the left-hand edge of the log, or stated in the log footer. In some circumstances abbreviation codes may be used.

Method	Abbreviation Code
Direct Push	DP
Solid flight auger. Suffixes: /T = tungsten carbide tip, /V = v-shaped tip	AD[1]
Air Track	AT
Diatube	DT[1]
Hand auger	HA[1]
Hand tools (unspecified)	HAND
Existing exposure	X
Hollow flight auger	HSA[1]
HQ coring	HQ3
HMLC series coring	HMLC
NMLC series coring	NMLC
NQ coring	NQ3
PQ coring	PQ3
Predrilled	PD
Push tube	PT[1]
Ripping tyne/ripper	R
Rock roller	RR[1]
Rock breaker/hydraulic hammer	EH
Sonic drilling	SON[1]
Mud/blade bucket	MB[1]
Toothed bucket	TB[1]
Vibrocore	VC[1]
Vacuum excavation	VE
Wash bore (unspecified bit type)	WB[1]

[1] – numeric suffixes indicate tool diameter/width in mm

Appendix J

Field Notes

Douglas PARTNERS

Groundwater (GW) Field Sheet

Project and Bore Installation Details						
Project Name / Site Location					Project Number	236742.01
Well Construction Details	Well ID	BH102a	Drilling Method		Hole Diameter (m)~	
	Well Depth (m bgl)		Screened (m bgl)		Stick Up (m)	
Survey Information	Easting		Northing		Elevation RL	
GW Level During Drilling		m bgl				
Contaminants/Comments						

Well Development Details					
Date / Time / Weather Conditions	27/08/25 7:26am			Purged By	CLB
Purge Method / Equipment	Twister Pump				
Product observed / Thickness	—	mm	Confirmed with Bailer? (Y / N)	—	
GW Level (pre-purge)	9.96	m bgl	Observed Well Depth	14	m bgl
Height of Water Column (H)	4.04	m bgl	Estimated Bore Volume*	21.816	L
GW Level (post-purge)	11.13	m bgl	Total Volume Purged**	100	L
Appearance/Comments	Pale brown, no odour				

Sampling Details					
Date / Time / Weather Conditions	2/9/25 10:55 Cloudy			Sampled By	SAF
Sampling Method / Equipment	Bladder pump				
WQM Model	YSI		WQM Calibration Date		
Product observed / Thickness	—	mm	Confirmed with Bailer? (Y / N)	Y	
GW Level (pre-micropurge)	10.06	m bgl	Observed Well Depth	13.79	m bgl
Height of Water Column	3.73	m bgl	Estimated Bore Volume*	20.1	L
GW Level (post sample)	10.06	m bgl	Total Volume of Micro-Purged	8	L

Water Quality Parameters

Time	Cumulative Volume (L)	Temp (°C)	DO (mg/L)#	EC (µS or mS/cm)	pH	Redox (mV)	Turbidity^
Stabilisation Target (3 readings)		0.2	+/- 10%	+/- 5%	+/- 0.1	+/- 10 mV	+/- 10%
11:20	1	18.9	0.60	423.2	4.61	187.0	1515
11:22	2	18.9	0.22	398.5	4.30	209.6	582
11:24	3	18.9	0.15	396.6	4.30	211.8	457
11:26	4	18.9	0.12	394.2	4.30	213.6	397
Notes:	# Considered stabilised if three DO values are less than 0.5 mg/L			^ Considered stabilised if three Turbidity values are less than 5 NTU			

Sample Details						
Sampling Depth (rationale)	12	m bgl,	mid-column			
Sample Observations (e.g. colour, sediment, sheen, odour)	Slight grey, no silt, no sheen, faint sulphur odour					
Sample ID	BH102a					
QAQC Samples	Replicate		Triplicate		Other	
Sample Containers Quantity / Preservation / Filtration	Amber glass		Plastic		PFAS (no teflon)	
	Metals (F/UF) (HNO3)		Phenols/COD/NH3 (H2SO4)		Vials (HCl)	
	Ferrous/Ferric Iron (HCl)		Cyanides/Chromium (NaOH)		Other	
Comments						

*Estimated Well Volume = H * F	Std. Drilling Diameter	NMLC (0.075)	HQ (0.096)	PQ (0.1226)	SFA (0.125)	HFA (0.194)
**Purge Target: min. 3 well volumes	Factor (F):	2.8	3.7	5.2	5.4	11.1

Groundwater (GW) Field Sheet

Project and Bore Installation Details						
Project Name / Site Location					Project Number	236743.01
Well Construction Details	Well ID	BH103	Drilling Method		Hole Diameter (m)~	
	Well Depth (m bgl)		Screened (m bgl)		Stick Up (m)	
Survey Information	Easting		Northing		Elevation RL	
GW Level During Drilling		m bgl				
Contaminants/Comments						

Well Development Details					
Date / Time / Weather Conditions	28/8/25 Sunny 6:45			Purged By	SAF
Purge Method / Equipment	Peri pump				
Product observed / Thickness	–	mm	Confirmed with Bailer? (Y / N)	Yes	
GW Level (pre-purge)	5.54	m bgl	Observed Well Depth	8.16	m bgl
Height of Water Column (H)	2.62	m bgl	Estimated Bore Volume*	14.1	L
GW Level (post-purge)	5.54	m bgl	Total Volume Purged**	100	L
Appearance/Comments	Clear, no silt, no sheen, no odour				

Sampling Details					
Date / Time / Weather Conditions	2/9/25 8:10 Clear			Sampled By	SAF
Sampling Method / Equipment	Bladder pump				
WQM Model	YSI		WQM Calibration Date	1/9/25	
Product observed / Thickness	–	mm	Confirmed with Bailer? (Y / N)	Y	
GW Level (pre-micropurge)	5.66	m bgl	Observed Well Depth	8.07	m bgl
Height of Water Column	2.37	m bgl	Estimated Bore Volume*	12.8	L
GW Level (post sample)	5.66	m bgl	Total Volume of Micro-Purged	12	L

Water Quality Parameters

Time	Cumulative Volume (L)	Temp (°C)	DO (mg/L)#	EC (µS or mS/cm)	pH	Redox (mV)	Turbidity^
Stabilisation Target (3 readings)		0.2	+/- 10%	+/- 5%	+/- 0.1	+/- 10 mV	+/- 10%
9:00	2	19.3	1.08	841	5.42	133.4	857
9:02	3	19.5	0.90	828	5.32	137.4	652
9:04	4	19.6	0.79	811	5.25	142.9	425
9:06	5	19.7	0.76	799	5.20	146.8	362
9:08	6	19.7	0.71	780	5.13	152.1	280
9:10	7	19.7	0.69	768	5.08	156.5	222
9:12	8	19.7	0.68	761	5.04	159.2	188

Notes: # Considered stabilised if three DO values are less than 0.5 mg/L ^ Considered stabilised if three Turbidity values are less than 5 NTU

Sample Details						
Sampling Depth (rationale)	7	m bgl,	mid-column			
Sample Observations (e.g. colour, sediment, sheen, odour)	Slight brown, no silt, no sheen, no odour					
Sample ID	BH103					
QAQC Samples	Replicate	BD/20250902	Triplicate		Other	
Sample Containers Quantity / Preservation / Filtration	Amber glass		Plastic		PFAS (no teflon)	
	Metals (F/UF) (HNO3)		Phenols/COD/NH3 (H2SO4)		Vials (HCl)	
	Ferrous/Ferric Iron (HCl)		Cyanides/Chromium (NaOH)		Other	
Comments						

*Estimated Well Volume = H * F	Std. Drilling Diameter	NMLC (0.075)	HQ (0.096)	PQ (0.1226)	SFA (0.125)	HFA (0.194)
**Purge Target: min. 3 well volumes	Factor (F):	2.8	3.7	5.2	5.4	11.1

Douglas PARTNERS

Landfill Gas Monitoring

Client:
Project:
Location:
Weather/ Site Conditions:
Well ID: DH6a
Time: 10:11

Date: 2/9/25
Project Number: 236743.01
Atmospheric Pressure Mb: 1022
Relative Borehole Pressure: 0.10
Sampler: SAF
Flow or Concentration taken first?

Time (sec)	Concentration (% v/v)			H_2S (ppm)	CO (ppm)	Flow (l/hr)
	CH_4	CO_2	O_2			
Initial (0)	0	0.2	19.7	0	1	0
30	0	4.0	13.0	0	7	
60	0	4.0	12.8	0	8	
90	0	4.0	12.8	0	11	
120	0	4.0	12.8	0	11	
150	0	4.0	12.8	0	11	
180	0	4.2	12.8	0	11	
210	0	4.2	12.8	0	11	
240	0	4.5	12.8	0	11	
270	0	4.5	12.8	0	11	
300	0	4.8	13.0	0	11	
330	0	4.8	13.0	0	11	
360	0	4.9	13.2	0	12	
390	0	4.9	13.2	0	12	
420	0	4.9	13.3	0	12	
450	0	4.9	13.5	0	12	
480	0	4.9	13.5	0	12	
510	0	4.9	13.6	0	12	
540	0	4.9	13.7	0	12	
570	0	4.8	13.9	0	11	
600	0	4.8	13.9	0	11	

Client:
Project:
Location:
Weather/ Site Conditions:
Well ID: BH102a
Time:

Date: 2/9/25
Project Number: 236743.01
Atmospheric Pressure Mb: 1022
Relative Borehole Pressure: 0.02
Sampler: SAF
Flow or Concentration taken first?

Time (sec)	Concentration (% v/v)			H_2S (ppm)	CO (ppm)	Flow (l/hr)
	CH_4	CO_2	O_2			
Initial (0)	0	3.2	14.3	0	7	0
30	0	0.3	19.5	0	6	
60	0	0.2	19.7	0	4	
90	0	0.2	19.8	0	3	
120	0	0.2	19.8	0	3	
150	0	0.2	19.8	0	3	
180	0	0.1	19.8	0	2	
210	0	0.1	19.8	0	2	
240	0	0.1	19.8	0	2	
270	0	0.1	19.8	0	2	
300	0	0.1	19.8	0	2	
330	0	0.1	19.9	0	2	
360	0	0.1	19.9	0	2	
390	0	0.1	19.9	0	2	
420	0	0.1	19.9	0	2	
450	0	0.1	19.9	0	2	
480	0	0.1	19.9	0	2	
510	0	0.1	19.9	0	2	
540	0	0.1	19.9	0	2	
570	0	0.1	19.9	0	2	
600	0	0.1	19.9	0	2	

Douglas PARTNERS

Landfill Gas Monitoring

Client:
Project: Leichardt Oval
Location:
Weather/ Site Conditions:
Well ID: BH103
Time: 7:31

Date: 2/9/25
Project Number: 236743.01
Atmospheric Pressure Mb: 1022
Relative Borehole Pressure: 0.16
Sampler: SAF
Flow or Concentration taken first?

Time (sec)	Concentration (% v/v)			H_2S (ppm)	CO (ppm)	Flow (l/hr)
	CH_4	CO_2	O_2			
Initial (0)	0	0.2	19.8	0	1	0
30	0	0.1	17.6	0	42	
60	0	0.1	18.7	0	32	
90	0	0.1	18.8	0	31	
120	0	0.1	18.9	0	27	
150	0	0.1	18.9	0	25	
180	0	0.1	19.0	0	23	
210	0	0.1	19.0	0	22	
240	0	0.1	18.9	0	22	
270	0	0.1	19.0	0	18	
300	0	0.1	19.1	0	18	
330	0	0.1	19.2	0	17	
360	0	0.1	19.2	0	17	
390	0	0.1	19.2	0	16	
420	0	0.1	19.3	0	15	
450	0	0.1	19.3	0	13	
480	0	0.1	19.3	0	12	
510	0	0.1	19.3	0	12	
540	0	0.1	19.4	0	12	
570	0	0.1	19.4	0	11	
600	0	0.1	19.4	0	11	

Client:
Project:
Location:
Weather/ Site Conditions:
Well ID: BH2
Time: 9:40

Date: 2/9/25
Project Number: 236743.01
Atmospheric Pressure Mb: 1022
Relative Borehole Pressure: 0.02
Sampler: SAF
Flow or Concentration taken first?

Time (sec)	Concentration (% v/v)			H_2S (ppm)	CO (ppm)	Flow (l/hr)
	CH_4	CO_2	O_2			
Initial (0)	0	0.2	19.8	0	1	0
30	0	2.8	16.9	0	1	
60	0	2.8	16.9	0	1	
90	0	2.8	16.8	0	1	
120	0	2.8	16.8	0	1	
150	0	2.8	16.7	0	1	
180	0	2.9	16.7	0	1	
210	0	2.9	16.7	0	1	
240	0	3.0	16.6	0	1	
270	0	3.1	16.6	0	1	
300	0	3.2	16.5	0	1	
330	0	3.3	16.4	0	1	
360	0	3.3	16.4	0	1	
390	0	3.3	16.4	0	1	
420	0	3.4	16.4	0	1	
450	0	3.4	16.4	0	0	
480	0	3.4	16.4	0	1	
510	0	3.4	16.4	0	0	
540	0	3.4	16.4	0	1	
570	0	3.4	16.4	0	1	
600	0	3.4	16.4	0	1	

Douglas PARTNERS | GROUNDED EXPERTISE

RECORD OF ASBESTOS SAMPLES

Project: LILYFIELD, 68 Mary Street ENV	**Project Number:** 236743.01
Client: Inner West Council	**Date:** 26/8/25 / 28/8/25
Location: 68 Mary Street, Lilyfield	**Field Staff:** SAF

Sample ID	Sample Type	Sample Depth (m)	Weight of 10 L Bulk Sample KG (g)	Number of Fragments >7 mm	Condition of Fragments (good/ poor)	Size range of fragments (mm)	Weight of ACM and FA collected (g)
BH101	Clay	0 - 0.3	15.834	0	-	-	-
BH6	Clay	0 - 0.7	8.048	0	-	-	-
BH102	Clay	0 - 0.2	16.141	0	-	-	-
BH5	Sand	0.7 - 0.8	5.851	0	-	-	-
BH1	SAND / CLAY	0 - 1.0	3.420	0	-	-	-
BH3	Sand / Clay	0 - 1.0	3.905	0	-	-	-
BH4	Sand / Clay	0 - 0.7	4.732	0	-	-	-

Appendix K

Bureau of Meteorology Data

Sydney, New South Wales
August 2025 Daily Weather Observations

Most observations from Observatory Hill, but some from Fort Denison and Sydney Airport.

Australian Government
Bureau of Meteorology

Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C	mm	mm	hours		km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Fr	8.5	13.0	9.6	3.0	0.0	SSW	39	15:15	8.8	93	7	WNW	20	1023.7	12.9	86	7	SW	15	1020.5
2	Sa	8.8	16.5	38.8	0.6	0.0	SE	70	20:27	12.1	95	8	ESE	13	1020.6	14.8	84	8	SE	30	1016.9
3	Su	12.1	17.1	17.0	4.6	0.8	ESE	69	01:08	15.6	88	8	S	26	1021.5	15.7	93	8	SSW	11	1021.1
4	Mo	11.5	19.0	20.0	3.6	6.7	S	31	00:15	13.6	98	6	WNW	17	1023.2	18.6	74	6	S	7	1020.5
5	Tu	10.6	22.9	2.2	2.4	6.7	W	28	22:39	11.6	99	3	W	17	1018.7	22.2	45	3	E	9	1015.0
6	We	10.5	19.5	0	2.8	9.6	W	44	12:43	13.1	59	2	W	22	1020.9	19.3	35	1	SW	15	1019.3
7	Th	9.7	17.6	10.2	3.2	1.3	SSE	41	11:22	10.8	97	7	WNW	19	1028.2	15.9	56	6	SSE	20	1028.2
8	Fr	9.7	17.9	0.2	2.2	5.4	SW	37	20:16	13.1	75	7	WNW	15	1033.1	16.3	66	8	S	22	1031.3
9	Sa	11.6	17.5	42.0	2.0	4.2	SSE	46	16:26	12.8	95	8	SW	19	1032.8	16.3	65	6	SSE	19	1029.6
10	Su	10.7	16.3	38.2	3.6	1.3	SSW	39	17:45	12.0	97	7	WNW	17	1029.3	14.5	84	7	SSW	15	1027.4
11	Mo	9.4	15.8	16.6	1.6	2.8	SW	31	19:30	11.2	96	7	WNW	17	1028.4	14.9	71	7	SSE	13	1025.9
12	Tu	7.6	18.1	1.2	1.4	9.5	W	33	06:33	11.2	76	1	WNW	20	1026.2	17.4	59	3	S	11	1023.8
13	We	8.6	19.4	0	1.6	6.7	SSW	31	22:21	11.5	83	1	WNW	17	1025.7	18.9	54	8	E	11	1023.2
14	Th	10.6	12.8	10.0	1.6	0.0	S	37	00:27	10.7	85	6	W	17	1026.0	12.4	94	8	SSW	15	1024.9
15	Fr	10.6	20.2	9.6	0.8	8.1	ENE	26	16:33	12.6	94	3	WNW	7	1022.1	18.3	68	7	E	15	1016.4
16	Sa	11.7	20.0	0	1.0	8.2	W	48	21:14	15.3	63	1	W	13	1013.5	18.1	41	5	SSW	20	1010.5
17	Su	6.9	17.9	0	4.0	10.1	W	41	08:44	10.5	56	3	W	28	1018.8	16.6	32	1	ESE	11	1017.4
18	Mo	6.6	15.3	0	5.2	3.1	SSW	43	10:05	10.7	57	2	W	26	1025.5	9.9	92	8	WSW	11	1027.2
19	Tu	8.8	16.7	25.4	2.2	3.6	N	31	19:28	10.4	95	5	W	19	1031.7	13.5	89	7	SSW	17	1029.3
20	We	10.4	15.2	21.8	2.0	0.0	ESE	50	10:13	13.1	92	7	SSE	9	1032.3	12.9	93	8	E	17	1029.6
21	Th	10.8	15.8	82.4	1.8	0.0	E	69	08:55	13.9	89	8	ENE	46	1027.6	15.3	92	8	ENE	44	1024.6
22	Fr	11.5	16.3	23.6	0.6	0.5	SSW	24	18:50	13.1	98	7	WNW	15	1024.0	15.9	90	7	ESE	11	1020.3
23	Sa	12.1	20.8	20.8	0.6	10.1	SSW	57	11:32	15.2	72	4	W	24	1017.8	19.2	52	2	SSW	28	1018.1
24	Su	11.6	19.2	0	4.4	5.7	WSW	39	03:10	13.7	53	1	W	20	1021.8	16.5	58	6	W	13	1017.7
25	Mo	13.5	22.3	0	2.8	1.8	W	35	10:01	16.0	69	7	W	20	1019.0	20.4	67	7	SSE	9	1016.8
26	Tu	14.3	22.8	0	2.4	9.8	NNE	43	17:58	18.7	74	1	N	6	1017.1	21.2	70	4	NE	22	1010.0
27	We	16.6	21.0	0	4.8	2.8	WNW	74	14:09	19.7	60	7	NNW	15	1002.4	16.0	53	6	NW	31	1002.6
28	Th	10.7	19.4	0	6.0		W	63	16:49	15.2	41	1	WNW	13	1006.7	19.1	31	1	W	41	1004.9
29	Fr	12.1	20.8	0		9.8	W	74	23:26	16.4	45		W	15	1009.4	20.7	30	3	NW	22	1004.7
30	Sa	10.2	17.6	0	14.6	10.6	W	72	12:29	13.5	43	1	W	30	1006.6	17.2	36	4	W	31	1013.6
31	Su	8.2	20.3	0	4.8	11.0	W	33	08:10	12.5	53	1	W	24	1026.0	19.5	45	0	ENE	13	1022.1
Statistics for August 2025																					
	Mean	10.5	18.2		3.1	5.0				13.2	77	4		18	1022.0	16.8	64	5		18	1019.8
	Lowest	6.6	12.8		0.6	0.0				8.8	41	1	N	6	1002.4	9.9	30	0	S	7	1002.6
	Highest	16.6	22.9	82.4	14.6	11.0	#	74		19.7	99	8	ENE	46	1033.1	22.2	94	8	ENE	44	1031.3
	Total			389.6	92.2	150.2															

Temperature, humidity and rainfall observations are from Sydney (Observatory Hill) {station 066214}. Pressure, cloud, evaporation and sunshine observations are from Sydney Airport AMO {station 066037}. Wind observations are from Fort Denison {station 066022}

Sydney Airport is about 10 km to the south of Observatory Hill.

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Sydney, New South Wales
September 2025 Daily Weather Observations

Most observations from Observatory Hill, but some from Fort Denison and Sydney Airport.

Australian Government
Bureau of Meteorology

Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C	mm	mm	hours		km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Mo	9.3	20.7	0.2	4.6	10.7	W	39	08:16	13.1	56	2	W	20	1024.2	19.1	49	1	SE	17	1021.0
2	Tu	10.9	20.2	32.8	4.0	8.8	NNE	37	21:32	14.9	83	6	WNW	13	1024.5	19.6	52	1	ENE	20	1020.2
3	We	10.4	22.5	0	4.0	10.4	NNE	28	17:46	14.6	55	2	WNW	20	1022.2	22.2	29	1	W	9	1018.0
4	Th	14.1	23.6	0.2	5.0	5.2	NNW	48	14:01	16.7	43	7	NNW	20	1019.9	23.2	25	7	NW	26	1015.5
5	Fr	11.2	19.8	0	7.6	9.5	SSE	39	14:20	16.8	67	1	SSW	19	1027.1	18.0	50	6	SSE	20	1027.5
6	Sa	11.0	21.1	0	4.0	9.4	NE	43	15:51	15.5	63	3	WNW	11	1032.1	20.3	54	1	ENE	26	1027.5
7	Su	11.5	22.3	0	5.6	10.6	NE	41	17:42	16.2	74	1	W	7	1025.9	21.9	59	1	NE	22	1020.3
8	Mo	16.2	29.0	0	7.4	10.1	NNW	50	16:06	22.3	44	3	WNW	11	1018.1	28.0	35	7	NW	30	1012.7
9	Tu	16.1	26.1	2.2	8.0	4.7	W	43	04:21	19.2	73	5	W	6	1015.6	25.8	44	5	NNW	13	1010.7
10	We	16.1	17.1	6.8	3.8	0.0	SSE	76	16:54	16.5	93	8	ESE	26	1009.5	16.7	92	8	NE	4	1004.2
11	Th	9.7	17.5	122.0		4.4	SSW	63	13:19	11.1	98	8	W	22	1008.2	17.2	53	4	SSW	31	1013.5
12	Fr	9.6	21.1	8.4	2.4	10.9	W	26	05:20	15.7	64	1	W	13	1023.3	19.9	51	1	ESE	13	1021.2
13	Sa	10.5	21.3	0	4.8	10.4	W	22	08:23	15.0	58	1	W	17	1027.0	20.0	55	1	ENE	19	1023.9
14	Su	11.1	23.9	0	5.6	10.7	NE	33	15:16	15.8	75	1	WNW	17	1025.4	21.2	64	1	NE	19	1019.6
15	Mo	11.1		0	6.0					19.2	55	1		Calm	1021.0	27.7	23	1	WNW	13	1015.5
Statistics for the first 15 days of September 2025																					
Mean		11.9	21.9		5.2	8.3				16.2	66	3		14	1021.6	21.4	49	3		18	1018.1
Lowest		9.3	17.1		2.4	0.0				11.1	43	1		Calm	1008.2	16.7	23	1	NE	4	1004.2
Highest		16.2	29.0	122.0	8.0	10.9	SSE	76		22.3	98	8	ESE	26	1032.1	28.0	92	8	SSW	31	1027.5
Total				172.6	72.8	115.8															

Temperature, humidity and rainfall observations are from Sydney (Observatory Hill) {station 066214}. Pressure, cloud, evaporation and sunshine observations are from Sydney Airport AMO {station 066037}. Wind observations are from Fort Denison {station 066022}

Sydney Airport is about 10 km to the south of Observatory Hill.

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Appendix L

Laboratory Reports and Chain of Custody

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 389639

Client Details

Client	Douglas Partners Pty Ltd
Attention	Nerilee Edwards
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**236743.01, Lilyfield**
Number of Samples	62 Soil
Date samples received	29/08/2025
Date completed instructions received	29/08/2025

Analysis Details

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

Samples were analysed as received from the client unless as indicated below in the method summaries. 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	05/09/2025
Date of Issue	05/09/2025

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Asbestos Approved By
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Authorised by Asbestos Approved Signatory: Stuart Chen

Results Approved By
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Dragana Tomas, Senior Chemist
Jenny He, Inorganic Team Leader
Loren Bardwell, Development Chemist
Sean McAlary, Senior Chemist
Stuart Chen, Asbestos Approved Identifier/Report coordinator
Tabitha Roberts, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in soil						
Our Reference		389639-10	389639-21	389639-35	389639-45	389639-56
Your Reference	UNITS	BH101a	BH102a	BH2	BH5	BH6a
Depth		8.2-8.5	7.5-8	0.7-0.9	0.3-0.5	4.8-5
Date Sampled		26/08/2025	26/08/2025	28/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date Analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
Bromochloromethane	mg/kg	<1	<1	<1	<1	<1
Chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-Dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-Dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
Carbon Tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-Dichloropropane	mg/kg	<1	<1	<1	<1	<1
Trichloroethene	mg/kg	<1	<1	<1	<1	<1
Bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	mg/kg	<1	<1	<1	<1	<1
Dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-Dibromoethane	mg/kg	<1	<1	<1	<1	<1
Tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
Chlorobenzene	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		389639-10	389639-21	389639-35	389639-45	389639-56
Your Reference	UNITS	BH101a	BH102a	BH2	BH5	BH6a
Depth		8.2-8.5	7.5-8	0.7-0.9	0.3-0.5	4.8-5
Date Sampled		26/08/2025	26/08/2025	28/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
Bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-Xylene	mg/kg	<2	<2	<2	<2	<2
Styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	mg/kg	<1	<1	<1	<1	<1
Isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
Bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-Propylbenzene	mg/kg	<1	<1	<1	<1	<1
2-Chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-Chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	mg/kg	<1	<1	<1	<1	<1
tert-Butylbenzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	mg/kg	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-Butylbenzene	mg/kg	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-Isopropyltoluene	mg/kg	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-Butylbenzene	mg/kg	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	114	113	115	113	114
Surrogate aaa-Trifluorotoluene	%	83	89	104	76	83
Surrogate Toluene-d_8	%	100	100	100	100	101
Surrogate 4-Bromofluorobenzene	%	90	91	88	91	90

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		389639-1	389639-3	389639-8	389639-11	389639-13
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	0.1-0.3
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	74	89	73	85	88

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		389639-18	389639-21	389639-24	389639-29	389639-35
Your Reference	UNITS	BH102a	BH102a	BH103	BH1	BH2
Depth		4-4.1	7.5-8	1-1.2	0.2-0.4	0.7-0.9
Date Sampled		26/08/2025	26/08/2025	26/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	2	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	70	89	95	98	104

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		389639-38	389639-39	389639-43	389639-45	389639-47
Your Reference	UNITS	BH3	BH3	BH4	BH5	BH6
Depth		0.05-0.15	0.8-1	0.2-0.4	0.3-0.5	0-0.2
Date Sampled		28/08/2025	28/08/2025	28/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	84	103	106	76	82

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		389639-49	389639-52	389639-56	389639-58	389639-59
Your Reference	UNITS	BH6a	BH6a	BH6a	BD1/20250828	TS
Depth		0.2-0.3	1.1-1.3	4.8-5	-	-
Date Sampled		28/08/2025	28/08/2025	28/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	[NA]
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	[NA]
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	[NA]
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	88%
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	86%
Ethylbenzene	mg/kg	<1	<1	<1	<1	86%
m+p-xylene	mg/kg	<2	<2	<2	<2	87%
o-Xylene	mg/kg	<1	<1	<1	<1	86%
Naphthalene	mg/kg	<1	<1	<1	<1	[NA]
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	[NA]
Surrogate aaa-Trifluorotoluene	%	103	105	83	81	96

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		389639-60
Your Reference	UNITS	TB
Depth		-
Date Sampled		28/08/2025
Type of sample		Soil
Date extracted	-	04/09/2025
Date analysed	-	05/09/2025
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	%	96

svTRH (C10-C40) in Soil						
Our Reference		389639-1	389639-3	389639-8	389639-11	389639-13
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	0.1-0.3
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	450	640	270	<100
TRH C_{29} - C_{36}	mg/kg	130	400	510	270	<100
Total +ve TRH (C10-C36)	mg/kg	130	850	1,200	540	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	190	740	1,000	470	<100
TRH >C_{34} -C_{40}	mg/kg	<100	250	280	180	<100
Total +ve TRH (>C10-C40)	mg/kg	190	990	1,300	650	<50
Surrogate o-Terphenyl	%	87	105	122	105	92

svTRH (C10-C40) in Soil						
Our Reference		389639-18	389639-21	389639-24	389639-29	389639-35
Your Reference	UNITS	BH102a	BH102a	BH103	BH1	BH2
Depth		4-4.1	7.5-8	1-1.2	0.2-0.4	0.7-0.9
Date Sampled		26/08/2025	26/08/2025	26/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	940	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	740	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	1,700	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	51	<50	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	1,400	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	410	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	1,900	<50	<50	<50	<50
Surrogate o-Terphenyl	%	#	92	89	82	80

svTRH (C10-C40) in Soil						
Our Reference		389639-38	389639-39	389639-43	389639-45	389639-47
Your Reference	UNITS	BH3	BH3	BH4	BH5	BH6
Depth		0.05-0.15	0.8-1	0.2-0.4	0.3-0.5	0-0.2
Date Sampled		28/08/2025	28/08/2025	28/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	02/09/2025	03/09/2025	03/09/2025
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	650	<100	<100	170	120
TRH C_{29} - C_{36}	mg/kg	2,500	260	<100	160	140
Total +ve TRH (C10-C36)	mg/kg	3,100	260	<50	330	260
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	2,500	260	<100	280	220
TRH >C_{34} -C_{40}	mg/kg	1,700	180	<100	120	<100
Total +ve TRH (>C10-C40)	mg/kg	4,200	440	<50	400	220
Surrogate o-Terphenyl	%	88	88	87	90	91

svTRH (C10-C40) in Soil					
Our Reference		389639-49	389639-52	389639-56	389639-58
Your Reference	UNITS	BH6a	BH6a	BH6a	BD1/20250828
Depth		0.2-0.3	1.1-1.3	4.8-5	-
Date Sampled		28/08/2025	28/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	03/09/2025	03/09/2025	02/09/2025
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	240	240	<100
TRH C_{29} - C_{36}	mg/kg	<100	200	220	<100
Total +ve TRH (C10-C36)	mg/kg	<50	440	460	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	390	400	<100
TRH >C_{34} -C_{40}	mg/kg	<100	120	140	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	510	540	<50
Surrogate o-Terphenyl	%	87	109	96	86

PAHs in Soil						
Our Reference		389639-1	389639-3	389639-8	389639-11	389639-13
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	0.1-0.3
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	03/09/2025	03/09/2025	02/09/2025
Naphthalene	mg/kg	<0.1	0.3	0.2	0.1	0.5
Acenaphthylene	mg/kg	0.4	1.5	0.4	1.2	0.4
Acenaphthene	mg/kg	<0.1	0.3	0.2	<0.1	<0.1
Fluorene	mg/kg	<0.1	0.5	0.3	0.2	<0.1
Phenanthrene	mg/kg	1.4	9.5	11	3.9	1.7
Anthracene	mg/kg	0.5	3.0	3.2	1.6	0.6
Fluoranthene	mg/kg	4.5	20	22	11	4.0
Pyrene	mg/kg	4.9	20	20	12	4.0
Benzo(a)anthracene	mg/kg	2.7	13	11	9.7	1.8
Chrysene	mg/kg	2.4	8.9	7.8	5.7	1.5
Benzo(b,j+k)fluoranthene	mg/kg	5.6	20	16	13	3.4
Benzo(a)pyrene	mg/kg	3.7	14	11	8.4	2.0
Indeno(1,2,3-c,d)pyrene	mg/kg	2.4	6.9	4.1	4.3	1.1
Dibenzo(a,h)anthracene	mg/kg	0.4	1.3	1.5	1.6	0.2
Benzo(g,h,i)perylene	mg/kg	2.3	8.4	4.5	4.7	1.0
Total +ve PAH's	mg/kg	31	130	110	77	22
Benzo(a)pyrene TEQ calc (zero)	mg/kg	5.2	19	16	13	2.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	5.2	19	16	13	2.9
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	5.2	19	16	13	2.9
Surrogate p-Terphenyl-d14	%	92	96	95	93	92

PAHs in Soil						
Our Reference		389639-18	389639-21	389639-24	389639-29	389639-35
Your Reference	UNITS	BH102a	BH102a	BH103	BH1	BH2
Depth		4-4.1	7.5-8	1-1.2	0.2-0.4	0.7-0.9
Date Sampled		26/08/2025	26/08/2025	26/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	02/09/2025	02/09/2025	03/09/2025
Naphthalene	mg/kg	2.4	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	2.7	0.2	0.1	0.2	0.2
Acenaphthene	mg/kg	1.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	2.0	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	33	1.0	0.6	1	0.8
Anthracene	mg/kg	7.2	0.3	0.2	0.3	0.2
Fluoranthene	mg/kg	50	1.2	1.4	2.2	0.8
Pyrene	mg/kg	44	1.3	1.4	2.3	0.8
Benzo(a)anthracene	mg/kg	24	1	0.8	1.3	0.5
Chrysene	mg/kg	22	0.5	0.6	1.0	0.3
Benzo(b,j+k)fluoranthene	mg/kg	41	2	1	2.4	1
Benzo(a)pyrene	mg/kg	20	0.73	0.91	1.6	0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	13	0.4	0.6	1	0.2
Dibenzo(a,h)anthracene	mg/kg	3.9	0.1	0.1	0.2	<0.1
Benzo(g,h,i)perylene	mg/kg	16	0.4	0.5	0.9	0.2
Total +ve PAH's	mg/kg	280	8.8	8.6	14	5.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	32	1.1	1.3	2.2	0.6
Benzo(a)pyrene TEQ calc(half)	mg/kg	32	1.1	1.3	2.2	0.7
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	32	1.1	1.3	2.2	0.7
Surrogate p-Terphenyl-d14	%	97	96	91	92	93

PAHs in Soil						
Our Reference		389639-38	389639-39	389639-43	389639-45	389639-47
Your Reference	UNITS	BH3	BH3	BH4	BH5	BH6
Depth		0.05-0.15	0.8-1	0.2-0.4	0.3-0.5	0-0.2
Date Sampled		28/08/2025	28/08/2025	28/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	03/09/2025	04/09/2025	03/09/2025	02/09/2025
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	0.1	0.8	0.4
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	0.2	0.2	1.9	0.9
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.8	0.5
Fluoranthene	mg/kg	<0.1	0.3	0.9	5.5	3.4
Pyrene	mg/kg	0.1	0.3	1	6.6	3.7
Benzo(a)anthracene	mg/kg	0.3	0.2	0.8	5.3	2.3
Chrysene	mg/kg	0.2	0.2	0.5	3.1	1.8
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.5	1	8.3	4.5
Benzo(a)pyrene	mg/kg	0.06	0.2	0.67	5.6	3.0
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.1	0.4	2.8	1.8
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.1	0.9	0.3
Benzo(g,h,i)perylene	mg/kg	0.1	0.1	0.5	3.1	1.7
Total +ve PAH's	mg/kg	0.94	2.1	6.2	45	24
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	1.0	8.3	4.2
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	1.0	8.3	4.2
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	1.0	8.3	4.2
Surrogate p-Terphenyl-d14	%	94	90	95	90	90

PAHs in Soil					
Our Reference		389639-49	389639-52	389639-56	389639-58
Your Reference	UNITS	BH6a	BH6a	BH6a	BD1/20250828
Depth		0.2-0.3	1.1-1.3	4.8-5	-
Date Sampled		28/08/2025	28/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	02/09/2025	03/09/2025
Naphthalene	mg/kg	<0.1	0.1	0.1	<0.1
Acenaphthylene	mg/kg	<0.1	0.8	0.7	<0.1
Acenaphthene	mg/kg	<0.1	0.1	0.2	<0.1
Fluorene	mg/kg	<0.1	0.4	0.2	<0.1
Phenanthrene	mg/kg	<0.1	4.1	4.5	<0.1
Anthracene	mg/kg	<0.1	1.6	1.5	<0.1
Fluoranthene	mg/kg	0.1	8.0	9.1	<0.1
Pyrene	mg/kg	0.1	8.0	9.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	6.0	4.6	<0.1
Chrysene	mg/kg	<0.1	3.8	3.9	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.2	9.1	9.1	0.2
Benzo(a)pyrene	mg/kg	0.1	5.6	6.2	0.09
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	3.0	3.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	1.0	0.6	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	3.3	3.1	<0.1
Total +ve PAH's	mg/kg	0.76	55	56	0.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	8.5	8.6	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	8.5	8.6	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	8.5	8.6	<0.5
Surrogate p-Terphenyl-d14	%	85	91	90	88

Organochlorine Pesticides in soil						
Our Reference		389639-1	389639-3	389639-13	389639-24	389639-29
Your Reference	UNITS	BH101	BH101a	BH102a	BH103	BH1
Depth		0-0.3	0.5-0.7	0.1-0.3	1-1.2	0.2-0.4
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	88	93	98	90	91

Organochlorine Pesticides in soil					
Our Reference		389639-38	389639-43	389639-47	389639-56
Your Reference	UNITS	BH3	BH4	BH6	BH6a
Depth		0.05-0.15	0.2-0.4	0-0.2	4.8-5
Date Sampled		28/08/2025	28/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	04/09/2025	02/09/2025	02/09/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	93	92	90	88

Organophosphorus Pesticides in Soil						
Our Reference		389639-1	389639-3	389639-13	389639-24	389639-29
Your Reference	UNITS	BH101	BH101a	BH102a	BH103	BH1
Depth		0-0.3	0.5-0.7	0.1-0.3	1-1.2	0.2-0.4
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	88	93	98	90	91

Organophosphorus Pesticides in Soil					
Our Reference		389639-38	389639-43	389639-47	389639-56
Your Reference	UNITS	BH3	BH4	BH6	BH6a
Depth		0.05-0.15	0.2-0.4	0-0.2	4.8-5
Date Sampled		28/08/2025	28/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	04/09/2025	02/09/2025	02/09/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	93	92	90	88

PCBs in Soil						
Our Reference		389639-1	389639-3	389639-13	389639-24	389639-29
Your Reference	UNITS	BH101	BH101a	BH102a	BH103	BH1
Depth		0-0.3	0.5-0.7	0.1-0.3	1-1.2	0.2-0.4
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	83	88	89	81	83

PCBs in Soil					
Our Reference		389639-38	389639-43	389639-47	389639-56
Your Reference	UNITS	BH3	BH4	BH6	BH6a
Depth		0.05-0.15	0.2-0.4	0-0.2	4.8-5
Date Sampled		28/08/2025	28/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	04/09/2025	02/09/2025	02/09/2025
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	87	89	82	83

Misc Soil - Inorg						
Our Reference		389639-1	389639-3	389639-13	389639-24	389639-29
Your Reference	UNITS	BH101	BH101a	BH102a	BH103	BH1
Depth		0-0.3	0.5-0.7	0.1-0.3	1-1.2	0.2-0.4
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/09/2025	05/09/2025	05/09/2025	05/09/2025	05/09/2025
Date analysed	-	05/09/2025	05/09/2025	05/09/2025	05/09/2025	05/09/2025
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg					
Our Reference		389639-38	389639-43	389639-47	389639-56
Your Reference	UNITS	BH3	BH4	BH6	BH6a
Depth		0.05-0.15	0.2-0.4	0-0.2	4.8-5
Date Sampled		28/08/2025	28/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	05/09/2025	05/09/2025	05/09/2025	05/09/2025
Date analysed	-	05/09/2025	05/09/2025	05/09/2025	05/09/2025
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5

Acid Extractable metals in soil						
Our Reference		389639-1	389639-3	389639-8	389639-11	389639-13
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	0.1-0.3
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Arsenic	mg/kg	13	31	10	14	10
Cadmium	mg/kg	<0.4	2	1	<0.4	<0.4
Chromium	mg/kg	11	13	18	8	10
Copper	mg/kg	47	98	660	60	66
Lead	mg/kg	140	280	340	150	74
Mercury	mg/kg	0.1	0.3	0.2	0.1	0.1
Nickel	mg/kg	7	12	38	7	19
Zinc	mg/kg	130	280	770	120	95

Acid Extractable metals in soil						
Our Reference		389639-18	389639-21	389639-24	389639-29	389639-35
Your Reference	UNITS	BH102a	BH102a	BH103	BH1	BH2
Depth		4-4.1	7.5-8	1-1.2	0.2-0.4	0.7-0.9
Date Sampled		26/08/2025	26/08/2025	26/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Arsenic	mg/kg	11	<4	7	9	9
Cadmium	mg/kg	1	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	19	6	11	16	19
Copper	mg/kg	160	8	20	47	23
Lead	mg/kg	490	19	92	110	46
Mercury	mg/kg	0.6	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	19	5	4	21	20
Zinc	mg/kg	620	32	57	69	38

Acid Extractable metals in soil						
Our Reference		389639-38	389639-39	389639-43	389639-45	389639-47
Your Reference	UNITS	BH3	BH3	BH4	BH5	BH6
Depth		0.05-0.15	0.8-1	0.2-0.4	0.3-0.5	0-0.2
Date Sampled		28/08/2025	28/08/2025	28/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Arsenic	mg/kg	<4	<4	6	6	14
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	6	11	13	15	10
Copper	mg/kg	51	31	20	100	93
Lead	mg/kg	7	13	21	140	150
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	40	27	9	13
Zinc	mg/kg	26	25	24	83	110

Acid Extractable metals in soil						
Our Reference		389639-49	389639-52	389639-56	389639-58	389639-63
Your Reference	UNITS	BH6a	BH6a	BH6a	BD1/20250828	BH101 - [TRIPLICATE]
Depth		0.2-0.3	1.1-1.3	4.8-5	-	0-0.3
Date Sampled		28/08/2025	28/08/2025	28/08/2025	28/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Arsenic	mg/kg	<4	11	24	<4	14
Cadmium	mg/kg	<0.4	0.8	0.8	<0.4	<0.4
Chromium	mg/kg	2	17	21	2	12
Copper	mg/kg	10	69	210	7	53
Lead	mg/kg	5	230	530	7	140
Mercury	mg/kg	<0.1	0.2	0.3	<0.1	0.1
Nickel	mg/kg	1	14	27	2	6
Zinc	mg/kg	13	560	690	15	120

Moisture						
Our Reference		389639-1	389639-3	389639-8	389639-11	389639-13
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	0.1-0.3
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Moisture	%	18	7.9	9.0	11	27

Moisture						
Our Reference		389639-18	389639-21	389639-24	389639-29	389639-35
Your Reference	UNITS	BH102a	BH102a	BH103	BH1	BH2
Depth		4-4.1	7.5-8	1-1.2	0.2-0.4	0.7-0.9
Date Sampled		26/08/2025	26/08/2025	26/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Moisture	%	9.5	8.6	9.7	5.2	9.6

Moisture						
Our Reference		389639-36	389639-38	389639-39	389639-43	389639-45
Your Reference	UNITS	BH2	BH3	BH3	BH4	BH5
Depth		1.8-2	0.05-0.15	0.8-1	0.2-0.4	0.3-0.5
Date Sampled		28/08/2025	28/08/2025	28/08/2025	28/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Moisture	%	5.1	1.8	4.9	12	15

Moisture						
Our Reference		389639-47	389639-49	389639-52	389639-56	389639-58
Your Reference	UNITS	BH6	BH6a	BH6a	BH6a	BD1/20250828
Depth		0-0.2	0.2-0.3	1.1-1.3	4.8-5	-
Date Sampled		26/08/2025	28/08/2025	28/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Moisture	%	14	11	9.7	10	12

Misc Inorg - Soil				
Our Reference		389639-1	389639-11	389639-52
Your Reference	UNITS	BH101	BH102	BH6a
Depth		0-0.3	0-0.2	1.1-1.3
Date Sampled		26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil
Date analysed	-	03/09/2025	03/09/2025	03/09/2025
Date prepared	-	03/09/2025	03/09/2025	03/09/2025
pH 1:5 soil:water	pH Units	6.8	6.6	8.0

CEC				
Our Reference		389639-1	389639-11	389639-52
Your Reference	UNITS	BH101	BH102	BH6a
Depth		0-0.3	0-0.2	1.1-1.3
Date Sampled		26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil
Date prepared	-	04/09/2025	04/09/2025	04/09/2025
Date analysed	-	04/09/2025	04/09/2025	04/09/2025
Exchangeable Ca	meq/100g	7.8	6.1	9.8
Exchangeable K	meq/100g	0.5	0.4	0.2
Exchangeable Mg	meq/100g	1.8	1.5	0.6
Exchangeable Na	meq/100g	<0.1	<0.1	<0.1
Cation Exchange Capacity	meq/100g	10	8.1	11

Asbestos ID - soils						
Our Reference		389639-9	389639-10	389639-17	389639-19	389639-25
Your Reference	UNITS	BH101a	BH101a	BH102a	BH102a	BH103
Depth		6.5-7	8.2-8.5	3-3.2	5-5.2	1.9-2
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Sample mass tested	g	50.00g	50.00g	Approx. 50g	Approx. 50g	Approx. 50g
Sample Description	-	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks
Asbestos ID in soil	-	Chrysotile asbestos detected Organic fibre detected	Chrysotile asbestos detected Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	YES	YES	Nil	Nil	Nil
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils		
Our Reference		389639-26
Your Reference	UNITS	BH103
Depth		3.5-4
Date Sampled		26/08/2025
Type of sample		Soil
Date analysed	-	03/09/2025
Sample mass tested	g	Approx. 50g
Sample Description	-	Black coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Asbestos comments	-	Nil
Trace Analysis	-	No asbestos detected

Asbestos ID - soils NEPM						
Our Reference		389639-1	389639-3	389639-8	389639-11	389639-18
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	4-4.1
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Sample mass tested	g	590.95	537.16	973.07	508.93	429.29
Sample Description	-	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	Chrysotile asbestos detected Organic fibre detected	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	0.1323	1.0603	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	See Above	See Above	No visible asbestos detected	Chrysotile
ACM >7mm Estimation*	g	–	–	1.0317	–	–
FA and AF Estimation*	g	–	0.0710	–	–	0.0176
FA and AF Estimation*#2	%(w/w)	<0.001	0.0132	<0.001	<0.001	0.0041
Asbestos comments	-	Nil	YES	YES	Nil	YES

Asbestos ID - soils NEPM						
Our Reference		389639-24	389639-29	389639-35	389639-38	389639-39
Your Reference	UNITS	BH103	BH1	BH2	BH3	BH3
Depth		1-1.2	0.2-0.4	0.7-0.9	0.05-0.15	0.8-1
Date Sampled		26/08/2025	28/08/2025	28/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Sample mass tested	g	460.36	603.61	918.7	877.64	829.99
Sample Description	-	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Yellow coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	Chrysotile	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	0.0185	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	0.0031	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	YES	Nil	Nil	Nil

Asbestos ID - soils NEPM						
Our Reference		389639-43	389639-45	389639-47	389639-49	389639-52
Your Reference	UNITS	BH4	BH5	BH6	BH6a	BH6a
Depth		0.2-0.4	0.3-0.5	0-0.2	0.2-0.3	1.1-1.3
Date Sampled		28/08/2025	26/08/2025	26/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Sample mass tested	g	1,146.91	1,032.71	726.44	1,129.35	652.16
Sample Description	-	Yellow coarse-grained soil & rocks	Grey coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Asbestos ID - soils NEPM					
Our Reference		389639-54	389639-55	389639-56	389639-57
Your Reference	UNITS	BH6a	BH6a	BH6a	BH6a
Depth		2.8-3	3.8-4	4.8-5	5.8-6
Date Sampled		28/08/2025	28/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Sample mass tested	g	702.53	509.85	524.65	609.66
Sample Description	-	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks	Black coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	Chrysotile asbestos detected Organic fibre detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1	120.5590
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	See Above
ACM >7mm Estimation*	g	–	–	–	–
FA and AF Estimation*	g	–	–	–	73.5000
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	12.0559
Asbestos comments	-	Nil	Nil	Nil	YES

PFAS in Soils Short						
Our Reference		389639-1	389639-21	389639-29	389639-36	389639-49
Your Reference	UNITS	BH101	BH102a	BH1	BH2	BH6a
Depth		0-0.3	7.5-8	0.2-0.4	1.8-2	0.2-0.3
Date Sampled		26/08/2025	26/08/2025	28/08/2025	28/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Perfluorobutanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	2.2	<0.1	0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	0.3	<0.1	<0.1	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	99	102	96	100	100
Surrogate $^{13}C_2$ *PFOA*	%	98	100	105	100	96
Extracted ISTD $^{13}C_3$ *PFBS*	%	87	94	90	105	101
Extracted ISTD $^{18}O_2$ *PFHxS*	%	89	91	96	103	101
Extracted ISTD $^{13}C_4$ *PFOS*	%	87	91	96	105	98
Extracted ISTD $^{13}C_4$ *PFOA*	%	98	98	97	113	104
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	137	101	122	145	101
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	177	115	162	178	111
Total Positive PFHxS & PFOS	µg/kg	2.2	<0.1	0.1	<0.1	<0.1
Total Positive PFOS & PFOA	µg/kg	2.5	<0.1	0.1	<0.1	<0.1
Total Positive PFAS	µg/kg	2.5	<0.1	0.1	<0.1	<0.1

PFAS in Soils Short		
Our Reference		389639-58
Your Reference	UNITS	BD1/20250828
Depth		-
Date Sampled		28/08/2025
Type of sample		Soil
Date prepared	-	02/09/2025
Date analysed	-	02/09/2025
Perfluorobutanesulfonic acid	µg/kg	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1
6:2 FTS	µg/kg	<0.1
8:2 FTS	µg/kg	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	102
Surrogate $^{13}C_2$ *PFOA*	%	99
Extracted ISTD $^{13}C_3$ *PFBS*	%	96
Extracted ISTD $^{18}O_2$ *PFHxS*	%	97
Extracted ISTD $^{13}C_4$ *PFOS*	%	95
Extracted ISTD $^{13}C_4$ *PFOA*	%	97
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	104
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	106
Total Positive PFHxS & PFOS	µg/kg	<0.1
Total Positive PFOS & PFOA	µg/kg	<0.1
Total Positive PFAS	µg/kg	<0.1

sPOCAS field test		
Our Reference		389639-10
Your Reference	UNITS	BH101a
Depth		8.2-8.5
Date Sampled		26/08/2025
Type of sample		Soil
Date prepared	-	29/08/2025
Date analysed	-	02/09/2025
pH_F (field pH test)	pH Units	7.7
pH_{FOX} (field peroxide test)	pH Units	6.7
Reaction Rate*	-	Volcanic reaction

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-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-063	pH- measured using pH meter and electrode. Soil is oxidised with Hydrogen Peroxide or extracted with water. To ensure accurate results these tests are recommended to be done in the field as pH may change with time thus these results may not be representative of true field conditions.

Method ID	Methodology Summary
Metals-020	Determination of various metals/elements by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation. Submission of low masses of sample e.g. for dust samples, may result in raised PQLs. Where molecular anion forms are calculated from an element (e.g. SO4 from S or PO4 from P stoichiometrically), the assumption is that the element is only present in that molecular anion form.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.
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 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-1	389639-35
Date Extracted	-			04/09/2025	21	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date Analysed	-			05/09/2025	21	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
trans-1,2-Dichloroethene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,1-Dichloroethane	mg/kg	1	Org-023	<1	21	<1	<1	0	111	115
cis-1,2-Dichloroethene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Bromochloromethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Chloroform	mg/kg	1	Org-023	<1	21	<1	<1	0	129	130
2,2-Dichloropropane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,2-Dichloroethane	mg/kg	1	Org-023	<1	21	<1	<1	0	112	115
1,1,1-Trichloroethane	mg/kg	1	Org-023	<1	21	<1	<1	0	108	110
1,1-Dichloropropene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Carbon Tetrachloride	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	21	<0.2	<0.2	0	108	111
Dibromomethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,2-Dichloropropane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Trichloroethene	mg/kg	1	Org-023	<1	21	<1	<1	0	100	103
Bromodichloromethane	mg/kg	1	Org-023	<1	21	<1	<1	0	101	103
trans-1,3-Dichloropropene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
cis-1,3-Dichloropropene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,1,2-Trichloroethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	21	<0.5	<0.5	0	98	100
1,3-Dichloropropane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Dibromochloromethane	mg/kg	1	Org-023	<1	21	<1	<1	0	101	103
1,2-Dibromoethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Tetrachloroethene	mg/kg	1	Org-023	<1	21	<1	<1	0	111	113
1,1,1,2-Tetrachloroethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Chlorobenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	97	98
Bromoform	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
m+p-Xylene	mg/kg	2	Org-023	<2	21	<2	<2	0	102	105
Styrene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,1,2,2-Tetrachloroethane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-35
o-Xylene	mg/kg	1	Org-023	<1	21	<1	<1	0	97	100
1,2,3-Trichloropropane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Isopropylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Bromobenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
n-Propylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
2-Chlorotoluene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
4-Chlorotoluene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,3,5-Trimethylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
tert-Butylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,2,4-Trimethylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,3-Dichlorobenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
sec-Butylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,4-Dichlorobenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
4-Isopropyltoluene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,2-Dichlorobenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
n-Butylbenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,2-Dibromo-3-chloropropane	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,2,4-Trichlorobenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
1,2,3-Trichlorobenzene	mg/kg	1	Org-023	<1	21	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	102	21	113	114	1	110	112
Surrogate aaa-Trifluorotoluene	%		Org-023	108	21	89	83	7	94	99
Surrogate Toluene-d_8	%		Org-023	99	21	100	101	1	98	97
Surrogate 4-Bromofluorobenzene	%		Org-023	101	21	91	90	1	97	97

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date Extracted	-			[NT]	[NT]	[NT]	[NT]	[NT]	04/09/2025	[NT]
Date Analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	05/09/2025	[NT]
1,1-Dichloroethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	81	[NT]
Chloroform	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	123	[NT]
1,2-Dichloroethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	84	[NT]
1,1,1-Trichloroethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	80	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	79	[NT]
Trichloroethene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	71	[NT]
Bromodichloromethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	83	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	77	[NT]
Dibromochloromethane	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	75	[NT]
Tetrachloroethene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	83	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	79	[NT]
m+p-Xylene	mg/kg	2	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	76	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	78	[NT]
Surrogate Dibromofluoromethane	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	84	[NT]
Surrogate Toluene-d_8	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	104	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	[NT]	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-3
Date extracted	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	101	114
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	101	114
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	108	121
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	98	109
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	97	110
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	102	116
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	97	111
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	108	1	74	76	3	94	99

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	389639-35
Date extracted	-			[NT]	21	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			[NT]	21	02/09/2025	02/09/2025		02/09/2025	02/09/2025
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	21	<25	<25	0	77	104
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	21	<25	<25	0	77	104
Benzene	mg/kg	0.2	Org-023	[NT]	21	<0.2	<0.2	0	79	111
Toluene	mg/kg	0.5	Org-023	[NT]	21	<0.5	<0.5	0	77	100
Ethylbenzene	mg/kg	1	Org-023	[NT]	21	<1	<1	0	79	98
m+p-xylene	mg/kg	2	Org-023	[NT]	21	<2	<2	0	76	105
o-Xylene	mg/kg	1	Org-023	[NT]	21	<1	<1	0	78	100
Naphthalene	mg/kg	1	Org-023	[NT]	21	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	21	89	83	7	84	99

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Date analysed	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	47	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	47	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	47	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	47	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	47	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	47	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	47	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	47	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	47	82	102	22	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-3
Date extracted	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			02/09/2025	1	03/09/2025	03/09/2025		02/09/2025	03/09/2025
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	108	109
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	250	86	102	84
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	130	210	47	86	#
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	108	109
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	190	390	69	102	84
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	140	33	86	#
Surrogate o-Terphenyl	%		Org-020	99	1	87	99	13	93	109

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	389639-35
Date extracted	-			[NT]	21	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			[NT]	21	02/09/2025	02/09/2025		02/09/2025	02/09/2025
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	21	<50	<50	0	125	102
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	114	103
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	86	102
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	21	<50	<50	0	125	102
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	114	103
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	86	102
Surrogate o-Terphenyl	%		Org-020	[NT]	21	92	86	7	103	89

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Date analysed	-			[NT]	47	03/09/2025	03/09/2025		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	47	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	47	120	130	8	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	47	140	160	13	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	47	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	47	220	240	9	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	47	<100	120	18	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	47	91	93	2	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-3
Date extracted	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			03/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	0.1	0	90	82
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	0.4	1.2	100	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	0.1	0	98	86
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	0.6	143	96	109
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	1.4	9.1	147	94	#
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.5	2.0	120	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	4.5	12	91	100	#
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	4.9	13	91	96	#
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	2.7	8.3	102	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	2.4	5.6	80	84	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	5.6	11	65	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	3.7	7.3	65	94	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	2.4	4.2	55	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.4	0.8	67	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	2.3	4.1	56	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	97	1	92	94	2	95	90

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	389639-35
Date extracted	-			[NT]	21	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			[NT]	21	03/09/2025	03/09/2025		03/09/2025	03/09/2025
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	86	88
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	21	0.2	0.2	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	86	90
Fluorene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	92	89
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	21	1.0	1.4	33	98	70
Anthracene	mg/kg	0.1	Org-022/025	[NT]	21	0.3	0.4	29	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	21	1.2	1.3	8	90	66
Pyrene	mg/kg	0.1	Org-022/025	[NT]	21	1.3	1.4	7	100	69
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	21	1	1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	21	0.5	0.7	33	78	71
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	21	2	2.1	5	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	21	0.73	0.92	23	120	99
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	21	0.4	0.5	22	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	21	0.1	0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	21	0.4	0.6	40	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	21	96	78	21	96	93

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Date analysed	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	47	0.4	0.4	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	47	0.9	1.1	20	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	47	0.5	0.5	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	47	3.4	3.4	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	47	3.7	3.6	3	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	47	2.3	2.1	9	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	47	1.8	1.7	6	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	47	4.5	4.3	5	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	47	3.0	2.8	7	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	47	1.8	1.7	6	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	47	0.3	0.2	40	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	47	1.7	1.7	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	47	90	87	3	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-3
Date extracted	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	84
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	96
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	88
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	80	74
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	92
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	92
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	90
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	90
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	106
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	82	88
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	93	1	88	91	3	95	91

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Date analysed	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	47	90	85	6	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-3
Date extracted	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	115	120
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	95	97
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	107	133
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	103	118
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	112	128
Fenthion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	138
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	113	130
Phosalone	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	93	1	88	91	3	95	91

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Date analysed	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	[NT]	47	90	85	6	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-3
Date extracted	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	99	80
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	86	1	83	85	2	86	84

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Date analysed	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	[NT]	47	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	[NT]	47	82	79	4	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			05/09/2025	1	05/09/2025	05/09/2025		05/09/2025	[NT]
Date analysed	-			05/09/2025	1	05/09/2025	05/09/2025		05/09/2025	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	100	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	389639-3
Date prepared	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			03/09/2025	1	03/09/2025	03/09/2025		03/09/2025	03/09/2025
Arsenic	mg/kg	4	Metals-020	<4	1	13	15	14	114	91
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	104	90
Chromium	mg/kg	1	Metals-020	<1	1	11	18	48	104	91
Copper	mg/kg	1	Metals-020	<1	1	47	390	157	105	103
Lead	mg/kg	1	Metals-020	<1	1	140	350	86	105	109
Mercury	mg/kg	0.1	Metals-021	<0.1	1	0.1	<0.1	0	104	95
Nickel	mg/kg	1	Metals-020	<1	1	7	20	96	106	92
Zinc	mg/kg	1	Metals-020	<1	1	130	330	87	106	92

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	389639-35
Date prepared	-			[NT]	21	02/09/2025	02/09/2025		[NT]	02/09/2025
Date analysed	-			[NT]	21	03/09/2025	03/09/2025		[NT]	03/09/2025
Arsenic	mg/kg	4	Metals-020	[NT]	21	<4	<4	0	[NT]	99
Cadmium	mg/kg	0.4	Metals-020	[NT]	21	<0.4	<0.4	0	[NT]	92
Chromium	mg/kg	1	Metals-020	[NT]	21	6	6	0	[NT]	95
Copper	mg/kg	1	Metals-020	[NT]	21	8	7	13	[NT]	99
Lead	mg/kg	1	Metals-020	[NT]	21	19	16	17	[NT]	86
Mercury	mg/kg	0.1	Metals-021	[NT]	21	<0.1	<0.1	0	[NT]	98
Nickel	mg/kg	1	Metals-020	[NT]	21	5	4	22	[NT]	92
Zinc	mg/kg	1	Metals-020	[NT]	21	32	29	10	[NT]	89

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	47	02/09/2025	02/09/2025		[NT]	[NT]
Date analysed	-			[NT]	47	03/09/2025	03/09/2025		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	47	14	12	15	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	47	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	47	10	10	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	47	93	87	7	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	47	150	170	12	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	47	<0.1	0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	47	13	17	27	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	47	110	110	0	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date analysed	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Date prepared	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			04/09/2025	[NT]	[NT]	[NT]	[NT]	04/09/2025	[NT]
Date analysed	-			04/09/2025	[NT]	[NT]	[NT]	[NT]	04/09/2025	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]

QUALITY CONTROL: PFAS in Soils Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	[NT]
Date analysed	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	107	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	106	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	1	2.2	1.7	26	108	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	1	0.3	0.3	0	102	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	104	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	111	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	97	1	99	95	4	101	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	97	1	98	98	0	99	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	102	1	87	90	3	103	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	101	1	89	90	1	104	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	102	1	87	91	4	102	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	107	1	98	101	3	104	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	107	1	137	152	10	106	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	106	1	177	197	11	101	[NT]

QUALITY CONTROL: sPOCAS field test						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			29/08/2025	[NT]	[NT]	[NT]	[NT]	29/08/2025	[NT]
Date analysed	-			02/09/2025	[NT]	[NT]	[NT]	[NT]	02/09/2025	[NT]
pH_F (field pH test)	pH Units		Inorg-063	[NT]	[NT]	[NT]	[NT]	[NT]	99	[NT]
pH_{FOX} (field peroxide test)	pH Units		Inorg-063	[NT]	[NT]	[NT]	[NT]	[NT]	99	[NT]

Result Definitions

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

Quality Control Definitions

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

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

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

Report Comments

PAHs in Soil - # Percent recovery for the matrix spike is not possible to report as the high concentration of analytes in sample 389639-3 has caused interference.
The RPD for duplicate results is accepted due to the non homogenous nature of samples 389639-1.

TRH Soil C10-C40 NEPM - # Percent recovery for the matrix spike is not possible to report as the high concentration of analytes in sample 389639-3ms have caused interference.
Percent recovery for the surrogate is not possible to report as the high concentration of analytes in sample 389639-18 have caused interference.

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

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 389639-1 for Cr, Cu, Pb, Ni & Zn. Therefore a triplicate result has been issued as laboratory sample number 389639-63.

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Factual description of asbestos identified in the soil samples: NEPM
Sample 389639-3; Chrysotile asbestos identified in 0.0888g of fibrous matted material

Sample 389639-8; Chrysotile, Amosite & Crocidolite asbestos identified in 6.8782g of fibre cement material >7mm

Sample 389639-18; Chrysotile asbestos identified in 0.0220g of fibrous matted material

Sample 389639-29; Chrysotile asbestos identified in 0.0185g of rope material

Sample 389639-57; Chrysotile asbestos identified in 73.50g of rope material

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to ASB-001 asbestos subsampling procedure. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab/MPL recommends supplying 40-60g or 500ml of sample in its own container.
Note: Samples 389639-9,10,17,19,25,26 were sub-sampled from bags provided by the client.

Sample 389639-9; Chrysotile asbestos identified embedded in fragment of fibre cement weighing 0.2502g, it is estimated to be 0.75g/kg in 50.00g of soil (i.e. > reporting limit for the method of 0.1g/kg).

Sample 389639-10; Chrysotile asbestos identified in matted material & isolate fibres weighing 0.0467g, it is estimated to be 0.75g/kg in 50.00g of soil (i.e. > reporting limit for the method of 0.1g/kg).

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CERTIFICATE OF ANALYSIS 389639-A

Client Details

Client	Douglas Partners Pty Ltd
Attention	Cathy Li
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**236743.01, Lilyfield**
Number of Samples	Additional analysis
Date samples received	29/08/2025
Date completed instructions received	08/09/2025

Analysis Details

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

Samples were analysed as received from the client unless as indicated below in the method summaries. 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	15/09/2025
Date of Issue	12/09/2025

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Results Approved By
Amanda Chui, LC/Air Toxics Supervisor
Dragana Tomas, Senior Chemist
Tabitha Roberts, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

svTRH (C10-C40) in Soil NEPM Silica gel				
Our Reference		389639-A-8	389639-A-18	389639-A-38
Your Reference	UNITS	BH101a	BH102a	BH3
Depth		5.2-5.5	4-4.1	0.05-0.15
Date Sampled		26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	09/09/2025	09/09/2025	09/09/2025
Date analysed	-	10/09/2025	10/09/2025	10/09/2025
TRH (Silica) C_{10} - C_{14}	mg/kg	<50	<100	<250
TRH (Silica) C_{15} - C_{28}	mg/kg	390	660	740
TRH (Silica) C_{29} - C_{36}	mg/kg	300	480	2,200
TRH (Silica) >C_{10} -C_{16}	mg/kg	<50	<100	<250
TRH (Silica) >C_{16} -C_{34}	mg/kg	620	980	2,500
TRH (Silica) >C_{34} -C_{40}	mg/kg	130	250	1,100
Surrogate 1-Chlorooctadecane	%	83	133	90

TCLP Preparation - Acid						
Our Reference		389639-A-1	389639-A-3	389639-A-8	389639-A-11	389639-A-18
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	4-4.1
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
pH of Sample for Fluid # Determination	pH units	7.8	7.3	7.4	7.9	7.6
pH of Sample after HCl	pH units	1.7	1.7	1.7	1.8	1.8
Extraction fluid used		1	1	1	1	1
pH of final Leachate	pH units	4.9	4.9	5.0	4.9	5.0

TCLP Preparation - Acid					
Our Reference		389639-A-29	389639-A-45	389639-A-47	389639-A-56
Your Reference	UNITS	BH1	BH5	BH6	BH6a
Depth		0.2-0.4	0.3-0.5	0-0.2	4.8-5
Date Sampled		28/08/2025	26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
pH of Sample for Fluid # Determination	pH units	7.6	10.5	9.2	8.7
pH of Sample after HCl	pH units	1.7	1.8	1.7	1.8
Extraction fluid used		1	1	1	1
pH of final Leachate	pH units	4.9	5.9	4.9	5.0

PFAS in TCLP Short			
Our Reference		389639-A-1	389639-A-29
Your Reference	UNITS	BH101	BH1
Depth		0-0.3	0.2-0.4
Date Sampled		26/08/2025	28/08/2025
Type of sample		Soil	Soil
Date prepared	-	11/09/2025	11/09/2025
Date analysed	-	11/09/2025	11/09/2025
Perfluorobutanesulfonic acid	µg/L	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	106	103
Surrogate $^{13}C_2$ *PFOA*	%	100	104
Extracted ISTD $^{13}C_3$ *PFBS*	%	112	115
Extracted ISTD $^{18}O_2$ *PFHxS*	%	108	108
Extracted ISTD $^{13}C_4$ *PFOS*	%	100	104
Extracted ISTD $^{13}C_4$ *PFOA*	%	115	109
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	78	75
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	91	89
Total Positive PFHxS & PFOS	µg/L	0.01	<0.01
Total Positive PFOS & PFOA	µg/L	0.01	<0.01
Total Positive PFAS	µg/L	0.01	<0.01

PAHs in TCLP (USEPA 1311)						
Our Reference		389639-A-1	389639-A-3	389639-A-8	389639-A-11	389639-A-18
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	4-4.1
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/09/2025	10/09/2025	10/09/2025	10/09/2025	10/09/2025
Date analysed	-	11/09/2025	11/09/2025	11/09/2025	11/09/2025	11/09/2025
Naphthalene in TCLP	mg/L	<0.0001	0.0001	0.0002	<0.0001	0.012
Acenaphthylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.001
Acenaphthene in TCLP	mg/L	<0.0001	0.0001	0.0002	<0.0001	0.003
Fluorene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.003
Phenanthrene in TCLP	mg/L	0.0002	0.0004	0.0008	<0.0001	0.011
Anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.002
Fluoranthene in TCLP	mg/L	0.0001	0.0002	0.0003	<0.0001	0.002
Pyrene in TCLP	mg/L	0.0001	0.0001	0.0002	<0.0001	0.002
Benzo(a)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(a)pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total +ve PAH's	mg/L	0.0005	0.0009	0.0017	NIL (+)VE	0.035
Surrogate p-Terphenyl-d14	%	85	87	86	87	88

PAHs in TCLP (USEPA 1311)					
Our Reference		389639-A-29	389639-A-45	389639-A-47	389639-A-56
Your Reference	UNITS	BH1	BH5	BH6	BH6a
Depth		0.2-0.4	0.3-0.5	0-0.2	4.8-5
Date Sampled		28/08/2025	26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	10/09/2025	10/09/2025	10/09/2025	10/09/2025
Date analysed	-	11/09/2025	11/09/2025	11/09/2025	11/09/2025
Naphthalene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Acenaphthylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.0002
Fluorene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Phenanthrene in TCLP	mg/L	0.0004	0.0003	<0.0001	0.0006
Anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Fluoranthene in TCLP	mg/L	0.0002	0.0002	<0.0001	0.0002
Pyrene in TCLP	mg/L	0.0001	0.0001	<0.0001	0.0001
Benzo(a)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(a)pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Total +ve PAH's	mg/L	0.0007	0.0006	NIL (+)VE	0.0013
Surrogate p-Terphenyl-d14	%	86	84	86	84

Metals from Leaching Fluid pH 2.9 or 5						
Our Reference		389639-A-1	389639-A-3	389639-A-8	389639-A-11	389639-A-18
Your Reference	UNITS	BH101	BH101a	BH101a	BH102	BH102a
Depth		0-0.3	0.5-0.7	5.2-5.5	0-0.2	4-4.1
Date Sampled		26/08/2025	26/08/2025	26/08/2025	26/08/2025	26/08/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/09/2025	10/09/2025	10/09/2025	10/09/2025	10/09/2025
Date analysed	-	10/09/2025	10/09/2025	10/09/2025	10/09/2025	10/09/2025
Lead	mg/L	0.05	0.30	0.33	0.04	0.52

Metals from Leaching Fluid pH 2.9 or 5					
Our Reference		389639-A-29	389639-A-45	389639-A-47	389639-A-56
Your Reference	UNITS	BH1	BH5	BH6	BH6a
Depth		0.2-0.4	0.3-0.5	0-0.2	4.8-5
Date Sampled		28/08/2025	26/08/2025	26/08/2025	28/08/2025
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	10/09/2025	10/09/2025	10/09/2025	10/09/2025
Date analysed	-	10/09/2025	10/09/2025	10/09/2025	10/09/2025
Lead	mg/L	0.1	<0.03	0.05	0.61

Method ID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439. Please note that the mass used may be scaled down from default based on sample mass available. Samples are stored at 2-6oC before and after leachate preparation.
Metals-020	Determination of various metals by ICP-AES following buffer determination as per USEPA 1311 and hence AS 4439.3. Extraction Fluid 1 refers to the pH 5.0 buffer and Extraction Fluid 2 is the pH 2.9 buffer. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-022/025	Leachates are extracted with Dichloromethane and analysed by GC-MS/GC-MSMS.
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 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: svTRH (C10-C40) in Soil NEPM Silica gel					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			09/09/2025	8	09/09/2025	09/09/2025		09/09/2025	[NT]
Date analysed	-			10/09/2025	8	10/09/2025	10/09/2025		10/09/2025	[NT]
TRH (Silica) C_{10} - C_{14}	mg/kg	50	Org-020	<50	8	<50	<50	0	89	[NT]
TRH (Silica) C_{15} - C_{28}	mg/kg	100	Org-020	<100	8	390	350	11	96	[NT]
TRH (Silica) C_{29} - C_{36}	mg/kg	100	Org-020	<100	8	300	280	7	100	[NT]
TRH (Silica) >C_{10} -C_{16}	mg/kg	50	Org-020	<50	8	<50	<50	0	89	[NT]
TRH (Silica) >C_{16} -C_{34}	mg/kg	100	Org-020	<100	8	620	560	10	96	[NT]
TRH (Silica) >C_{34} -C_{40}	mg/kg	100	Org-020	<100	8	130	140	7	100	[NT]
Surrogate 1-Chlorooctadecane	%		Org-020	80	8	83	88	6	86	[NT]

QUALITY CONTROL: PFAS in TCLP Short					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			11/09/2025	[NT]	[NT]	[NT]	[NT]	11/09/2025	[NT]
Date analysed	-			11/09/2025	[NT]	[NT]	[NT]	[NT]	11/09/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	98	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	117	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	97	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	113	[NT]	[NT]	[NT]	[NT]	114	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	111	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	114	[NT]	[NT]	[NT]	[NT]	114	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	79	[NT]	[NT]	[NT]	[NT]	79	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	94	[NT]	[NT]	[NT]	[NT]	82	[NT]

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	389639-A-3
Date extracted	-			10/09/2025	1	10/09/2025	10/09/2025		10/09/2025	10/09/2025
Date analysed	-			11/09/2025	1	11/09/2025	11/09/2025		11/09/2025	11/09/2025
Naphthalene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	84	77
Acenaphthylene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	73	83
Fluorene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	82	80
Phenanthrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	0.0002	0.0002	0	85	94
Anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	0.0001	0.0001	0	86	94
Pyrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	0.0001	0.0001	0	90	91
Benzo(a)anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	[NT]	[NT]
Chrysene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	73	81
Benzo(bjk)fluoranthene in TCLP	mg/L	0.0002	Org-022/025	<0.0002	1	<0.0002	<0.0002	0	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	87	79
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	1	<0.0001	<0.0001	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	82	1	85	90	6	88	93

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	29	10/09/2025	10/09/2025		[NT]	[NT]
Date analysed	-			[NT]	29	11/09/2025	11/09/2025		[NT]	[NT]
Naphthalene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Acenaphthylene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Fluorene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Phenanthrene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	0.0004	0.0004	0	[NT]	[NT]
Anthracene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	0.0002	0.0002	0	[NT]	[NT]
Pyrene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	0.0001	0.0001	0	[NT]	[NT]
Benzo(a)anthracene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Chrysene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Benzo(bjk)fluoranthene in TCLP	mg/L	0.0002	Org-022/025	[NT]	29	<0.0002	<0.0002	0	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.0001	Org-022/025	[NT]	29	<0.0001	<0.0001	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	29	86	87	1	[NT]	[NT]

QUALITY CONTROL: Metals from Leaching Fluid pH 2.9 or 5					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	389639-A-3
Date extracted	-			10/09/2025	1	10/09/2025	10/09/2025		10/09/2025	10/09/2025
Date analysed	-			10/09/2025	1	10/09/2025	10/09/2025		10/09/2025	10/09/2025
Lead	mg/L	0.03	Metals-020	<0.03	1	0.05	0.05	0	100	92

Result Definitions

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

Quality Control Definitions

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

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

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

Report Comments

TRH_S_SI_NEPM:
The PQL for sample/s 389639-a-18,38 has been raised due to the high concentration of analytes in the sample/s, resulting in the sample/s requiring a dilution.

Geoff Weir

From: Cathy Li <Cathy.Li@douglaspartners.com.au>
Sent: Monday, 8 September 2025 10:14 AM
To: Customer Service; Steven Luong
Cc: Nerilee Edwards; Sam Ferguson
Subject: Results for Registration 389639 236743.01, Lilyfield

Follow Up Flag: Follow up
Flag Status: Flagged

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

Hi Steven,

Can I please order TCLP on the following samples on standard TAT:

TCLP -PFAS (short suite) on sample:
- BH101/0-0.3 – 1
- BH1/0.2-0.4 – 29.

TCLP-Lead and B(a)P on sample:
- BH101/0-0.3 – 1
- BH101a/0.5-0.7 – 3
- BH101a/5.2-5.5 – 8
- BH102/0-0.2 – 11
- BH102a / 4-4.1 – 18
- BH1/0.2-0.4 – 29
- BH5/0.3-0.5 – 45.
- BH6/0-0.2 – 47
- BH6a/4.8-5 – 56

Silica gel clean and chromatography on samples:
- BH101a/5.5-5.5 – 8
- BH101a/4-4.1 – 7, 18.

- BH3/0.05-0.15 -38

Kind regards,

Cathy Li | Environmental Engineer

02 9809 0666 0484 789 919 Cathy.Li@douglaspartners.com.au

www.douglaspartners.com.au 96 Hermitage Road, West Ryde
NSW 2114 | Wallumedegal Country
PO Box 472, West Ryde, NSW 1685

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Geoff Weir

From: Cathy Li <Cathy.Li@douglaspartners.com.au>
Sent: Monday, 8 September 2025 10:39 AM
To: Geoff Weir; Customer Service; Steven Luong
Cc: Nerilee Edwards; Sam Ferguson
Subject: RE: Results for Registration 389639 236743.01, Lilyfield

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.

Sorry, just came back from holiday.

Silica gel clean and chromatography on samples:
- BH101a/5.2-5.5
- BH102a/4-4.1
- BH3/0.05-0.15

Kind regards,

Cathy Li | Environmental Engineer

02 9809 0666 0484 789 919 Cathy.Li@douglaspartners.com.au

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NSW 2114 | Wallumedegal Country
PO Box 472, West Ryde, NSW 1685

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From: Geoff Weir <GWeir@envirolab.com.au>
Sent: Monday, 8 September 2025 10:34 AM
To: Cathy Li <Cathy.Li@douglaspartners.com.au>; Customer Service <CustomerService@envirolab.com.au>; Steven Luong <SLuong@envirolab.com.au>

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

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Cathy Li

Sample Login Details

Your reference	236743.01, Lilyfield
Envirolab Reference	389639-A
Date Sample Received	29/08/2025
Date Instructions Received	08/09/2025
Date Results Expected to be Reported	15/09/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	Additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	10
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
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Sample ID	svTRH (C10-C40) in Soil Pre Clean Up	svTRH (C10-C40) in Soil NEPM Silica gel	TCLP Preparation - Acid	PFAS in TCLP Short	PAHs in TCLP (USEPA 1311)	Metals from Leaching Fluid pH 2.9 or 5	On Hold
BH101-0-0.3			✓	✓	✓	✓	
BH101a-0.12-0.2							✓
BH101a-0.5-0.7			✓		✓	✓	
BH101a-0.9-1							✓
BH101a-1.7-2.3							✓
BH101a-3-3.2							✓
BH101a-3.9-4							✓
BH101a-5.2-5.5	✓	✓	✓		✓	✓	
BH101a-6.5-7							✓
BH101a-8.2-8.5							✓
BH102-0-0.2			✓		✓	✓	
BH102-0.2-0.3							✓
BH102a-0.1-0.3							✓
BH102a-0.5-0.7							✓
BH102a-0.8-1							✓
BH102a-2-2.2							✓
BH102a-3-3.2							✓
BH102a-4-4.1	✓	✓	✓		✓	✓	
BH102a-5-5.2							✓
BH102a-6.5-7							✓
BH102a-7.5-8							✓
BH102a-0.1-0.2							✓
BH103-0.5-0.7							✓
BH103-1-1.2							✓
BH103-1.9-2							✓
BH103-3.5-4							✓
BD1/20250826							✓
BH1-0.1-0.15							✓
BH1-0.2-0.4			✓	✓	✓	✓	
BH1-0.7-0.9							✓
BH1-1.3-1.5							✓
BH1-1.8-2							✓

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Sample ID	svTRH (C10-C40) in Soil Pre Clean Up	svTRH (C10-C40) in Soil NEPM Silica gel	TCLP Preparation - Acid	PFAS in TCLP Short	PAHs in TCLP (USEPA 1311)	Metals from Leaching Fluid pH 2.9 or 5	On Hold
BH2-0.05-0.1							✓
BH2-0.2-0.4							✓
BH2-0.7-0.9							✓
BH2-1.8-2							✓
BH2-2.8-3							✓
BH3-0.05-0.15	✓	✓					
BH3-0.8-1							✓
BH3-1.3-1.5							✓
BH3-1.8-2							✓
BH4-0.1-0.2							✓
BH4-0.2-0.4							✓
BH4-0.6-0.7							✓
BH5-0.3-0.5			✓		✓	✓	
BH5-0.6-0.8							✓
BH6-0-0.2			✓		✓	✓	
BH6-0.4-0.6							✓
BH6a-0.2-0.3							✓
BH6a-0.4-0.5							✓
BH6a-0.9-1							✓
BH6a-1.1-1.3							✓
BH6a-1.8-2							✓
BH6a-2.8-3							✓
BH6a-3.8-4							✓
BH6a-4.8-5			✓		✓	✓	
BH6a-5.8-6							✓
BD1/20250828							✓
TS							✓
TB							✓
BH3-0.4-0.5							✓
Unlabelled Sample							✓

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

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Additional Info

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

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	236743.01	**Suburb:**	Lilyfield	**To:**	Envirolab Services
Project Manager:	Nerilee Edwards	**Order Number:**		**Sampler:** SAF/CLB	12 Ashley St, Chatswood NSW 2067
Email:	Nerilee.Edwards@douglaspartners.com.au; sam.ferguson@douglaspartners.com.au			**Attn:**	Sample Receipt
Turnaround time:	☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day				(02) 9910 6200 samplereceipt@envirolab.com
Prior Storage:	☑ Fridge ☐ Freezer ☑ Esky ☑ Shelf	**Do samples contain 'potential' HBM?**	☑ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)		

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8aN	Combo 3aN	Combo 3	ASS field test	PFAS (short suite)	TCLP PFAS	pH, CEC	VOC	TRH / BTEX	Asbestos (AS)	Asbestos (FA/AF)	Notes/ Preservation/ Additional Requirements
1	BH101	0	0.3	26/08/25	S	G/P	x				x		x					
2	BH101a	0.12	0.2	26/08/25	S	G/P												
3	BH101a	0.5	0.7	26/08/25	S	G/P	x											
4	BH101a	0.9	1	26/08/25	S	G/P												
5	BH101a	1.7	2.3	26/08/25	S	G/P												
6	BH101a	3	3.2	26/08/25	S	G/P												
7	BH101a	3.9	4	26/08/25	S	G/P												
8	BH101a	5.2	5.5	26/08/25	S	G/P		x										
9	BH101a	6.5	7	26/08/25	S	G/P										x		
10	BH101a	8.2	8.5	26/08/25	S	G/P				x				x		x		Please freeze/cool ASS sample
11	BH102	0	0.2	26/08/25	S	G/P		x					x					
12	BH102	0.2	0.3	26/08/25	S	G/P												
13	BH102a	0.1	0.3	26/08/25	S	G/P	x											
14	BH102a	0.5	0.7	26/08/25	S	G/P												

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

Job No: 358639
Date Received: 29/8/25
Time Received: 1645
Received By: NH
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Metals to analyse:		**LAB RECEIPT**	
Number of samples in container:	**Transported to laboratory by:**	**Lab Ref. No:**	
Send results to:	Douglas Partners Pty Ltd	**Received by:**	Rumit Heer
Address:	96 Hermitage Road, West Ryde NSW 2114 **Phone:** (02) 9809 0666	**Date & Time:**	29/8/25 1645
Relinquished by:	S.Ferguson **Date:** 29/08/2025 **Signed:**	**Signed:**	

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	236743.01	**Suburb:** Lilyfield	**To:** Envirolab Services
Project Manager:	Nerilee Edwards		**Dispatch date:** 29/08/2025

Lab ID	Sample ID: Location / Other ID	Sample ID: Depth From	Sample ID: Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8aN	Combo 3aN	Combo 3	ASS field test	PFAS (short suite)	TCLP PFAS	pH, CEC	VOC	TRH / BTEX	Asbestos (AS)	Asbestos (FA/AF)	Notes/ Preservation/ Additional Requirements
15	BH102a	0.8	1	26/08/25	S	G/P												389639
16	BH102a	2	2.2	26/08/25	S	G/P												TCR 29/08/25
17	BH102a	3	3.2	26/08/25	S	G/P										x		
18	BH102a	4	4.1	26/08/25	S	G/P		x								x		
19	BH102a	5	5.2	26/08/25	S	G/P										x		
20	BH102a	6.5	7	26/08/25	S	G/P												
21	BH102a	7.5	8	26/08/25	S	G/P			x		x			x				
NR	BH102a	8	8.5	26/08/25	S	G/P												
22	BH103	0.1	0.2	26/08/25	S	G/P												
23	BH103	0.5	0.7	26/08/25	S	G/P												
24	BH103	1	1.2	26/08/25	S	G/P	x											
25	BH103	1.9	2	26/08/25	S	G/P										x		
26	BH103	3.5	4	26/08/25	S	G/P										x		
NR	BH103	5	5.5	26/08/25	S	G/P			x									

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No: 236743.01 **Suburb:** Lilyfield **To:** Envirolab Services

Project Manager: Nerilee Edwards **Dispatch date:** 29/08/2025

Lab ID	Sample ID: Location / Other ID	Sample ID: Depth From	Sample ID: Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8aN	Combo 3aN	Combo 3	ASS field test	PFAS (short suite)	TCLP PFAS	pH, CEC	VOC	TRH / BTEX	Asbestos (AS)	Asbestos (FA/AF)	Notes/ Preservation/ Additional Requirements
27	BD1/20250826			26/08/25	S	G/P												389639
28	BH1	0.1	0.15	28/08/25	S	G/P												TAT 29/08/25
29	BH1	0.2	0.4	28/08/25	S	G/P	x				x							
30	BH1	0.7	0.9	28/08/25	S	G/P												
31	BH1	1.3	1.5	28/08/25	S	G/P												
32	BH1	1.8	2	28/08/25	S	G/P												
33	BH2	0.05	0.1	28/08/25	S	G/P												
34	BH2	0.2	0.4	28/08/25	S	G/P												
35	BH2	0.7	0.9	28/08/25	S	G/P		x						x				
36	BH2	1.8	2	28/08/25	S	G/P					x							
37	BH2	2.8	3	28/08/25	S	G/P												
38	BH3	0.05	0.15	28/08/25	S	G/P	x											
NR	BH3	0.2	0.4	28/08/25	S	G/P												
39	BH3	0.8	1	28/08/25	S	G/P		x										
40	BH3	1.3	1.5	28/08/25	S	G/P												
41	BH3	1.8	2	28/08/25	S	G/P												
42	BH4	0.1	0.2	28/08/25	S	G/P												
43	BH4	0.2	0.4	28/08/25	S	G/P	x											
44	BH4	0.6	0.7	28/08/25	S	G/P												

Project No: 236743.01 **Suburb:** Lilyfield **To:** Envirolab Services

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project Manager: Nerilee Edwards

Dispatch date: 29/08/2025

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8aN	Combo 3aN	Combo 3	ASS field test	PFAS (short suite)	TCLP PFAS	pH, CEC	VOC	TRH / BTEX	Asbestos (AS)	Asbestos (FA/AF)	Notes/ Preservation/ Additional Requirements
45	BH5	0.3	0.5	26/08/25	S	G/P		x						x				389639
46	BH5	0.6	0.8	26/08/25	S	G/P												TR 29/09/25
47	BH6	0	0.2	26/08/25	S	G/P	X											
48	BH6	0.4	0.6	26/08/25	S	G/P												
49	BH6a	0.2	0.3	28/08/25	S	G/P		x			x							
50	BH6a	0.4	0.5	28/08/25	S	G/P												
51	BH6a	0.9	1	28/08/25	S	G/P												
52	BH6a	1.1	1.3	28/08/25	S	G/P		x					x					
53	BH6a	1.8	2	28/08/25	S	G/P											x	
54	BH6a	2.8	3	28/08/25	S	G/P											x	
55	BH6a	3.8	4	28/08/25	S	G/P											x	
56	BH6a	4.8	5	28/08/25	S	G/P	x							x				
57	BH6a	5.8	6	28/08/25	S	G/P											x	
58	BD1/20250828			28/08/25	S	G/P			x		x							
510	BD2/20250828			28/08/25	S	G/P			x		x							Please send to ALS
59	TS				S	G									x			
60	TB				S	G									x			
Ext 61	BH3	0.4	0.5															
TR 62	~~Unknown~~ Unlabelled Bag.																	

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customerservice@envirolab.com.au
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SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Nerilee Edwards

Sample Login Details

Your reference	236743.01, Lilyfield
Envirolab Reference	389639
Date Sample Received	29/08/2025
Date Instructions Received	29/08/2025
Date Results Expected to be Reported	05/09/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	62 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	10
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Sample BH102a/8-8.5, BH3/0.2-0.4, and BH103/5-5.5: Not received.
Sample #61 - BH3/0.4-0.5 and #62 - Unlabelled soil bag: Extra samples received, placed on hold until further confirmation from client.

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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12 Ashley St Chatswood NSW 2067
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Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Misc Soil - Inorg	Acid Extractable metals in soil	Misc Inorg - Soil	CEC	Asbestos ID - soils	Asbestos ID - soils NEPM	PFAS in Soils Short	sPOCAS field test	On Hold
BH101-0-0.3		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		
BH101a-0.12-0.2																✓
BH101a-0.5-0.7		✓	✓	✓	✓	✓	✓	✓	✓				✓			
BH101a-0.9-1																✓
BH101a-1.7-2.3																✓
BH101a-3-3.2																✓
BH101a-3.9-4																✓
BH101a-5.2-5.5		✓	✓	✓					✓				✓			
BH101a-6.5-7												✓				
BH101a-8.2-8.5	✓											✓			✓	
BH102-0-0.2		✓	✓	✓					✓	✓	✓		✓			
BH102-0.2-0.3																✓
BH102a-0.1-0.3		✓	✓	✓	✓	✓	✓	✓	✓				✓			
BH102a-0.5-0.7																✓
BH102a-0.8-1																✓
BH102a-2-2.2																✓
BH102a-3-3.2												✓				
BH102a-4-4.1		✓	✓	✓					✓				✓			
BH102a-5-5.2												✓				
BH102a-6.5-7																✓

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Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Misc Soil - Inorg	Acid Extractable metals in soil	Misc Inorg - Soil	CEC	Asbestos ID - soils	Asbestos ID - soils NEPM	PFAS in Soils Short	sPOCAS field test	On Hold
BH102a-7.5-8	✓	✓	✓	✓					✓					✓		
BH102a-0.1-0.2																✓
BH103-0.5-0.7																✓
BH103-1-1.2		✓	✓	✓	✓	✓	✓	✓	✓				✓			
BH103-1.9-2												✓				
BH103-3.5-4												✓				
BD1/20250826																✓
BH1-0.1-0.15																✓
BH1-0.2-0.4		✓	✓	✓	✓	✓	✓	✓	✓				✓	✓		
BH1-0.7-0.9																✓
BH1-1.3-1.5																✓
BH1-1.8-2																✓
BH2-0.05-0.1																✓
BH2-0.2-0.4																✓
BH2-0.7-0.9	✓	✓	✓	✓					✓				✓			
BH2-1.8-2														✓		
BH2-2.8-3																✓
BH3-0.05-0.15		✓	✓	✓	✓	✓	✓	✓	✓				✓			
BH3-0.8-1		✓	✓	✓					✓				✓			
BH3-1.3-1.5																✓

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Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Misc Soil - Inorg	Acid Extractable metals in soil	Misc Inorg - Soil	CEC	Asbestos ID - soils	Asbestos ID - soils NEPM	PFAS in Soils Short	sPOCAS field test	On Hold
BH3-1.8-2																✓
BH4-0.1-0.2																✓
BH4-0.2-0.4		✓	✓	✓	✓	✓	✓	✓	✓				✓			
BH4-0.6-0.7																✓
BH5-0.3-0.5	✓	✓	✓	✓					✓				✓			
BH5-0.6-0.8																✓
BH6-0-0.2		✓	✓	✓	✓	✓	✓	✓	✓				✓			
BH6-0.4-0.6																✓
BH6a-0.2-0.3		✓	✓	✓					✓				✓	✓		
BH6a-0.4-0.5																✓
BH6a-0.9-1																✓
BH6a-1.1-1.3		✓	✓	✓					✓	✓	✓		✓			
BH6a-1.8-2													✓			
BH6a-2.8-3													✓			
BH6a-3.8-4													✓			
BH6a-4.8-5	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓			
BH6a-5.8-6													✓			
BD1/20250828		✓	✓	✓					✓					✓		
TS		✓														
TB		✓														

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Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Misc Soil - Inorg	Acid Extractable metals in soil	Misc Inorg - Soil	CEC	Asbestos ID - soils	Asbestos ID - soils NEPM	PFAS in Soils Short	sPOCAS field test	On Hold
BH3-0.4-0.5																✓
Unlabelled Sample																✓

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 389885

Client Details

Client	Douglas Partners Pty Ltd
Attention	Sam Ferguson
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**236743.01 Lilyfield**
Number of Samples	7 Water
Date samples received	02/09/2025
Date completed instructions received	03/09/2025

Analysis Details

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

Samples were analysed as received from the client unless as indicated below in the method summaries. Results relate specifically to the samples as received.

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

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

Report Details

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

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

Results Approved By
Diego Bigolin, Inorganics Supervisor
Jack Wallis, Senior Chemist
Sean McAlary, Senior Chemist
Tabitha Roberts, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

VOCs in water			
Our Reference	UNITS	389885-1	389885-2
Your Reference		BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Date Extracted	-	04/09/2025	04/09/2025
Date Analysed	-	05/09/2025	05/09/2025
Dichlorodifluoromethane	µg/L	<10	<10
Chloromethane	µg/L	<10	<10
Vinyl Chloride	µg/L	<10	<10
Bromomethane	µg/L	<10	<10
Chloroethane	µg/L	<10	<10
Trichlorofluoromethane	µg/L	<10	<10
1,1-Dichloroethene	µg/L	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1
1,1-dichloroethane	µg/L	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1
Bromochloromethane	µg/L	<1	<1
Chloroform	µg/L	<1	14
2,2-dichloropropane	µg/L	<1	<1
1,2-dichloroethane	µg/L	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1
1,1-dichloropropene	µg/L	<1	<1
Cyclohexane	µg/L	2	<1
Carbon tetrachloride	µg/L	<1	<1
Benzene	µg/L	<1	<1
Dibromomethane	µg/L	<1	<1
1,2-dichloropropane	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Bromodichloromethane	µg/L	<1	2
trans-1,3-dichloropropene	µg/L	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1
Toluene	µg/L	<1	<1
1,3-dichloropropane	µg/L	<1	<1
Dibromochloromethane	µg/L	<1	<1
1,2-dibromoethane	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1
Chlorobenzene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1

VOCs in water			
Our Reference		389885-1	389885-2
Your Reference	UNITS	BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Bromoform	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
Styrene	µg/L	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1
o-xylene	µg/L	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1
Isopropylbenzene	µg/L	<1	<1
Bromobenzene	µg/L	<1	<1
n-propyl benzene	µg/L	<1	<1
2-chlorotoluene	µg/L	<1	<1
4-chlorotoluene	µg/L	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1
Tert-butyl benzene	µg/L	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1
Sec-butyl benzene	µg/L	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1
4-isopropyl toluene	µg/L	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1
n-butyl benzene	µg/L	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1
Hexachlorobutadiene	µg/L	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	99	101
Surrogate Toluene-d8	%	97	97
Surrogate 4-Bromofluorobenzene	%	90	90

vTRH(C6-C10)/BTEXN in Water						
Our Reference		389885-1	389885-2	389885-4	389885-5	389885-6
Your Reference	UNITS	BH102a	BH103	BD1/20250902	RB/20250902	TS/20250902
Date Sampled		02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025
Date analysed	-	05/09/2025	05/09/2025	05/09/2025	05/09/2025	05/09/2025
TRH C_6 - C_9	µg/L	<10	12	12	<10	[NA]
TRH C_6 - C_{10}	µg/L	<10	12	13	<10	[NA]
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	12	13	<10	[NA]
Benzene	µg/L	<1	<1	<1	<1	104%
Toluene	µg/L	<1	<1	<1	<1	102%
Ethylbenzene	µg/L	<1	<1	<1	<1	114%
m+p-xylene	µg/L	<2	<2	<2	<2	107%
o-xylene	µg/L	<1	<1	<1	<1	106%
Naphthalene	µg/L	<1	<1	<1	<1	[NA]
Surrogate Dibromofluoromethane	%	99	101	100	100	97
Surrogate Toluene-d8	%	97	97	98	97	95
Surrogate 4-Bromofluorobenzene	%	90	90	91	90	96

vTRH(C6-C10)/BTEXN in Water		
Our Reference		389885-7
Your Reference	UNITS	TB/20250902
Date Sampled		02/09/2025
Type of sample		Water
Date extracted	-	04/09/2025
Date analysed	-	05/09/2025
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Surrogate Dibromofluoromethane	%	100
Surrogate Toluene-d8	%	98
Surrogate 4-Bromofluorobenzene	%	90

svTRH (C10-C40) in Water					
Our Reference	UNITS	389885-1	389885-2	389885-4	389885-5
Your Reference		BH102a	BH103	BD1/20250902	RB/20250902
Date Sampled		02/09/2025	02/09/2025	02/09/2025	02/09/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Date analysed	-	03/09/2025	03/09/2025	04/09/2025	04/09/2025
TRH C_{10} - C_{14}	µg/L	75	<50	<50	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	<100	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	80	<50	<50	<50
TRH >C_{10} - C_{16}	µg/L	73	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	73	<50	<50	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	70	<50	<50	<50
Surrogate o-Terphenyl	%	97	108	96	96

PAHs in Water					
Our Reference	UNITS	389885-1	389885-2	389885-4	389885-5
Your Reference		BH102a	BH103	BD1/20250902	RB/20250902
Date Sampled		02/09/2025	02/09/2025	02/09/2025	02/09/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Date analysed	-	05/09/2025	05/09/2025	04/09/2025	04/09/2025
Naphthalene	µg/L	0.5	0.4	0.1	<0.1
Acenaphthylene	µg/L	<0.1	0.2	<0.1	<0.1
Acenaphthene	µg/L	0.2	0.6	0.2	<0.1
Fluorene	µg/L	0.2	0.3	0.1	<0.1
Phenanthrene	µg/L	0.9	4.2	1.5	<0.1
Anthracene	µg/L	0.2	0.8	0.4	<0.1
Fluoranthene	µg/L	0.5	2.9	1.6	<0.1
Pyrene	µg/L	0.5	3.1	1.6	<0.1
Benzo(a)anthracene	µg/L	0.2	0.9	0.7	<0.1
Chrysene	µg/L	0.2	0.7	0.6	<0.1
Benzo(b,j+k)fluoranthene	µg/L	0.2	1	0.9	<0.2
Benzo(a)pyrene	µg/L	0.1	0.7	0.6	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	0.3	0.3	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	0.4	0.4	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	0.9	0.9	<0.5
Total +ve PAH's	µg/L	3.6	16	9.1	<0.1
Surrogate p-Terphenyl-d14	%	81	88	93	93

OCPs in Water - Trace Level			
Our Reference	UNITS	389885-1	389885-2
Your Reference		BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Date extracted	-	03/09/2025	03/09/2025
Date analysed	-	05/09/2025	05/09/2025
alpha-BHC	µg/L	<0.001	<0.001
HCB	µg/L	<0.001	<0.001
beta-BHC	µg/L	<0.001	<0.001
gamma-BHC	µg/L	<0.001	<0.001
Heptachlor	µg/L	<0.001	<0.001
delta-BHC	µg/L	<0.001	<0.001
Aldrin	µg/L	<0.001	<0.001
Heptachlor Epoxide	µg/L	<0.001	<0.001
gamma-Chlordane	µg/L	<0.001	<0.001
alpha-Chlordane	µg/L	<0.001	<0.001
Endosulfan I	µg/L	<0.002	<0.002
pp-DDE	µg/L	<0.001	<0.001
Dieldrin	µg/L	<0.001	<0.001
Endrin	µg/L	<0.001	<0.001
Endosulfan II	µg/L	<0.002	<0.002
pp-DDD	µg/L	<0.001	<0.001
Endrin Aldehyde	µg/L	<0.001	<0.001
pp-DDT	µg/L	<0.001	<0.001
Endosulfan Sulphate	µg/L	<0.001	<0.001
Methoxychlor	µg/L	<0.001	<0.001
Surrogate 4-Chloro-3-NBTF	%	79	83

OP in water LL ANZECCF/ADWG			
Our Reference	UNITS	389885-1	389885-2
Your Reference		BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Date extracted	-	03/09/2025	03/09/2025
Date analysed	-	05/09/2025	05/09/2025
Dichlorvos	µg/L	<0.05	<0.05
Mevinphos	µg/L	<0.05	<0.05
Phorate	µg/L	<0.05	<0.05
Dimethoate	µg/L	<0.1	<0.1
Diazinon	µg/L	<0.01	<0.01
Disulfoton	µg/L	<0.05	<0.05
Chlorpyriphos-methyl	µg/L	<0.05	<0.05
Parathion-Methyl	µg/L	<0.05	<0.05
Ronnel	µg/L	<0.05	<0.05
Fenitrothion	µg/L	<0.05	<0.05
Malathion	µg/L	<0.05	<0.05
Chlorpyriphos	µg/L	<0.009	<0.009
Fenthion	µg/L	<0.05	<0.05
Parathion	µg/L	<0.004	<0.004
Bromophos ethyl	µg/L	<0.05	<0.05
Methidathion	µg/L	<0.05	<0.05
Fenamiphos	µg/L	<0.05	<0.05
Ethion	µg/L	<0.05	<0.05
Phosalone	µg/L	<0.05	<0.05
Azinphos-methyl (Guthion)	µg/L	<0.02	<0.02
Coumaphos	µg/L	<0.05	<0.05
Surrogate 4-Chloro-3-NBTF	%	79	83

PCBs in Water - Trace Level			
Our Reference		389885-1	389885-2
Your Reference	UNITS	BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Date extracted	-	03/09/2025	03/09/2025
Date analysed	-	05/09/2025	05/09/2025
Aroclor 1016	µg/L	<0.01	<0.01
Aroclor 1221	µg/L	<0.01	<0.01
Aroclor 1232	µg/L	<0.01	<0.01
Aroclor 1242	µg/L	<0.01	<0.01
Aroclor 1248	µg/L	<0.01	<0.01
Aroclor 1254	µg/L	<0.01	<0.01
Aroclor 1260	µg/L	<0.01	<0.01
Surrogate 2-Fluorobiphenyl	%	74	83

Total Phenolics in Water					
Our Reference	UNITS	389885-1	389885-2	389885-4	389885-5
Your Reference		BH102a	BH103	BD1/20250902	RB/20250902
Date Sampled		02/09/2025	02/09/2025	02/09/2025	02/09/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	08/09/2025	08/09/2025	08/09/2025	08/09/2025
Date analysed	-	08/09/2025	08/09/2025	08/09/2025	08/09/2025
Total Phenolics (as Phenol)	mg/L	<0.05	<0.05	<0.05	<0.05

HM in water - dissolved					
Our Reference	UNITS	389885-1	389885-2	389885-4	389885-5
Your Reference		BH102a	BH103	BD1/20250902	RB/20250902
Date Sampled		02/09/2025	02/09/2025	02/09/2025	02/09/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Arsenic-Dissolved	µg/L	<1	<1	<1	<1
Cadmium-Dissolved	µg/L	0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1
Copper-Dissolved	µg/L	50	27	28	<1
Lead-Dissolved	µg/L	8	4	4	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	48	51	52	<1
Zinc-Dissolved	µg/L	260	150	150	<1

Miscellaneous Inorganics			
Our Reference	UNITS	389885-1	389885-2
Your Reference		BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Date prepared	-	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025
Total Cyanide	mg/L	<0.004	<0.004
Ammonia as N in water	mg/L	0.61	0.55
Nitrate as N in water	mg/L	0.04	40
Nitrite as N in water	mg/L	<0.005	0.31
NOx as N in water	mg/L	0.04	40
Total Nitrogen in water	mg/L	0.8	39
Phosphate as P in water	mg/L	<0.005	<0.005
TKN in water	mg/L	0.8	<0.1
Organic Nitrogen as N	mg/L	<0.2	<0.2

Metals in Waters - Acid extractable			
Our Reference		389885-1	389885-2
Your Reference	UNITS	BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Date prepared	-	03/09/2025	03/09/2025
Date analysed	-	03/09/2025	03/09/2025
Phosphorus - Total	mg/L	0.07	0.08

Cations in water Dissolved		
Our Reference		389885-3
Your Reference	UNITS	SW1
Date Sampled		02/09/2025
Type of sample		Water
Date digested	-	03/09/2025
Date analysed	-	03/09/2025
Calcium - Dissolved	mg/L	330
Magnesium - Dissolved	mg/L	1,100
Hardness (calc) equivalent $CaCO_3$	mg/L	5,200

PFAS in Water TRACE Short			
Our Reference	UNITS	389885-1	389885-2
Your Reference		BH102a	BH103
Date Sampled		02/09/2025	02/09/2025
Type of sample		Water	Water
Date prepared	-	05/09/2025	05/09/2025
Date analysed	-	05/09/2025	05/09/2025
Perfluorobutanesulfonic acid	µg/L	0.002	0.011
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.002	0.014
Perfluorooctanesulfonic acid PFOS	µg/L	0.0006	0.012
Perfluorooctanoic acid PFOA	µg/L	0.002	0.035
6:2 FTS	µg/L	0.002	0.002
8:2 FTS	µg/L	<0.0004	<0.0004
Surrogate $^{13}C_8$ *PFOS*	%	97	96
Surrogate $^{13}C_2$ *PFOA*	%	102	109
Extracted ISTD $^{13}C_3$ *PFBS*	%	87	91
Extracted ISTD $^{18}O_2$ *PFHxS*	%	92	92
Extracted ISTD $^{13}C_4$ *PFOS*	%	90	91
Extracted ISTD $^{13}C_4$ *PFOA*	%	98	95
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	185	194
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	176	#
Total Positive PFHxS & PFOS	µg/L	0.0025	0.025
Total Positive PFOS & PFOA	µg/L	0.0022	0.047
Total Positive PFAS	µg/L	0.0080	0.074

Method ID	Methodology Summary
Inorg-014	Cyanide - free, total, weak acid dissociable by segmented flow analyser (in line dialysis with colourimetric finish). Solids/Filters and sorbents are extracted in a caustic media prior to analysis. Impingers are pH adjusted as required prior to analysis. Cyanides amenable to Chlorination - samples are analysed untreated and treated with hypochlorite to assess the potential for chlorination of cyanide forms. Based on APHA latest edition, 4500-CN_G,H.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-060	Phosphate determined colourimetrically based on EPA365.1 and APHA latest edition 4500 P E. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Metals-020	Determination of various metals/elements by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation. Submission of low masses of sample e.g. for dust samples, may result in raised PQLs. Where molecular anion forms are calculated from an element (e.g. SO4 from S or PO4 from P stoichiometrically), the assumption is that the element is only present in that molecular anion form.
Metals-021	Determination of Mercury by Cold Vapour AAS.

Method ID	Methodology Summary
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-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.
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

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 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 water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date Extracted	-			04/09/2025	1	04/09/2025	05/09/2025		04/09/2025	[NT]
Date Analysed	-			05/09/2025	1	05/09/2025	08/09/2025		05/09/2025	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	94	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	1	<1	<1	0	94	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	93	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	88	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	1	2	2	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	97	[NT]
Dibromomethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	92	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	86	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	93	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	86	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	92	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	105	[NT]
Bromoform	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	96	[NT]
Styrene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	100	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	96	1	99	104	5	95	[NT]
Surrogate Toluene-d8	%		Org-023	98	1	97	98	1	99	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	91	1	90	92	2	105	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			04/09/2025	1	04/09/2025	05/09/2025		04/09/2025	[NT]
Date analysed	-			05/09/2025	1	05/09/2025	08/09/2025		05/09/2025	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	1	<10	<10	0	97	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	1	<10	<10	0	97	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	97	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	93	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	105	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	96	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	100	[NT]
Naphthalene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	96	1	99	104	5	95	[NT]
Surrogate Toluene-d8	%		Org-023	98	1	97	98	1	99	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	91	1	90	92	2	105	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	389885-2
Date extracted	-			03/09/2025	1	03/09/2025	03/09/2025		03/09/2025	03/09/2025
Date analysed	-			03/09/2025	1	03/09/2025	03/09/2025		03/09/2025	04/09/2025
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	1	75	90	18	101	102
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	1	<100	<100	0	110	106
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	1	<100	<100	0	100	91
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	1	73	88	19	101	102
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	1	<100	<100	0	110	106
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	1	<100	<100	0	100	91
Surrogate o-Terphenyl	%		Org-020	90	1	97	95	2	113	112

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Date analysed	-			05/09/2025	[NT]	[NT]	[NT]	[NT]	05/09/2025	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	73	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	70	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	73	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	86	[NT]	[NT]	[NT]	[NT]	83	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			[NT]	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	04/09/2025	[NT]
Naphthalene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	66	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	68	[NT]
Fluorene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	68	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	69	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	69	[NT]
Pyrene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	67	[NT]
Chrysene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	64	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	71	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	[NT]	[NT]	[NT]	[NT]	84	[NT]

QUALITY CONTROL: OCPs in Water - Trace Level					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Date analysed	-			05/09/2025	[NT]	[NT]	[NT]	[NT]	05/09/2025	[NT]
alpha-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	80	[NT]
HCB	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	78	[NT]
gamma-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	86	[NT]
delta-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	82	[NT]
Heptachlor Epoxide	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	86	[NT]
gamma-Chlordane	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.002	Org-022/025	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	76	[NT]
Dieldrin	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	81	[NT]
Endrin	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	86	[NT]
Endosulfan II	µg/L	0.002	Org-022/025	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	92	[NT]
Endrin Aldehyde	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	84	[NT]
Methoxychlor	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	75	[NT]	[NT]	[NT]	[NT]	74	[NT]

QUALITY CONTROL: OP in water LL ANZECCF/ADWG					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Date analysed	-			05/09/2025	[NT]	[NT]	[NT]	[NT]	05/09/2025	[NT]
Dichlorvos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	105	[NT]
Mevinphos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion-Methyl	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	93	[NT]
Fenitrothion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	100	[NT]
Malathion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	106	[NT]
Chlorpyriphos	µg/L	0.009	Org-022/025	<0.009	[NT]	[NT]	[NT]	[NT]	99	[NT]
Fenthion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	µg/L	0.004	Org-022/025	<0.004	[NT]	[NT]	[NT]	[NT]	97	[NT]
Bromophos ethyl	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	101	[NT]
Phosalone	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Azinphos-methyl (Guthion)	µg/L	0.02	Org-022/025	<0.02	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	75	[NT]	[NT]	[NT]	[NT]	74	[NT]

QUALITY CONTROL: PCBs in Water - Trace Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Date analysed	-			05/09/2025	[NT]	[NT]	[NT]	[NT]	05/09/2025	[NT]
Aroclor 1016	µg/L	0.01	Org-021/022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	µg/L	0.01	Org-021/022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	µg/L	0.01	Org-021/022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	µg/L	0.01	Org-021/022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	µg/L	0.01	Org-021/022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	µg/L	0.01	Org-021/022/025	<0.01	[NT]	[NT]	[NT]	[NT]	82	[NT]
Aroclor 1260	µg/L	0.01	Org-021/022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	64	[NT]	[NT]	[NT]	[NT]	76	[NT]

QUALITY CONTROL: Total Phenolics in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	389885-2
Date extracted	-			08/09/2025	1	08/09/2025	08/09/2025		08/09/2025	08/09/2025
Date analysed	-			08/09/2025	1	08/09/2025	08/09/2025		08/09/2025	08/09/2025
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	1	<0.05	<0.05	0	99	94

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			03/09/2025	2	03/09/2025	03/09/2025		03/09/2025	[NT]
Date analysed	-			03/09/2025	2	03/09/2025	03/09/2025		03/09/2025	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	2	<1	<1	0	95	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	2	<0.1	<0.1	0	95	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	2	<1	<1	0	90	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	2	27	28	4	92	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	2	4	4	0	99	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	2	<0.05	<0.05	0	109	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	2	51	52	2	92	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	2	150	150	0	93	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			02/09/2025	[NT]	[NT]	[NT]	[NT]	02/09/2025	[NT]
Date analysed	-			02/09/2025	[NT]	[NT]	[NT]	[NT]	02/09/2025	[NT]
Total Cyanide	mg/L	0.004	Inorg-014	<0.004	[NT]	[NT]	[NT]	[NT]	110	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	[NT]	[NT]	[NT]	[NT]	101	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	98	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	106	[NT]
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	98	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Phosphate as P in water	mg/L	0.005	Inorg-060	<0.005	[NT]	[NT]	[NT]	[NT]	113	[NT]
TKN in water	mg/L	0.1	Inorg-062	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Organic Nitrogen as N	mg/L	0.2	Inorg-055/062/127	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			03/09/2025	1	03/09/2025	03/09/2025		03/09/2025	[NT]
Date analysed	-			03/09/2025	1	03/09/2025	03/09/2025		03/09/2025	[NT]
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	1	0.07	0.07	0	100	[NT]

QUALITY CONTROL: Cations in water Dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date digested	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Date analysed	-			03/09/2025	[NT]	[NT]	[NT]	[NT]	03/09/2025	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	100	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: PFAS in Water TRACE Short						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date prepared	-			05/09/2025	[NT]	[NT]	[NT]	[NT]	05/09/2025	[NT]
Date analysed	-			05/09/2025	[NT]	[NT]	[NT]	[NT]	05/09/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	93	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	98	[NT]
6:2 FTS	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	107	[NT]
8:2 FTS	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	94	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	89	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	91	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	84	[NT]	[NT]	[NT]	[NT]	89	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD$^{13}C_2$ *6:2FTS*	%		Org-029	131	[NT]	[NT]	[NT]	[NT]	135	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	161	[NT]	[NT]	[NT]	[NT]	164	[NT]

Result Definitions

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

Quality Control Definitions

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

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

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

Report Comments

Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle. Note: there is a possibility some elements may be underestimated.

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

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	236743.01	**Suburb:**	Lilyfield	**To:**	Envirolab Services
Project Manager:	Cathy Li	**Order Number:**		**Sampler:** SAF	12 Ashley St, Chatswood NSW 2067
Email:	cathy.li@douglaspartners.com.au ; sam.ferguson@douglaspartners.com.au			**Attn:**	Sample Receipt
Turnaround time:	☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day				(02) 9910 6200 samplereceipt@envirolab.con
Prior Storage:	☐ Fridge ☐ Freezer ☑ Esky ☐ Shelf	**Do samples contain 'potential' HBM?**	☐ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)		

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8L	Combo 4	PFAS (short suite)	Nutrients	Cyanide	VOC	Hardness	BTEX				Notes/ Preservation/ Additional Requirements
1	BH102a			2/09/25	W	G/P	x		x	x	x	x						Low level PAH, trace OCP, OPP, PCB, trace PFAS
2	BH103			2/09/25	W	G/P	x		x	x	x	x						
3	SW1			2/09/25	W	G/P							x					
4	BD1/20250902			2/09/25	W	G/P		x										
5	RB/20250902			2/09/25	W	G/P		x										389885
6	TS/20250902			2/09/25	W	G								x				
7	TB/20250902			2/09/25	W	G								x				
																		cyderised
																		3/9/25

Metals to analyse:			**LAB RECEIPT**
Number of samples in container:	**Transported to laboratory by:**		**Lab Ref. No:**
Send results to:	Douglas Partners Pty Ltd		**Received by:**
Address:	96 Hermitage Road, West Ryde NSW 211	**Phone:** (02) 9809 0666	**Date & Tim**
Relinquished by:	**Date:**	**Signed:**	**Signed:**

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	Douglas Partners Pty Ltd
Attention	Sam Ferguson

Sample Login Details

Your reference	236743.01 Lilyfield
Envirolab Reference	389885
Date Sample Received	02/09/2025
Date Instructions Received	02/09/2025
Date Results Expected to be Reported	09/09/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	7 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	10
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:

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

Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	OCPs in Water - Trace Level	OP in water LL ANZECCF/ADWG	PCBs in Water - Trace Level	Total Phenolics in Water	HM in water - dissolved	Total Cyanide	Ammonia as N in water	Nitrate as N in water	Nitrite as N in water	NOx as N in water	Total Nitrogen in water	Phosphate as P in water	TKN in water	Organic Nitrogen as N	Metals in Waters - Acid extractable	Cations in water Dissolved	PFAS in Water TRACE Short
BH102a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
BH103	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
SW1																				✓	
BD1/20250902		✓	✓	✓				✓	✓												
RB/20250902		✓	✓	✓				✓	✓												
TS/20250902		✓																			
TB/20250902		✓																			

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.

CERTIFICATE OF ANALYSIS

Work Order	: **ES2527080**	Page	: 1 of 7
Client	: **DOUGLAS PARTNERS PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR NERILEE EDWARDS	Contact	: Customer Services ES
Address	: 96 HERMITAGE ROAD WEST RYDE NSW, AUSTRALIA 2114	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: 08 9809 0666	Telephone	: +61 2 8784 8555
Project	: 236743.01	Date Samples Received	: 01-Sep-2025 16:48
Order number	: ----	Date Analysis Commenced	: 02-Sep-2025
C-O-C number	: ----	Issue Date	: 05-Sep-2025 17:00
Sampler	: CLB, SAM FERGUSON		
Site	: Lilyfield		
Quote number	: EN/222		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration or as per USEPA 1633 limits where listed. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS and also conform to QSM 5.4 (US DoD) requirements.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BD2/20250828	----	----	----	----
			Sampling date / time	28-Aug-2025 00:00	—	—-	-—	-—
Compound	CAS Number	LOR	Unit	ES2527080-001	------	------	------	------
				Result	---	--	---	---
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	—-	1.0	%	**5.3**	—-	—-	—-	—-
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**10**	—-	—-	—-	—-
Cadmium	7440-43-9	1	mg/kg	<1	—-	—-	—-	—-
Chromium	7440-47-3	2	mg/kg	**17**	—-	—-	—-	—-
Copper	7440-50-8	5	mg/kg	**48**	—-	—-	—-	—-
Lead	7439-92-1	5	mg/kg	**123**	—-	—-	—-	—-
Nickel	7440-02-0	2	mg/kg	**25**	—-	—-	—-	—-
Zinc	7440-66-6	5	mg/kg	**76**	—-	—-	—-	—-
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	**0.1**	—-	—-	—-	—-
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	—-	—-	—-	—-
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	—-	—-	—-	—-
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	—-	—-	—-	—-
Fluorene	86-73-7	0.5	mg/kg	<0.5	—-	—-	—-	—-
Phenanthrene	85-01-8	0.5	mg/kg	**0.9**	—-	—-	—-	—-
Anthracene	120-12-7	0.5	mg/kg	<0.5	—-	—-	—-	—-
Fluoranthene	206-44-0	0.5	mg/kg	**3.2**	—-	—-	—-	—-
Pyrene	129-00-0	0.5	mg/kg	**3.0**	—-	—-	—-	—-
Benz(a)anthracene	56-55-3	0.5	mg/kg	**1.6**	—-	—-	—-	—-
Chrysene	218-01-9	0.5	mg/kg	**1.3**	—-	—-	—-	—-
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	**2.2**	—-	—-	—-	—-
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	**1.0**	—-	—-	—-	—-
Benzo(a)pyrene	50-32-8	0.5	mg/kg	**2.2**	—-	—-	—-	—-
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	**0.8**	—-	—-	—-	—-
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	—-	—-	—-	—-

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BD2/20250828	----	----	----	----
				Sampling date / time	28-Aug-2025 00:00	—	—-	-—	-—
Compound	CAS Number	LOR	Unit		ES2527080-001	------	------	------	------
					Result	---	--	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		**0.9**	—-	—-	—-	—-
^ Sum of polycyclic aromatic hydrocarbons	—-	0.5	mg/kg		**17.1**	—-	—-	—-	—-
^ Benzo(a)pyrene TEQ (zero)	—-	0.5	mg/kg		**2.8**	—-	—-	—-	—-
^ Benzo(a)pyrene TEQ (half LOR)	—-	0.5	mg/kg		**3.0**	—-	—-	—-	—-
^ Benzo(a)pyrene TEQ (LOR)	—-	0.5	mg/kg		**3.3**	—-	—-	—-	—-
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	—-	10	mg/kg		<10	—-	—-	—-	—-
C10 - C14 Fraction	—-	50	mg/kg		<50	—-	—-	—-	—-
C15 - C28 Fraction	—-	100	mg/kg		<100	—-	—-	—-	—-
C29 - C36 Fraction	—-	100	mg/kg		<100	—-	—-	—-	—-
^ C10 - C36 Fraction (sum)	—-	50	mg/kg		<50	—-	—-	—-	—-
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	—-	—-	—-	—-
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	—-	—-	—-	—-
>C10 - C16 Fraction	—-	50	mg/kg		<50	—-	—-	—-	—-
>C16 - C34 Fraction	—-	100	mg/kg		<100	—-	—-	—-	—-
>C34 - C40 Fraction	—-	100	mg/kg		<100	—-	—-	—-	—-
^ >C10 - C40 Fraction (sum)	—-	50	mg/kg		<50	—-	—-	—-	—-
^ >C10 - C16 Fraction minus Naphthalene (F2)	—-	50	mg/kg		<50	—-	—-	—-	—-
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	—-	—-	—-	—-
Toluene	108-88-3	0.5	mg/kg		<0.5	—-	—-	—-	—-
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	—-	—-	—-	—-
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	—-	—-	—-	—-
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	—-	—-	—-	—-
^ Sum of BTEX	—-	0.2	mg/kg		<0.2	—-	—-	—-	—-

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BD2/20250828	----	----	----	----
				Sampling date / time	28-Aug-2025 00:00	—	—-	-—	-—
Compound	CAS Number	LOR	Unit		ES2527080-001	------	------	------	------
					Result	---	--	---	---
EP080: BTEXN - Continued									
^ **Total Xylenes**	-—	0.5	mg/kg		<0.5	—	—	—	—
Naphthalene	91-20-3	1	mg/kg		<1	—	—	—	—
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		<0.0002	—	—	—	—
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	—	—	—	—
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	—	—	—	—
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	—	—	—	—
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	—	—	—	—
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	—	—	—	—
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	—	—	—	—
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	—	—	—	—
EP231P: PFAS Sums									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		<0.0002	—	—	—	—
Sum of PFAS (WA DER List)	-—	0.0002	mg/kg		<0.0002	—	—	—	—
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**94.1**	—	—	—	—
2-Chlorophenol-D4	93951-73-6	0.5	%		**102**	—	—	—	—

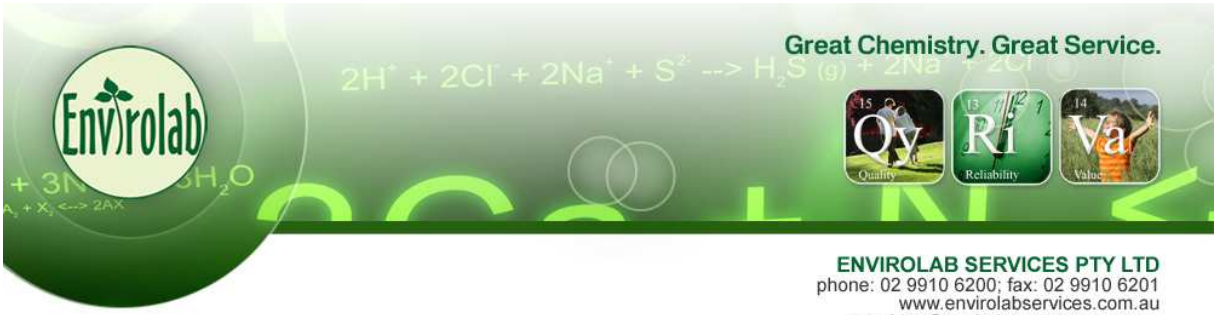
Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BD2/20250828	----	----	----	----
				Sampling date / time	28-Aug-2025 00:00	—	—-	-—	-—
Compound	CAS Number	LOR	Unit		ES2527080-001	------	------	------	------
					Result	---	--	---	---
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
2.4.6-Tribromophenol	118-79-6	0.5	%		72.5	—-	—-	—-	—-
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		119	—-	—-	—-	—-
Anthracene-d10	1719-06-8	0.5	%		96.3	—-	—-	—-	—-
4-Terphenyl-d14	1718-51-0	0.5	%		100.0	—-	—-	—-	—-
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		75.2	—-	—-	—-	—-
Toluene-D8	2037-26-5	0.2	%		86.2	—-	—-	—-	—-
4-Bromofluorobenzene	460-00-4	0.2	%		91.3	—-	—-	—-	—-
EP231S: PFAS Surrogate									
13C4-PFOS	——	0.0002	%		103	—-	—-	—-	—-
13C8-PFOA	——	0.0002	%		90.5	—-	—-	—-	—-

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	Recovery Limits (%) High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131
EP231S: PFAS Surrogate			
13C4-PFOS	---	60	120
13C8-PFOA	---	60	120



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Hydrocarbon Reference Library

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Background

Petroleum hydrocarbons are made up of a large number of compounds that are originally derived from crude oil, as well as other sources of petroleum such as natural gas, coal, and peat. Petroleum hydrocarbons consist of three major groups of compounds (paraffins, olefins and aromatics).

Paraffins are alkanes (single bonded) and are one of the major constituents of crude oil. Examples are kerosene, gasoline and diesel.

Olefins are alkenes (double bonded). An example is Ethylene (extracted from natural gas).

Aromatics contain one or more 6 carbon rings with 3 of the carbons containing double bonds. Mono-nuclear (1 ring) examples are Benzene, Toluene, Ethyl benzene, Xylene (BTEX). Polynuclear (multiple rings) examples include Naphthalene, Pyrene (PAHs).

Products are produced by a combination of several individual hydrocarbon compounds all of which have slightly different vaporization and boiling temperatures. Due to the large number of constituents that make up petroleum products, samples are measured as Total Petroleum Hydrocarbons (TPH) and are analysed by capillary column gas chromatography.

A small amount of the sample extract is injected into a gas chromatograph. Once injected, the product is heated and vaporized and carried into a capillary column by a flow of inert gas. As the temperature of the column increases, the compounds begin to move through the column. The more volatile and lower boiling compounds will move first. A flame ionization detector (FID) connected to the end of the column detects the components of the product as they elute from the column. The time that it takes for individual components to go through the column depends on the temperature, length of column, column characteristics, and the character of the compound itself.

Hydrocarbon Reference Chromatograms

The resulting chromatogram (hydrocarbon report) gives a “fingerprint” of the contamination in the sample. This hydrocarbon report can then be compared to the Envirolab Hydrocarbon Reference Library, to help to qualitatively identify the source of the contamination. Chromatograms may differ slightly depending on the source of the product and the effects of weathering.

The bottom (horizontal) scale indicates the time in minutes. These retention times may differ slightly, but the overall “fingerprint” will usually be comparable to the reference hydrocarbon report.

The vertical scale indicates the response from the detector, and this scale will vary depending on the concentration of the sample.

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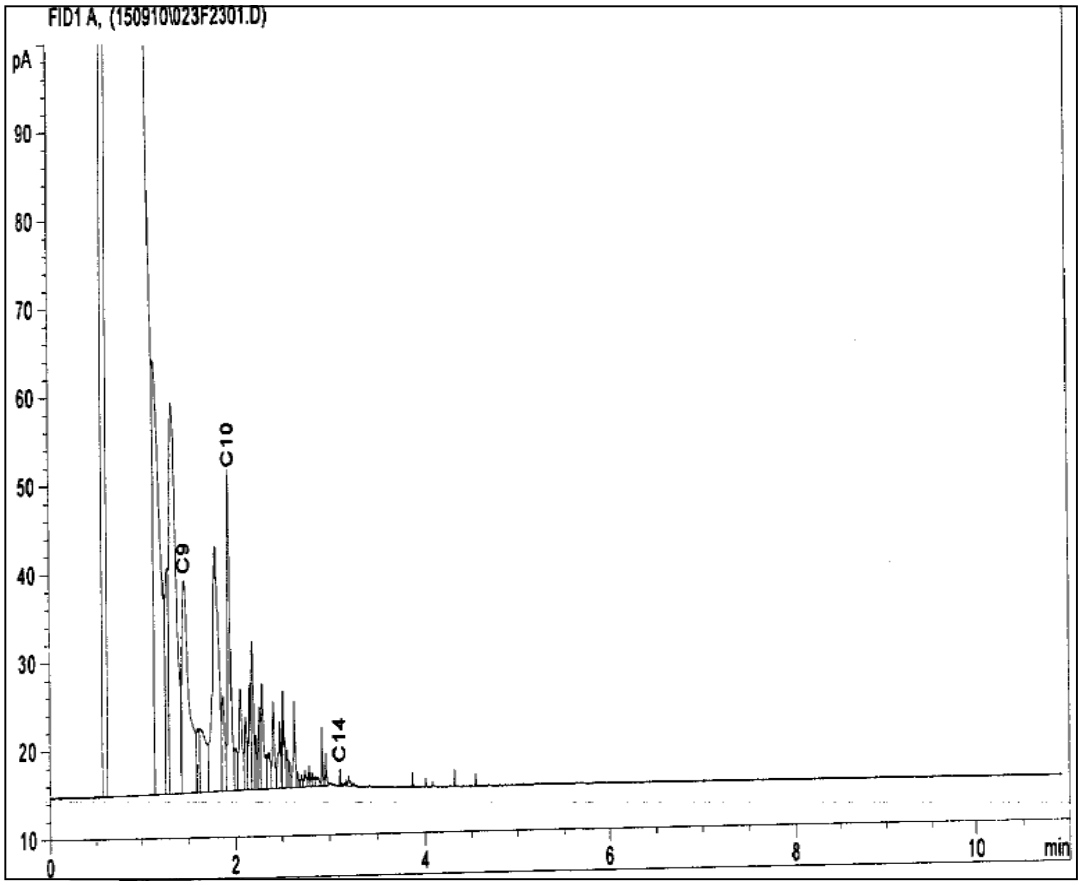
HYDROCARBON REFERENCE LIBRARY

UNLEADED PETROL unweathered



Response

Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

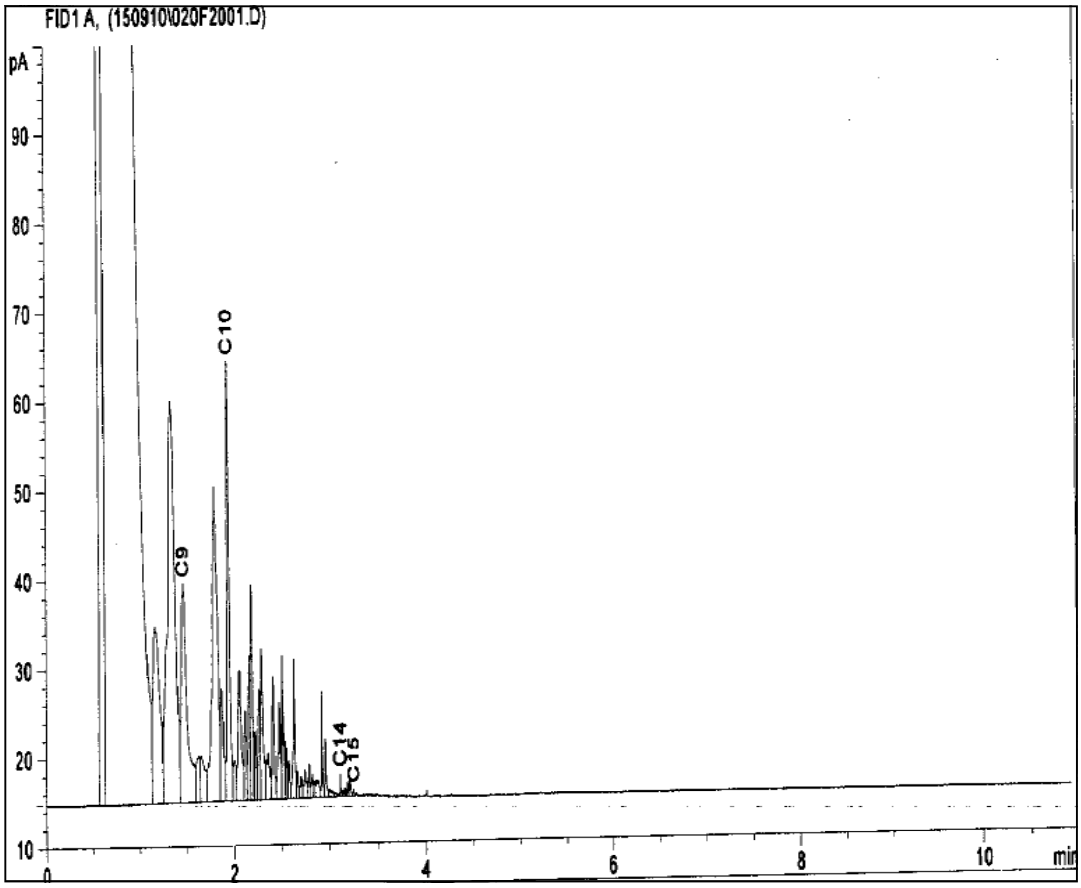
The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

UNLEADED PETROL 25% Weathered



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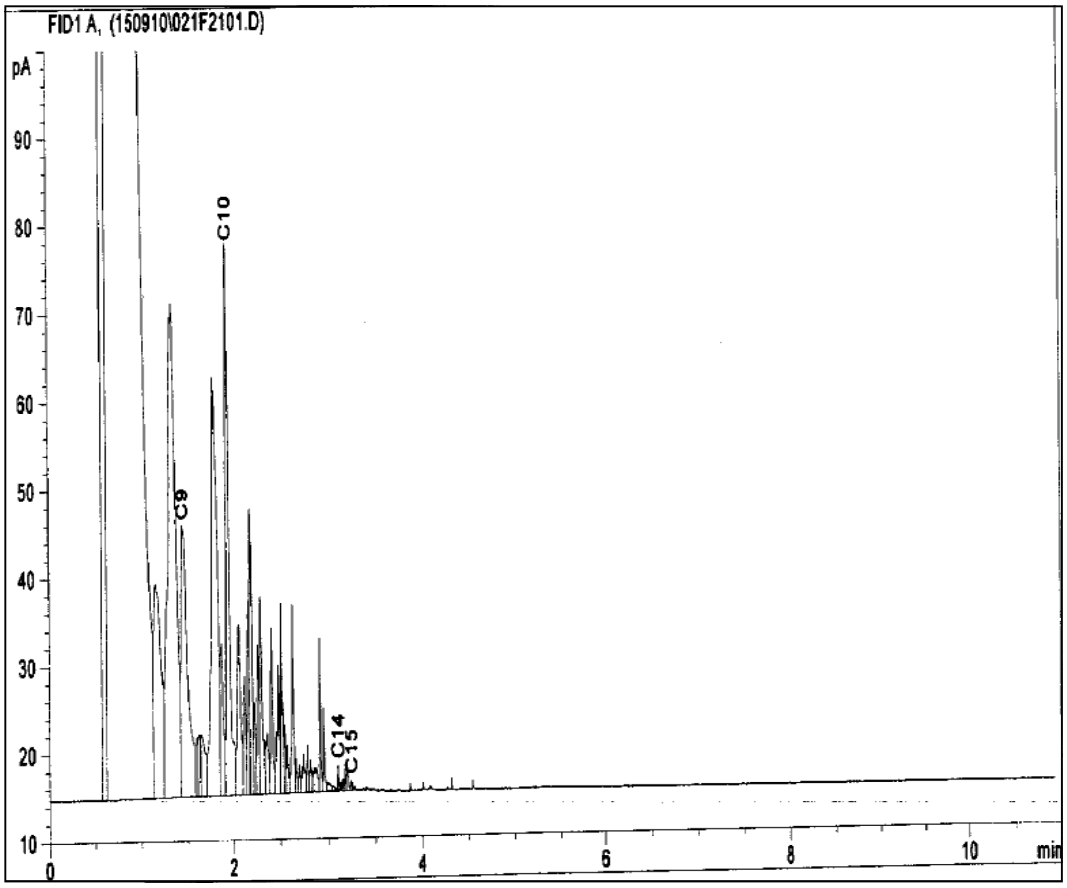
UNLEADED PETROL 50% Weathered



Response

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The o-Terphenyl peak is the TPH surrogate used in our extraction.

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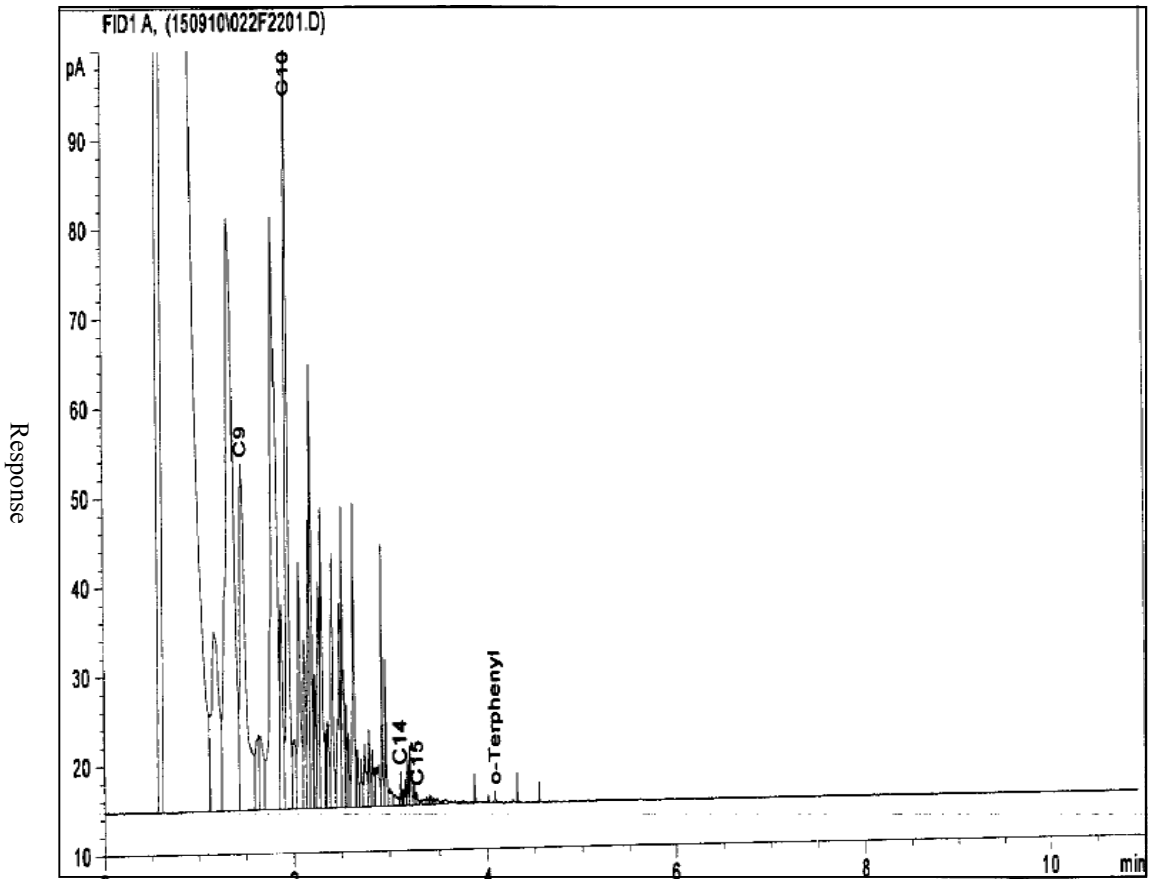
UNLEADED PETROL 75% Weathered



Response

Retention Time (minutes)

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The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

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The o-Terphenyl peak is the TPH surrogate used in our extraction.

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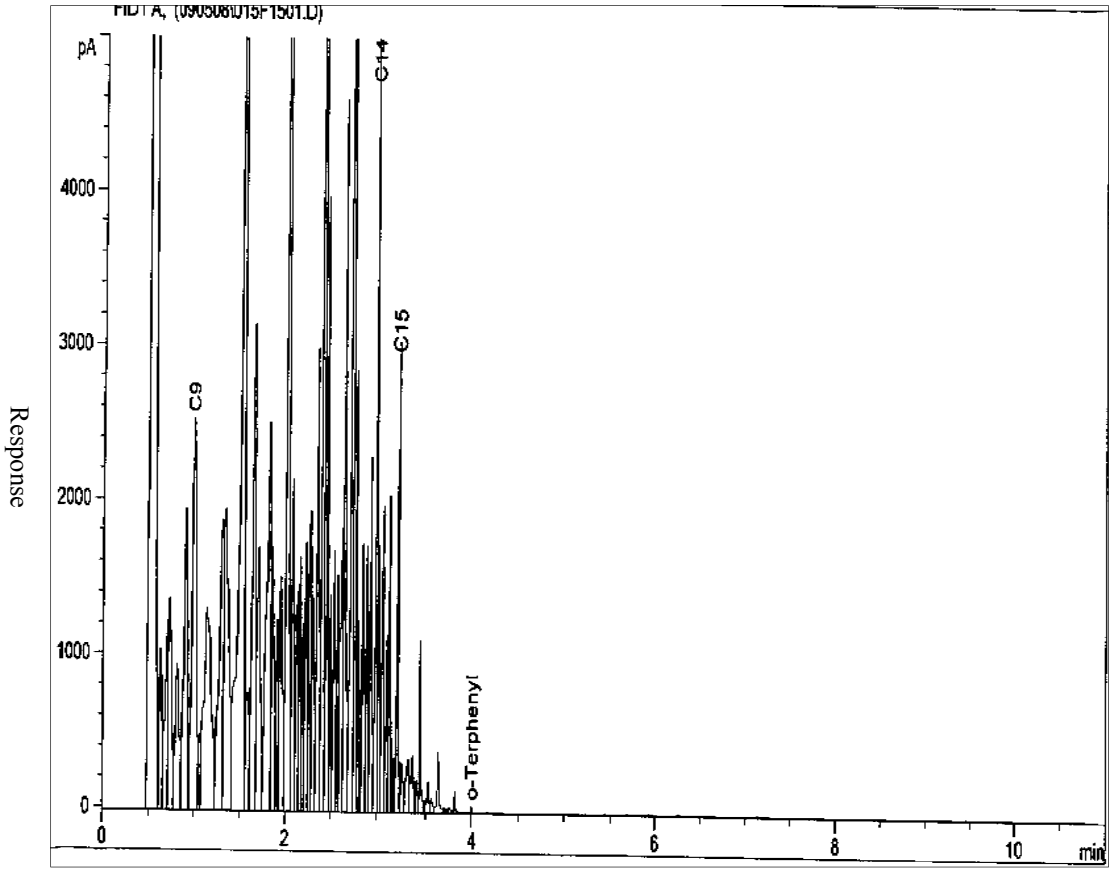
JET FUEL



Retention Time (minutes)

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These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

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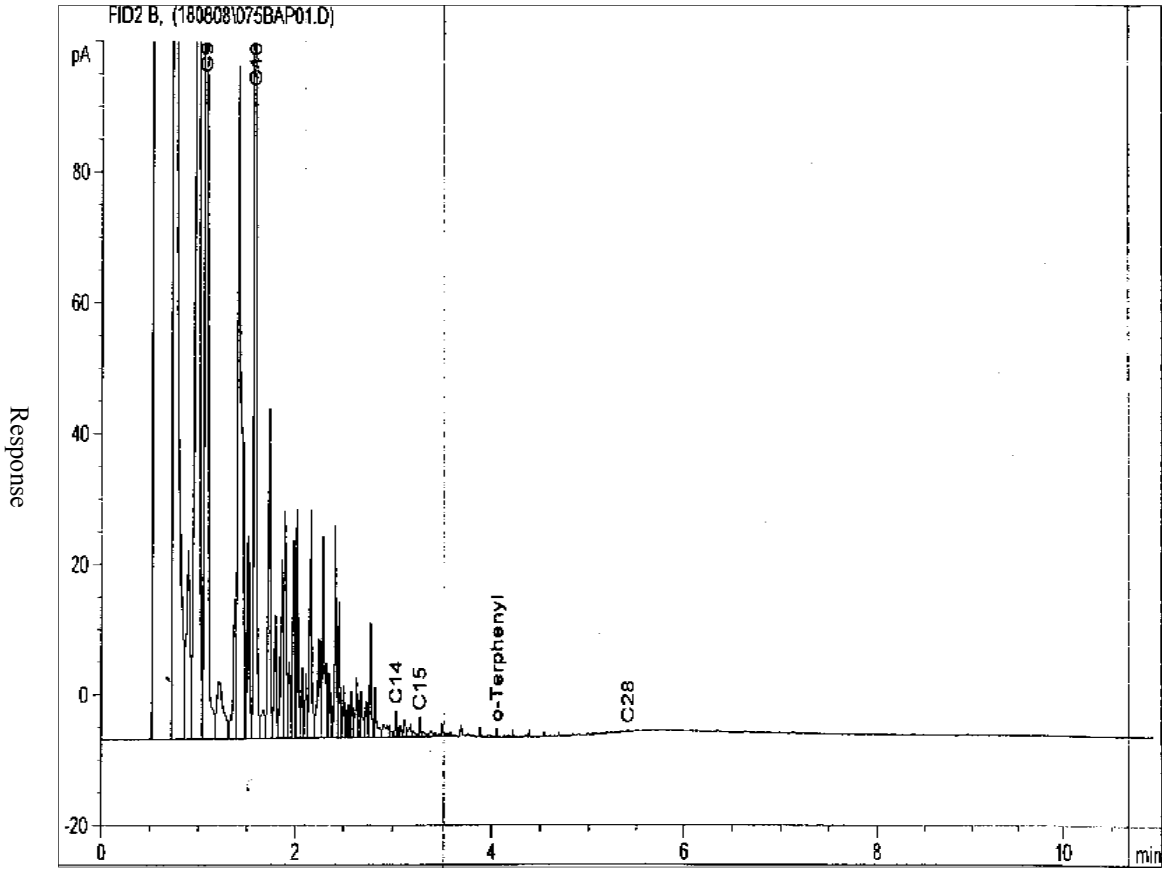
2 STROKE FUEL



Response

Retention Time (minutes)

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The o-Terphenyl peak is the TPH surrogate used in our extraction.

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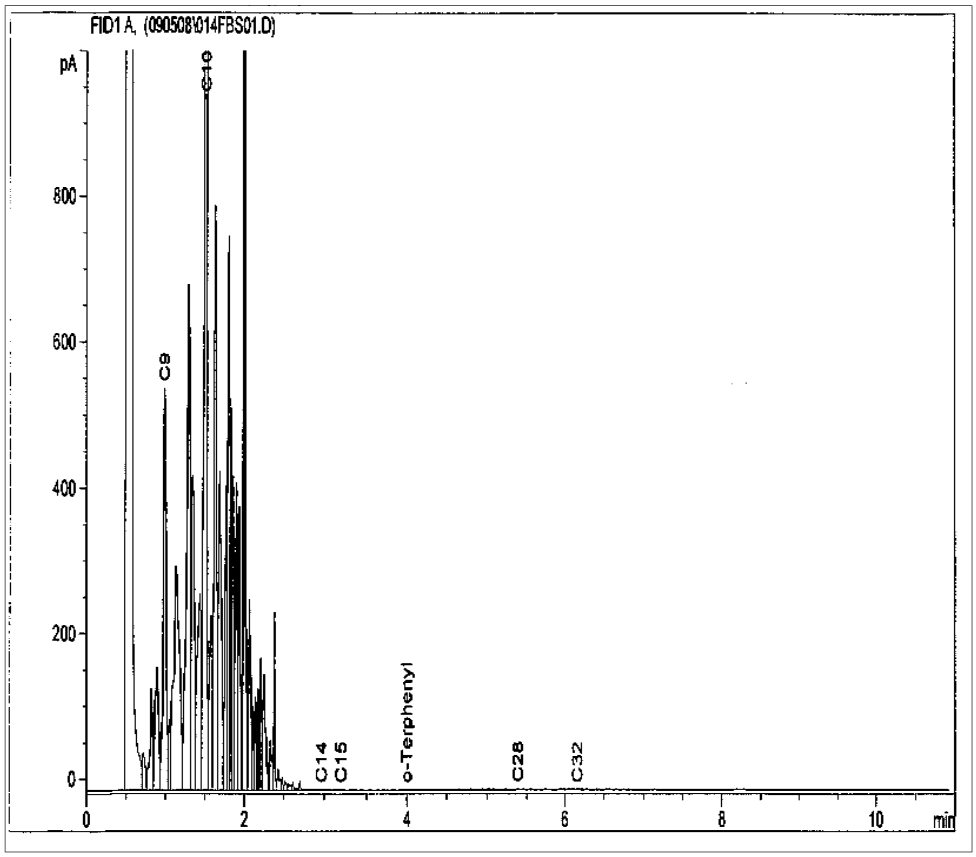
WHITE SPIRIT (Paraffin derived solvent)



Response

Retention Time (minutes)

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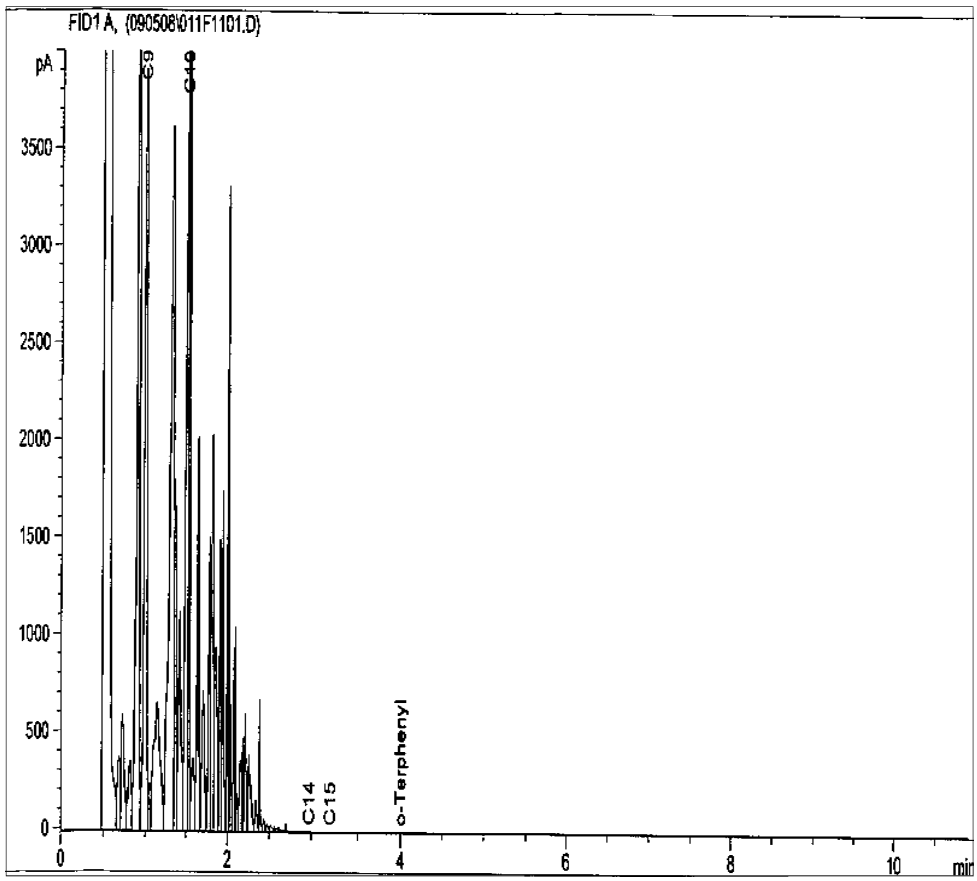
The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

TURPENTINE



Response

Retention Time (minutes)

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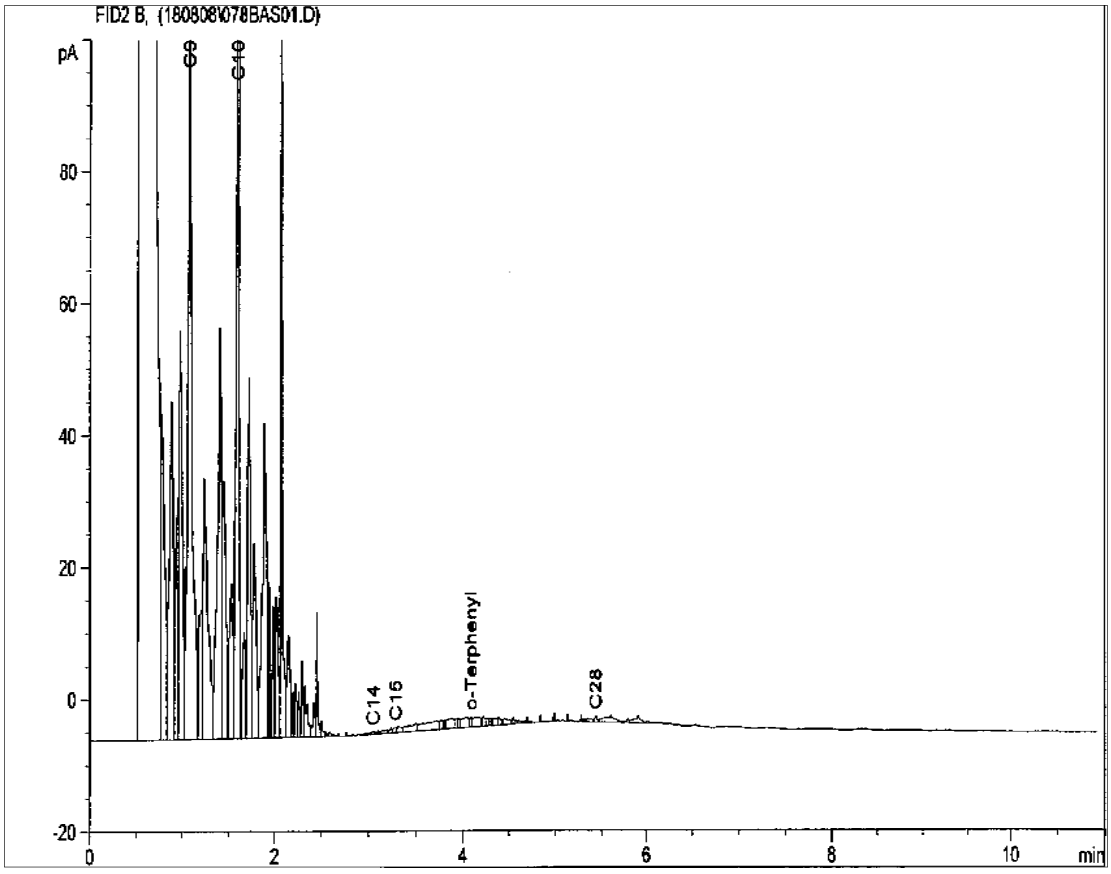
The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

WD 40



Response

Retention Time (minutes)

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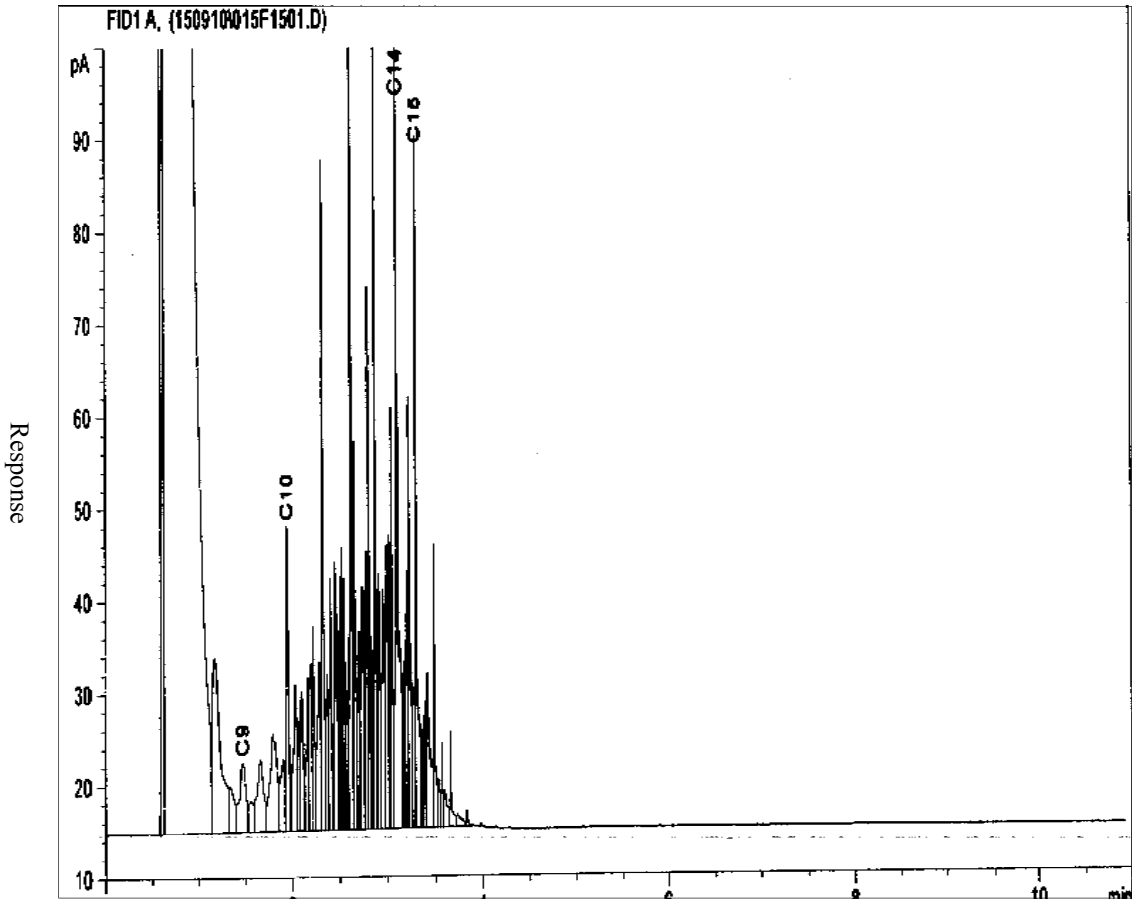
HYDROCARBON REFERENCE LIBRARY

KEROSENE Unweathered



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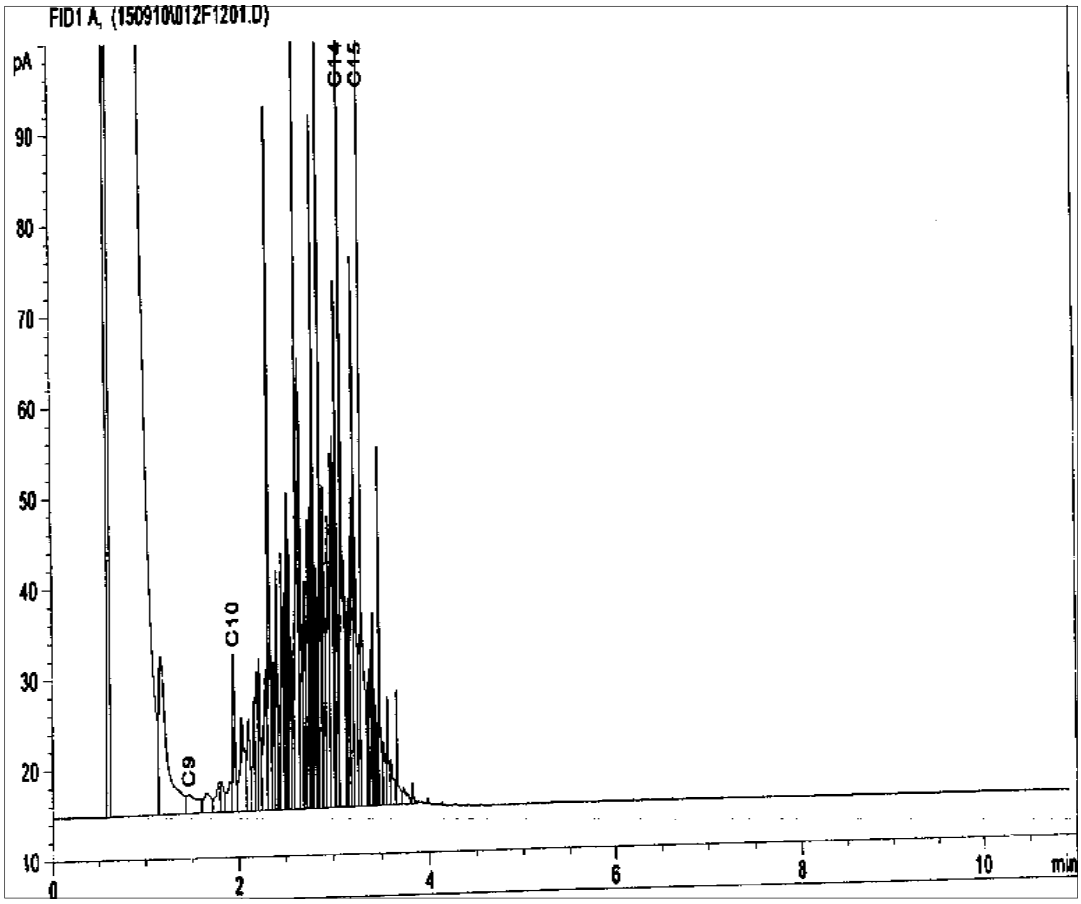
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

KEROSENE 25% weathered



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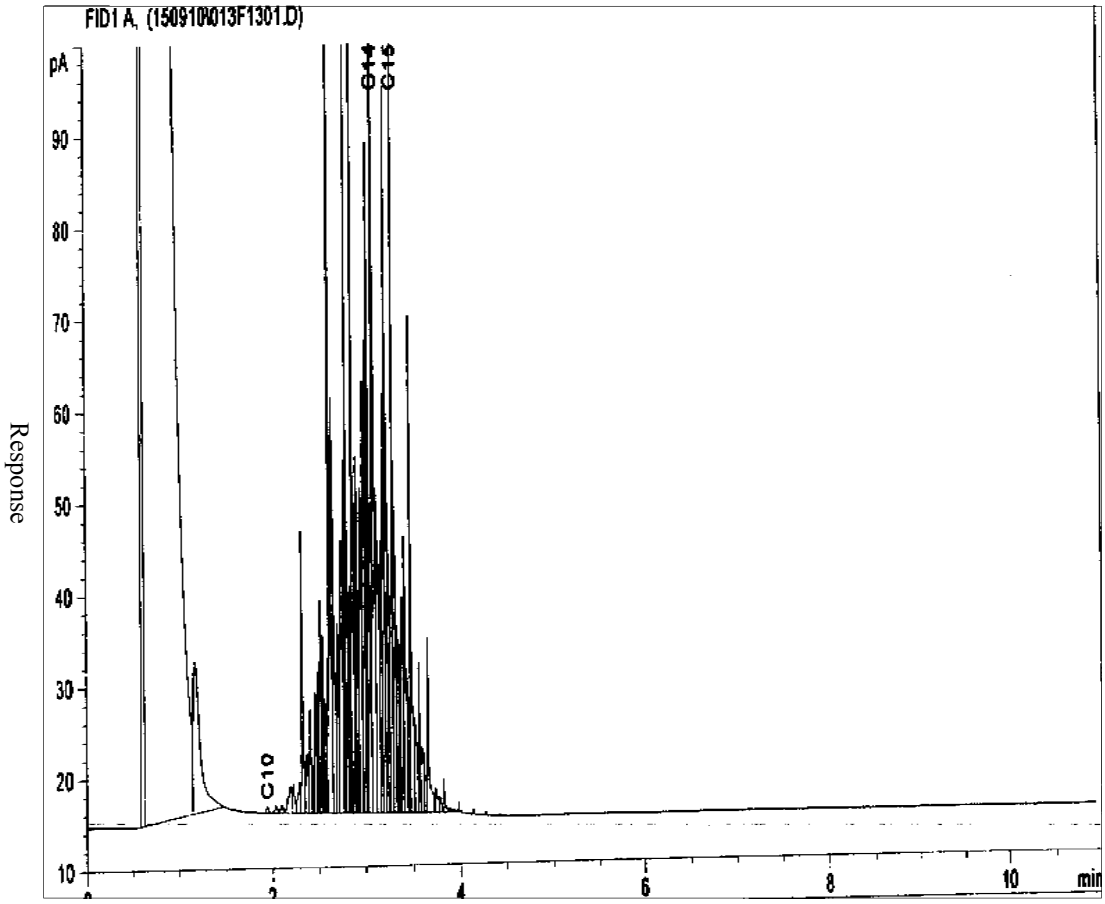
HYDROCARBON REFERENCE LIBRARY

KEROSENE 50% weathered



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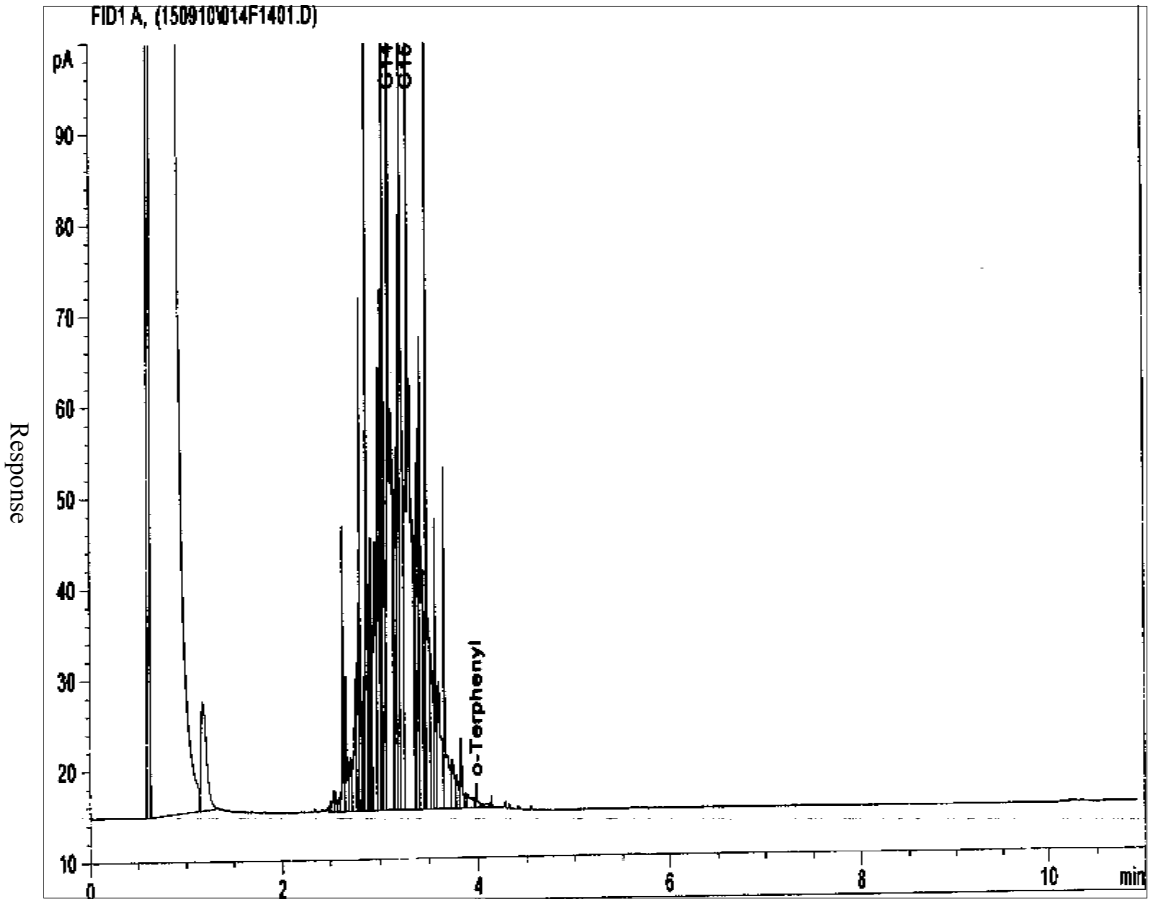
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

KEROSENE 75% weathered



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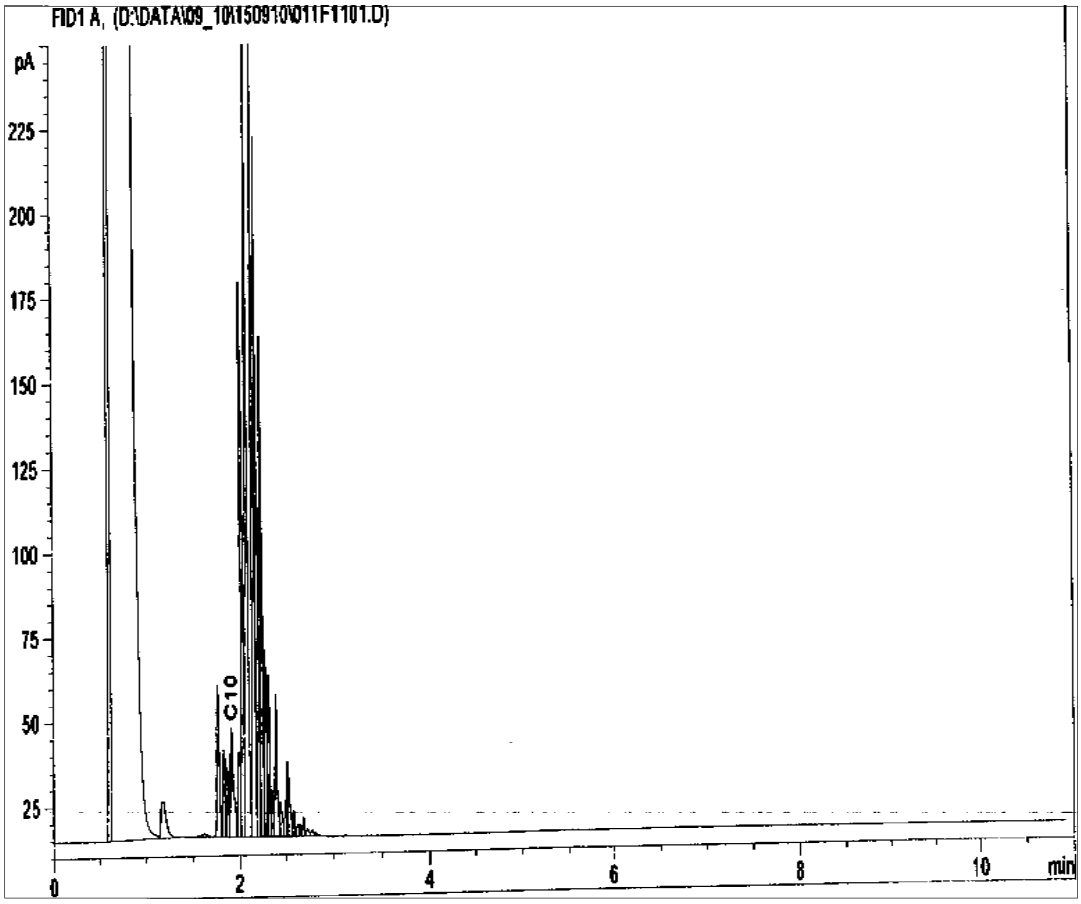
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT unweathered



Response

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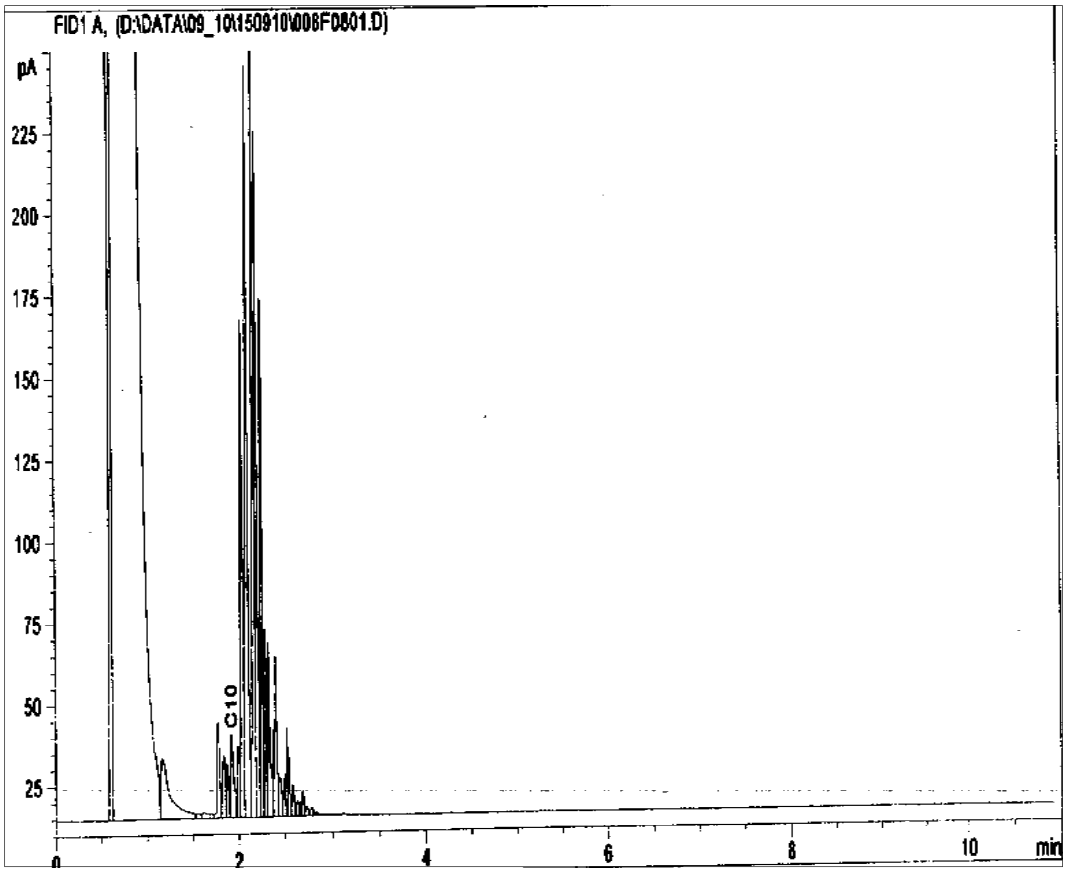
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT 25% weathered



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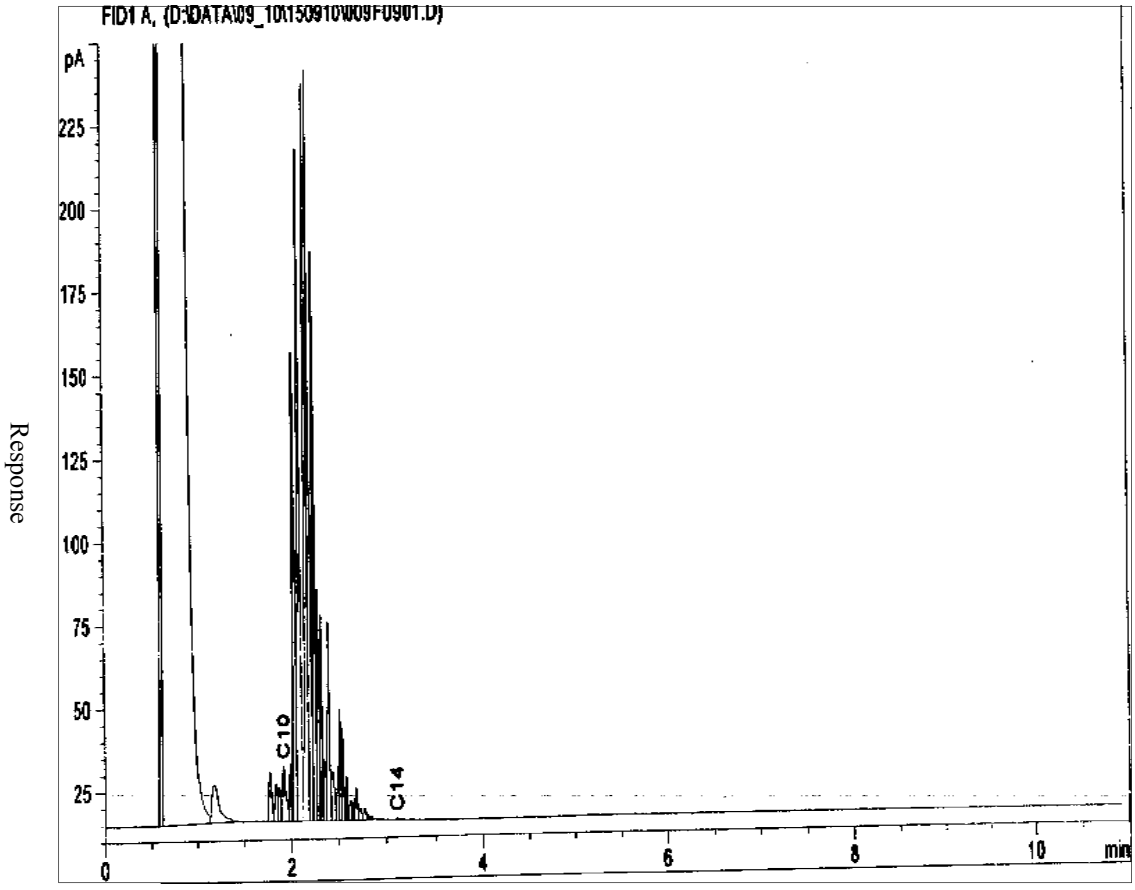
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT 50% weathered



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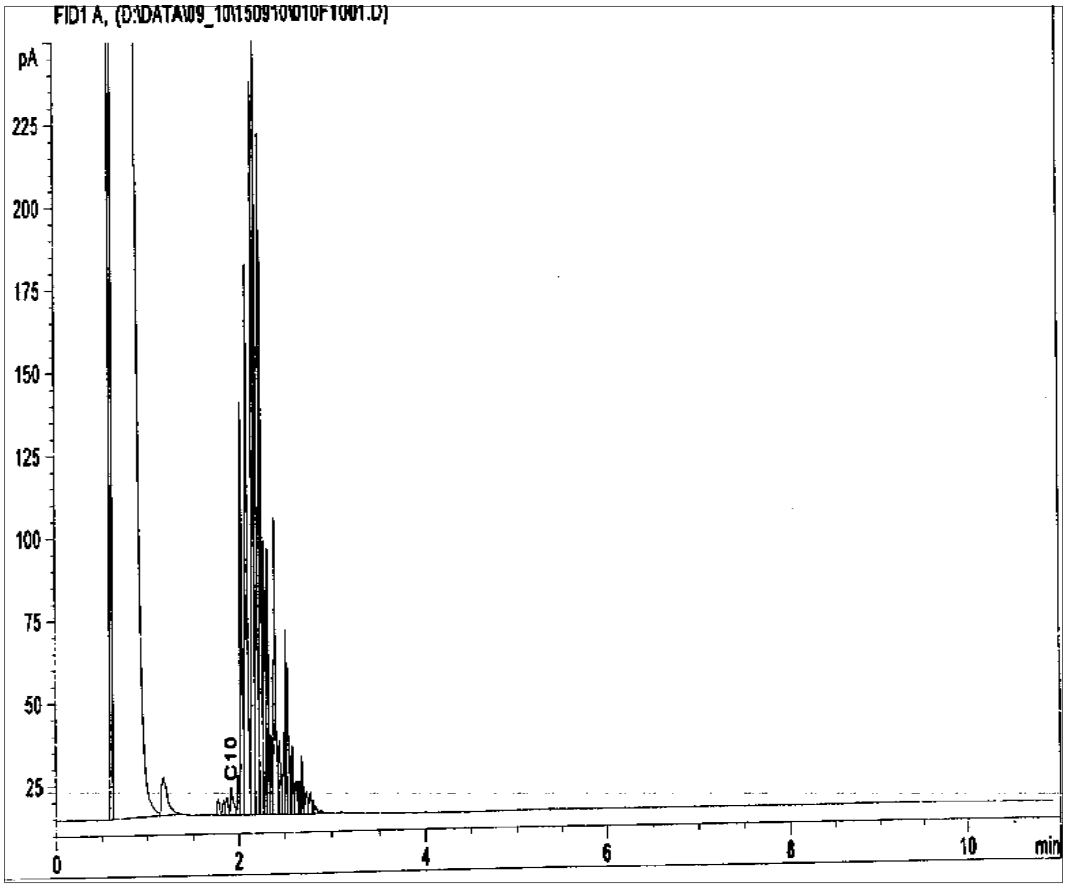
HYDROCARBON REFERENCE LIBRARY

MINERAL SPIRIT 75% weathered



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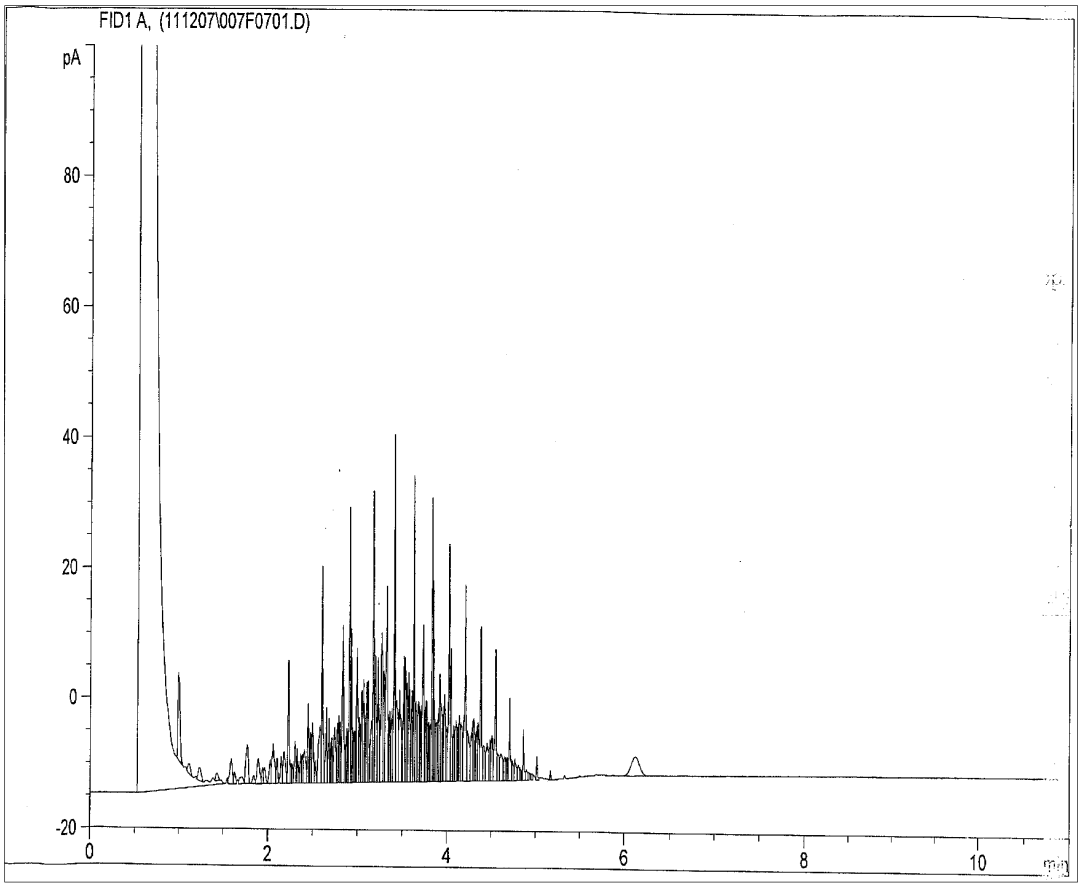
HYDROCARBON REFERENCE LIBRARY

UNWEATHERED DIESEL



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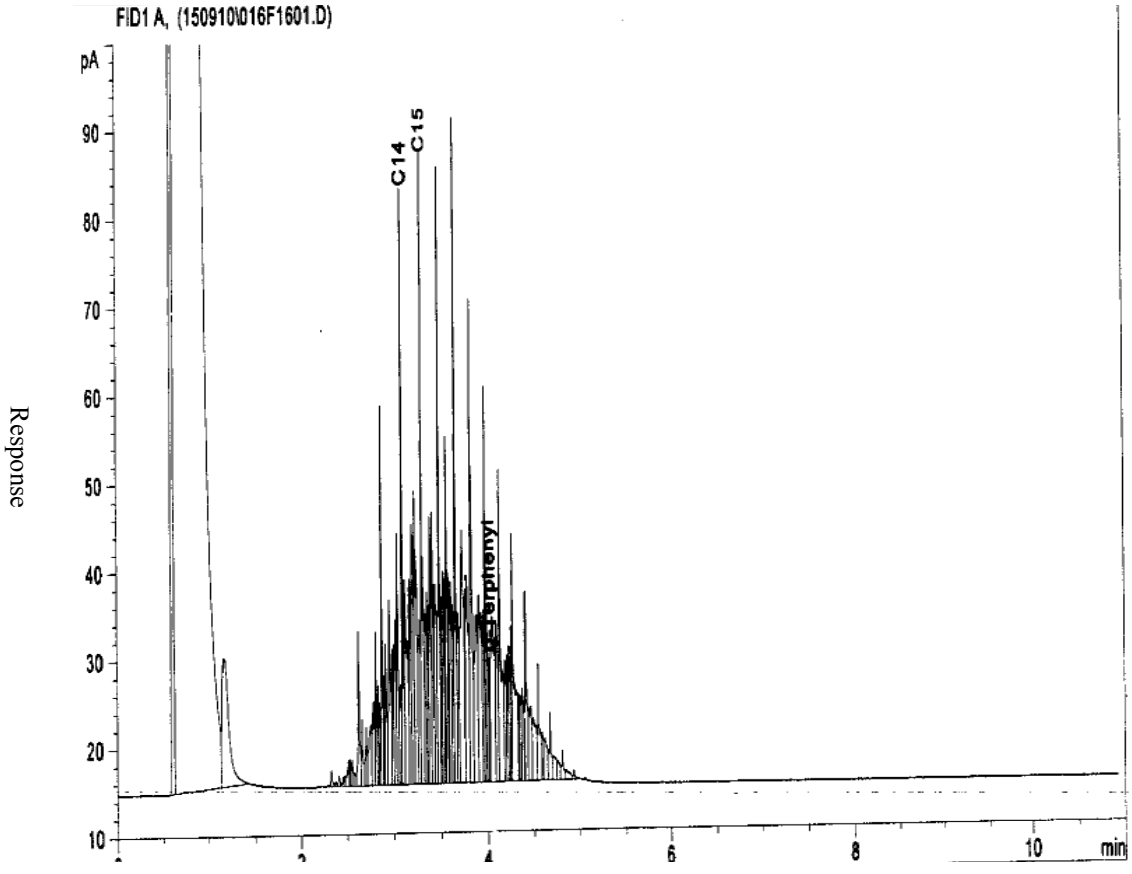
HYDROCARBON REFERENCE LIBRARY

25% WEATHERED DIESEL



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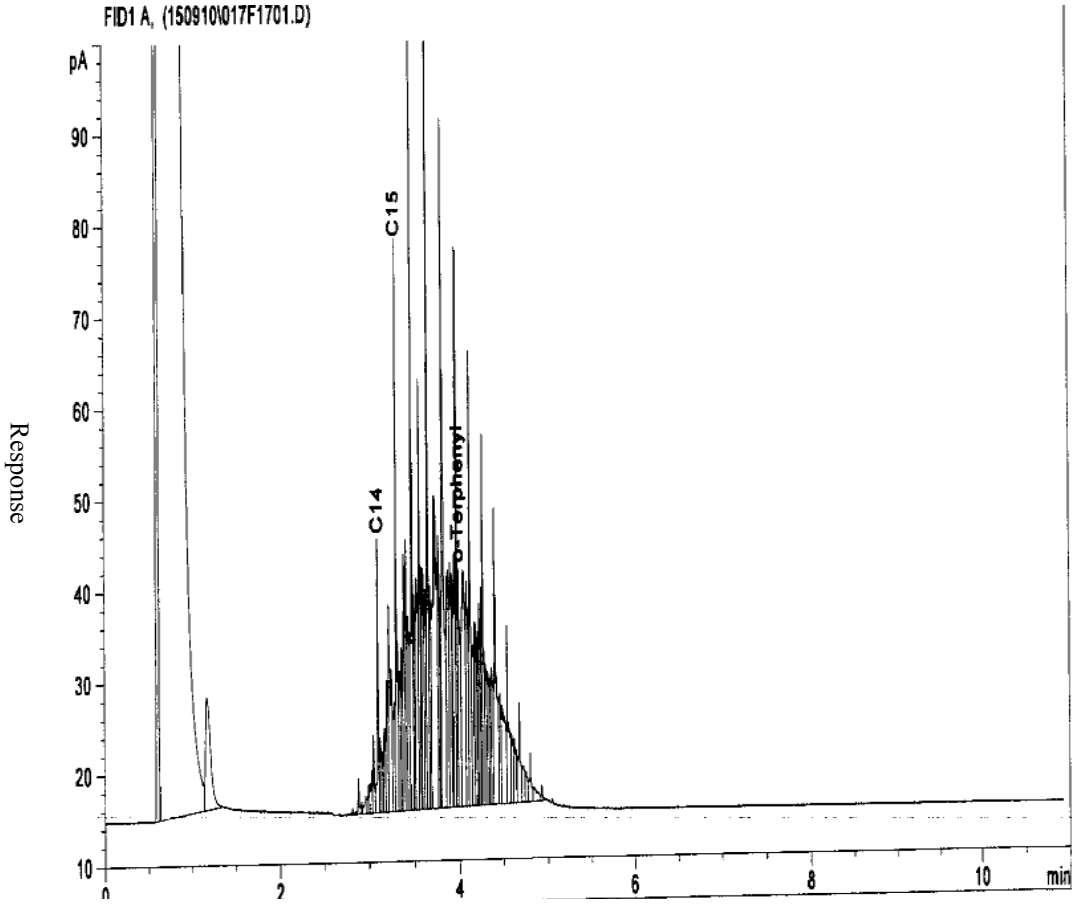
HYDROCARBON REFERENCE LIBRARY

50% WEATHERED DIESEL



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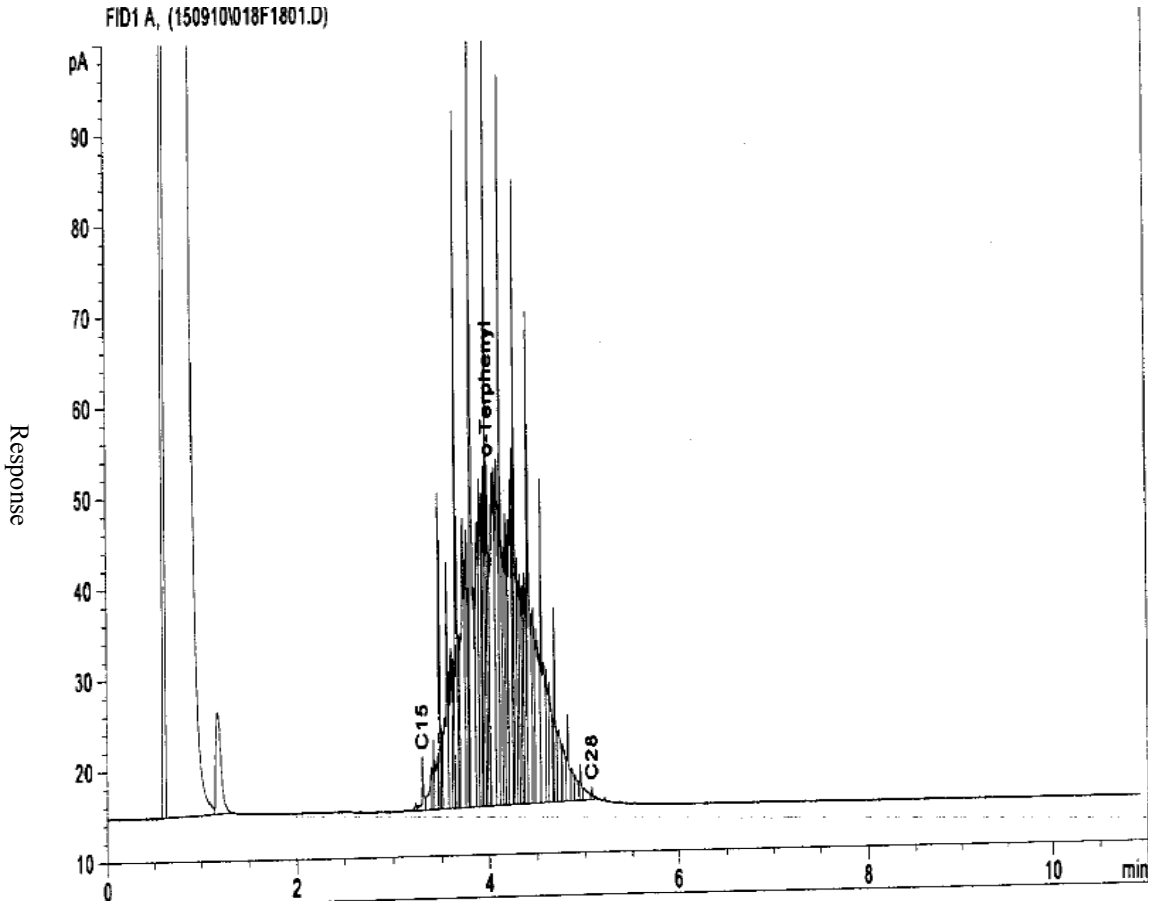
HYDROCARBON REFERENCE LIBRARY

75% WEATHERED DIESEL



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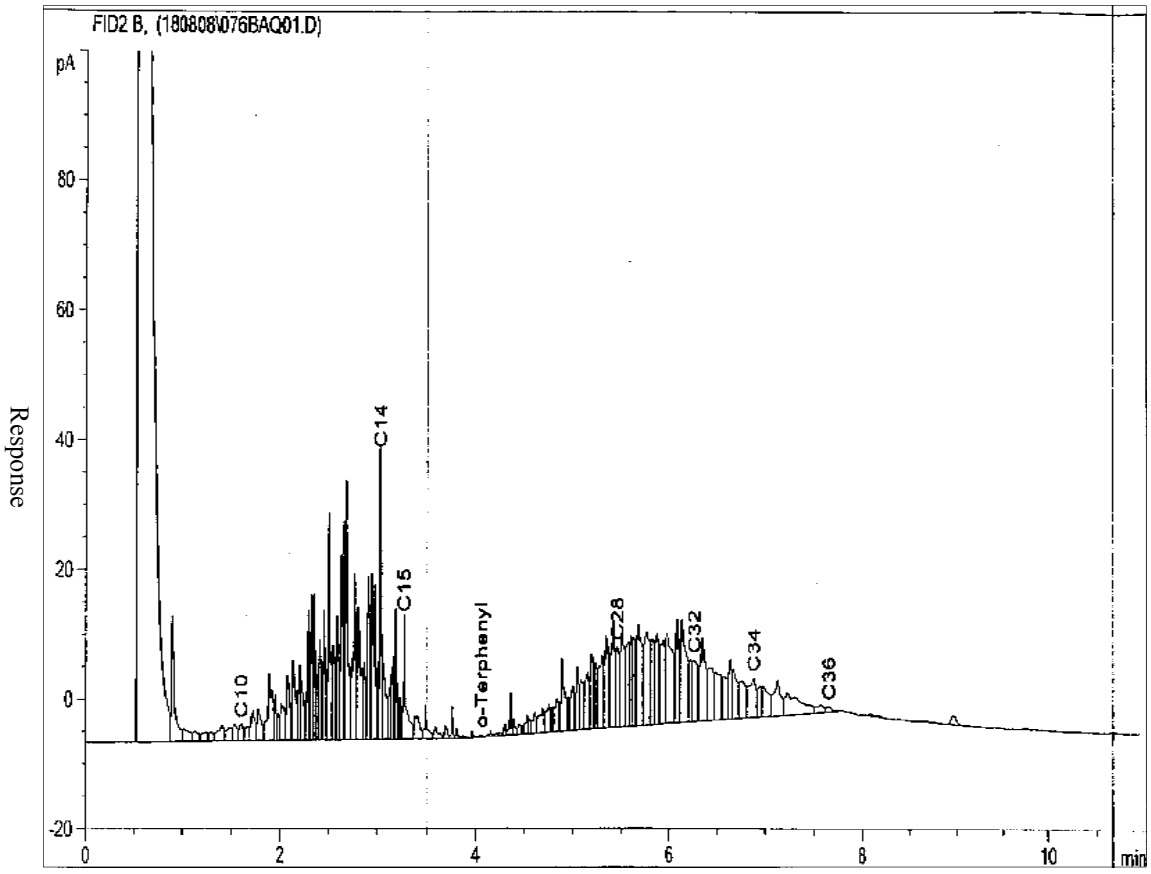
HYDROCARBON REFERENCE LIBRARY

SYNTHETIC 2 STROKE FUEL



Retention Time (minutes)

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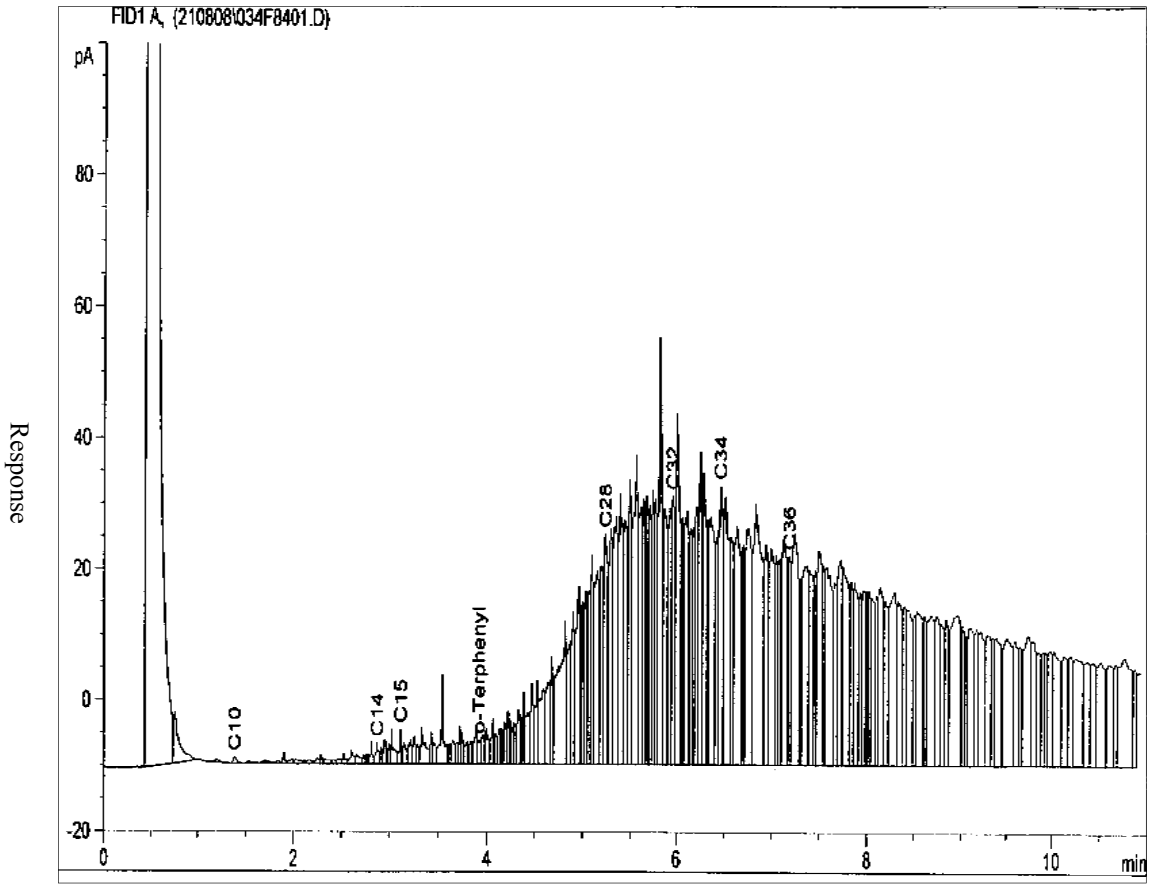
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

ASPHALT (no coal tar)



Response

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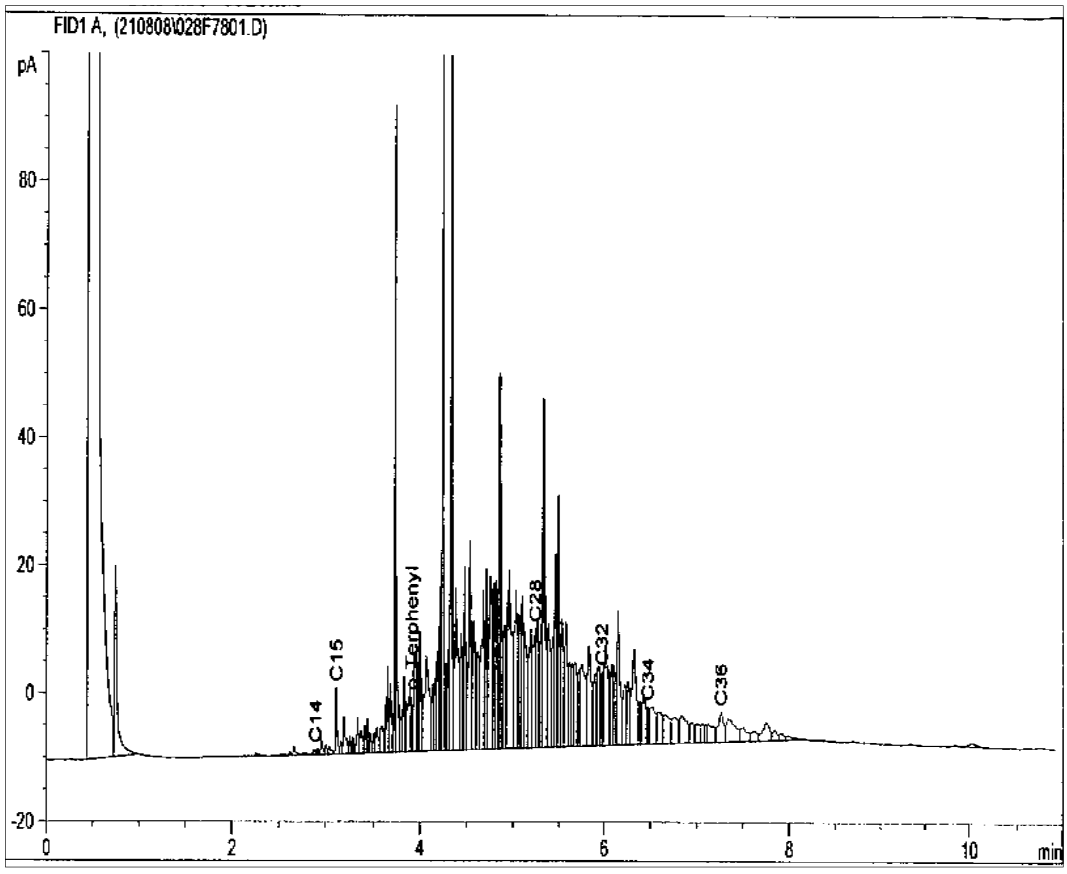
The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

ASPHALT (with coal tar)



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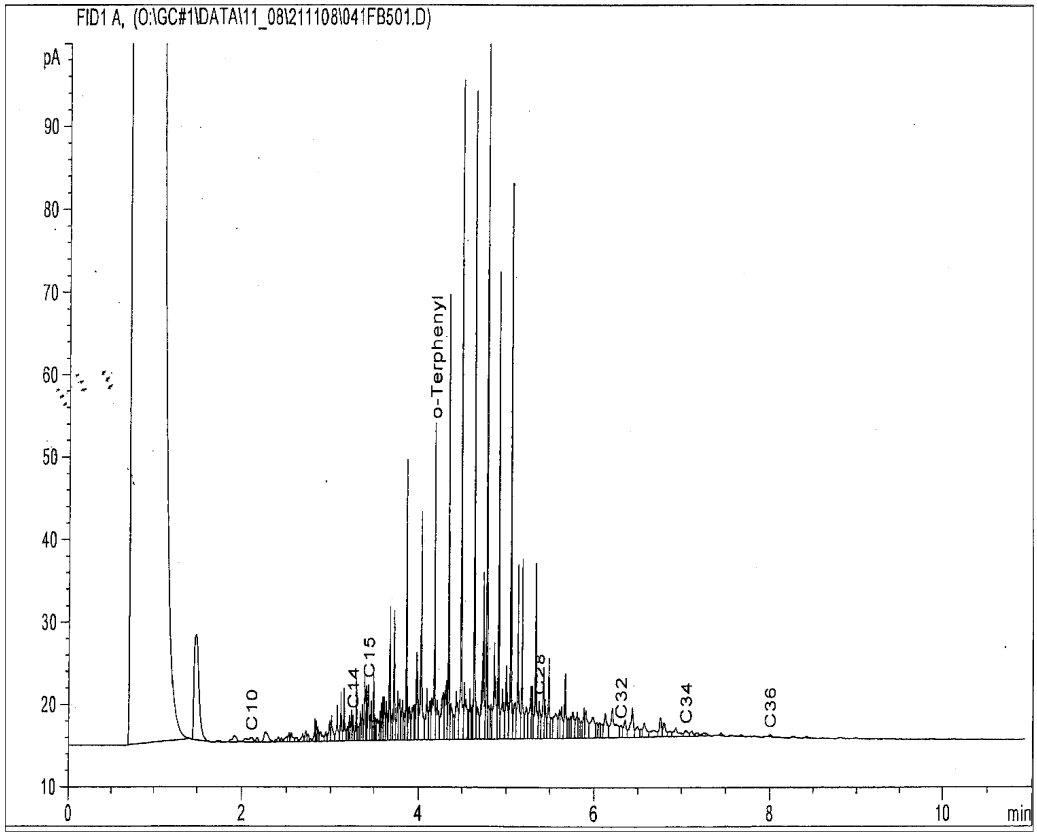
HYDROCARBON REFERENCE LIBRARY

COAL



Response

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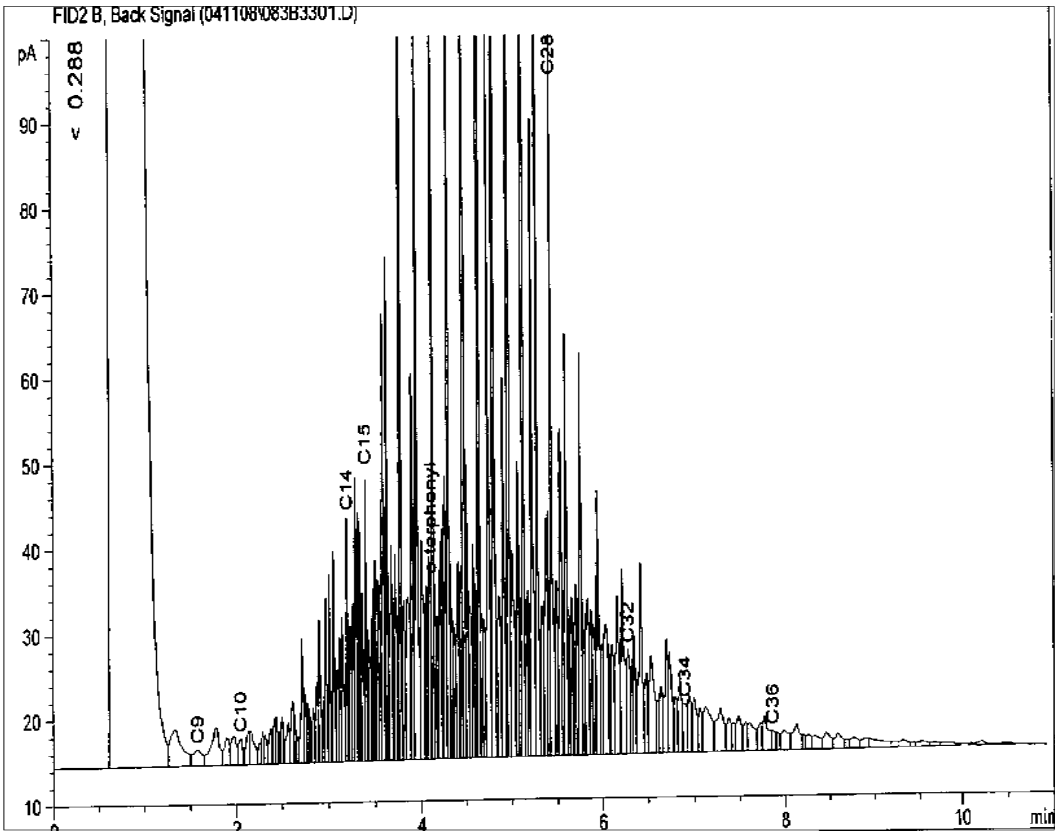
HYDROCARBON REFERENCE LIBRARY

WEATHERED COAL



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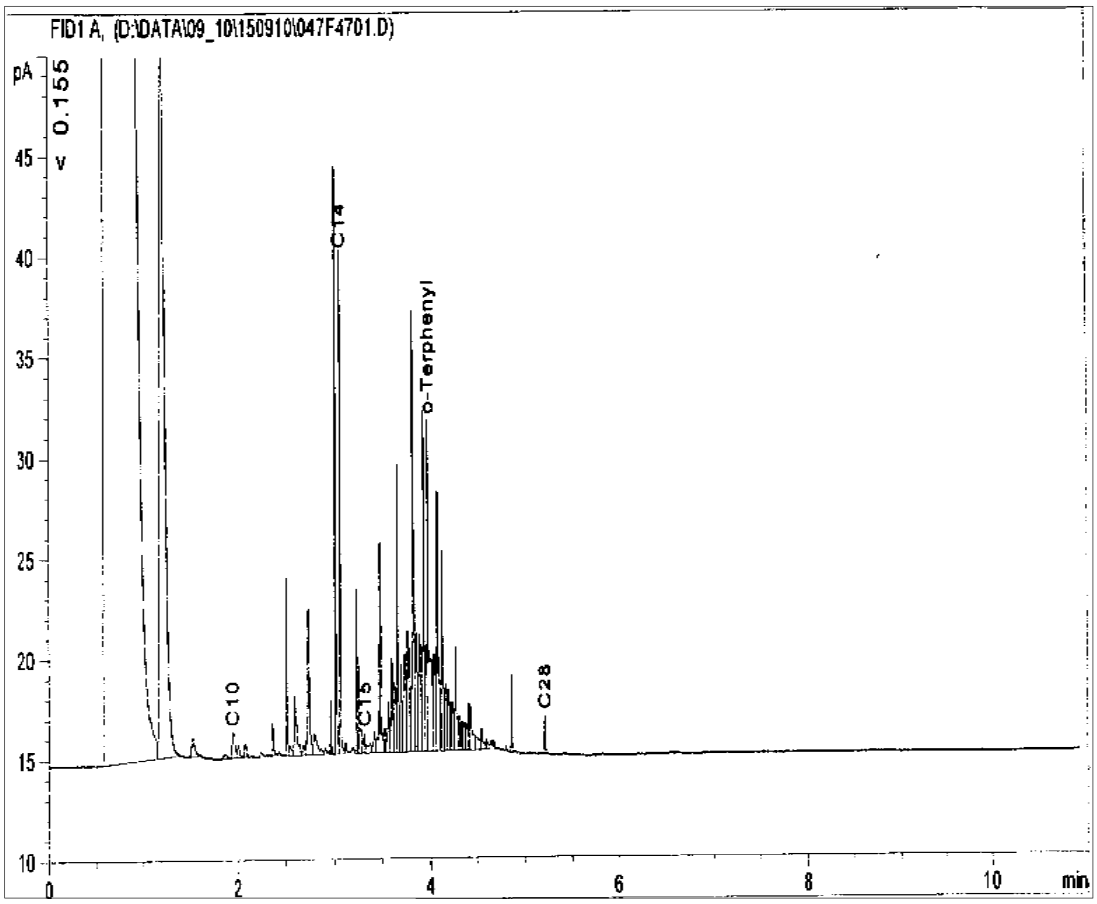
HYDROCARBON REFERENCE LIBRARY

COAL SHALE



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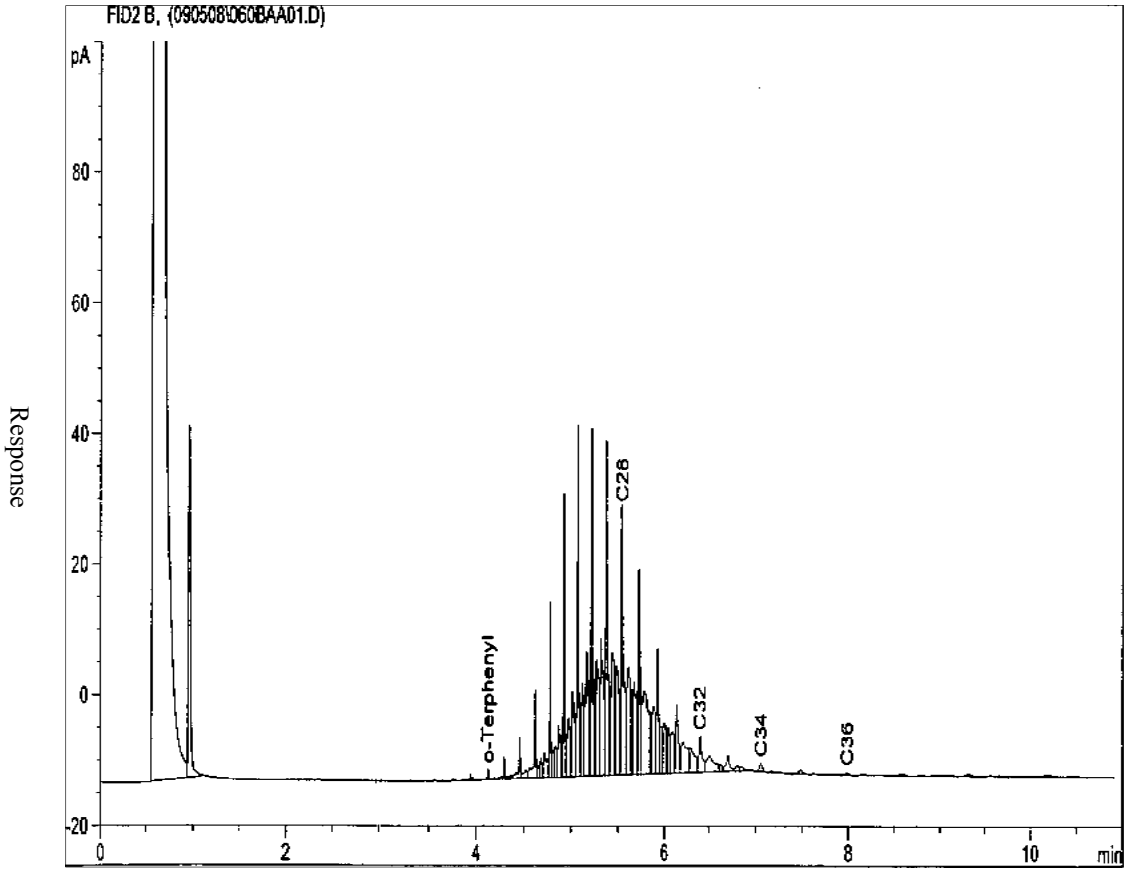
HYDROCARBON REFERENCE LIBRARY

WHITE PETROLEUM JELLY (VASELINE)



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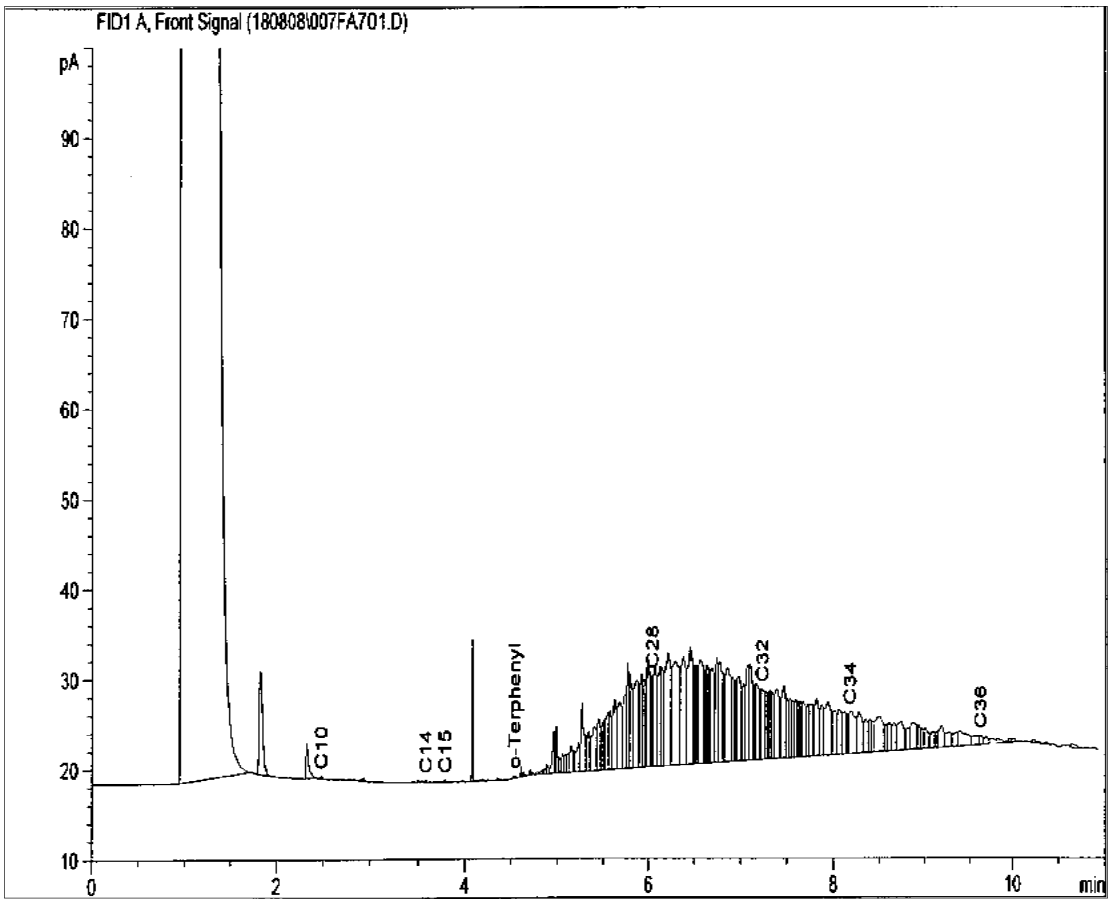
HYDROCARBON REFERENCE LIBRARY

GREASE



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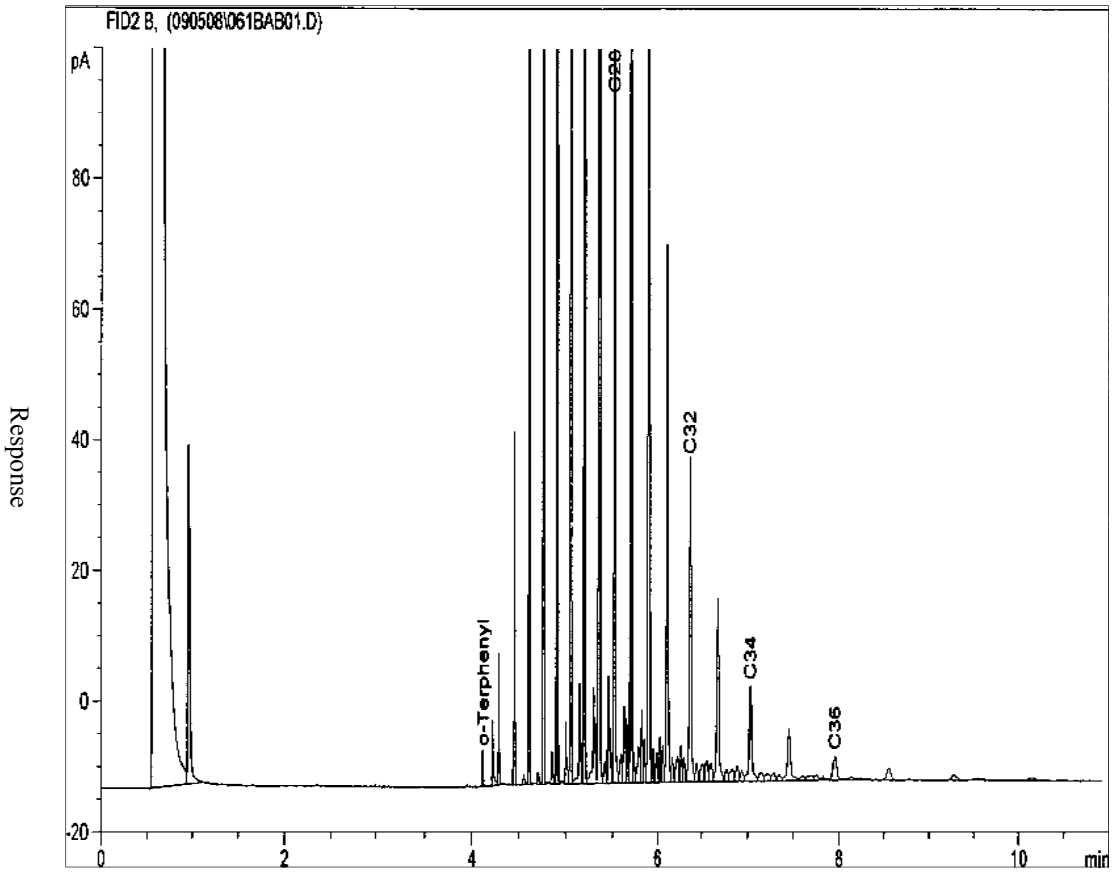
HYDROCARBON REFERENCE LIBRARY

CANDLE WAX



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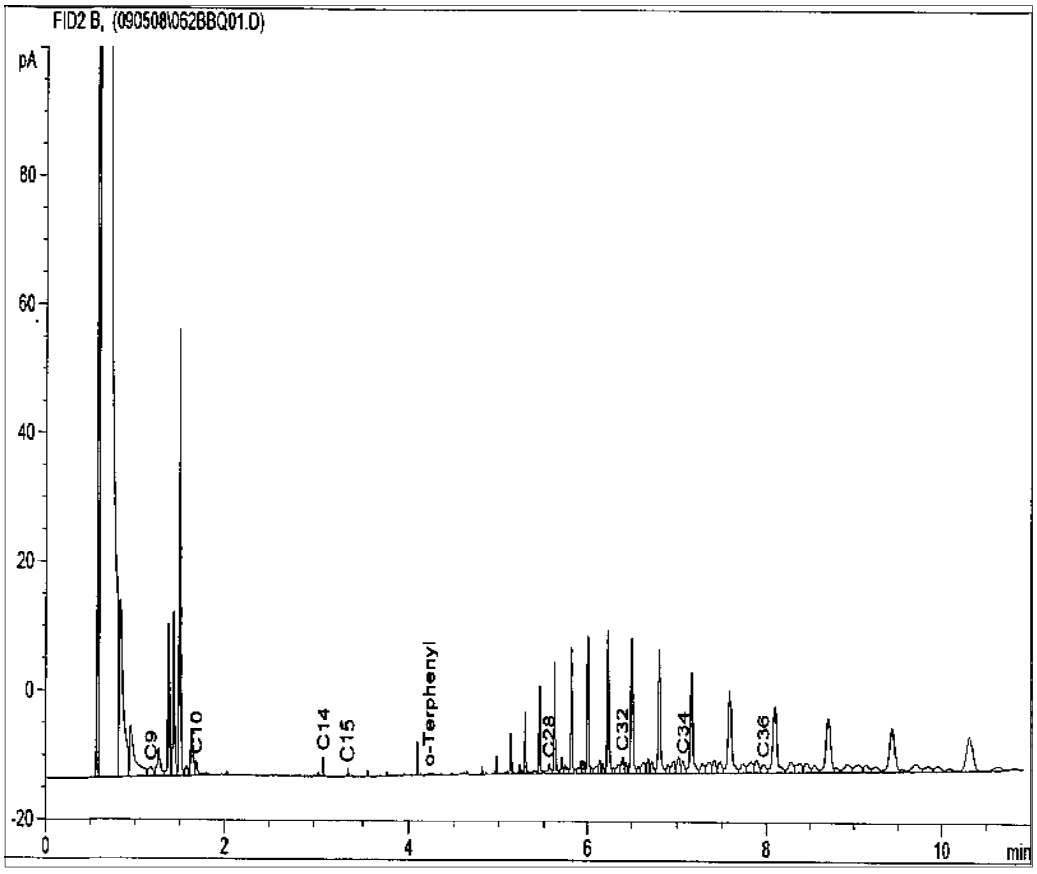
HYDROCARBON REFERENCE LIBRARY

PARAFFIN WAX



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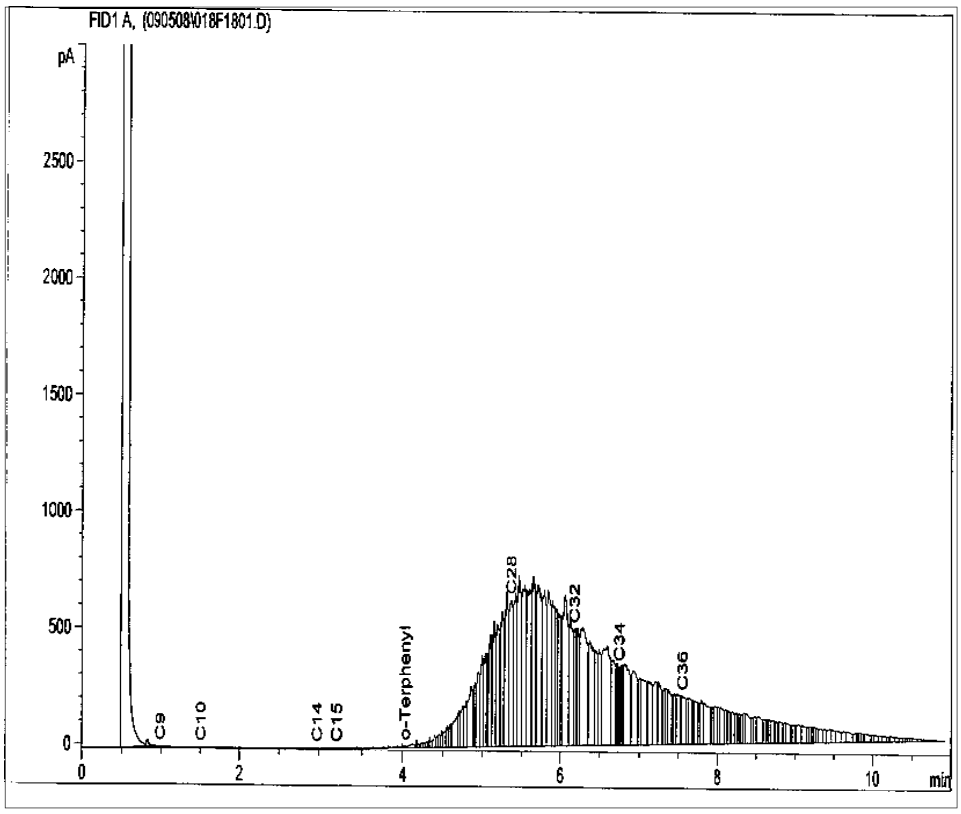
HYDROCARBON REFERENCE LIBRARY

ENGINE OIL



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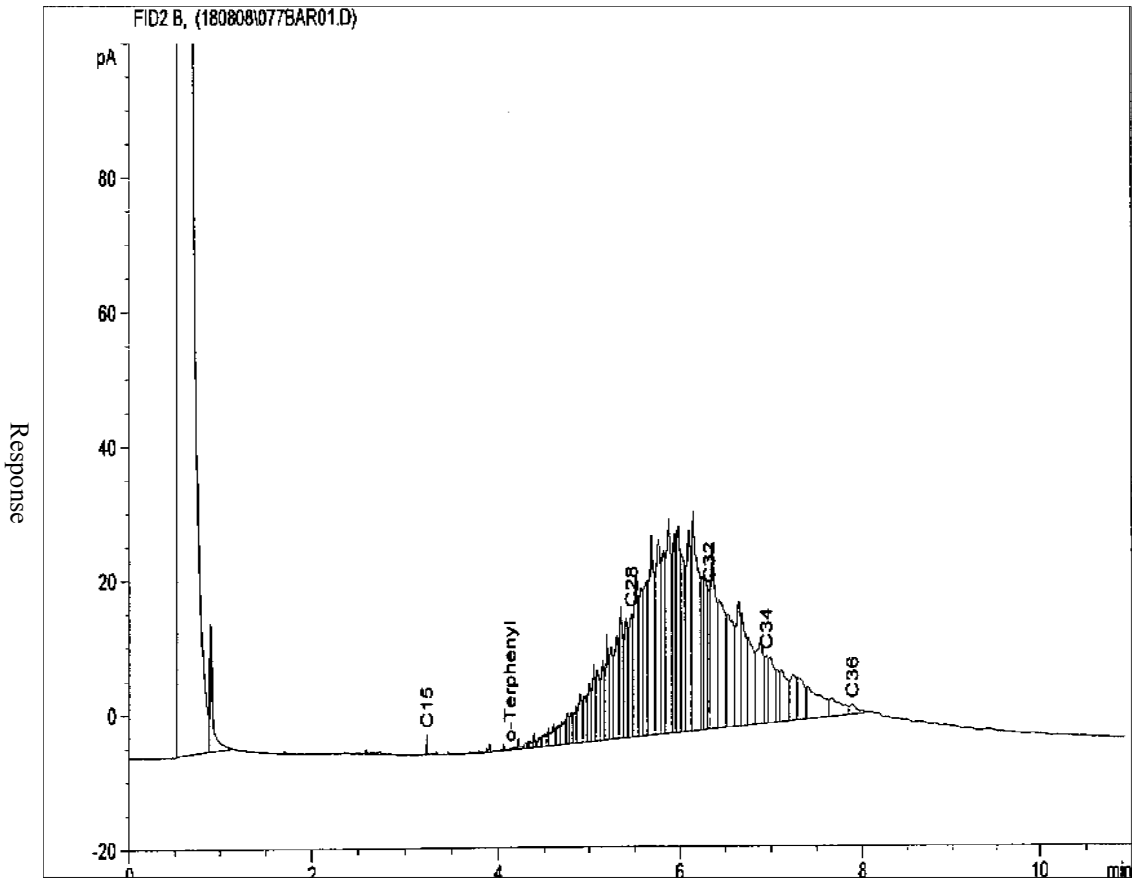
HYDROCARBON REFERENCE LIBRARY

OUTBOARD GEAR OIL



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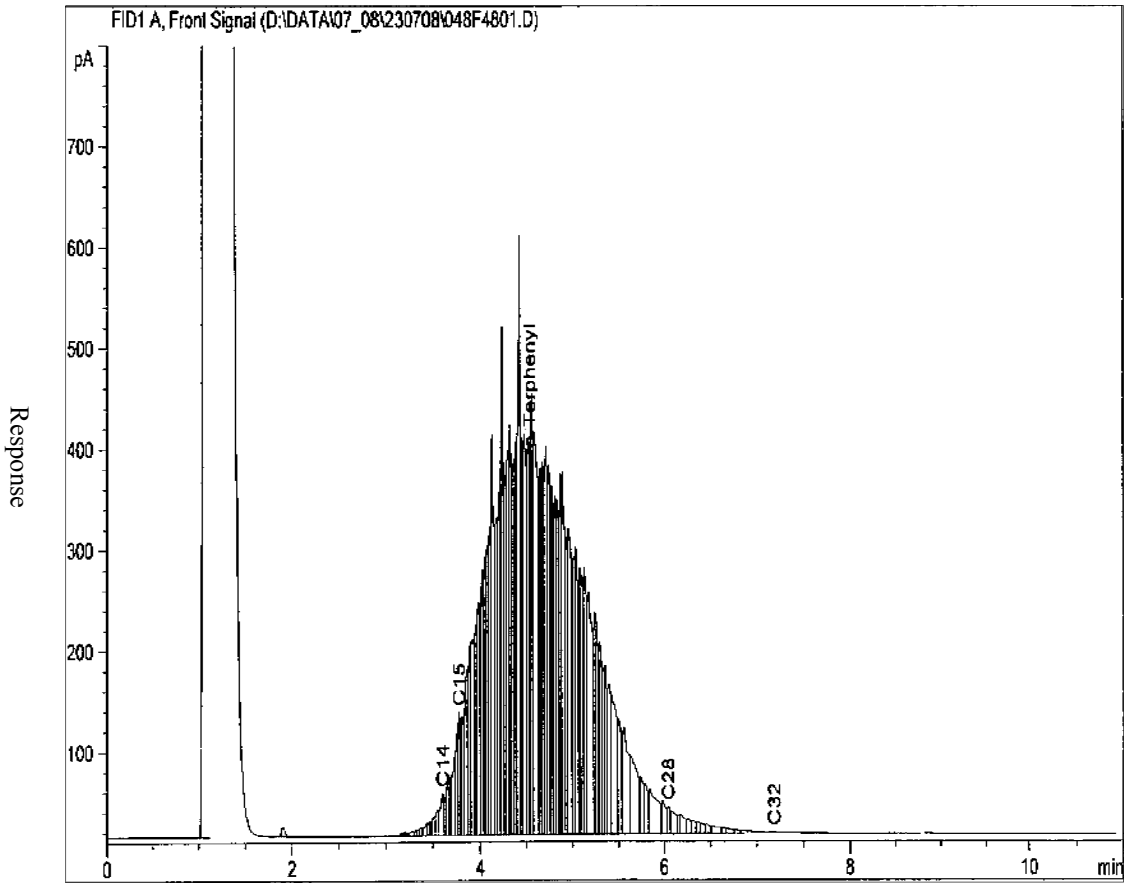
HYDROCARBON REFERENCE LIBRARY

TRANSFORMER OIL



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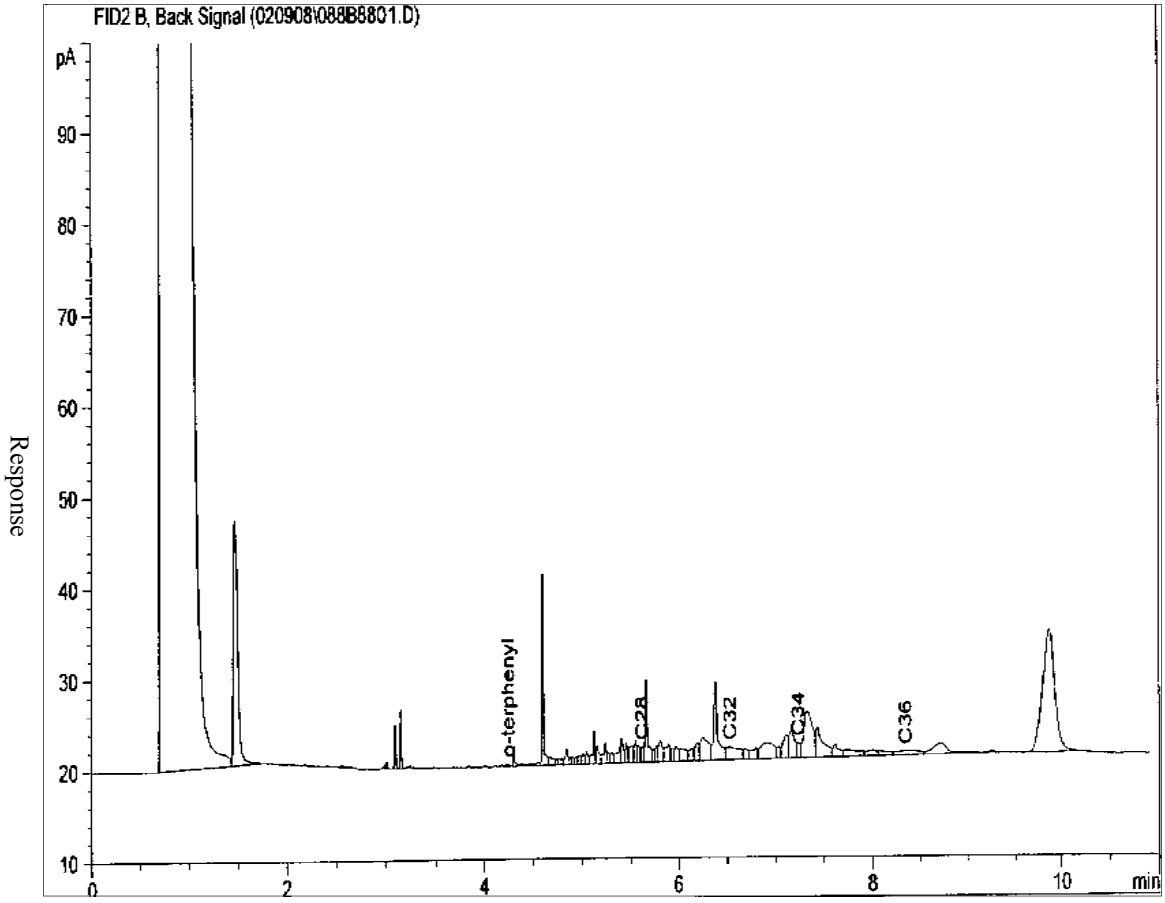
HYDROCARBON REFERENCE LIBRARY

CAMELLIA OIL



Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

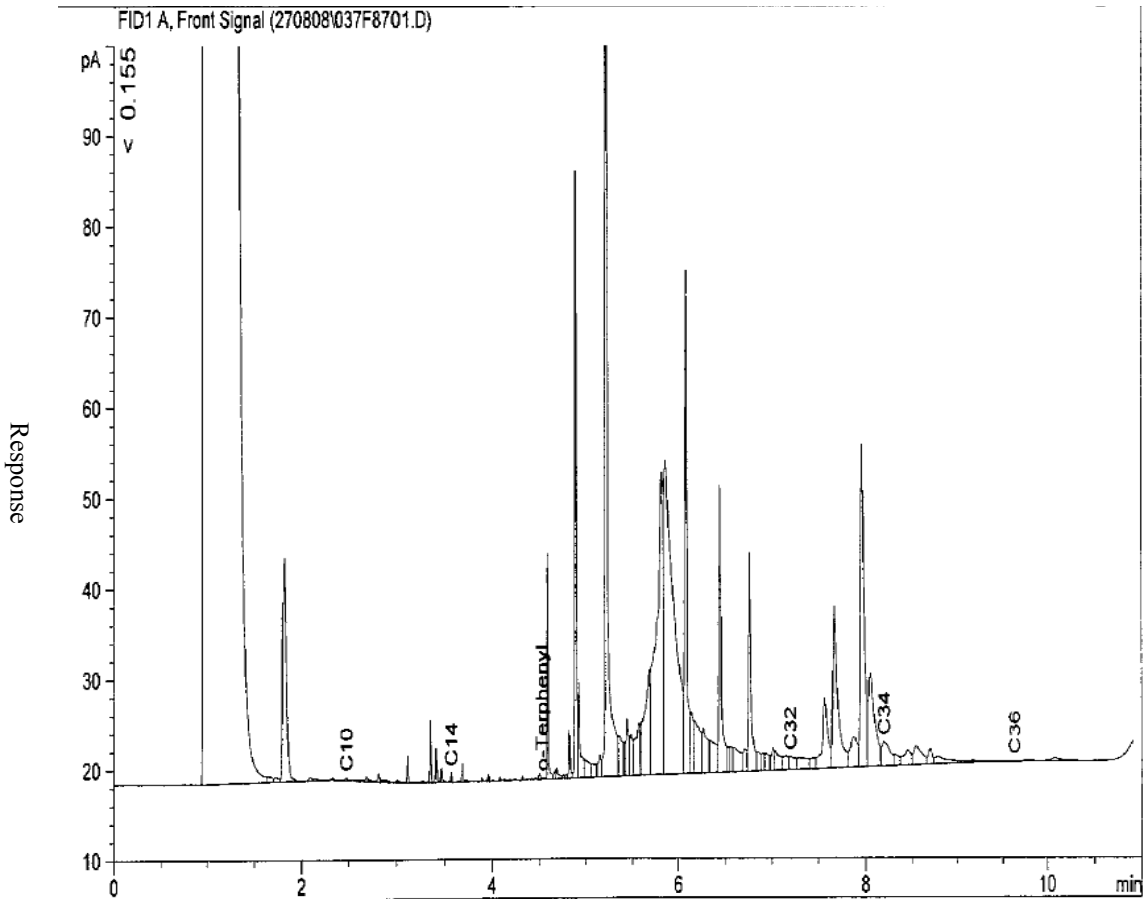
The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

CASTOR OIL



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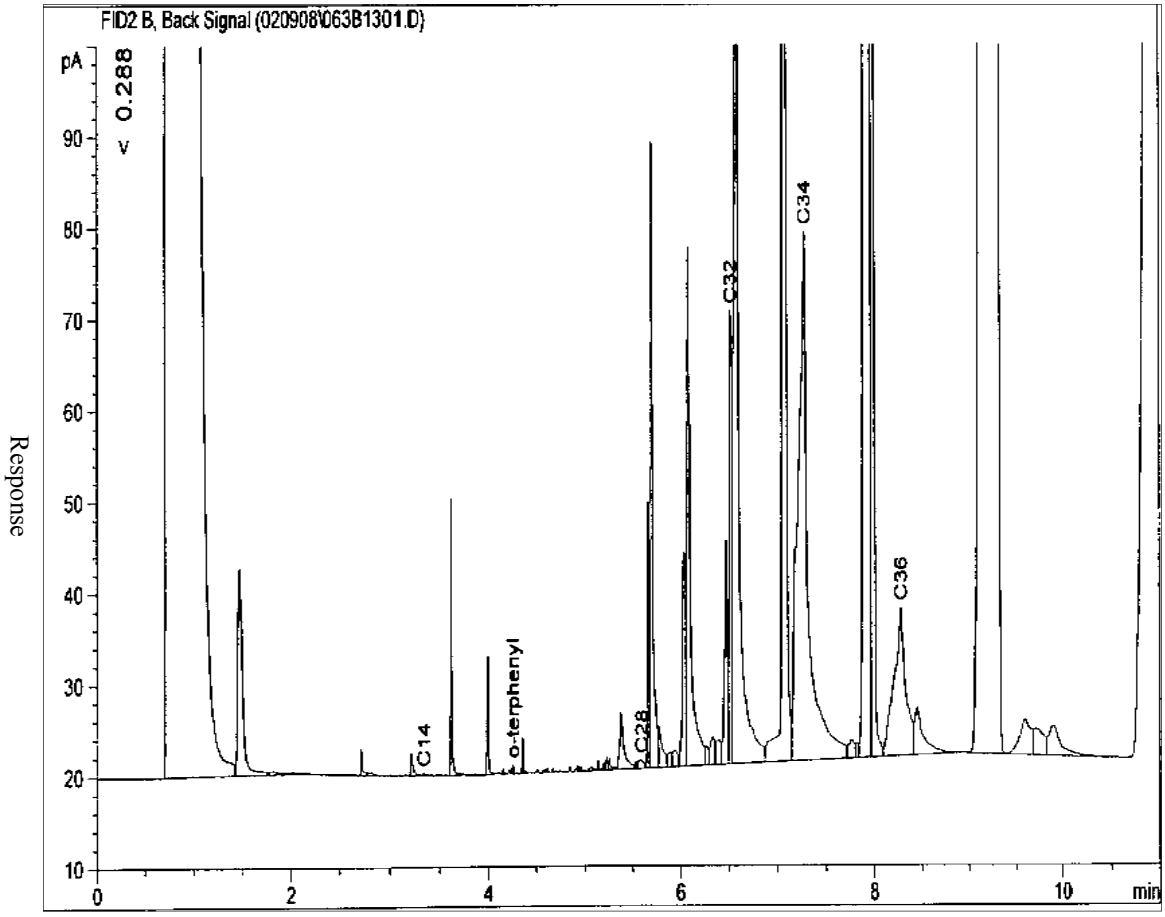
HYDROCARBON REFERENCE LIBRARY

COCONUT OIL



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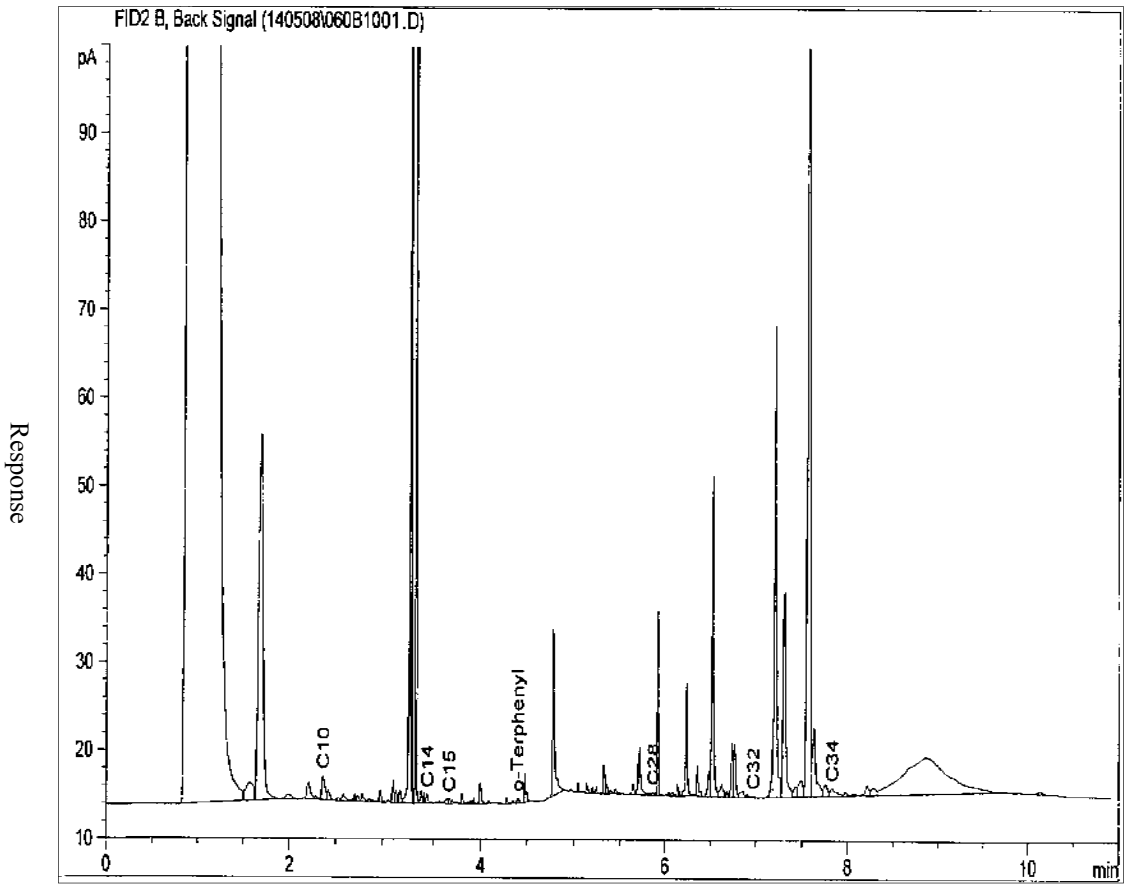
HYDROCARBON REFERENCE LIBRARY

CORN OIL



Response

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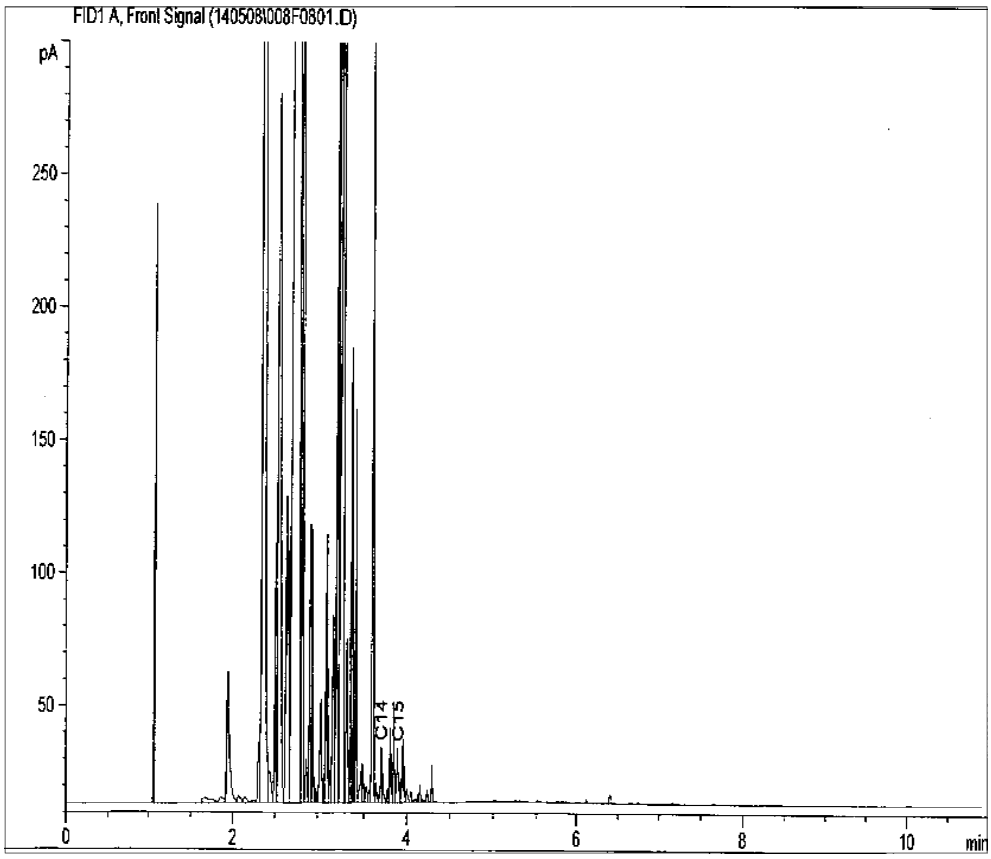
HYDROCARBON REFERENCE LIBRARY

EUCALYPTUS OIL



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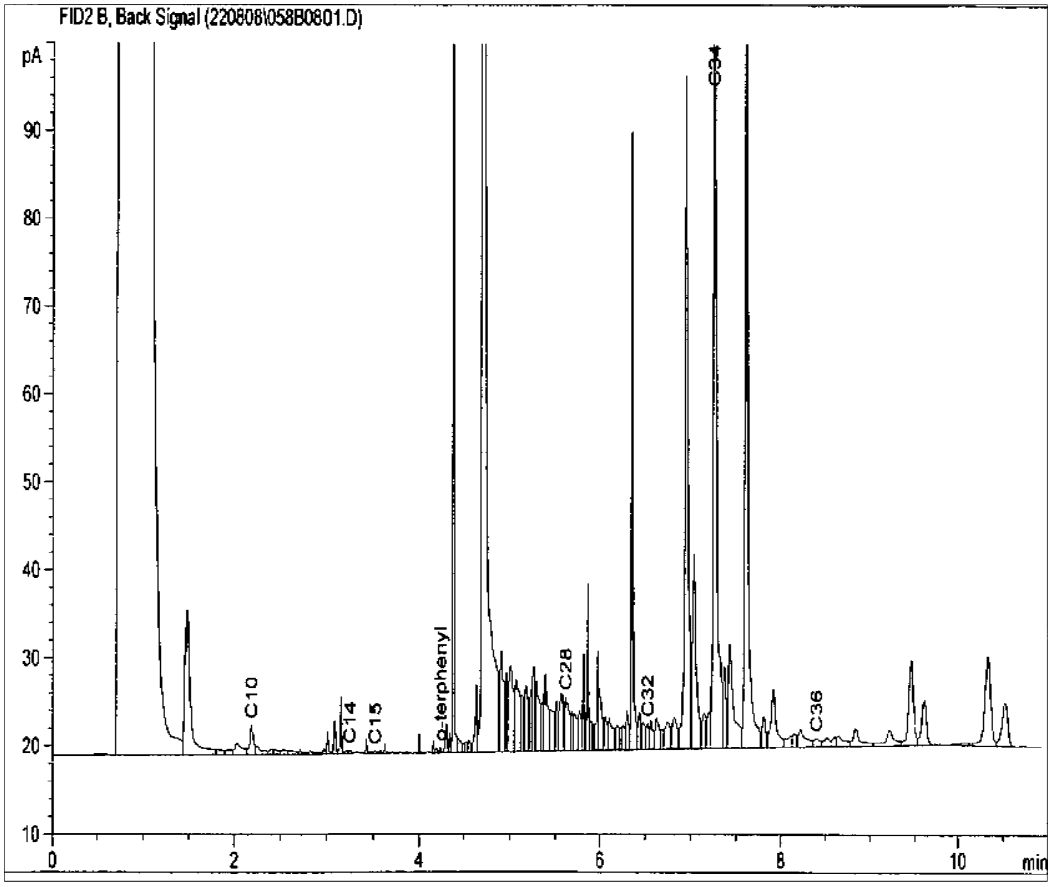
HYDROCARBON REFERENCE LIBRARY

LINSEED OIL



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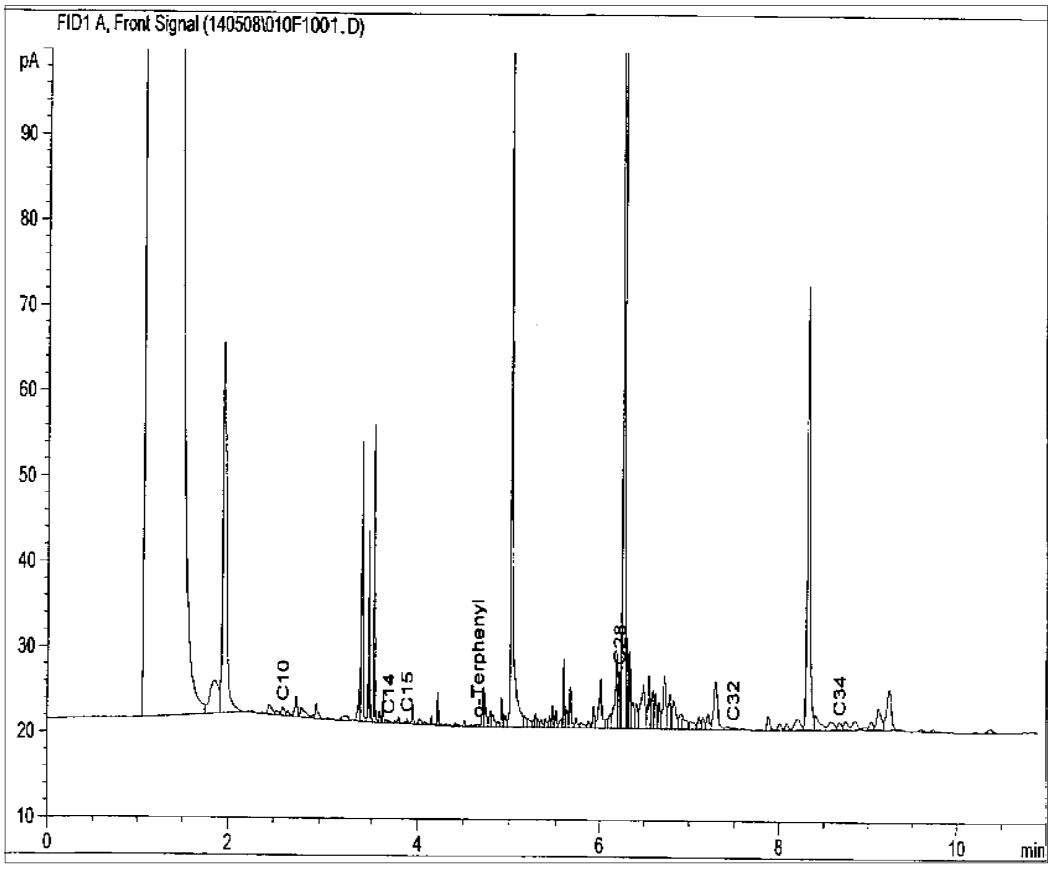
HYDROCARBON REFERENCE LIBRARY

OLIVE OIL



Response

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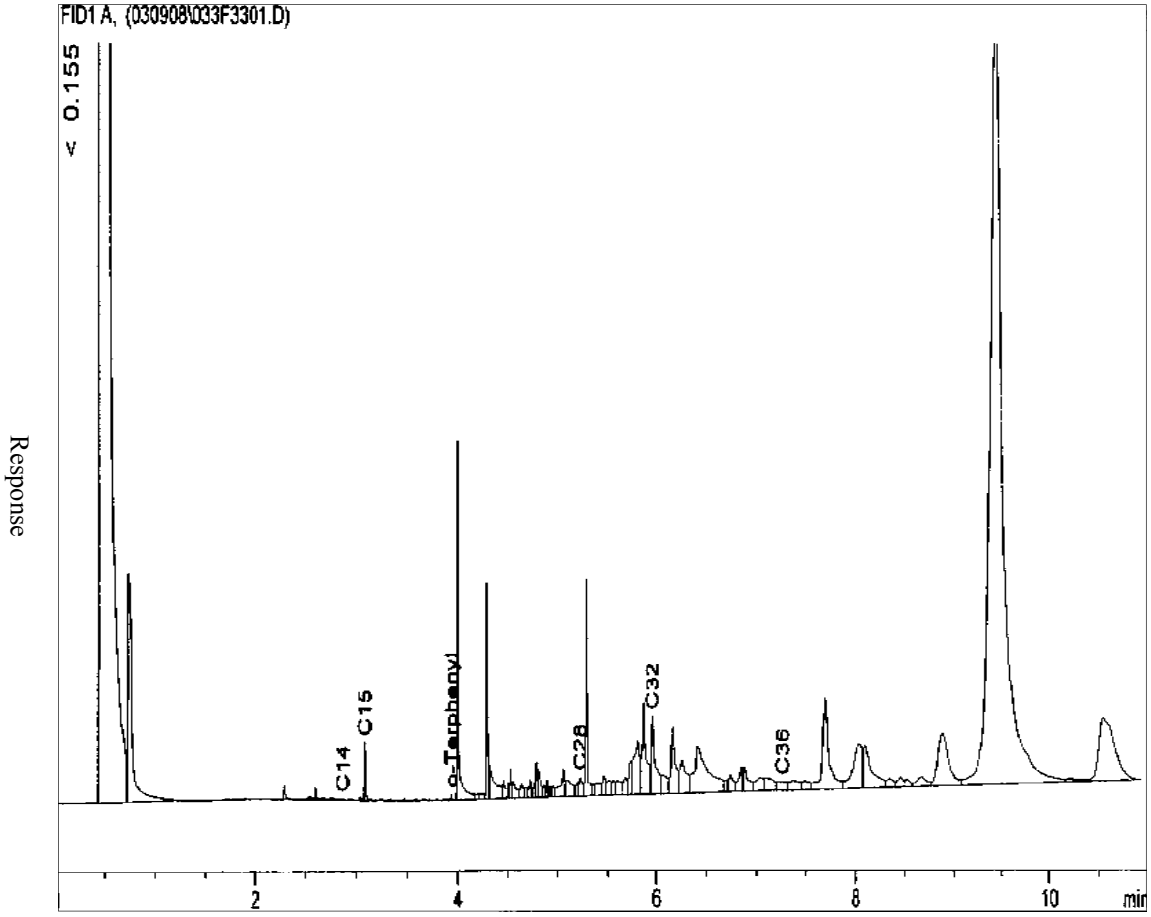
HYDROCARBON REFERENCE LIBRARY

PALM OIL



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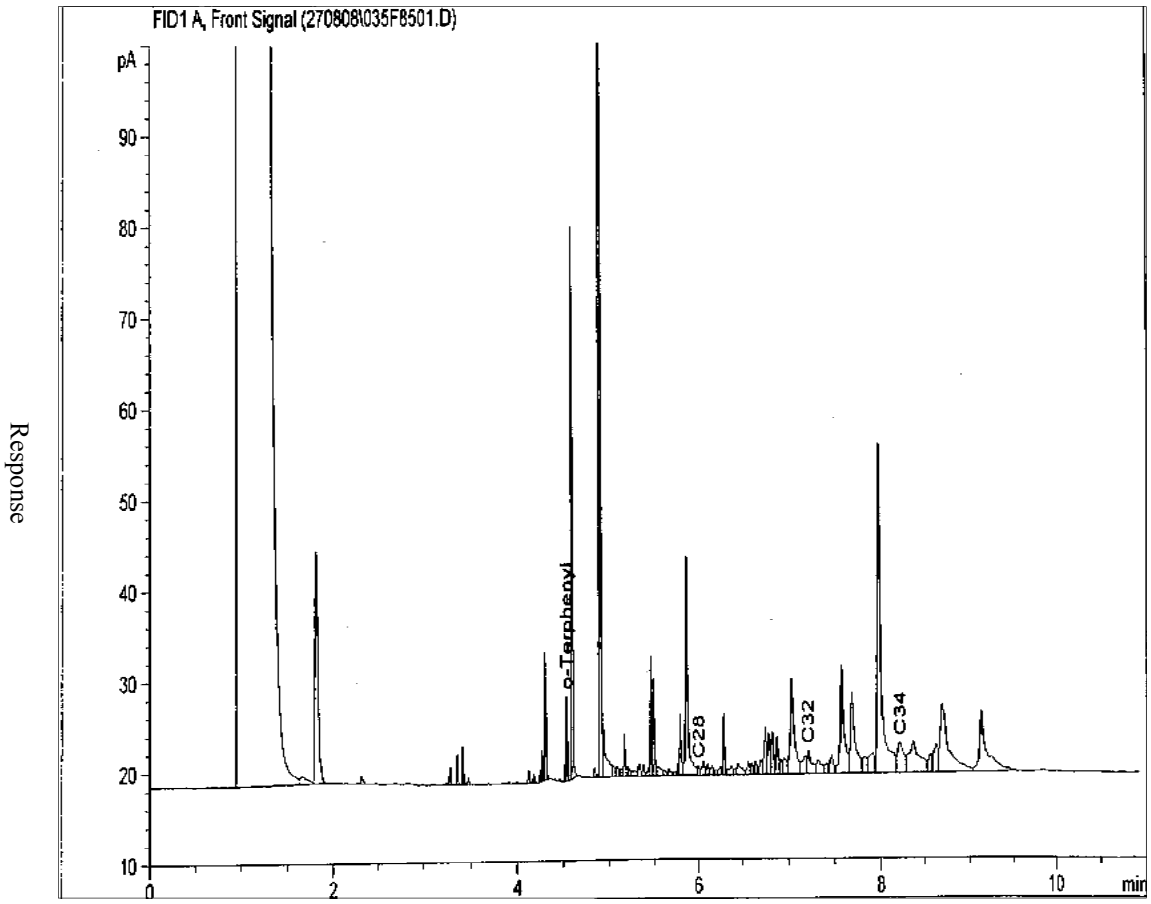
HYDROCARBON REFERENCE LIBRARY

RICE BRAN OIL



Response

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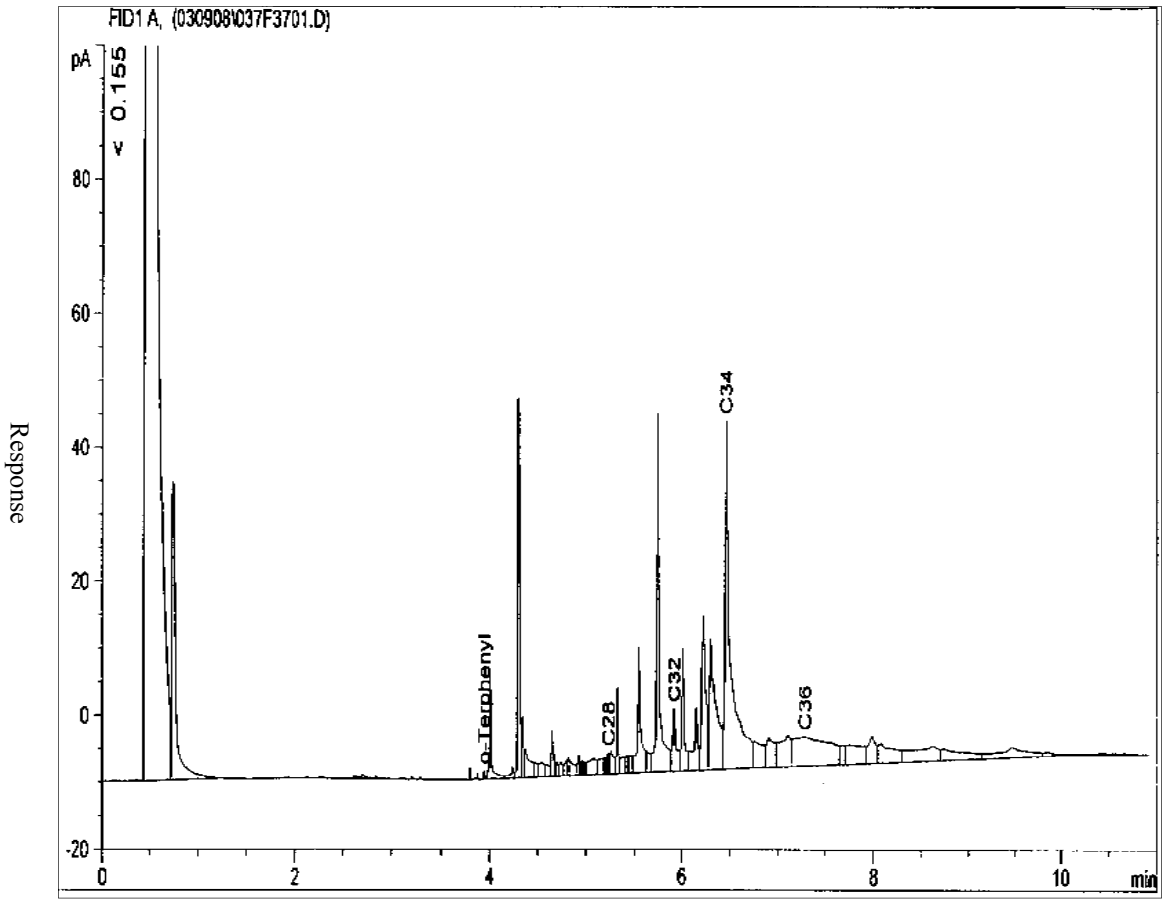
HYDROCARBON REFERENCE LIBRARY

SESAME OIL



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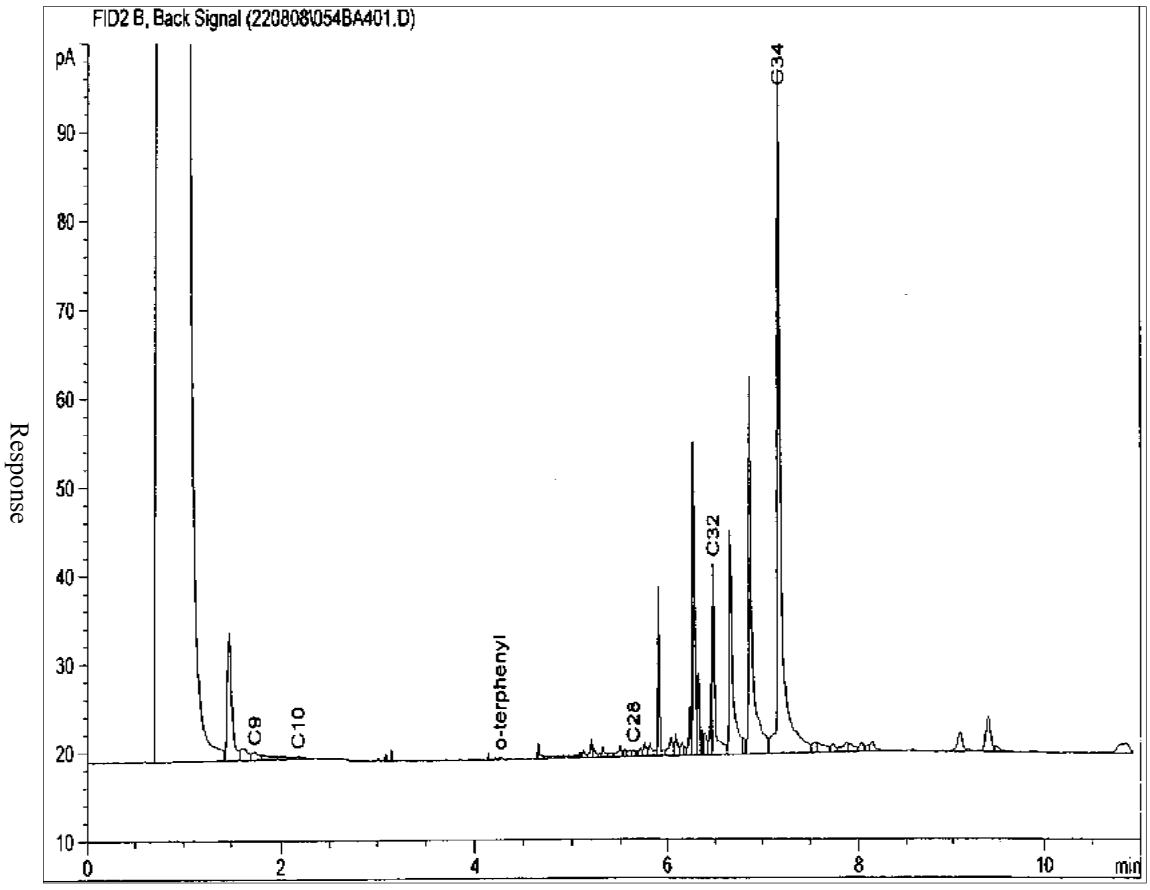
HYDROCARBON REFERENCE LIBRARY

SOYA BEAN OIL



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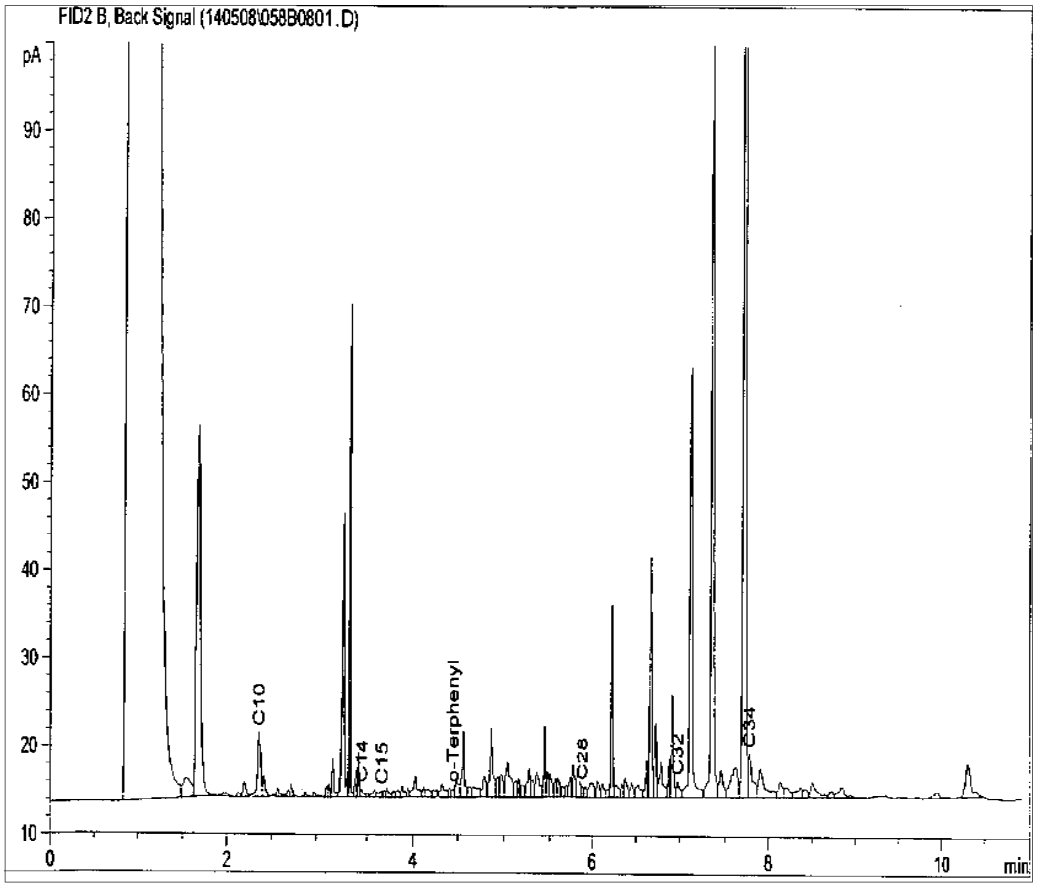
HYDROCARBON REFERENCE LIBRARY

VEGETABLE OIL



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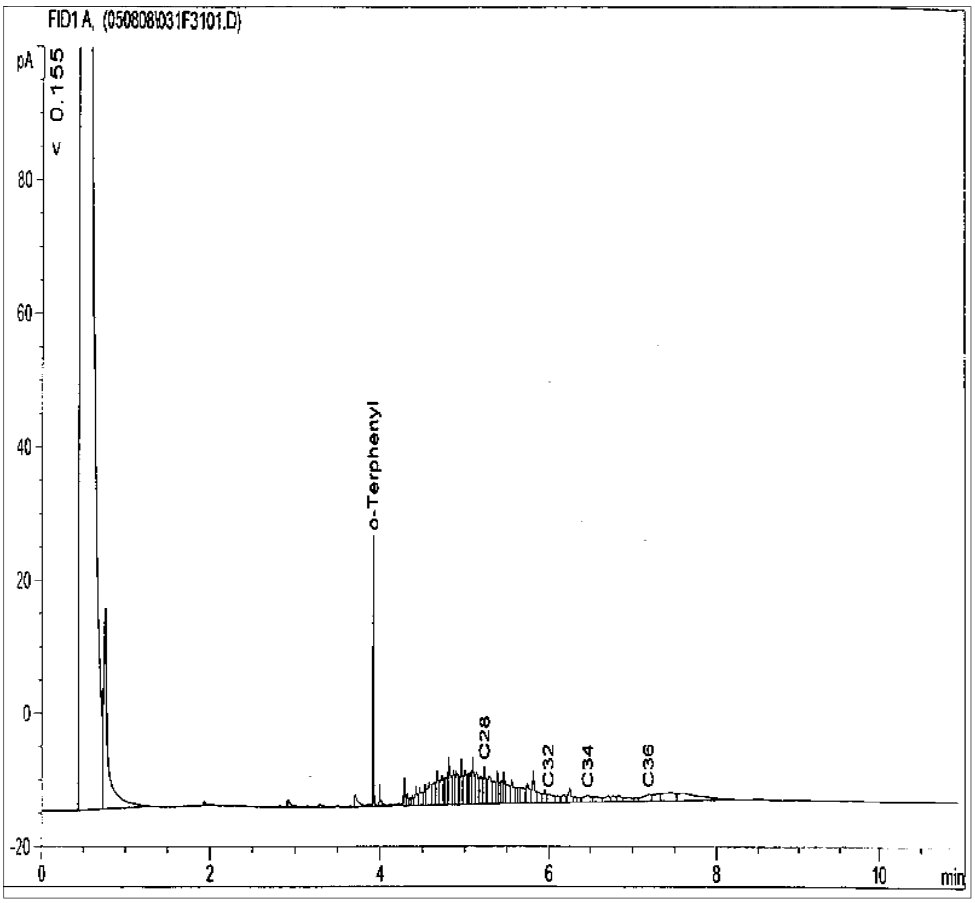
HYDROCARBON REFERENCE LIBRARY

CARDBOARD



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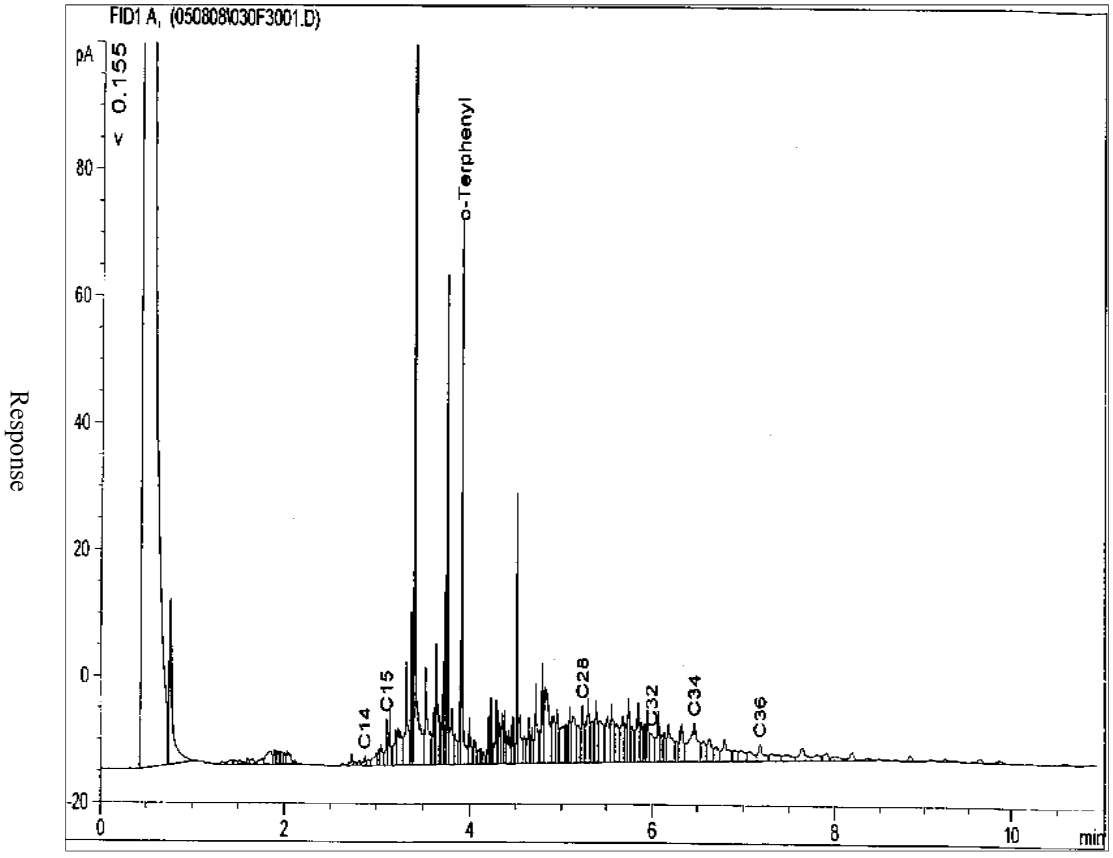
HYDROCARBON REFERENCE LIBRARY

GLOSSY MAGAZINE PAPER



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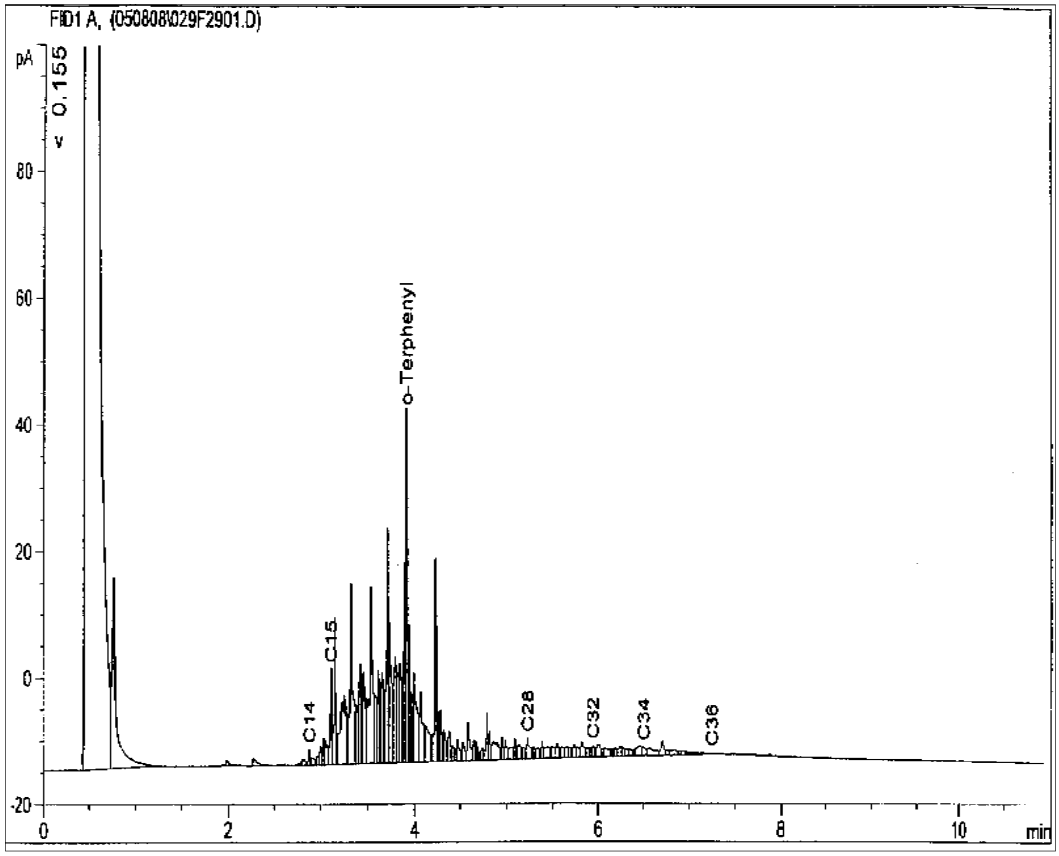
HYDROCARBON REFERENCE LIBRARY

NEWSPAPER



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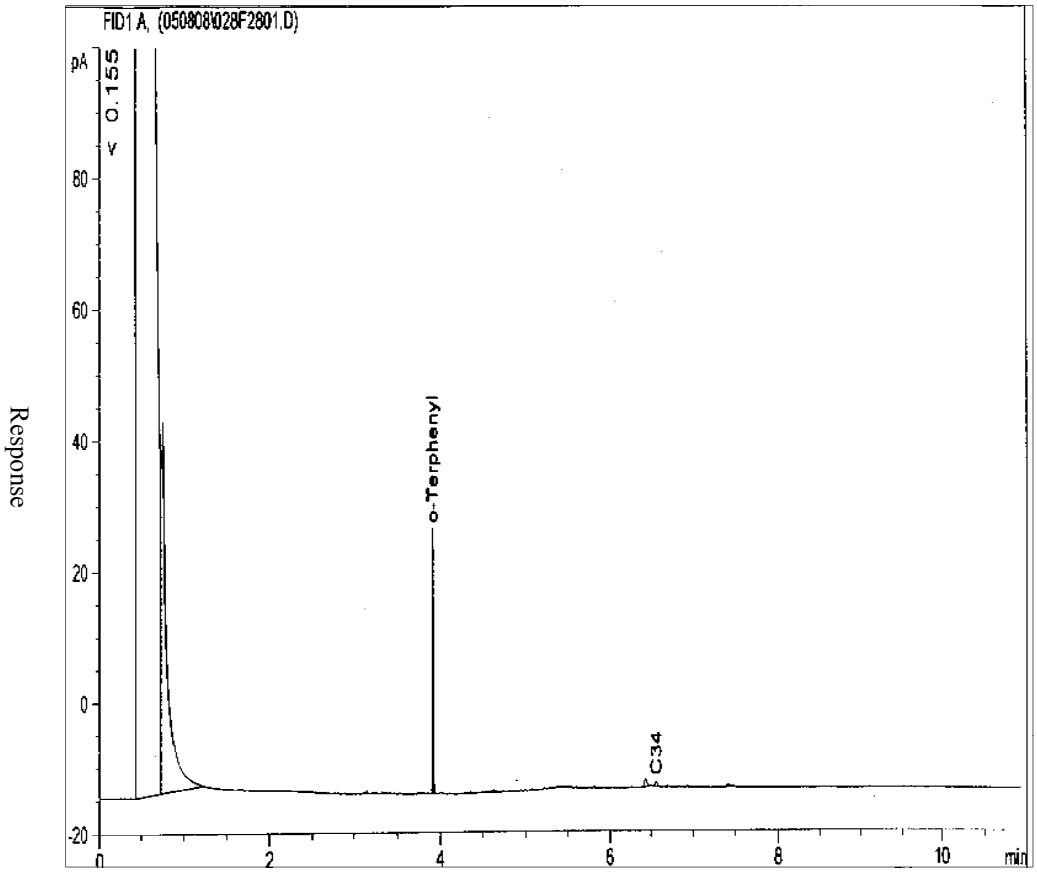
HYDROCARBON REFERENCE LIBRARY

PRINTER/COPIER PAPER



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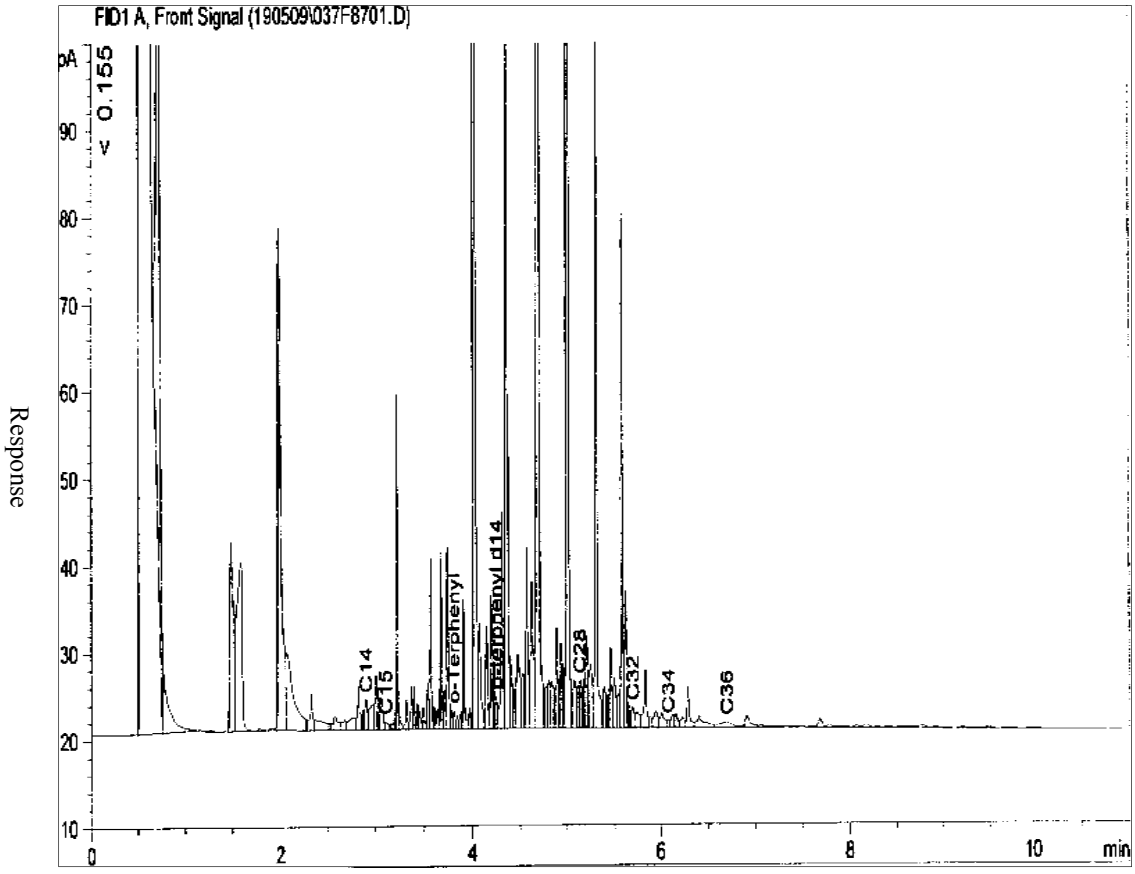
HYDROCARBON REFERENCE LIBRARY

DILUTED DECONTAMINATION SOAP



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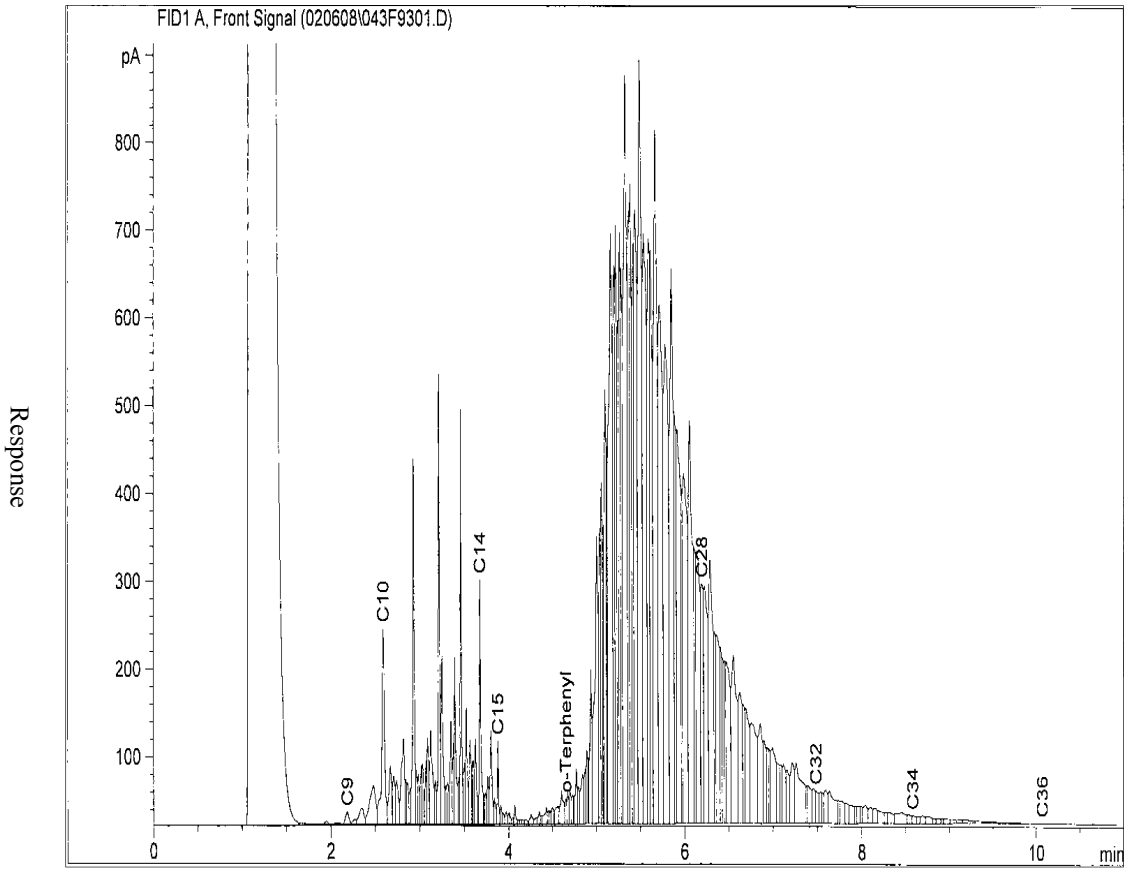
HYDROCARBON REFERENCE LIBRARY

DEFOAMER



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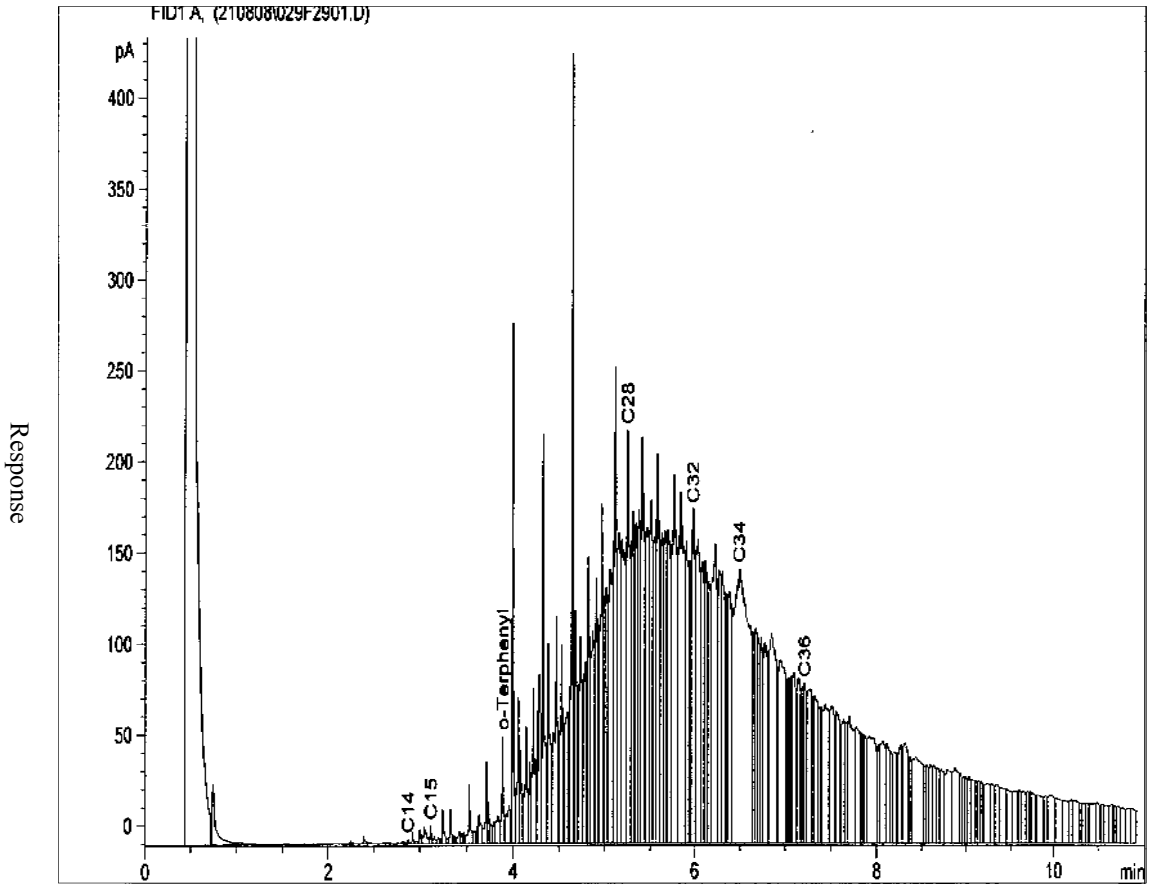
HYDROCARBON REFERENCE LIBRARY

TYRE



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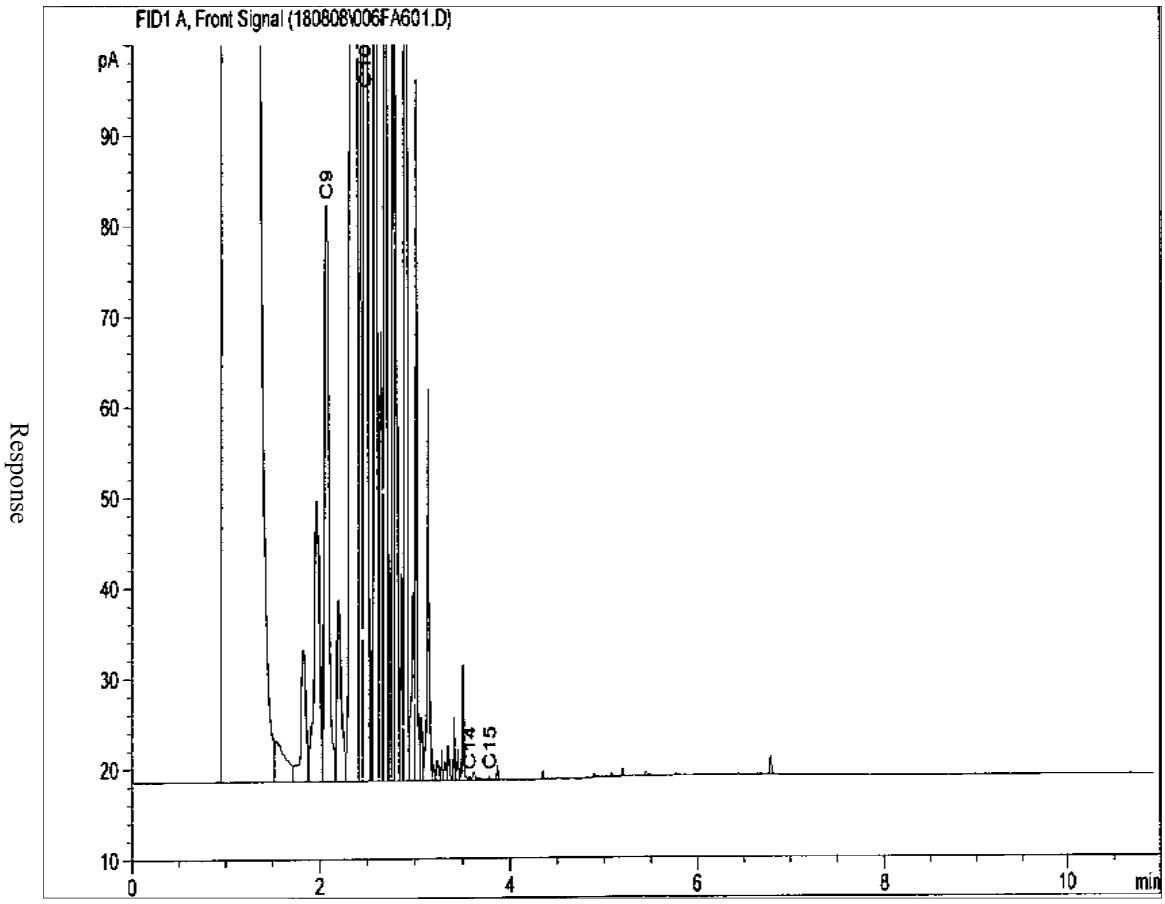
HYDROCARBON REFERENCE LIBRARY

WOOD STAIN



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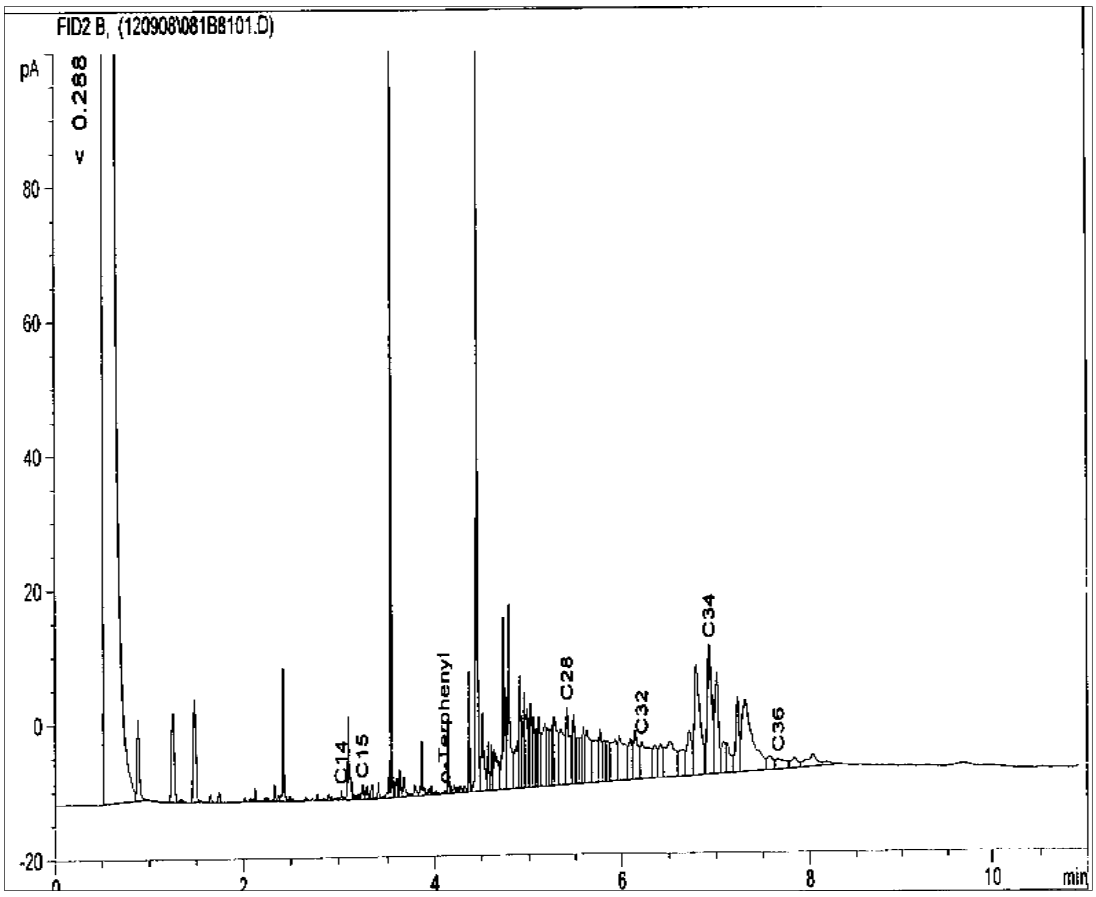
HYDROCARBON REFERENCE LIBRARY

EUCALYPTUS WOOD CHIP



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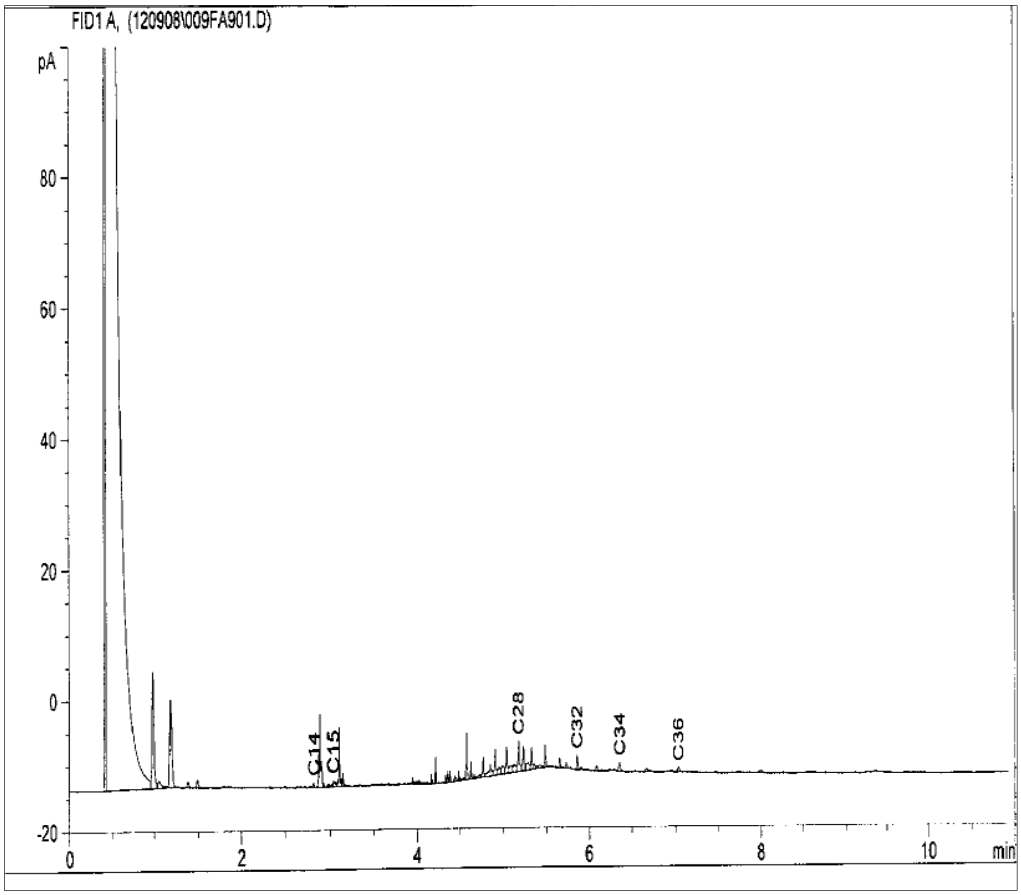
HYDROCARBON REFERENCE LIBRARY

EUCALYPTUS WOOD CHIP WITH SILICA GEL CLEANUP



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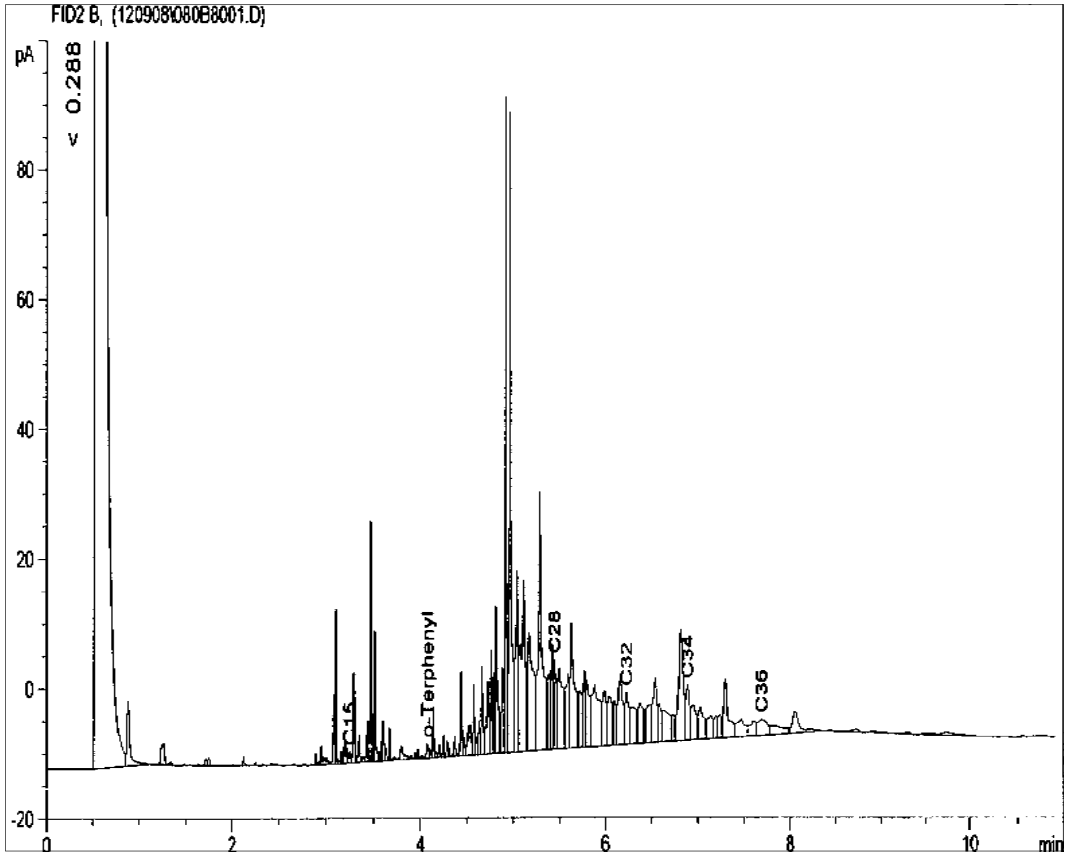
HYDROCARBON REFERENCE LIBRARY

PREMIUM BLEND COMPOST



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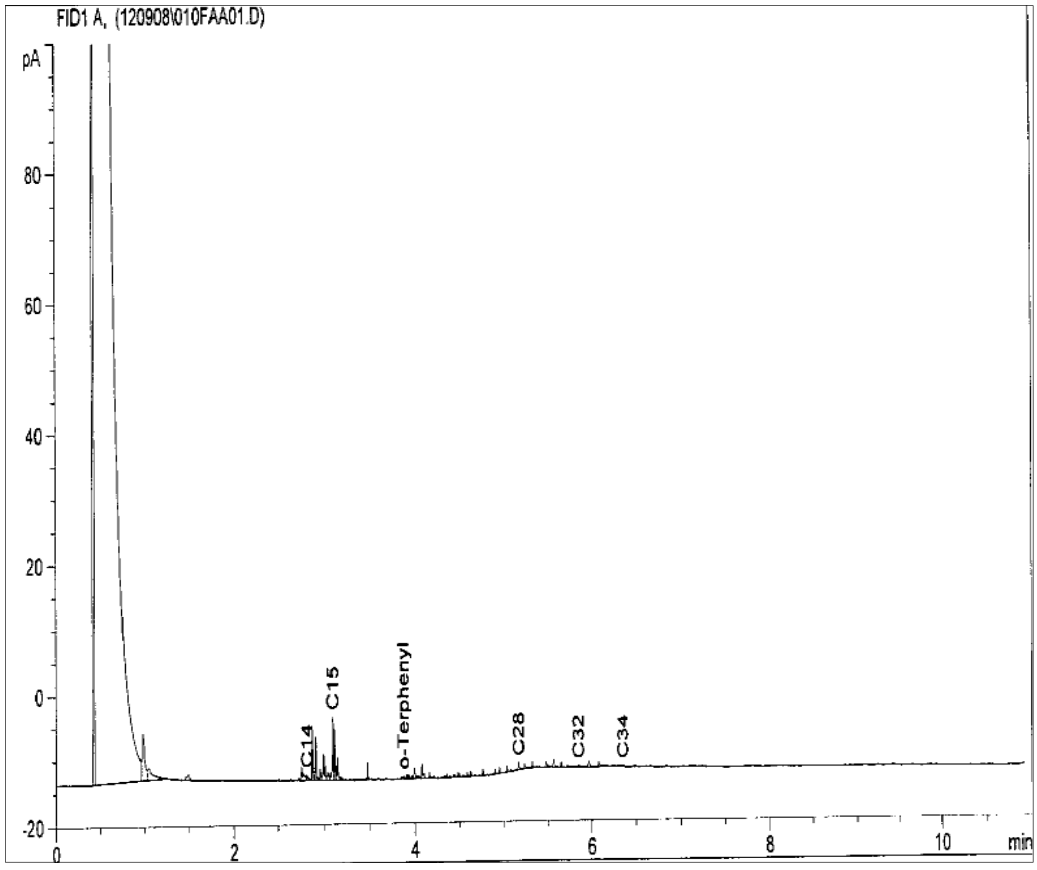
HYDROCARBON REFERENCE LIBRARY

PREMIUM BLEND COMPOST WITH SILICA GEL CLEANUP



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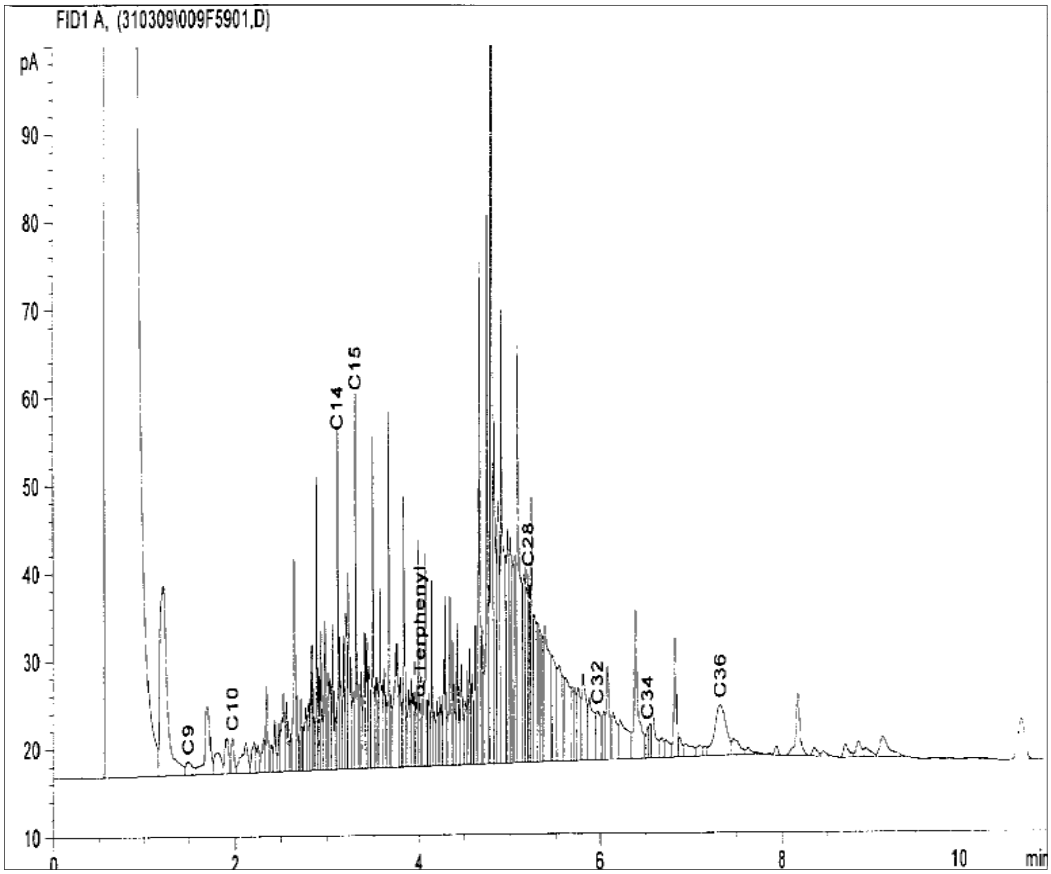
HYDROCARBON REFERENCE LIBRARY

WOOD CHIPS SPIKED WITH DIESEL



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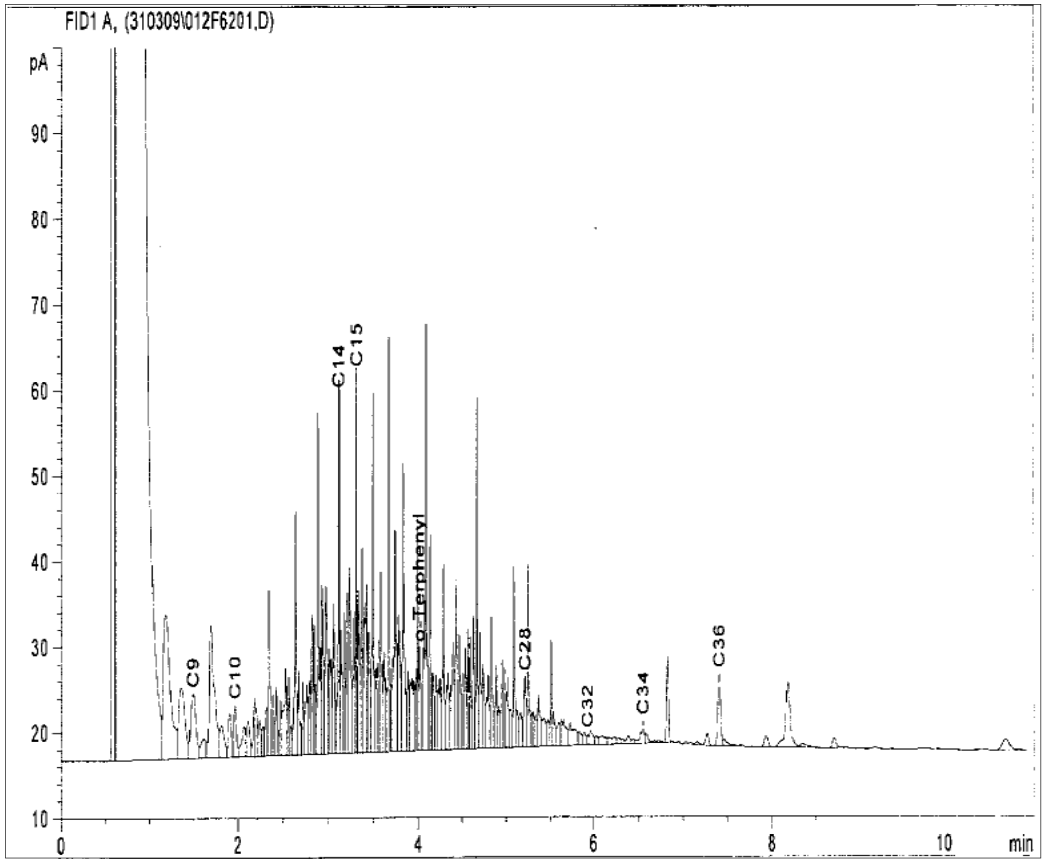
HYDROCARBON REFERENCE LIBRARY

WOOD CHIPS SPIKED WITH DIESEL WITH SILICA GEL CLEANUP



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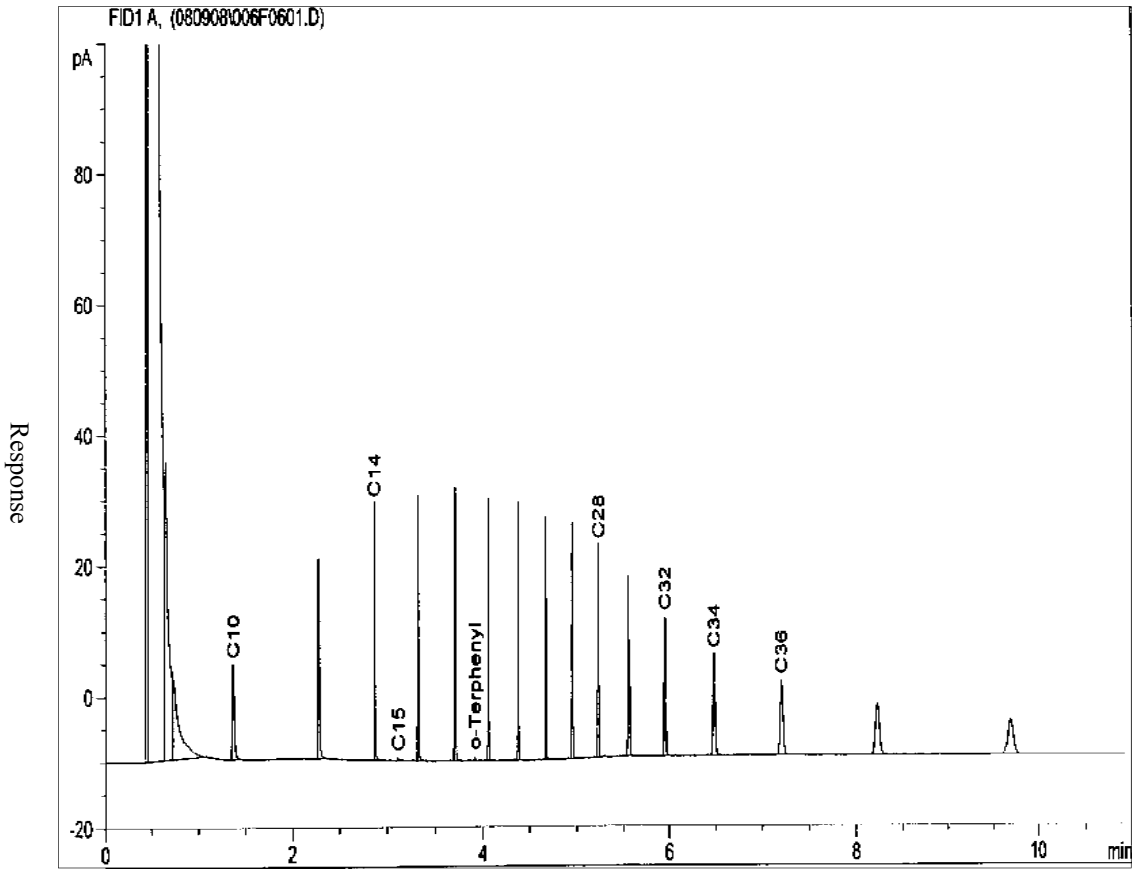
HYDROCARBON REFERENCE LIBRARY

FLORIDA - ALKANE MIXTURE



Response

Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

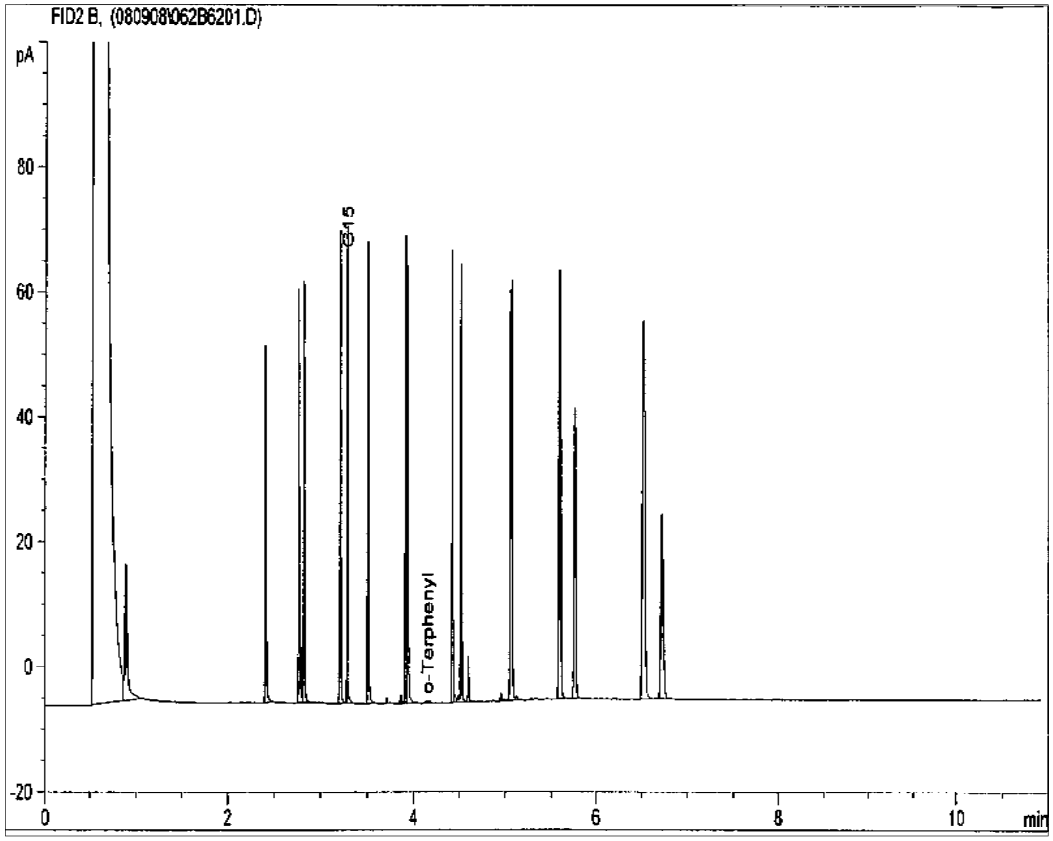
The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

HYDROCARBON REFERENCE LIBRARY

PAH MIXTURE



Response

Retention Time (minutes)

The Envirolab reference chromatogram library was compiled using compounds found in petroleum products, standards, natural products and readily available commercial products.

The components with the lowest boiling points tend to volatilize more rapidly than the components with higher boiling points. On the reference chromatograms, the components that have the shortest retention times (left side of the GC trace) are the most volatile and will tend to decrease in peak intensity preferentially as more volatilization takes place.

These reference chromatograms can be used as a guide for comparison with unknown samples to help identify the contaminants.

The o-Terphenyl peak is the TPH surrogate used in our extraction.

QUALITY CONTROL REPORT

Work Order	: **ES2527080**	Page	: 1 of 9
Client	: **DOUGLAS PARTNERS PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR NERILEE EDWARDS	Contact	: Customer Services ES
Address	: 96 HERMITAGE ROAD WEST RYDE NSW, AUSTRALIA 2114	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: 08 9809 0666	Telephone	: +61 2 8784 8555
Project	: 236743.01	Date Samples Received	: 01-Sep-2025
Order number	: ----	Date Analysis Commenced	: 02-Sep-2025
C-O-C number	: ----	Issue Date	: 05-Sep-2025
Sampler	: CLB, SAM FERGUSON		
Site	: Lilyfield		
Quote number	: EN/222		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6833902)									
EW2504415-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	9	15	53.9	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	5	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	21	25	15.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	111	107	3.1	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	86	79	8.9	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6833907)									
ES2527046-001	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	11.2	11.1	0.9	0% - 50%
EW2504419-004	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	18.1	18.2	0.0	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6833904)									
ES2527046-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6830509)									
ES2527043-001	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6830509) - continued									
ES2527043-001	Anonymous	EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES2527043-025	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	0.8	0.5	43.7	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	1.8	1.2	44.5	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	1.5	1.0	42.4	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	4.1	2.7	41.2	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6830508)									
ES2527043-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	110	130	13.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2527043-025	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6830508) - continued									
ES2527043-025	Anonymous	EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6831905)									
ES2527208-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6830508)									
ES2527043-001	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	150	180	15.5	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2527043-025	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6831905)									
ES2527208-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 6831905)									
ES2527208-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 6830334)									
ES2526765-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0003	0.0004	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 6830334)									
ES2526765-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6830334)									
ES2526765-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 6830334) - continued									
ES2526765-001	Anonymous	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6833902)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	98.5	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	92.8	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	102	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	111	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	94.6	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	93.7	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	90.9	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6833904)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	84.8	70.0	125
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6830509)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	102	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	106	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	87.3	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	89.6	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	83.1	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	84.3	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	95.5	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	101	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	101	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	98.1	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	81.4	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	95.6	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	96.1	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	80.3	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	81.6	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	81.2	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6830508)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	286 mg/kg	95.9	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	1724 mg/kg	94.7	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	1208 mg/kg	95.4	71.0	129

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6831905)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	110	72.2	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830508)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	464 mg/kg	99.7	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	2448 mg/kg	95.3	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	538 mg/kg	89.2	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6831905)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	112	72.4	133
EP080: BTEXN (QCLot: 6831905)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	90.2	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	100	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	106	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	107	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	104	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	94.8	78.8	122
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6830334)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	72.0	128
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.3	67.0	130
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.8	68.0	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6830334)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	94.2	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.7	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.5	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6830334)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	126	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	120	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	95.8	69.2	143

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6833904)							
ES2527046-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	87.3	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6830509)							
ES2527043-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	96.9	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	95.8	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6830508)							
ES2527043-001	Anonymous	EP071: C10 - C14 Fraction	----	480 mg/kg	123	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	112	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	117	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6831905)							
ES2527208-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	99.0	60.4	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830508)							
ES2527043-001	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	114	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	114	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	114	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6831905)							
ES2527208-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	98.2	61.1	142
EP080: BTEXN (QCLot: 6831905)							
ES2527208-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	77.6	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	81.2	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	85.6	67.4	123
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	85.0	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	82.4	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	71.8	61.1	115
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 6830334)							
ES2526765-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	88.3	72.0	128
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	89.2	67.0	130
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	101	68.0	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 6830334)							
ES2526765-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	97.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	87.2	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	93.2	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	89.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	104	69.0	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6830334)							
ES2526765-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	116	62.0	145

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 6830334) - continued							
ES2526765-001	Anonymous	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	117	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	112	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	128	69.2	143

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2527080**	Page	: 1 of 6
Client	: **DOUGLAS PARTNERS PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR NERILEE EDWARDS	Telephone	: +61 2 8784 8555
Project	: 236743.01	Date Samples Received	: 01-Sep-2025
Site	: Lilyfield	Issue Date	: 05-Sep-2025
Sampler	: CLB, SAM FERGUSON	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Matrix Spikes (MS)						
Total Metals by ICP-AES	EG005T	0	10	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
BD2/20250828	**28-Aug-2025**	**----**	----	**----**	**03-Sep-2025**	11-Sep-2025	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	24-Feb-2026	✓	**03-Sep-2025**	24-Feb-2026	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	25-Sep-2025	✓	**04-Sep-2025**	25-Sep-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	11-Sep-2025	✓	**05-Sep-2025**	13-Oct-2025	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080)							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	11-Sep-2025	✓	**03-Sep-2025**	11-Sep-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	11-Sep-2025	✓	**04-Sep-2025**	13-Oct-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080)							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	11-Sep-2025	✓	**03-Sep-2025**	11-Sep-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	11-Sep-2025	✓	**04-Sep-2025**	13-Oct-2025	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
BD2/20250828	**28-Aug-2025**	**03-Sep-2025**	11-Sep-2025	✓	**03-Sep-2025**	11-Sep-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
BD2/20250828	**28-Aug-2025**	**02-Sep-2025**	24-Feb-2026	✓	**03-Sep-2025**	12-Oct-2025	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
BD2/20250828	**28-Aug-2025**	**02-Sep-2025**	24-Feb-2026	✓	**03-Sep-2025**	12-Oct-2025	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
BD2/20250828	**28-Aug-2025**	**02-Sep-2025**	24-Feb-2026	✓	**03-Sep-2025**	12-Oct-2025	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
BD2/20250828	**28-Aug-2025**	**02-Sep-2025**	24-Feb-2026	✓	**03-Sep-2025**	12-Oct-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	4	**25.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	9	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	10	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	6	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	0	10	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. A portion of homogenised sample is extracted along with isotope dilution standards (where commercially available) in a solution of ammonium acetate in acetonitrile/methanol. Where relevant, interferences from co-extracted organics are removed using dispersive clean-up media (dSPE). A portion of extract is combined with an equal volume of reagent water and filtered for instrumental analysis.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

Preparation Methods	*Method*	*Matrix*	*Method Descriptions*
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2527080**

Client	: **DOUGLAS PARTNERS PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR NERILEE EDWARDS	Contact	: Customer Services ES
Address	: 96 HERMITAGE ROAD WEST RYDE NSW, AUSTRALIA 2114	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: nerilee.edwards@douglaspartners.com.au	E-mail	: ALSEnviro.Sydney@ALSGlobal.com
Telephone	: 08 9809 0666	Telephone	: +61 2 8784 8555
Facsimile	: 08 9809 4095	Facsimile	: +61-2-8784 8500
Project	: 236743.01	Page	: 1 of 2
Order number	: ----	Quote number	: EM2017DOUPAR0002 (EN/222)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Lilyfield		
Sampler	: CLB, SAM FERGUSON		

Dates

Date Samples Received	: 01-Sep-2025 16:48	Issue Date	: 02-Sep-2025
Client Requested Due Date	: 05-Sep-2025	Scheduled Reporting Date	: **05-Sep-2025**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 14.5'C 15.0'C 14.2'C - Ice Bricks present
Receipt Detail	:	No. of samples received / analysed	: 1 / 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Sydney, NATA accreditation no. 825, site no. 10911.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231 (solids) PFAS - Short Suite (12 analytes)	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2527080-001	28-Aug-2025 00:00	BD2/20250828	✓	✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE INVOICES

- A4 - AU Tax Invoice (INV)	Email	accounts.payable.invoices@douglaspartners.com.au

ESDAT ESDAT

- EDI Format - ESDAT (ESDAT)	Email	ESdat_AU+douglaspartners@ESdatLabSync.net

NERILEE EDWARDS

- *AU Certificate of Analysis - NATA (COA)	Email	nerilee.edwards@douglaspartners.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nerilee.edwards@douglaspartners.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nerilee.edwards@douglaspartners.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nerilee.edwards@douglaspartners.com.au
- Chain of Custody (CoC) (COC)	Email	nerilee.edwards@douglaspartners.com.au
- EDI Format - ESDAT (ESDAT)	Email	nerilee.edwards@douglaspartners.com.au
- EDI Format - XTab (XTAB)	Email	nerilee.edwards@douglaspartners.com.au

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	236743.01	**Suburb:**	Lilyfield	**To:**	Envirolab Services
Project Manager:	Nerilee Edwards	**Order Number:**		**Sampler:** SAF/CLB	12 Ashley St, Chatswood NSW 2067
Email:	Nerilee.Edwards@douglaspartners.com.au; sam.ferguson@douglaspartners.com.au			**Attn:**	Sample Receipt
Turnaround time:	☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day				(02) 9910 6200 samplereceipt@envirolab.com
Prior Storage:	☑ Fridge ☐ Freezer ☑ Esky ☑ Shelf	**Do samples contain 'potential' HBM?**	☑ No ☐ Yes (If YES, then handle, transport and store in accordance with FPM HAZID)		

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8aN	Combo 3aN	Combo 3	ASS field test	PFAS (short suite)	TCLP PFAS	pH, CEC	VOC	TRH / BTEX	Asbestos (AS)	Asbestos (FA/AF)	Notes/ Preservation/ Additional Requirements
1	BH101	0	0.3	26/08/25	S	G/P	x				x		x					
2	BH101a	0.12	0.2	26/08/25	S	G/P												
3	BH101a	0.5	0.7	26/08/25	S	G/P	x											
4	BH101a	0.9	1	26/08/25	S	G/P												
5	BH101a	1.7	2.3	26/08/25	S	G/P												
6	BH101a	3	3.2	26/08/25	S	G/P												
7	BH101a	3.9	4	26/08/25	S	G/P												
8	BH101a	5.2	5.5	26/08/25	S	G/P		x										
9	BH101a	6.5	7	26/08/25	S	G/P										x		
10	BH101a	8.2	8.5	26/08/25	S	G/P				x				x		x		Please freeze/cool ASS sample
11	BH102	0	0.2	26/08/25	S	G/P		x					x					
12	BH102	0.2	0.3	26/08/25	S	G/P												Relinquished by Tony Trinh (ELS Syd) on 1/09/25 @ 10:5[illegible]
13	BH102a	0.1	0.3	26/08/25	S	G/P	x											
14	BH102a	0.5	0.7	26/08/25	S	G/P												

Environmental Division Sydney
Work Order Reference
ES2527080
Telephone : +61-2-8784 8555

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

Job No: 389639
Date Received: 29/8/25
Time Received: 1645
Received By: RH
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Metals to analyse:		**LAB RECEIPT**	
Number of samples in container:	**Transported to laboratory by:**	**Lab Ref. No:**	
Send results to:	Douglas Partners Pty Ltd	**Received by:**	Richard Heaney
Address:	96 Hermitage Road, West Ryde NSW 2114 **Phone:** (02) 9809 0666	**Date & Time:**	29/8/25 1645
Relinquished by:	S.Ferguson **Date:** 29/08/2025 **Signed:**	**Signed:**	

Rec: 1/9/25 1648.

Douglas PARTNERS | GROUNDED EXPERTISE

CHAIN OF CUSTODY DESPATCH SHEET

Project Manager: Nerilee Edwards

Dispatch date: 29/08/2025

Lab ID	Sample ID: Location / Other ID	Sample ID: Depth From	Sample ID: Depth To	Date Sampled	Sample Type: S - soil W - water M - Material	Container Type: G - glass P - plastic	Analytes: Combo 8aN	Combo 3aN	Combo 3	ASS field test	PFAS (short suite)	TCLP PFAS	pH, CEC	VOC	TRH / BTEX	Asbestos (AS)	Asbestos (FA/AF)	Notes/ Preservation/ Additional Requirements
45	BH5	0.3	0.5	26/08/25	S	G/P		x						x				389639
46	BH5	0.6	0.8	26/08/25	S	G/P												TTR 29/09/25
47	BH6	0	0.2	26/08/25	S	G/P	X											
48	BH6	0.4	0.6	26/08/25	S	G/P												
49	BH6a	0.2	0.3	28/08/25	S	G/P		x			x							
50	BH6a	0.4	0.5	28/08/25	S	G/P												
51	BH6a	0.9	1	28/08/25	S	G/P												
52	BH6a	1.1	1.3	28/08/25	S	G/P		x					x					
53	BH6a	1.8	2	28/08/25	S	G/P											x	
54	BH6a	2.8	3	28/08/25	S	G/P											x	
55	BH6a	3.8	4	28/08/25	S	G/P											x	
56	BH6a	4.8	5	28/08/25	S	G/P	x							x				
57	BH6a	5.8	6	28/08/25	S	G/P											x	
58	BD1/20250828			28/08/25	S	G/P			x		x							
510	~~BD2/20250828~~			28/08/25	S	G/P			x		x							Please send to ALS
59	TS				S	G									x			
60	TB				S	G									x			
Extra BV 61	BH3	0.4	0.5															
62	~~Unknown~~ Unlabelled Bag.																	

Appendix M

Quality Assurance and Quality Control

1. Field and laboratory data quality assurance and quality control

The field and laboratory data quality assurance and quality control (QA / QC) procedures and results are summarised in the following Table 1. Reference should be made to the field work methodology and the laboratory results / certificates of analysis for further details. The relative percentage difference (RPD) results, along with the other field QC samples are included in the summary results tables at the end of this appendix.

Table 1: Field and laboratory quality control

Item	Evaluation / acceptance criteria	Compliance
Analytical laboratories used	NATA accreditation	C
Holding times	Various based on type of analysis	C
Intra-laboratory replicates	5% of primary samples; <30% RPD	PC
Inter-laboratory replicates	5% of primary samples; <30% RPD	PC
Trip spikes	1 per sampling event; 60-140% recovery	C
Trip blanks	1 per sampling event; <PQL	C
Rinsates	1 per sampling event; <PQL	C
Laboratory / reagent blanks	1 per batch; <PQL	C
Laboratory duplicate	1 per lab batch; as laboratory certificate	PC
Matrix spikes	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	PC
Surrogate spikes	All organics analysis; 70-130% recovery (inorganics); 60-140% recovery (organics)	PC
Control samples	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	C
Standard operating procedures (SOP)	Adopting SOP for all aspects of the sampling field work	C

Notes:
C = compliance; PC = partial compliance; NC = non-compliance

The RPD results were all within the acceptable range, with the exception of those indicated in Table QA1 (results in bold). The exceedances are not, however, considered to be of concern given that:

- The actual differences in the concentrations of the replicate pairs where RPD exceedances occurred were typically low;
- The replicate pairs were collected from fill soils which by its nature are heterogeneous;

- Replicates, rather than homogenised duplicates, were used to minimise risk of volatile loss, hence greater analytical variability between replicate pairs can be expected;
- Most of the recorded concentrations were relatively close to the PQL; and
- The majority of RPD results from a replicate pair were within the acceptable limits.

The laboratory certificates included the below comments. Douglas has reviewed these comments and considers that they are generally minor in nature, consistent with the field and laboratory results recorded and do not affect the overall reliability of the results:

Envirolab Services 389639:

- PAHs in soil: Percent recovery for the matrix spike is not possible to report as the high concentration of analytes in sample 389639-3 have caused interference;
- TRH Soil C10-C40 NEPM: Percent recovery for the matrix spike is no possible to report as the high concentration of analytes in sample 389639-3ms have caused interference. Percent recovery for the surrogate is not possible to report as the high concentration of analytes in sample 389639-18 have caused interference;
- Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria have been exceeded for 389639-1 for Cr, Cu, Pb, Ni & Zn. Therefore, a triplicate result has been issued as laboratory sample number 389639-63;
- TRH_S_SI_NEPM: The PQL for sample/s 389639-a-18,38 has been raised due to the high concentration of analytes in the sample/s, resulting in the sample/s requiring a dilution; and
- Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle. Note: there is a possibility some elements may be underestimated. It is considered that this could have impacted the result, and should be considered in the data interpretation. The laboratory advised it is only related to total phosphorus.

In summary, the QC data is determined to be of sufficient quality to be considered acceptable for the assessment.

2. Data quality indicators

The reliability of field procedures and analytical results was assessed against the following data quality indicators (DQI) as outlined in NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013):

- Completeness: a measure of the amount of usable data from a data collection activity;
- Comparability: the confidence (qualitative) that data may be considered to be equivalent for each sampling and analytical event;
- Representativeness: the confidence (qualitative) of data representativeness of media present on-site;
- Precision: a measure of variability or reproducibility of data; and
- Accuracy: a measure of closeness of the data to the 'true' value.

The results of the assessment are summarised in Table 2.

Table 2: Data quality indicators

Data quality indicator	Method(s) of achievement
Completeness	Selected target locations sampled.
	Preparation of borehole logs, sample location plan and chain of custody records.
	Preparation of field groundwater sampling, LFG screening and field asbestos sieving sheets.
	Laboratory sample receipt information received confirming receipt of samples intact and appropriateness of the chain of custody.
	Samples analysed for contaminants of potential concern (CoPC) identified in the conceptual site model (CSM).
	Completion of chain of custody documentation.
	NATA accredited laboratory results certificates provided by the laboratory.
	Satisfactory frequency and results for field and laboratory quality control (QC) samples as discussed in Section 1.
Comparability	Using appropriate techniques for sample recovery, storage and transportation, which were the same for the duration of the project.
	Experienced sampler(s) used.
	Use of NATA registered laboratories, with test methods the same or similar between laboratories.
	Satisfactory results for field and laboratory QC samples.
Representativeness	Target media sampled.
	Sample numbers recovered and analysed are considered to be representative of the target media and complying with DQO.
	Samples were extracted and analysed within holding times.
	Samples were analysed in accordance with the chain of custody.
Precision	Field staff followed standard operating procedures.
	Acceptable RPD between original samples and replicates.
	Satisfactory results for all other field and laboratory QC samples.
Accuracy	Field staff followed standard operating procedures.
	Satisfactory results for all field and laboratory QC samples.

Based on the above, it is considered that the DQI have generally been complied with.

3. Conclusion

Based on the results of the field QA and field and laboratory QC, and evaluation against the DQI it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.

4. References

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

Table QA1: Relative Percentage Difference Results – Soil Sampling

Lab Report No	Sample ID	Depth	Sample Date	Sample Type	Units	Priority metals								Priority PAH				PAH											
						Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	Naphthalene [b]	Benzo(a)pyrene (B(a)P)	Benzo(a)pyrene TEQ (B(a)P TEQ)	Total PAH	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(g,h,i)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene
389639	BH1	0.2 - 0.4 m	28/08/25	Soil	mg/kg	9	<0.4	16	47	110	0.1	21	69	<1	1.6	2.2	14	<0.1	0.2	0.3	1.3	0.9	1	0.2	2.2	<0.1	1	1	2.3
ES2527080	BD2/20250828	0 m	28/08/25	Soil	mg/kg	10	<1	17	48	123	0.1	25	76	<1	2.2	2.8	17.1	<0.5	<0.5	<0.5	1.6	0.9	1.3	<0.5	3.2	<0.5	0.8	0.9	3
			Difference		mg/kg	1	0	1	1	13	0	4	7	0	0.6	0.6	3.1	0	0	0	0.3	0	0.3	0	1	0	0.2	0.1	0.7
			RPD		%	11%	0%	6%	2%	11%	0%	17%	10%	0%	**32%**	24%	20%	0%	0%	0%	21%	0%	26%	0%	**37%**	0%	22%	11%	26%

389639	BH6a	0.2 - 0.3 m	28/08/25	Soil	mg/kg	<4	<0.4	2	10	5	<0.1	1	13	<1	0.1	<0.5	0.76	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1
389639	BD1/20250828	0 m	28/08/25	Soil	mg/kg	<4	<0.4	2	7	7	<0.1	2	15	<1	0.09	<0.5	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
			Difference		mg/kg	0	0	0	3	2	0	1	2	0	0.01	0	0.46	0	0	0	0	0	0	0	0	0	0	0	0
			RPD		%	0%	0%	0%	**35%**	**33%**	0%	**67%**	14%	0%	11%	0%	**87%**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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Table QA1: Relative Percentage Difference Results – Soil Sampling

Lab Report No	Sample ID	Depth	Sample Date	Sample Type	Units	Priority TRH						TRH		BTEX				Priority PFAS					PFAS		
						TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	TRH C6 - C9	TRH C10-C36	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Positive PFAS	PFOA	PFOS + PFHxS	PFOS	PFHxS	Perfluorobutanesulfonic acid (PFBS)	6:2 FTS	8:2 FTS
389639	BH1	0.2 - 0.4 m	28/08/25	Soil	mg/kg	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0002
ES2527080	BD2/20250828	0 m	28/08/25	Soil	mg/kg	<10	<50	<10	<50	<100	<100	<10	<50	<0.2	<0.5	<0.5	<0.5	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005
			Difference		mg/kg	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0
			RPD		%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	0%

389639	BH6a	0.2 - 0.3 m	28/08/25	Soil	mg/kg	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
389639	BD1/20250828	0 m	28/08/25	Soil	mg/kg	<25	<50	<25	<50	<100	<100	<25	<50	<0.2	<0.5	<1	<1	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
			Difference		mg/kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			RPD		%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table QA2: Trip Blank Results - Soil Sampling

Sample ID	Sample Date	Media Being Sampled	Sample Type	Units	Priority PAH	Priority TRH		TRH	BTEX				Lab Report No
					Naphthalene [b]	TRH C6 - C10	F1 ((C6-C10)-BTEX)	TRH C6 - C9	Benzene	Toluene	Ethylbenzene	Total Xylenes	
TB	28/08/25	Soil	Soil	mg/kg	<1	<25	<25	<25	<0.2	<0.5	<1	<1	389639

Table QA3: Trip Spike Results – Soil Sampling (% Recovery)

Sample ID	Sample Date	Media Being Sampled	Sample Type	Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene	Lab Report No
TS	28/08/25	Soil	Soil	88	86	86	86	87	389639

Table QA1: Relative Percentage Difference Results – Water Sampling

Lab Report No	Sample ID	Sample Date	Sample Type	Units	Metals - Dissolved								TRH				BTEX					
					Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene	Total Xylenes
389885	BH103	02/09/25	Water	µg/L	<1	<0.1	<1	27	4	<0.05	51	150	12	<50	<100	<100	<1	<1	<1	<1	<2	<1
389885	BD1/20250902	02/09/25	Water	µg/L	<1	<0.1	<1	28	4	<0.05	52	150	13	<50	<100	<100	<1	<1	<1	<1	<2	<1
		Difference		µg/L	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0
		RPD		%	0%	0%	0%	4%	0%	0%	2%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table QA1: Relative Percentage Difference Results – Water Sampling

Lab Report No	Sample ID	Sample Date	Sample Type	Units	PAH															
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Naphthalene	Benzo(a)pyrene (B(a)P)	Benzo(b,j+k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Sum of detected PAH
389885	BH103	02/09/25	Water	µg/L	0.6	0.2	0.8	0.9	<1	0.7	1	0.4	0.7	<0.1	2.9	0.3	0.3	4.2	3.1	16
389885	BD1/20250902	02/09/25	Water	µg/L	0.2	<0.1	0.4	0.7	<1	0.6	0.9	0.4	0.6	<0.1	1.6	0.1	0.3	1.5	1.6	9.1
		Difference		µg/L	0.4	0.1	0.4	0.2	0	0.1	0.1	0	0.1	0	1.3	0.2	0	2.7	1.5	6.9
		RPD		%	**100%**	**67%**	**67%**	25%	0%	15%	11%	0%	15%	0%	**58%**	**100%**	0%	**95%**	**64%**	**55%**

Table QA2: Trip Blank Results - Water Sampling

Sample ID	Sample Date	Media Being Sampled	Sample Type	Units	BTEX						Lab Report No
					Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene	Total Xylenes	
TB/20250902	02/09/25	Water	Water	µg/L	<1	<1	<1	<1	<2	<1	389885

Table QA3: Trip Spike Results – Water Sampling (% Recovery)

Sample ID	Sample Date	Media Being Sampled	Sample Type	Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene	Lab Report No
TS/20250902	02/09/25	Water	Water	104	102	114	106	107	389885

Table QA4: Rinsate Results – Water Sampling

Sample ID	Sample Date	Media Being Sampled	Units	Metals - Dissolved								TRH				BTEX					
				Total Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	F1 (C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene	Total Xylenes
RB/20250902	02/09/25	Water	µg/L	<1	<0.1	<1	<1	<1	<0.05	<1	<1	<10	<50	<100	<100	<1	<1	<1	<1	<2	<1

Table QA4: Rinsate Results – Water Sampling

Sample ID	Sample Date	Media Being Sampled	Units	PAH																Lab Report No
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Naphthalene	Benzo(a)pyrene (B(a)P)	Benzo(b,j+k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Sum of detected PAH	
RB/20250902	02/09/25	Water	µg/L	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	389885