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Dear Ms Woodward,

RE: Interim Site Audit Advice – Site Auditor Endorsement of Revised Detailed Site Investigation, Five Dock Station, Sydney Metro West Central Tunnelling Package.

Introduction

James Davis of Enviroview Pty Ltd has been engaged by Acciona Construction Pty Ltd and Ferrovia Construction Pty Ltd (the 'AFJV') to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s.105 of that Act in relation to the Site identified as Five Dock Station, Sydney Metro West Central Tunnelling Package (the 'Site').

The objective of the Site Audit, depending on the outcome of the Detailed Site Investigation is to provide a Site Audit Report and Site Audit Statement to certify, in relation to contaminated land, the Site Auditor's opinion of whether the Site is suitable for the proposed use or the Site can be made suitable with the implementation of a Remedial Action Plan.

The requirement for the Site Audit is to meet specific conditions of the Conditions of the State Significant Infrastructure approval (SSI 10038) and clauses of an agreement made between the NSW Government and the AFJV (the *Deed Agreement*).

A Site Audit Interim Advice is issued by a Site Auditor following the review of reports and to assist in the management of contamination issues at a Site regarding requirements of the Site Audit at a particular stage of the Site Audit prior to the Site Audit being concluded. An interim advice does not constitute a Site Audit Statement or a Site Audit Report and does not pre-empt the final Site Audit conclusions. A Site Audit Report and Site Audit Statement will be prepared at the conclusion of the Site Audit.

The purpose of this interim advice is to provide an endorsement of the Detailed Site Investigation by the Site Auditor as required by the *Deed Agreement* (clause 12.19). A previous revision of the Detailed Site Investigation (Revision 0) was endorsed by the Site Auditor, however subsequent revisions made to the document required further review and reissue of the endorsement.

Detailed Site Investigation Review

The Detailed Site Investigation that was recently undertaken at the Site is reported in the following report:

Epic Environmental Pty Ltd. *Five Dock Station Detailed Site Investigation*. Report Reference: SC210092.01-RPT_AFJV_FiveDock_DSI_Rev0_18Feb2022 (file name unchanged from previous version), Revision 1, dated 31 March 2022. (the *Detailed Site Investigation Report*).

Prior to the completion of this report, the Site Auditor was provided the opportunity to review and provide comments on the previous revisions of the report as follows:

Epic Environmental Pty Ltd. *Five Dock Station Detailed Site Investigation*. Report Reference: SC210092.01-RPT_AFJV_FiveDock_DSI_Rev0_18Feb2022, dated 18 February 2022.

Epic Environmental Pty Ltd. *Five Dock Station Detailed Site Investigation*. Report Reference: SC210092.01-RPT_AFJV_FiveDock_DSI_RevB_4Feb2022, dated 4 February 2022.

In support of the review of the Detailed Site Investigation, the Auditor has also considered information presented as follows:

Epic Environmental Pty Ltd. *Five Dock Station Sampling, Analysis and Quality Plan*. Report Reference: Rev_D dated 1 December 2021¹. (the *Sampling, Analysis and Quality Plan*)

The Detailed Site Investigation was undertaken in general accordance with the *Sampling, Analysis and Quality Plan* that was prepared with Site Auditor consultation. The investigation works were deemed necessary for the Detailed Site Investigation requirements of the project approvals and Deed Agreement and complimented the previous investigation works that had been conducted at the Site. The *Detailed Site Investigation Report* consolidated the current and previous investigation works relevant to the Site.

The *Detailed Site Investigation Report* was found to be satisfactory in relation to the requirements of the NSW EPA guidelines for consultants reporting on contaminated land (NSW EPA 2020). The changes made to the revised version of the document are acceptable.

The conclusions of the report did not indicate that a Remedial Action Plan was required to make the Site suitable for the proposed use due to contamination of soils, however the consultant has noted that the nature of fill across the northern area of the western construction zone is not well understood due to access constraints during the investigation.

¹ It is noted that the document information and document reference in this revision refers to the previous version and the cover has the date of this revision as 30 November 2021 while the document control table has the correct issue date of the 1 December 2021

While it could be assumed that the fill would be consistent with that found on the rest of the site, this is not sufficient for the Site Audit to conclude that the site is suitable. As such the recommendation by the consultant in the DSI that further investigation is conducted in those areas following the removal of the structures that limited access is appropriate.

Site Auditor Endorsement of the Detailed Site Investigation

Based on the recent site investigation works conducted at the Site, the Detailed Site Investigation (Revision 1, dated 31 March 2022) is endorsed by the Site Auditor and the conclusions are agreed with.

I look forward to receiving a supplementary investigation report for review once the demolition has enabled access for the recommended investigation.

It is noted that the in-situ classification works, relating to material within the station box that was conducted, has not been included within the *Detailed Site Investigation Report* and that classification should be reported in accordance with the appropriate CEMP sub-plan.

Closing

Thank you for your time regarding this matter. If you require additional information or clarification, please do not hesitate to contact me.

Yours sincerely



James Davis
NSW EPA Contaminated Land Site Auditor
Enviroview Pty Ltd



**ACCIONA FERROVIAL JOINT
VENTURE**
**FIVE DOCK STATION DETAILED
SITE INVESTIGATION**





ACCIONA FERROVIAL JOINT VENTURE

FIVE DOCK STATION DETAILED SITE INVESTIGATION

31 MARCH 2022

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EXECUTIVE SUMMARY

Epic Environmental Pty Ltd (Epic) was engaged by Acciona Ferrovia Joint Venture (AFJV) to undertake a detailed site investigation (DSI) at the proposed Five Dock metro station.

The overall objective of the DSI is to gain sufficient information on the nature and extent of soil and groundwater contamination to assess the suitability of the site to be utilised during the construction (and where applicable operational) phases of the Project. Further, for the two shaft excavations, contamination data is required to inform classification of fill, natural soils and rock.

To achieve the objectives, the following scope of works was undertaken:

- Conduct searches and review of historical information relating to the site from available sources including previous reports, government databases and contaminated land registers
- Completion of a site inspection and advancement of 27 boreholes (BH01 to BH27) across the site to depths of up to 10.0 metres below ground level (mbgl)
- Logging of the lithological profile encountered at each location and collection of soil samples at targeted depths
- Gauging and sampling of two existing groundwater wells (SMW_BH082 and BH718)
- Submission of soil and groundwater samples to a laboratory for analysis of defined contaminants

Historical review of the site indicated that residential and commercial properties have been present on the site since prior to the 1930s. Based on this historical review, no major developments or industrial activities have occurred on site. This indicates limited sources of contamination are likely to be present onsite with the exception of potential uncontrolled filling.

The fill depth was assessed across the site, with fill recovered as brown gravelly clay or gravelly sand to a maximum depth of 0.9 mbgl. Gravels consisted of concrete, slag, brick, ironstone, sandstone, and shale with occasional anthropogenic material including tile fragments, glass, and burnt wood and ash. Potential ACM was not observed within fill material.

Samples collected during the soil investigation reported contaminants below the adopted human health commercial/industrial assessment criteria, indicating the site is suitable for commercial land use. However, the extent of fill material across the northern area of the western construction zone is not well understood due to refusal/termination at five borehole locations. Following the building demolition, additional assessment is recommended to prove the depth of fill within this area. Additionally, due to the presence of hazardous building materials in the structures on site (asbestos and lead paint), a site inspection and clearance report is recommended following demolition works to ensure no residual hazardous materials remain.

Groundwater samples collected during the GME reported contaminants below the adopted assessment criteria (with the exception of nickel and zinc). Based on the results and given that groundwater is unlikely to be extracted for beneficial uses at the site or in the surrounding areas (i.e. drinking water, irrigation, etc), groundwater beneath the site is not considered to pose a risk to human health, including vapour intrusion, and does not preclude the site from commercial land use.

1 INTRODUCTION

Sydney Metro West (SMW) is a new 24-kilometre metro line between Westmead and Sydney CBD providing a turn-up-and-go metro service (**Figure 1**). The planning approvals and environmental impact assessment for Sydney Metro West have been broken down into a number of stages recognising the size of the project. The Central Tunnelling Package (CTP) involves eleven-kilometre twin tunnels, five new stations, and the corresponding auxiliary facilities, between Sydney Olympic Park and The Bays Precinct.

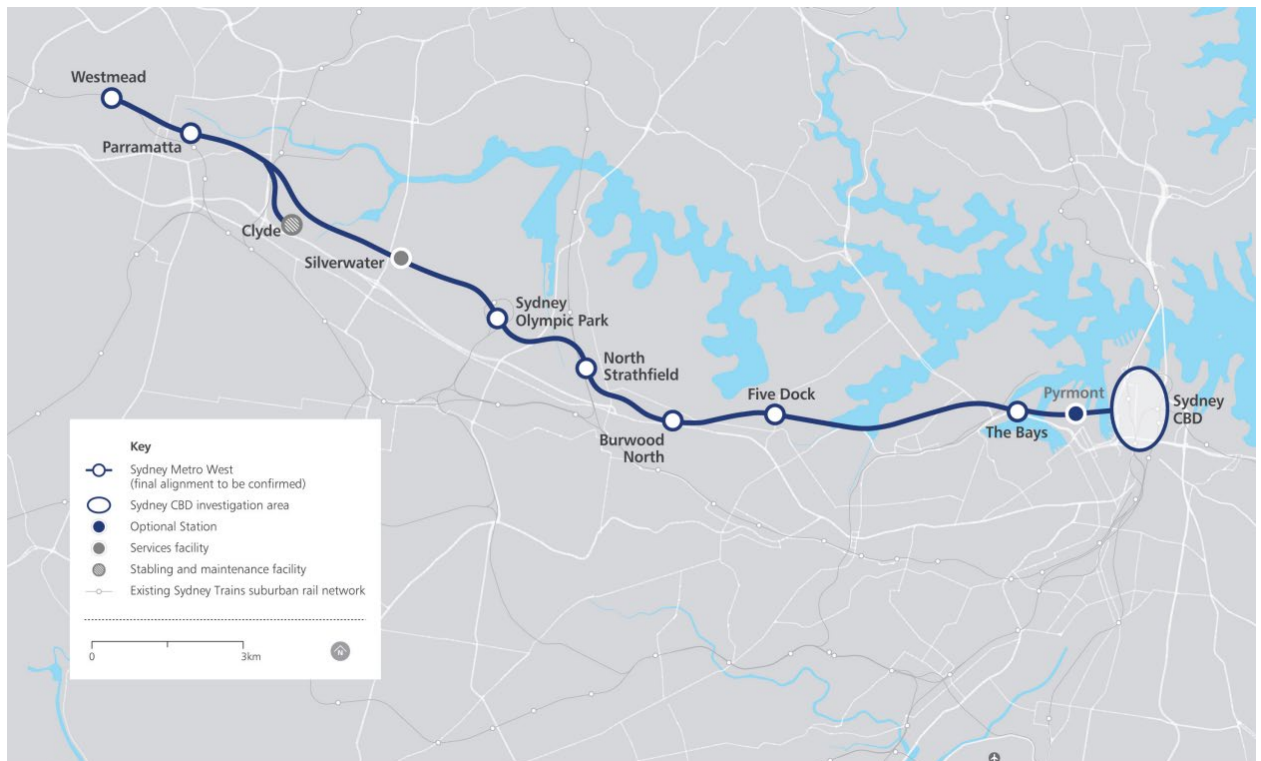


Figure 1: Sydney Metro West alignment (Sydney Metro, 2020)

Condition D71 of the Sydney Metro West – Concept and Stage 1 Conditions of Approval (CoA) (2021) requires a detailed site investigation (DSI) to be undertaken prior to commencement of construction in moderate to high risk contaminated areas. The Five Dock station construction site has a moderate potential contamination risk rating and Epic Environmental Pty Ltd (Epic) has been engaged by Acciona Ferrovial Joint Venture (AFJV), to undertake a DSI to satisfy condition D71 at the proposed station site. Additionally, the site requires a site audit statement to be issued by a NSW EPA accredited site auditor, confirming the site is suitable for the proposed land use.

The Five Dock station site location is shown on **Figure F1**. The station is being constructed as a single cavern, with two station shafts located on the western site between Great North Road and East Street, and on an eastern site located on the corner of Waterview Street and Second Avenue.

The overall purpose of the DSI is to gain sufficient information on the nature and extent of soil and groundwater contamination to assess the suitability of the site to be utilised during the construction (and where applicable operational) phases of the project. Further, for the two shaft excavations, contamination data is required to inform classification of fill material, natural soils and rock. Epic undertook the DSI in accordance with the sampling, analysis and quality plan (SAQP) prepared in November by Epic (2021) and approved by the Auditor.

1.1 OBJECTIVES

As per Epic (2021), the specific objectives of the DSI are to:

- Obtain sufficient contamination data for waste classification of fill material to be excavated – confirm general solid waste (GSW) and potential for meeting criteria under the Excavated Natural Material Order 2014¹ (ENM Order)
- Obtain sufficient contamination data for classification of natural soils and rock within the station box footprint as virgin excavated natural material (VENM) – and where elevated contamination is identified, delineate for separate management as either ENM, a specific resource recovery order (RRO) or waste classification² (GSW or other)
- Obtain sufficient information to allow for more accurate estimation of material volumes within the Sydney Metro spoil management hierarchy
- Obtain groundwater contamination data for groundwater likely to be encountered during construction works
- Obtain sufficient contamination data for near surface soils within the construction footprint to assess the suitability of areas to be used during construction – for protection of worker health, as well as for site suitability for ongoing post construction land use.

Epic notes that interpretation of contamination data for waste classification, VENM, ENM and volume estimation is not included in the scope of work and is not included in this DSI report.

1.2 SCOPE OF WORK

To achieve the objectives outlined above, the following scope of works were undertaken in accordance with relevant NSW EPA environmental guidelines:

- Conduct searches and review of historical information relating to the site from available sources including previous reports, government databases and contaminated land registers
- Completion of a site inspection to observe and record any indications of current or past potentially contaminating activities, on the site or on adjoining properties

¹ Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment (Waste) Regulation 2014, NSW EPA (2014)

² In accordance with the NSW EPA (2014) 'Waste Classification Guidelines - Part 1: Classifying Waste'

- Advancement of 27 boreholes (BH01 to BH27) across the site to depths of up to 10.0 metres below ground level (mbgl) using a track mounted drill rig or non-destructive drilling techniques
- Logging of the lithological profile encountered at each location and collection of soil samples at targeted depths
- Gauging and sampling of two existing groundwater wells (SMW_BH082 and BH718)
- Submission of selected soil and groundwater samples to a National Association of Testing Authorities (NATA) accredited laboratory for analysis of the defined suite of contaminants
- Preparation of this DSI report

1.3 REGULATORY FRAMEWORK

The DSI was carried out with consideration of the following relevant guidelines:

- Australian Standard: AS4482.1 2005, 'Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds'
- Australian Standard: AS4482.1 1999, 'Guide to the sampling and investigation of potentially contaminated soil – Part 2: Volatile substances'
- Australian Standard: AS/NZS 5667.11 1998, Water Quality – Sampling – Guidance on Sampling of Groundwaters
- EPA Victoria (2010) 'Industrial Waste Resource Guidelines (7), Sampling and Analysis: Soil Sampling' (IWRG, 2010)
- *National Environment Protection (Assessment of Site Contamination) Measure 1999* (ASC NEPM), The National Environment Protection Council (NEPC), as amended May 2013 (NEPC, 2013)
- National Chemicals Working Group of the Heads of EPAs Australia and New Zealand (HEPA) 2020 'PFAS National Environmental Management Plan Version 2.0'
- NSW Environment Protection Authority (NSW EPA) 1995, 'Sampling Design Guidelines'
- NSW EPA 2020, 'Consultants Reporting on Contaminated Land – Contaminated Land Guidelines'
- NSW EPA 2017, 'Guidelines for the NSW Site Auditor Scheme, (3rd edition)'
- NSW EPA 2014, 'Waste Classification Guidelines – Part 1: Classifying Waste'
- *State Environmental Planning Policy No 55—Remediation of Land* (current version 17 April 2020)
- NSW Department of Environment, Climate Change and Water (NSW DECCW) 2010, 'Vapour Intrusion: Technical Practice Note'
- ANZG 2018, 'Australian and New Zealand Guidelines for Fresh and Marine Water Quality', Australian and New Zealand Governments and Australian State and Territory Governments, Canberra ACT, Australia. Available at www.waterquality.gov.au/anz-guidelines

2 SITE IDENTIFICATION AND DETAILS

The proposed Five Dock station is located adjacent to the intersection of Great North Road and Second Avenue, Five Dock NSW, approximately 7.0 kilometres west of the Sydney central business district (CBD). The site is in an area of commercial and low-density residential land use and occupies two separate construction zones where station shafts are to be excavated on the east and west side of Great North Road.

Site details are summarised in **Table 1** below and the site layout and location are shown in **Figure F1**. Where not otherwise specified, environmental details have been summarised from a Land Insight report (2021), included in **Appendix A** (Due Diligence Insight Report, dated 26 November 2021)

Table 1: Site description

Category	Details
Site Description	Sydney Metro West Five Dock Station
Site Address	157 – 169 Great North Road, 4 – 8 East Street, 3 Second Avenue, 23 – 33 Waterview Street, Five Dock NSW
Lot Description	Lot 1 DP986284, Lot 1 TP166975, Lot 1 DP868504, Lot 2 DP868504, Lot 4 DP219715, Lot 5 DP219715, Lot A DP333934, Lot X and Y DP414325, Lot A & B DP961640, Lot 2 DP537010, Lot 15 DP884, Lot 1 and 2 DP962509
Site co-ordinates (centre of site)	33°52'02.7"S 151°07'45.9"E
Current owner	Transport for NSW
Current occupier	Sydney Metro West
Site Area	Western site: 3,465 m ² Eastern site: 2,190 m ²
Local Government Authority	City of Canada Bay Council
Current Zoning	B4 Mixed Use
Trigger for assessment	Change in land use – Five Dock Station construction
State or local government statutory controls	N/A
Legal permission to access site	Yes

2.1 SITE INSPECTION

A detailed site inspection was completed on 2 November 2021 by the Epic Project team, accompanied by the site auditor (James Davis of Enviroview) and an AFJV representative, Jonathan Coffey. Relevant information obtained during desktop research and noted during the inspection and drilling works is included in **Table 2** below. Reference is also made to site photographs contained in the Plates section at the end of this report.

Table 2: Site condition and surrounding details

Category	Observation
Current land use	The site is currently vacant, pending demolition of existing structures and construction of the Sydney Metro Five Dock Station. The western construction zone was most recently used for commercial purposes along Great North Road (pharmacy, café, vape retailer, whitegoods retailer and a gym), with a literacy/learning centre and whitegoods warehouse in the western portion of the construction area (accessed via East Street) (Plate P1 and Plate P2).

Category	Observation
	The eastern construction zone predominantly consisted of low density residential premises, with an on-grade carpark in the western portion of the eastern construction zone (Plate P3 and Plate P4).
Boundary conditions	The western construction zone is currently fenced with temporary fencing along East Street. The northern, southern and western boundaries are formed by the building's façades. The on-grade carpark in the eastern zone is currently fenced with temporary fencing along Second Avenue (Plate P4). The residential premises along Waterview Street are surrounded by colorbond fencing to the north, west and south, and accessed via locked metal gates on the eastern boundary.
Site structures	Existing site structures consist of the following: Western Zone - Seven single storey commercial structures along Great North Road - Warehouse at 8 East Street, with basement level office/ show room - Two-storey commercial building/ learning centre at 2 East Street Eastern Zone - Three single storey residential premises - Two two-storey residential premises - Three outdoor sheds in backyards
Surface covering	Surface covering at the site predominantly consisted of concrete slab and hardstand. No major defects or stains were observed. The eastern zone on-grade car park consisted of bitumen hardstand. Minor garden beds and yards were observed in the eastern portion of residential properties along Waterview Street, western yards of 23 – 33 Waterview Street and shrubs adjacent to the East Street entrance of 6-8 East Street.
Chemical storage areas	No chemical storage was observed.
Aboveground and underground storage systems	No above ground or underground storage systems, or indications such as vents or fill points, were observed.
Evidence of debris and waste disposal	Indications of debris or waste disposal to the site (including waste oil, chemical containers or staining) were not observed during the inspection.
Services and utilities	Underground services observed included: - Stormwater drains in the sealed on-grade carpark in the western site - Overhead power lines - Sewer manhole and vents in the western yards of the eastern site - Internal reticulated water connections - Communications along the Waterview Street footpath.
Electrical transformers, substations or capacitors	An electrical substation and energy kiosk was observed adjacent to the south of the western zone, adjacent to East Street (Plate P5). Substations, transformers or capacitors were not observed within the site boundary.
Staining/odours	Staining or odours on the ground surface were not observed.
Stockpiled material and filling	Retaining walls were observed in the western yards of the western construction zone, indicating cut / fill construction is likely to have occurred in these yards. The eastern portion of the western site is level with the local topography along Great North Road, and significant filling is not expected. A retaining wall is present on the north boundary of the eastern construction zone in the back garden of the residential house. Based on the surrounding topography, it appears the garden was filled to be level with the neighbouring garden. The remainder of the eastern zone is level with the surrounding topography indicating significant filling is unlikely. No stockpiled materials were observed.

Category	Observation
Vegetation cover and condition	Vegetation was limited to garden beds and yards of the residential premises along Waterview Street (Plate P3), and shrubs adjacent to the East Street entrance of 6-8 East Street. Vegetation appeared healthy with no notable phytotoxic impact.
Erosion	No erosion was observed on site.
Surface water bodies	No surface water bodies were observed on site.
Surface water flow and drainage	The site topography slopes to the north at a shallow gradient of <5%. Surface water flow is expected to be towards the north over hard surfaces, into the site stormwater drain network. In unsealed areas of the site, infiltration is expected into the soil profile followed by percolation to the water table. Surface water would be expected to flow north to northwest via the street drainage networks and ultimately discharge to Hen and Chicken Bay, a tributary of the Parramatta River, approximately 660 m to the north.
Naturally occurring contaminants	No potential for naturally occurring contaminants was identified.
Potential offsite sources of contamination	Potential offsite sources of contamination were limited to the electrical substation adjacent south of the western zone (Plate P5). Additional potential sources of contamination including service stations and a dry cleaner are unlikely to impact the site given the source sites are generally downgradient and at a distance >250 m.

2.2 SURROUNDING LAND USES

The site is located in the Five Dock town centre, surrounded by commercial retailers and low density residential premises. At the time of the investigation the surrounding land use was as follows:

- **North** – The western zone is adjacent St Albans Anglican Church, followed by cafes and a childcare centre, then low to medium density residential. The eastern zone is adjacent low density residential, followed by mixed commercial (bank, gym, hearing aid store) and further low to medium density residential. A 7-eleven service station is located 300 m north. Hen and Chicken Bay of Parramatta River is 660 m to the north.
- **East** – The western zone is bounded by Great North Road, followed by mixed commercial (restaurants, real estate, beauty salons) then the eastern zone construction area. The eastern zone is bound by Waterview Street, followed by low to medium density residential. Iron Cove of the Parramatta River is 900 m to the east.
- **South** – The western zone is adjacent commercial properties including banks, restaurants, supermarkets and a library. An electrical substation is 20 m south. Low density residential premises and a childcare centre are 100 m south. A dry cleaner is 300 m south. The eastern zone is adjacent low to medium density residential properties, and mixed commercial (restaurants, bank, Australia Post). An Ampol petrol station is 250 m south and Iron Cove creek is 600 m south.
- **West** – The eastern zone is adjacent mixed commercial (restaurants, real estate, beauty salons), followed by Great North Road, then the western zone construction area. The western zone is bound by East Street, followed by low density residential, then Five Dock Public School (90 m). An unnamed stormwater drain connected to Parramatta River is located 1.0 km west.

2.3 SENSITIVE ENVIRONMENTS

The nearest sensitive human health receptors are the low-density residential premises adjacent to the west of the western zone, and adjacent to the north/south/east of the eastern zone. Six schools or early learning centres are located on the western side of Great North Road within 200 m of the site. Additionally St Albans Anglican church and rectory is located directly adjacent to the north of the western construction zone which is noted to have general local significance.

The nearest sensitive environmental receptors are flora and fauna of a Sydney Turpentine Ironbark Forest in Five Dock Park located 300 m east, Iron Cove Creek 600 m south, and Hen and Chicken Bay/ Parramatta River 660 m north.

Sensitive receptors are shown on Map 1.1 and heritage conservation areas are shown on Map 1.3, included in **Appendix A**.

With reference to the Bureau of Meteorology – Groundwater Dependent Ecosystem Atlas, accessed 9 November 2021, there are no groundwater dependent ecosystems within 1.0 km of the site.

2.4 CLIMATE

The site is located within a temperate climate shifting from mild and cool in winter to warm and hot in the summer, with no extreme seasonal differences as the weather is moderated by proximity to the ocean. Temperature and rainfall averages obtained from the Canterbury Racecourse station via the Bureau of Meteorology website on the 14 December 2021 are summarised in **Table 3** below.

Table 3: Climate summary data

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temp. °C	27.9	27.3	25.9	23.6	20.7	18.1	17.7	19.0	21.9	23.6	24.8	26.7
Avg. Min. Temp. °C	18.5	18.3	16.6	12.8	9.2	7.1	5.7	6.4	9.3	12.2	14.9	16.9
Avg. Rainfall	78.0	115.2	95.1	94.8	74.1	105.5	56.4	62.9	48.5	63.9	73.8	64.1

The Canterbury Racecourse weather station is approximately 4 km south of the site.
The data summarised is between 1995-2021

2.5 GEOLOGY

With reference to the Department of Mineral Resources 1:100,000 Geological Sheet for Sydney, the site is likely to be underlain by the Middle Triassic aged Ashfield Shale. The Ashfield Shale consists of black to dark grey shale and laminite. This is expected to be underlain by the Triassic aged Hawkesbury Sandstone, which consists of medium to coarse grained quartz sandstone. The geology of the site and surrounding area is shown on Map 1.5, included in **Appendix A**.

2.5.1 Soil Landscape

With reference to the Department of Planning, Industry and Environment 2013 'Soil Landscapes of Central and Eastern NSW', natural soils at the site form part of the Blacktown residual soil landscape. The Blacktown soil landscape is formed on gently undulating rises on Wianamatta Group shales, and consists of Red and Brown Podzolic Soils on crests, upper slopes and well-drained areas; and Yellow Podzolic Soils and Soloths on lower slopes and in areas of poor drainage. The soil landscape is shown on Map 1.4a, included in **Appendix A**.

2.5.2 Acid Sulfate Soils

Review of the Department of Land and Water Conservation Acid Sulfate Soil Risk Mapping accessed via the eSpade³ v2.1 portal indicates the site has no known occurrence of acid sulfate soils (ASS).

A review of the City of Canada Bay Local Environmental Plan (2013) ASS mapping indicated that the site is classified as Class 5 ASS risk. For Class 5 ASS risk, development consent is required for carrying out works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum (mAHD) and by which the water table is likely to be lowered below 1 mAHD on adjacent Class 1, 2, 3 or 4 land. Land within 500 m of the site is above 5 mAHD, with the exception of 490 m to the north northwest where the land is classified as Class 2 (disturbed terrain) (City of Canada Bay Local Environmental Plan, 2013).

Based on the drawdown modelling (included in Technical paper 7), the groundwater level will be reduced by approximately 9 m over two years in the vicinity of the Class 2 area (Jacobs, 2020b). This drawdown modelling was undertaken as part of the Stage 1 works and was noted to require refinement as part of the detailed design works. The groundwater drawdown in the vicinity of Five Dock station should be reviewed and any impacts should be managed through the relevant management plans.

The acid sulfate soils mapping is shown on Map 1.4b, included in **Appendix A**.

2.6 TOPOGRAPHY

With reference to the NSW 1:100 000 topographic map series, accessed online via the NSW Government Spatial Information Exchange (SIX Maps: <https://maps.six.nsw.gov.au/>) on the 26 October 2021, the site

³ ASS probability layer from espace.environment.nsw.gov.au © State of NSW and Department of Planning, Industry and Environment 2020, viewed 22 October 2021.

is located at an elevation of approximately 20 mAHD. The site slopes from the south down to the north from approximately 21 to 17 mAHD.

Regionally, the site is located adjacent to the northwest of a local crest, with the site and surrounding area sloping to the north northwest towards an alluvial fan in Halliday Park. The area approximately 100 m south of the site, on the southern side of the crest, slopes to the southeast towards Iron Cove Creek. The topography of the surrounding area is shown on Map 1.5, included in **Appendix A**.

2.7 HYDROGEOLOGY AND HYDROLOGY

Hydrogeology and groundwater boreholes and other boreholes are shown on Map 2.1 and Map 2.2, included in **Appendix A**. The following sections summarise the relevant information.

2.7.1 Hydrogeology

GHD (2011) indicates that regional groundwater is likely to be encountered in a shallow residual soil aquifer perched above the Ashfield Shale, at approximately 4.0 metres below ground level (mbgl), and in Hawkesbury Sandstone fractured bedrock aquifer between 6.0 and 12.1 mbgl.

Based on the regional geology, topography, and surrounding water bodies, it is estimated that groundwater will flow to the north / northwest and discharge into Hen and Chicken Bay.

2.7.2 Hydrology

There are no surface water bodies present on site. The nearest water bodies to the site are Iron Cove Creek located 600 m south, and Parramatta River located 660 m north. Iron Cove Creek is a concrete lined stormwater channel that flows to the east, discharging into Parramatta River. Parramatta River is most closely approximated to a marine ecosystem.

It is inferred that in unsealed areas of the site rainfall would generally flow to the north over hard surfaces to the site stormwater system or street stormwater drains, ultimately discharging to Hen and Chicken Bay/ Parramatta River. In unsealed areas of the site, infiltration is expected into the soil profile followed by percolation to the water table.

2.7.3 Registered Bore Search

A search of the NSW Office of Water groundwater database, accessed via <https://realtimedata.waternsw.com.au/> on 26 October 2021 indicated that no groundwater bores are located within 500 m of the site. The nearest registered groundwater bore (GW112414) is located 700 m to the south of the site adjacent to Iron Cove Creek. The groundwater bore was installed to 57.1 m, and aquifer details including lithology or standing water level were not provided.

2.7.4 Flooding

With reference to the ePlanning Spatial Viewer⁴ map layer ‘flood planning’ reviewed on 26 October 2021, the site was not included within the flood planning of the Canada Bay Local Environmental Plan (2013).

2.8 PROPOSED DEVELOPMENT

Preliminary drawing plans of the proposed Five dock station have been provided in the AFJV ‘SMW – Central Tunnelling Project Site Layout Presentation’. The Five Dock site layout is on page 6 of the presentation and Five Dock slides have been included in **Appendix B**.

The following relevant features are included within the drawings:

- All structures on both sites will be demolished
- A shaft will be excavated within the centre of both the eastern and western zones to a depth ranging from 32 – 34 mbgl
- A series of portable buildings will be installed along with laydown areas and stockpile yards surrounding the boundaries of both sites

⁴ ePlanning: accessed via <https://www.planningportal.nsw.gov.au/spatialviewer/> on 22 October 2021.

3 SITE HISTORY

3.1 HISTORICAL AERIAL IMAGERY

A summary of observations from historical aerial photography, from the Land Insight Report (included in **Appendix A**) and verified by Epic, is provided in **Table 4**.

Table 4: Historical aerial photograph observations

Aerial Photo Year	Site Description	Surrounding Areas Description
1930	The areas within the eastern and western construction sites appears to consist of predominantly low-density residential dwellings and a small to medium sized building (inferred small scale commercial/industrial and/or retail) fronting Great North Road on the western site.	Areas surrounding the construction sites comprise predominantly low-density residential with minor mixed commercial/industrial and/or retail (north and south), low density residential and open space (east) and low-density residential (west).
1943	The areas within the eastern construction site appear to consist of predominantly low-density residential dwellings and a small to medium sized building (possible small scale commercial/industrial and/or retail) fronting Great North Road and Second Avenue. The areas within the western construction site appears to consist of small to medium sized buildings (possible small scale commercial/industrial and/or retail) fronting Great North Road. Air raid trenches are visible within the southern portion of the western construction site.	Areas surrounding the construction sites do not appear to have undergone significant development since the 1930 imagery. Areas above the alignment generally comprise low-density residential (east and west). Five Dock Park is located above the alignment to the east of the proposed construction site. Areas adjacent to the alignment comprise mixed commercial/industrial and/or retail and low-density residential (north and south).
1955	The areas within the eastern and western construction sites do not appear to have undergone significant changes or development since the 1943 image.	The areas surrounding the construction site do not appear to have undergone significant development since the 1943 image.
1970	The area within the western construction site does not appear to have undergone significant changes since the 1955 imagery. A building located within the north-western corner of the eastern construction site has been demolished. This land is now occupied by paved areas and a carpark.	Areas of land to the north, east, south and west of the construction site do not appear to have undergone significant changes since the 1955 imagery with the exception of demolition of buildings in an area to the west of the construction site (possible school) and additional buildings (possible retail) to the south of the construction site. A building located adjacent to the western boundary of the eastern construction site has been demolished and a new structure/building (possible service station) has been constructed. Surrounding areas of land appear to be largely low-density residential.
1989	The areas within the eastern and western construction sites do not appear to have undergone significant changes or development since the 1970 image.	Areas to the north, east, south and west of the construction site and alignment do not appear to have undergone significant changes since the 1970 image. Surrounding areas of land appear to be largely low-density residential.
1994	The areas within the eastern and western construction sites do not appear to have undergone significant changes or development since the 1989 image.	Areas to the north, east, south and west of the construction site and alignment do not appear to have undergone significant changes since the 1989 imagery. Surrounding areas of land appear to be largely low-density residential.

Aerial Photo Year	Site Description	Surrounding Areas Description
2005	The area within the western construction site appears to have undergone significant changes since the 1994 imagery with demolition of buildings (possibly residential) and construction of larger buildings (possible commercial/retail/residential land use). The area within the eastern construction site does not appear to have undergone significant changes or development since the 1994 image.	Areas to the north, east, south and west of the construction site and alignment do not appear to have undergone significant changes since the 1994 imagery with the exception of the demolition of the possible service station and new building constructed adjacent to western boundary of the eastern construction site and possible commercial/ retail/ residential development to the south of the construction sites. Surrounding areas of land appear to be largely low-density residential.

3.2 REVIEW OF PREVIOUS INVESTIGATIONS

The following relevant environmental investigations have been reviewed by Epic:

- GHD (2010) Report for Sydney Metro Network Stage 2 (Central to Westmead) Geotechnical Interpretive Report: Part II Contamination. Report ref: MW-2110-GHD-C_028. February 2010
- Jacobs (2020a) Metro West Stage 1 Technical Paper 8: Contamination. Report ref: IA199800. April 2020
- Jacobs (2020c) Tender Advice Note. Report ref: CEN-JTJV-PW-GT-TAN-0030. 18 December 2020

A summary of relevant information pertaining to the Five Dock Station site is presented below in **Table 5, Table 6** and **Table 7**.

Table 5: Review summary of GHD 2010

Document Title:	Report for Sydney Metro Network Stage 2 (Central to Westmead) Geotechnical Interpretive Report: Part II Contamination
Prepared by:	GHD
Dated:	February 2010
Key Objectives:	Provide an assessment of available soil and groundwater data at nominated locations along the SMN Stage 2 alignment and whether the presence of contamination could impact the construction or operation of the SMN Stage 2 rail system

Key Findings:

- Five Dock Station is located within Hawkesbury Sandstone bedrock. A potential risk of contamination is present as a result of an operational Caltex service station adjacent (250m south) to the site.
- Packer test data for BH3103_140 and BH3103_141 adjacent the site indicate permeabilities between 0.56 and 0.0 m/day. The highest permeability was observed at BH3103_141 at depths of 6.1 to 12.1 mbgl within the upper reaches of Hawkesbury Sandstone, suggesting a more conductive zone at this depth
- Preliminary soil contamination results for BH3103_140 and BH3103_141 indicate generally low levels of contamination with all analytes present at concentrations below the adopted screening levels.
- Groundwater analytical results for the shallow and deep monitoring wells at location BH3103_141 generally indicate contaminant levels below the adopted screening values, apart from sulphate, which slightly exceed nominated drinking water guideline. TPH (C10 – C36) was also detected above the PQL, although no appropriate screening guidelines are available for this fraction. However, as groundwater ingestion is not a valid exposure pathway and these contaminants are not considered to be volatile, no significant contamination risk is anticipated for the construction or operation of the Five Dock Station on the basis of the results from the BH3103_141 location.
- Disposal requirements for groundwater during both the construction and operation of the Station may be impacted by the presence of TPH contaminants.

Table 6: Review summary of Jacobs 2020a

Document Title:	Metro West Stage 1 Technical Paper 8: Contamination
Prepared by:	Jacobs
Dated:	April 2020
Key Objectives:	
This technical paper is one of several technical papers that form part of the Environmental Impact Statement. The purpose of this technical paper is to identify and assess the potential human and ecological health impacts from contamination to the construction of Stage 1	
Key Findings:	
▪ An inferred dyke comes in close proximity to the tunnel alignment to the east of Five Dock Station construction site. It is possible that unidentified dykes/dyke could be encountered during excavation. It is also possible that rock permeability in the vicinity of these (potential) dykes/dyke swarms could be higher than elsewhere. ▪ Some groundwater contamination sources could be in the vicinity of Stage 1 but are unlikely to significantly impact upon construction. Contamination (from other sources in the vicinity of Stage 1) could be present in groundwater at concentrations above the relevant assessment criteria and is likely to be limited in extent. Contaminated groundwater may intersect Stage 1, and the exposure pathways for human or ecological receptors could be present and fully reached during construction. ▪ Potential migration of contaminated groundwater towards, and into, station excavation, poses a potential exposure risk to site users/workers and adjacent site users, and could potentially reduce the beneficial use of the aquifer ▪ Soils within / beneath the construction site and above the alignment have been assigned a moderate potential contamination impact associated with the current and historical activities carried out on and/or adjacent to the site including the operation of funeral homes and the possible inappropriate management (during demolition) and/or degradation of hazardous building materials within current and former on-site structures	

Table 7: Review summary of Jacobs 2020b

Document Title:	Tender Advice Note
Prepared by:	Jacobs
Dated:	December 2021
Key Objectives:	
The purpose of this TAN is to review the indicative contamination status of the alignment key site(s) (stations, shaft and tunnels) and adjacent areas to identify associated risks and propose management measures based on a high-level review of the available information.	
Key Findings:	
▪ The proposed Station box footprint lies in a mixed commercial and residential setting (Figure 3), with the site comprising shops and restaurants, a fitness centre (gym) and other outlets. The broader area comprises potentially contaminating activities including two service stations (120m south and 200m north respectively) and two funeral parlours (100m north and 200m south respectively). ▪ Historical aerial photography identifies that the proposed station site comprised low-density residential and small-scale commercial, retail and industrial uses until the late 1990's/early 2000's when substantial demolition and redevelopment occurred on the western side of the proposed station site. Demolition and redevelopment presents the potential for (surface) impacts of hazardous building materials (asbestos containing materials (ACM)), this includes confirmed asbestos within (at least) 29 Waterview Street (residential, refer Figure 3) within the eastern station footprint. ▪ Surrounding land uses have remained largely consistent, except for localised demolition and redevelopment. ▪ Limited investigation of this area is presented in the reports available, and no soil data was available within the station footprint, however limited soil sampling in the broader area has identified no contaminants of potential concern exceeding adopted guideline criteria for the protection of human health and the environment. ▪ Groundwater data was limited to 3 bores: BH082 (within station footprint); BH050 (~100m south west of excavation); BH051 (~100m south of excavation). ▪ BH082 reported elevated metals (cobalt, iron, manganese) exceeding ecological, irrigation and drinking water criteria (respectively), but not exceeding human health criteria. All other analytes (including Per- and Polyfluoroalkyl Substances (PFAS)) were found to be below applicable criteria. ▪ Human health (recreational/direct contact) criteria were exceeded for manganese in BH051 (23,900 µg/L) and nitrite in BH050 (0.78 mg/L) (Sep, 2018). PFAS was not analysed for at these locations. ▪ Five Dock station is not mapped as having actual or potential acid sulfate soils.	
The borehole log for BH082 and a summary of the analytical results is included in Appendix C .	

3.3 CONTAMINATED LAND RECORDS

3.3.1 NSW EPA CLM Act Register of Notified Sites

A review of the NSW EPA List of notified sites indicated the site has not been notified to the EPA as a potentially contaminated site.

Sites within 1.0 km that have been notified to the EPA due to potential contamination include the 7-Eleven service station 300 m north, and the Ampol service station 250 m to the south. Both sites are listed as Regulation under CLM Act not required. The 7-Eleven is downgradient to the site and due to the local crest adjacent to the site, the Ampol is likely also downgradient from the site.

The sites on the contaminated land register are shown on Map 3.1, included in **Appendix A**.

3.3.2 NSW EPA CLM Act Record of Notices

The site is not listed on the NSW EPA Contaminated Land Record of Notices.

No sites within 1.0 km of the site were identified on the NSW EPA Contaminated Land Record of Notices.

3.3.3 Protection of Environment Operations Act 1997 Public Register

A search of Environment Protection Licences (EPL) issued under the *Protection of the Environment Operations Act 1997* (POEO) indicated the site has not been issued a POEO licence or clean-up notice.

Sites within 1.0 km issued with a POEO licence or clean up notice are summarised in **Table 8** below.

Table 8: POEO licences and notices

Name	Location	Distance	Activity	Status
VISY Packaging PTY LTD	53-75 Queens Road Five Dock NSW 2046	820 m southwest	Hazardous, Industrial or Group A Waste Generation or Storage (73) > 10 - 100 T	Surrendered, September 2003

3.3.4 NSW EPA PFAS Investigation Program

Review of the EPA per and poly-fluoroalkyl substances (PFAS) Investigation Program, indicated that no sites are currently under investigation are within 5 km of the site.

Additionally, there are no activities associated with point sources of PFAS contamination as listed in the PFAS NEMP (HEPA, 2020) that were identified on or adjacent to the site.

3.4 DEFENCE UXO DATABASE SEARCH

A search of the Department of Defence's Unexploded Ordnance Database (UXO) was undertaken on 23 October 2021. A search of the lot and plan numbers indicated that the site is not located within a UXO impacted area.

4 PRELIMINARY CONCEPTUAL SITE MODEL

To assess the risk from land contamination and subsequent suitability of the site for the proposed use, an understanding of the receptor groups that interact with the land is required. Under the proposed commercial development and operation, the following receptor groups have been identified:

- Construction workers involved in site construction, including the shaft excavations and above ground structures
- General public and commercial workers using the site, following completion (operational phase)
- Workers during operation
- Trench workers that may need to access underground services.

Other receptors that require consideration to evaluate risks posed by site contamination but not site use suitability include:

- Neighbours – Commercial workers and general public
- Surface Waters – Infiltration to groundwater, aquatic ecosystem protection, recreational users
- Groundwater users – It is noted that groundwater use is likely to be limited as the site is located in a commercial area and there are no registered bores in the vicinity of the site

4.1 POTENTIAL CONTAMINATION SOURCES

Potential contamination sources identified at the site and associated contaminants of concern are described in **Table 9**.

Table 9: Potential sources and contaminants of concern

Sources	Mechanism (i.e. top down, placement, aerial etc.)	Affected Environmental Media (i.e. soil, water, soil gas)	Contaminants of Potential Concern (CoPC)
Imported fill and earthworks	Placement	Soil, groundwater	Asbestos, heavy metals, total recoverable hydrocarbons (TRH), BTEXN, polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP), polychlorinated biphenyls (PCB), volatile organic compounds (VOC)
Onsite commercial land uses	Top down, placement, aerial, subsurface release	Soil, groundwater	Heavy metals, TRH, BTEX, PAHs, VOC, PCB
Building demolition	Placement, aerial	Soil	Asbestos, lead, PCB
Off-site sources (funeral homes, electrical substation, service stations)	Lateral migration	Groundwater	Metals, TRH, BTEXN, PAHs, VOC, PCB

Notes: Heavy metals: arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc
BTEXN: benzene, toluene, ethylbenzene, xylene, naphthalene

No potential sources of hazardous ground gases have been identified and therefore a ground gas assessment will not be undertaken.

No potential sources of PFAS have been identified on or adjacent to the site and therefore is not a CoPC. Targeted sampled within the shaft excavations will be analysed for PFAS in accordance with the waste classification guidelines and the addendum to Part 1 (NSW EPA, 2014a).

4.2 CONTAMINANT EXPOSURE PATHWAYS

The assessments indicate the following relevant contaminant exposure pathways:

- Direct contact with contaminated soils (dermal, ingestion – construction workers & trench workers)
- Inhalation of contaminated dusts (construction and trench worker, neighbours)
- Inhalation of vapours (construction and trench worker, commercial workers, neighbours)

As registered domestic bores were not identified within 500 m of the site, and the presence of reticulated water mains in the surrounding urban environment, consideration of domestic drinking water and irrigation uses have not been included.

4.3 CONCEPTUAL EXPOSURE MODEL

A pathway is a means by which contaminants can contact the identified receptors. Where no identified pathway is identified, it is considered to be incomplete and no risk of exposure to the receptor can occur.

The conceptual model in **Table 10** below, was prepared prior to the site investigation and considers an operating metro station (commercial centre).

Table 10: Preliminary conceptual site model

Relevant Exposure Pathways	Receptors			
	On site users	On site construction workers	Neighbouring site users	Other
Soil ingestion / dermal contact / dust	✓	✓	✓	Terrestrial ecology X ^(a)
Indoor inhalation of vapours derived from soil	✓	✓	--	--
Outdoor inhalation of vapours derived from soil	X	X	--	Trench workers ✓
Indoor inhalation of vapours derived from groundwater	✓	✓	✓	--
Outdoor inhalation of vapours derived from groundwater	X ^(b)	X ^(b)	X ^(b)	Trench workers ✓
Soils leaching to groundwater	--	--	--	Groundwater impact ✓
Groundwater discharge to surface water	--	--	Recreational users of Hen and Chicken Bay ✓	Aquatic ecosystem ✓
Notes				
X – exposure pathway incomplete no unacceptable risk				
✓ – exposure pathway potentially complete and requires investigation				
-- Not relevant				
(a) Surface seal prevents soil exposure				
(b) Outdoor air dilution				

5 DATA QUALITY OBJECTIVES

A process for establishing data quality objectives for an investigation site has been defined in the ASC NEPM guideline on site characterisation (NEPC, 2013). The data quality objective (DQO) process was applied to the site investigation to ensure that data collection activities were appropriate and would achieve the project objectives as defined in **Section 1.1**. The DQO process includes seven steps as defined in the following sections.

5.1 STEP 1: STATE THE PROBLEM

A DSI is required at the proposed Five Dock station to assess the contamination status of the site and the material classification categories.

5.2 STEP 2: IDENTIFY THE DECISION / GOAL OF THE STUDY

The decisions to be made based on the results of the DSI are as follows:

- Have previous site activities and surrounding land uses resulted in contamination of soil or groundwater at the site?
- What are the material classification categories and volumes for the soil units to be excavated, in accordance with the Sydney Metro Spoil Management Hierarchy?
- Do fill materials on the site which are to be excavated meet the definition of ENM?
- Do natural materials on the site which are to be excavated meet the definition of VENM?
- Will the site pose an unacceptable risk to onsite receptors, during construction?
- If contamination is identified at the site, with regard to site suitability for the proposed development
 - is further assessment required?
 - is the contamination able to be managed under a long term environmental management plan (LTEMP)?
 - will remediation of contamination be required at the site?
- Does contamination pose a risk to offsite human health and ecological receptors?

Epic note the waste classification and resource recovery assessment is to be undertaken by a third-party consultant as a project wide assessment and therefore a waste classification and resource recovery assessment was not included as part of this DSI.

5.3 STEP 3: IDENTIFY THE INFORMATION INPUTS

The inputs required to make the above decisions are as follows:

- Identification of issues of potential environmental concern (history review and available information from government and environmental databases)
- Field observations indicating recent land-use areas of environmental concern (AECs) and the presence of aesthetic issues, including but not limited to odours, discolouration and presence of foreign materials and wastes
- Stratigraphic conditions recorded from intrusive investigations (boreholes) on the site
- Laboratory analysis from collected samples and analyses for concentrations of CoPC
- Screening sample analytical results against appropriate assessment criteria for the intended land use, including:
 - NEPM commercial / industrial land use criteria (HIL-D / HSL-D) will be adopted to assess whether the site is suitable for the proposed metro station use
 - Waste classification criteria (NSW EPA, 2014a) as well as applicable RRO assessment criteria (e.g. ENM)
 - The definition of VENM as provided in the Protection of the Environment (Operations) Act (1997), as 'natural material (such as clay, gravel, sand, soil or rock fines):
 - that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities and
 - that does not contain any sulfidic ores or soils or any other waste
 - and includes excavated natural material that meets such criteria for VENM as may be approved for the time being pursuant to an EPA Gazettal notice.'
- The lateral and vertical distribution of materials containing concentrations greater than the laboratory detection limits and/or adopted assessment criteria

5.4 STEP 4: DEFINE THE BOUNDARIES OF THE STUDY

The boundaries for the environmental assessment have been identified as follows:

- Spatial boundaries:
 - Spatial boundaries will be limited to the boundary of the Site, defined in **Figure F2**. At this stage we have assumed that this is the fenced site layout as provided on page 6 of the AFJV 'SMW – Central Tunnelling Project Site Layout Presentation'
- The depth boundary will be defined as the depth of investigation required to assess ground conditions at the site. The maximum depth for the investigation has been limited to 10 m due to the potential contamination sources limited to surface only.
- Temporal boundaries – the temporal boundary is limited to the data collected during this investigation and previous relevant investigations
- Constraints within the study boundaries – the following issues present limitations upon the sampling strategy for the site:

- Structures (i.e. buildings, services, roof tops, tiled floors) that limit the movement of plant and restricts placement of investigation locations
- Subsurface structures or obstructions including existing underground services

5.5 STEP 5: DEVELOP A DECISION RULE

Results of soil and groundwater investigations will be compared against investigation and screening levels outlined in Schedule B1 of the ASC NEPM (NEPC, 2013) in consideration of current and proposed land uses, and potential risks to human health and the environment. Soil results will also be compared to waste classification criteria from NSW EPA (2014a). The decision rules for this DSI are presented in **Table 11**.

Table 11: Decision rules

Aspect – Soil Exceedances – land use suitability
Detail – If contaminants are identified at concentrations greater than the adopted soil investigation screening levels
Mitigation;
▪ Further investigation to assess the volume and nature of impacted soils ▪ Statistical analysis and comparison against screening levels ▪ Onsite management and/or excavation and offsite disposal
Aspect – Soil Exceedances – waste classification
Detail – If contaminants are identified at concentrations greater than the adopted waste classification screening levels
Mitigation;
▪ Statistical analysis and comparison against GSW criteria ▪ Toxicity characteristic leaching procedure (TCLP) analysis of contaminants exceeding the adopted criteria ▪ Further investigation to assess the volume and nature of impacted soils
Aspect – Groundwater Exceedances
Detail – If concentrations of contaminants are identified in groundwater which exceed the adopted groundwater investigation screening levels
Mitigation;
▪ Further investigation to delineate the extent of groundwater impact ▪ Statistical analysis and comparison against relevant criteria ▪ Onsite management and/or remediation
Aspect – Delineation of impacts
Detail – If impacts at the site cannot be adequately delineated
Mitigation:
▪ Additional investigation across the site ▪ Development and implementation of management measures, as required

5.6 STEP 6: SPECIFY LIMITS ON DECISION ERRORS

The potential decision errors for this DSI include:

- Assessment that the site is uncontaminated when it is OR is contaminated when it is not
- Assessment that soil vapour or groundwater beneath the site requires management, when no management is required OR does not require management, when management is required

The acceptable limits on decision errors to be applied for the DSI and the manner of addressing possible decision errors have been developed based on the Data Quality Indicators (DQIs) of precision, accuracy, representativeness, comparability and completeness which are presented in the SAQP (Epic Environmental, 2021). The potential for significant decision errors are to be minimised by:

- Where appropriate, 95% Upper Confidence Limit (UCL) will be used for the assessment of analytical results
- Completing a robust Quality Assurance/Quality Control (QA/QC) assessment of the field and laboratory data and application of the probability that 95% of data will satisfy the DQIs
- Assessing whether appropriate sampling and analytical density for the purposes of the intrusive assessment has been applied
- Ensuring that the criteria set for the intrusive assessment are appropriate for the proposed use of the site
- Use of calibrated field equipment

5.7 STEP 7: OPTIMISE THE DESIGN FOR OBTAINING DATA

Based on the objectives of the DSI, the investigation program design is based on a systematic sampling pattern to characterise the site and identify/delineate potential risks. The field and laboratory methodologies applied during the DSI are documented in **Section 8**.

6 Assessment Criteria

The primary reference for environmental site assessment in Australia is the ASC NEPM 1999, amended 2013 (NEPC, 2013). This document includes soil, soil vapour and groundwater criteria for use in evaluating potential contamination risk to human health and the environment.

The application of these investigation levels and screening levels is subject to a range of limitations and their selection and use must be in the context of the conceptual site model (CSM) relating to the nature and distribution of impacts and potential exposure pathways. Each relevant guideline is discussed further below.

6.1 SOILS

Epic considers that the proposed land use as a metro station with commercial precinct, is most closely approximated to commercial/industrial land uses. For risk screening purposes concentrations in soils will be compared against Health Investigation Levels (HILs) and Health Screening Levels (HSLs) for commercial/industrial (HIL-D and HSL-D) from Schedule B1: 'Guideline on Investigation Levels' of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (ASC NEPM) (NEPC, 2013). Where NEPM criteria is not available for contaminants of concern, concentrations will be compared to the laboratory limit of reporting (LOR) or appropriate overseas guidance.

In accordance with the ASC NEPM, protection of the environment is also considered in this site assessment. Soil concentrations will be compared against Ecological Investigation levels (EILs) and Ecological Screening Levels (ESLs) for commercial/industrial land use.

The guidance criteria used to establish the soil assessment criteria is summarised in **Table 12**.

Table 12: Adopted Soil Assessment Criteria (SAC)

Potential Contaminant of Concern	Potential Receptor	Guideline Source
Metals, Polycyclic Aromatic Hydrocarbons (PAH), Organochlorine Pesticides (OCP), Phenols	Human Health	ASC NEPM, Health Investigation Level (HIL) – Commercial/Industrial
	Ecological	ASC NEPM Environmental Investigation Level (EIL) – Commercial/Industrial exposure setting
Total Recoverable Hydrocarbons (TRH), Benzene/ Toluene/ Ethene/ Xylene/ Naphthalene (BTEXN)	Human Health	ASC NEPM, Health Screening Level (HSL) – Commercial/Industrial
	Ecological	ASC NEPM (2013) Environmental Screening Level (ESL) – Commercial/Industrial exposure setting
	Management Limits	ASC NEPM - Management limits for commercial/Industrial land uses
	Human Health	Friebe and Nadebaum (2014) Direct contact HSLs
Per and Polyfluoralkyl Substances (PFAS)	Human Health/	PFAS National Environment Management Plan (NEMP) 2.0 (2020) Health Investigation Level (HIL) – Commercial/Industrial
	Ecological	PFAS NEMP 2.0 (2020) – Ecological Direct and Indirect Exposure Limit

Potential Contaminant of Concern	Potential Receptor	Guideline Source
Volatile Organic Compounds (VOC)	Human Health	Laboratory Limit of Reporting US EPA (2019) Regional Screening Levels (RSLs): Summary Table – Industrial Soil
Asbestos	Human Health	Presence / absence ¹

1. Asbestos assessment will be undertaken qualitatively to determine the presence or absence of gross asbestos contamination. Quantitative NEPM criteria is not applicable as part of this assessment.

For human health and ecological risk assessment, a Tier 1 level assessment as defined by the ASC NEPM is undertaken. This involves the comparison of analytical results with the adopted investigation and screening levels. Where exceedances are identified, further assessment may be required to better understand and characterise the actual risks to the identified receptors.

ASC NEPM guidance provide Tier 1 investigation levels for human health risk assessment via the direct exposure pathway for the contaminants being considered. ASC NEPM also provides screening levels for the vapour inhalation pathway for volatile hydrocarbons (light end TRH and BTEXN) as a function of depth. Where petroleum hydrocarbon impact is present, additional trigger levels are provided for management actions (i.e. Management Limits). The management trigger levels are concentrations at which hydrocarbon impacted soil should not:

- Form observable light non- aqueous phase liquids (LNAPLs)
- Be a fire or explosive hazard, or
- Have deleterious effects on buried infrastructure (e.g. penetration or damage of underground services and conduits)

NEPM (2013) also refers to direct contact HSLs developed by Friebe & Nadebaum (2015) for exposure through dermal contact, incidental oral ingestion and dust inhalation and combined into a single HSL for direct contact with soil. These levels are significantly higher than other soil screening levels.

Ecological risk assessment with respect to metals is complicated by the occurrence of natural background metals in the environment. Site specific EILs will be derived for soils for chromium, copper, nickel and zinc in accordance with the method described in Section 2.5.10 of Schedule B1: 'Guideline on Investigation Levels' of the ASC NEPM. The EIL derivation methodology considers the physiochemical properties of soil and background contaminant levels (i.e. the Added Contaminant Limit (ACL) above Ambient Background Levels (ABC)).

⁵ Friebe, E & Nadebaum, P (2011), Summary: Health screening levels for petroleum hydrocarbons in soil and groundwater. CRC CARE Technical Report no. 10, CRC for Contamination Assessment and Remediation of the Environment, Adelaide, Australia;

For PFAS compounds, the PFAS NEMP 2.0 (2020) has established human health and ecological guideline criteria based on the ASC NEPM methodology. The PFAS criteria is not considered for this investigation as no potential sources of PFAS have been identified on or adjacent to the site.

Where published Australian criteria or suitable international criteria are not available for target compounds, the level of reporting will be used as the tier 1 screening tool.

Where individual sample values exceed the adopted criteria, the site may still be considered suitable for the respective land use if the following conditions are met:

- The 95% upper confidence limit (UCL) value is less than the criteria from a suitable population of data targeting a sampled soil type
- The standard deviation of the data subset does not exceed 50% of the adopted land use criteria value, and
- The individual values are less than 250% of the adopted land use criteria

6.1.1 Waste Classification Assessment

This waste screening assessment will be preliminary in nature as Epic note the waste classification assessment will be undertaken by a third party consultant (ADE Consulting Group) as a project wide waste classification assessment.

The preliminary waste classification assessment will be undertaken with reference to the NSW EPA (2014) Waste Classification Guidelines - Part 1: Classifying Waste. The waste classification guidelines require an assessment of the following steps:

- Step 1: is the waste special waste?
- Step 2: is the waste liquid waste?
- Step 3: is the waste pre-classified?
- Step 4: does the waste possess hazardous characteristics?
- Step 5: determining a wastes classification using chemical assessment?
- Step 6: is the waste putrescible or non putrescible.

Soils are then classed into the following categories based on the chemical contaminant criteria outlined in Table 1 and Table 2 of NSW EPA (2014a). The following criteria will be adopted and Toxicity Characteristic Leaching Potential (TCLP) analysis will be undertaken, where required.

- *General solid waste (GSW)* - If chemical concentrations is less than Contaminant Threshold (CT) 1 then can classify the soil as GSW. Additionally, if concentrations are greater than CT1, and TCLP is less than TCLP1 and chemical concentrations are less than Specific Chemical Concentration (SCC) 1 then also classify as GSW.

- *Restricted solid waste (RSW)* - If chemical concentrations is less than CT2 but greater than CT1 then can classify the soil as RSW. If TCLP is less than TCLP2 and chemical concentrations are less than SCC2 (but >SCC1) then classify as RSW.
- *Hazardous waste (HW)* – if chemical concentrations are above CT2 then preliminary classification is HW. If chemical concentrations are above SCC2 and/ or TCLP2 then classify as HW.

As per Addendum 1 of the waste classification guidelines (NSW EPA, 2016), PFAS needs to be considered as part of the waste classification process. As no potential sources of PFAS have been identified on or adjacent to the site, PFAS will be only considered for waste classification purposes. As such, the LOR in soil was raised to 5 µg/kg, as per the project requirements.

6.1.1.1 ENM Exemption

The ENM Exemption/Order applies to excavated natural material suitable for re-use offsite as engineering fill or in earthworks. ENM includes naturally occurring rock and soil that has:

- a) been excavated from the ground
- b) contains at least 98% (by weight) natural material
- c) does not meet the definition of Virgin Excavated Natural Material in the POEO Act 1997.

Excavated natural material does not include material located in a hotspot; that has been processed; or that contains asbestos, Acid Sulfate Soils (ASS), Potential Acid Sulfate soils (PASS) or sulfidic ores.

6.1.1.2 VENM Classification

With reference to Schedule 1 of the Protection of the Environment Operations (POEO) Act 1997, VENM is defined as '*natural material (such as clay, gravel, sand, soil or rock fines):*

(a) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities and

(b) that does not contain any sulfidic ores or soils or any other waste

and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved for the time being pursuant to an EPA Gazettal notice.'

To determine whether the subject materials are suitable for classification as VENM, an assessment of the physical and chemical characteristics is required to be undertaken. The VENM assessment will be undertaken with reference to the POEO Act and NSW EPA endorsed guidelines.

6.2 GROUNDWATER

Groundwater investigation levels will be adopted in accordance with ASC NEPM guidance. The ASC NEPM Schedule B (6) 'Guideline on Risk Based Assessment of Groundwater Contamination' indicates that groundwater should be assessed on the basis of its environmental value and the risk that current (or realistic future) groundwater use may pose to human health and/ or the environment. Regarding realistic future uses, consideration should be given to the quality and yield of the aquifer, the likely demand for water resources in the vicinity of the site, and technological practicalities.

In accordance with Schedule B(6), a beneficial use assessment (BUA) will be undertaken to assess both the current and potential future uses of groundwater within the uppermost aquifer beneath the site. The purpose of the BUA is to determine what groundwater uses need to be protected and to assess the risk(s) that contaminated groundwater may pose to human health and the environment.

The potential beneficial uses of groundwater include:

- Maintenance of nearby freshwater and marine ecosystems (Hen and Chicken Bay)
- Construction uses including wheel wash for heavy plant and dust suppression
- Protection of human health in consideration of the dominant vapour inhalation exposure pathway for dissolved petroleum hydrocarbons from groundwater

Based on these identified beneficial uses, the groundwater quality of the site has been assessed using investigation levels from the following sources.

- Assessment of groundwater discharging to freshwater and marine ecosystems is based on Table 1(C) of Schedule B1 of the ASC NEPM, Groundwater Investigation Levels (GILs) for slightly to moderately disturbed systems, ANZG (2018) freshwater and marine ecosystem 95% level of species protection (LOSP) and PFAS NEMP 2.0
- Assessment of groundwater discharging to recreational water bodies based on a threshold of 10 times the Australian Drinking Water Guideline (2011) criteria (as per ASC NEPM schedule B1), and
- Assessment of groundwater with respect to the protection of human health in consideration of the dominant vapour inhalation exposure pathway for petroleum hydrocarbons in groundwater is based on Table 1A(4), Schedule B1 of the ASC NEPM (Groundwater HSLs for vapour intrusion), assuming predominantly clay soils. HSLs for commercial/industrial residential land uses have been adopted (HSL-D)

7 SAMPLING AND ANALYSIS PLAN

Epic conducted intrusive investigations at the site during the period November 2021 to January 2022. The field investigations were completed by Epic environmental scientist, Morgan Singleton-Fookes.

7.1 SOILS

The soil sampling program was aimed at identifying areas of soil contamination and potential risks to receptors as outlined in the preliminary CSM (**Section 4.3**) by using a systematic soil sampling pattern. However, due to buildings and underground services, a true systematic soil sampling pattern was unable to be utilised. Therefore, a judgemental sampling pattern was adopted for both construction zones and additional locations were added within the shaft excavations to ensure appropriate quantum of data was collected. The sampling location plan is included on **Figure F2**.

Epic considers the sampling locations sufficient to achieve the investigation objectives.

7.2 GROUNDWATER

As shown in **Figure F2**, groundwater monitoring well (GWMW) SMW_BH082 is located on Great North Road adjacent to the east of the western construction zone and GWMW BH718 is located in the eastern construction zone car park. A summary of the existing groundwater wells is included in **Table 13** and documentation for SMW_BH082 is included in **Appendix C**. No borehole log or historical analytical data was available for BH718.

Table 13: Summary of existing groundwater wells

Well ID	Location	TOC Elevation (mAHD)	Date Completed	Completed By	Total Well Depth (mbgl)	Screened Interval (mbgl)	Standing Water Level 16/12/21 (mBTC)
SMW_BH082	Great North Road adjacent to the east of the western construction zone (163 Great North Road)	18.04	23 November 2018	Golder Douglas Partners	13.3	9.3 – 12.3	2.90
BH718	Western car park in the eastern construction zone (3 Second Avenue)	18.35	2 October 2020	Golder Douglas Partners	15.90	Unknown	4.08

Each GWMW was inspected prior to sampling and was deemed suitable as based on the total depth, good well head condition (i.e. no cracks in the PVC, the well plug seals, and no build-up of silt/ soil within the wells) and surrounding potential sources of contamination.

Epic considers that the total well depth of between 13 and 16 m is suitable as based on the geology and groundwater encountered during the soil investigation. Although these two wells may be screened at variable depths, as based on the geology, it is considered the groundwater within the clay and

weathered shale will likely be interconnected and therefore the groundwater samples will be representative of underlying groundwater quality at the site. Further details are included in **Section 9.1**.

The well head of each borehole was in good condition, with the exception of silt build-up around the well head in SMW_BH082. However, the silt and water was removed using a syringe and it was identified that the well plug was sealed and likely no surface water ingress had occurred. Epic noted that additional water should be purged prior to sampling to ensure representative samples are collected.

Based on the historical use of the site and as discussed within the preliminary CSM (**Section 4.3**), limited sources of contamination are present on and surrounding the site. The primary sources of contamination onsite are the presence of fill and existing structures. Existing structures and fill primarily present the risk of hazardous materials (i.e. heavy metals and asbestos) which present a low risk to groundwater. Surrounding potential contamination sources (funeral homes and service stations) are either located downgradient or greater than 200 m upgradient. The contamination risk of the substation will be assessed using adjacent soil boreholes. The locations of SMW_BH082 and BH718 are considered appropriate to indicate widespread gross contamination within each construction zone.

As based on the site history review, there are no point sources on or directly adjacent to the site requiring a targeted groundwater assessment. Additionally, the soil assessment did not identify any areas of concern (further discussed in **Section 9.1**). Therefore the existing GWMWs are considered to be suitable to advise on the groundwater quality which will likely be encountered by workers during construction works, as well as provide information to inform risks in relation to future site use.

Epic note that the water quality assessment for construction dewatering and discharge are being undertaken by ERM as a project wide hydrogeological investigation.

7.3 SAMPLING PLAN SUMMARY

A summary of the investigation and analysis undertaken is detailed in **Table 14**.

Table 14: Sampling and analysis plan

Environmental Media	Sample Design	Rationale	Sample Location ID	Target depth	Analytes	Date
Soil	Eastern zone – A systematic sampling plan was proposed (minimum nine locations required) however due to access constraints a judgmental approach with 13 locations was adopted	Outdoor areas surrounding the shaft excavation for site suitability	BH01, BH02, BH06, BH09, BH11, BH26, BH27	0.5 m into natural	TRH BTEXN PAHs Heavy metals 20% Asbestos 20% PCBs 20% OCP/OPP 10% VOCs PFAS 2 samples	30 November 2021 to 17 January 2022
		Within the shaft excavation footprint to assess the materials classification for disposal and/or reuse	BH03, BH04, BH07, BH08, BH10	4.0 m or 0.5 m into natural		
			BH05	10.0 m		

Environmental Media	Sample Design	Rationale	Sample Location ID	Target depth	Analytes	Date
	Western zone – A systematic sampling plan was proposed (minimum 11 locations required) however due to access constraints a judgmental approach with 14 locations was adopted	Outdoor areas surrounding the shaft excavation for site suitability	BH12 to BH14, BH23 to BH25	0.5 m into natural	TRH BTEXN PAHs Heavy metals 20% Asbestos 20% PCBs 20% OCP/OPP 10% VOCs PFAS 2 samples	30 November 2021 to 3 December 2021
		Within the shaft excavation footprint to assess the materials classification for disposal and/or reuse	BH15, BH17 to BH22	4.0 m or 0.5 m into natural		
			BH16	10.0 m		
Soil (waste classification)	TCLP analysis for samples exceeding GSW criteria	Facilitate classification as GSW	BH01, BH02, BH03, BH08, BH10, BH23	--	Lead TCLP Benzo(a)pyrene TCLP	--
	Four samples within the shaft excavation footprint	Facilitate classification as ENM	BH03, BH07, BH15, BH18	--	ENM suite	--
Groundwater	Collection of groundwater samples from existing wells SMW_BH082 and BH718	Identify groundwater quality and advise on site suitability	SMW_BH082 and BH718		TRH BTEXN Heavy metals PCBs VOCs General water suite*	16 December 2021

Notes: Percentages are approximate (based on primary samples only)

PFAS and TCLP analysis undertaken on samples from within the shaft excavation only

General water suite: Ca, Mg, Na, K, pH, EC, Cl, SO₄, alkalinity, fluoride, hardness and total dissolved solids

7.3.1 Laboratory Analytical Program

Laboratory analysis was completed by Envirolab, a NATA accredited laboratory. A summary of the soil analytical schedule is provided in **Table 15**, and the groundwater analytical schedule is provided in **Table 16**.

Table 15: Soil Analytical Program

Analysis	Number of Samples (including duplicate samples)
TRH, BTEXN, heavy metals	60
PAHs	60
PCBs	13
VOCs	5
OCP/OPP	10
Asbestos	11
CEC, pH	2

Additionally, the waste classification assessment included two samples per shaft excavation (total of four samples) for PFAS analysis, four samples for the ENM suite, and seven samples for TCLP (three for lead and four for benzo(a)pyrene).

The analytical suite undertaken varied from the scope presented in the SAQP. Fewer samples were analysed for OCP/OPPs, PCBs, and asbestos due to the limited fill identified across the site. Epic

considers the numbers of samples analysed to be appropriate to meet the objectives of the investigation.

Table 16: Groundwater Analytical Program

Analysis	Number of Samples (including duplicate samples)
TRH, BTEXN, heavy metals	4
VOCs	2
PCBs	2
General water suite	2

PFAS was not analysed in groundwater due to the lack of potential PFAS sources on or adjacent to the site.

7.4 QUALITY ASSURANCE

The field and laboratory quality assurance and quality control plan adopted for the assessment was designed to achieve pre-determined data quality objective that are assessed with respect to Data Quality Indicators (DQIs) to demonstrate the precision, accuracy, representativeness, completeness and comparability of the data set and that the data set is of acceptable quality to meet the objectives of the assessment.

All fieldwork was conducted with reference to the relevant ASC NEPM (NEPC, 2013), PFAS NEMP 2.0 (HEPA, 2020) guidelines and Epic's Standard Field Operating Procedures, which allowed all samples to be collected by a set of uniform and systematic methods, as required by Epic's QA system.

Field QA samples collected are summarised in **Table 17**.

Table 17: Field QA Sampling

Sample ID	Sample Type	Sample Matrix	Rate of Collection
QC01, QC03, QC05, QC07	Intra-laboratory duplicate	Soil	1 in 13 samples
QC02, QC04, QC06, QC08	Inter-laboratory duplicate	Soil	1 in 13 samples
QC01	Intra-laboratory duplicate	Water	1 in 2 samples
QC02	Inter-laboratory duplicate	Water	1 in 2 samples
TS01, TS03	Transport spike	Soil	1 per laboratory batch
TB01, TB03	Transport blank	Soil	1 per laboratory batch
TS02	Transport spike	Water	1 per laboratory batch
TB02	Transport blank	Water	1 per laboratory batch
RB01 – RB05	Rinsate	Water	1 per day of sampling

Note – Rate of QC sample collection specified as 1 in 20 samples in AS4482.1

8 INVESTIGATION METHODOLOGIES

Epic conducted an environmental investigation in two phases due to the access restrictions in the eastern zone. A total of 25 locations were completed between 30 November and 3 December 2021, and two locations (BH26 and BH27) were completed on 22 January 2022. The groundwater sampling was completed on 16 December 2021.

8.1 SOIL SAMPLING METHODOLOGY

Prior to the investigation, a concrete cutting and core hole permit and ground disturbance permit were issued by AFJV. Each permit was reviewed and signed by the relevant contractors prior to commencing intrusive works.

The sampling methodology adopted for the soil investigation is detailed in the SAQP (Epic Environmental, 2021) and is summarised in **Table 18** below.

Table 18: Soil investigation methodology

Action	Description
Service location	A dial before you dig (DBYD) search was conducted prior to the site works being undertaken. Epic engaged a Telstra accredited service locator (SmartScan) prior to works commencing, to complete underground service locating at the site and to clear each proposed borehole location prior to drilling. Each location was cleared using radio detection electromagnetic locators/transmitters and ground penetrating radar (GPR), where possible.
Concrete coring / non-destructive drilling	Concrete coring was completed at 19 locations (BH03, BH04, BH07 – BH10, BH12 – BH24) by the drillers (Stratacore Drilling) or a contractor (Australian Utilities Management (AUM)) provided by AFJV (Plate P6). Non-destructive drilling (NDD) (utilising wet vacuum excavation) was completed at locations to a maximum depth of 1.5 m to clear for underground services. Two locations, within the site office in the western construction zone, were advanced using a hand auger and hand tools (no crow bars), due to restricted access.
Intrusive drilling	Where NDD was undertaken, samples were collected at targeted depths (approximately top 0.3 m, 0.4-0.6m, and 1.0-1.2m) using a hand auger. Boreholes requiring advancement further than the NDD, were advanced using a track mounted geoprobe drilling rig utilising pushtube drilling methods. Two locations (BH05 and BH16) were further advanced using solid flight augers.
Logging	Logging of the boreholes was conducted in general accordance with the Unified Soil Classification System and AS 1726-1993. The soil profile logged and the following information was recorded in the field: soil/rock type, colour, grain size, sorting, inclusions, moisture conditions, staining and observation of any anthropogenic material (i.e. odours, waste materials). Soils were placed in a zip lock bag for field screening for volatile compounds using a Photo-ionisation Detector (PID) which with the results recorded in the field. Equipment calibration certificates are included in Appendix E . Descriptions were recorded on Epic's standard field log sheets for uniformity in descriptions, presentation and to aid in future interpretations. The completed borehole logs are included in Appendix F .
Soil sampling intervals	Samples were generally collected from each borehole from the surface between 0.0-0.2 m, subsurface approximately 0.5 m, and 1.0 m depths or where visual and/or olfactory indicators of contamination were observed or as indicated by PID results.

Action	Description
Sample collection	Samples of the soil material were collected from the extracted soil core at sampling intervals nominated on the borelogs using nitrile gloves. Soil samples were collected in laboratory supplied 250 mL glass jars with Teflon-lined lids for chemical analysis and into zip lock sealed bags for asbestos analysis. Samples within the shaft excavation were also collected in 125 mL high-density polyethylene (HDPE) jars for PFAS analysis. Samples were labelled and immediately stored on ice for transport to the NATA accredited laboratory (Envirolab (primary) or Eurofins (Secondary)).
Borehole reinstatement	Following completion of drilling and soil sampling, boreholes were reinstated by backfilling with recovered material and reinstated with original surface material where required (i.e. grass, asphalt, or rapid set concrete). Where NDD was completed as L-shaped slit trenches, the trench was backfilled with clean imported sand as organised by AFJV and completed by AUM.
Field QA/QC	Field duplicates of the soil samples was prepared in the field by collecting a blind sample from the same depth. Samples were not mixed or homogenised during collection or splitting.
Sample Labelling, Storage and Transport	All samples were clearly labelled with unique sample identification numbers consisting of the date, sample location with the prefix 'Epic-FD-', depth of sample and sampler's initials. All samples were kept chilled in an ice-filled Eskey prior to dispatch and during transport to the primary laboratory under chain-of-custody (COC) procedures.
Cross contamination	Minimal equipment was used between sample points during this investigation. To minimise the potential of cross contamination samples were collected from the single-use plastic sleeve of the push tube using disposable nitrile gloves, changed between the collection of each sample. Where the hand auger was used for sampling, the equipment was decontaminated as per the procedures define in Section 8.3 .

8.2 GROUNDWATER SAMPLING METHODOLOGY

Inspection of the existing GWMWs was undertaken during the first phase of drilling to advise on the suitability of each well. Each well was inspected and gauged to determine standing water levels (SWL) with a water level interface probe. A disposable eco-bailer was submerged in each well to inspect for visual/olfactory evidence of contamination, including LNAPL. Each well was considered suitable for sampling to achieve the objectives of the investigation.

Due to the location of SMW_BH082 on Great North Road, traffic control was required during sampling which was organised by AFJV for the following week.

Prior to sampling, depth measurements to the SWL and total well depth were referenced to the top of well casing as an established datum and were recorded to the nearest millimetre. Groundwater samples were collected by dedicating HDPE tubing into each well. The HDPE tubing was connected to disposable silicon tubing run through a peristaltic pump. The base of the tubing was placed within the screen interval and the pump was set to low flow rates to reduce sample turbidity. During well purging, water parameters including pH, dissolved oxygen (DO), electrical conductivity (EC), oxidation reduction potential (ORP) and temperature were measured using a calibrated water quality meter (In-Situ SmarTROLL). Calibration certificates are included in **Appendix E** and groundwater sampling sheets are included in **Appendix G**.

Groundwater samples were collected when water quality parameters and the SWL stabilised. Where the stabilisation of head elevation was unable to be achieved due to low groundwater recharge (BH718), groundwater samples were collected upon stabilisation of water quality parameters. Groundwater

samples were collected in laboratory prepared bottles and vials, labelled and placed on ice in an esky and transported under chain of custody to Envirolab for analysis of the CoPC.

8.3 QUALITY CONTROL PROCEDURES

A new pair of disposable gloves was worn for the collection of each sample. Any reusable equipment used during sampling (e.g. hand auger, push tube shoe, oil/water interface probe) was decontaminated by scrubbing with a plastic brush with a solution of Liquinox and deionised water and rinsing with clean water. The items were then rinsed in distilled or de-ionised water.

The laboratory internal QC procedures are consistent with NEPM policy on laboratory analysis of contaminated soils.

9 ENVIRONMENTAL ASSESSMENT

This section presents the results of the soil and groundwater field observations, sampling and laboratory analysis. Field observations are provided in **Section 9.1**, with analytical results from sampling provided in **Section 9.1.3**.

9.1 SOIL ASSESSMENT

The following observations were made during the drilling and soil sampling.

9.1.1 Geology

The general lithology across the investigation area was consistent with geological mapping and comprised fill overlying natural clays (**Plate P7**) and Ashfield shale. Soil borehole logs are presented in **Appendix F**.

Nine locations were terminated due to refusal, one location was terminated due to collapsing sand, and the remainder were terminated at the targeted depths. BH16 and BH21 refused on shale and BH13, BH15, and BH19 refused on very stiff clays with ironstone gravels. BH23 was terminated due to collapsing sand and BH18, BH20, BH22 and BH24 refused on concrete or cemented aggregate.

Fill material

Fill material was generally identified as brown/black sandy clay or sand with gravels of concrete, slag, brick, ironstone, sandstone, and shale to a maximum depth of 0.9 mbgl (**Plate P8**). Fill ranged from the surface to up to 0.9 mbgl. Occasional anthropogenic material in fill included tile fragments, glass, and burnt wood and ash. No potential ACM was observed within fill material.

No odours or staining was noted in fill material and all PID results were less than 1.2 ppm.

Natural clays / Residual

Clay was identified in 22 locations and consisted of grey, orange, red mottled firm to very stiff clay with ironstone gravels and rootlet remains, ranging in depth from 0.35 to 4.6 mbgl (**Plate P9**). Rare pockets of dark brown, organic matter with a slight organic odour were noted in two locations.

Ashfield shale

Two locations (BH05 and BH16) identified Ashfield shale which was recovered as brown to grey extremely weathered shale, ranging in depth from 1.5 to 10.0 bgl (maximum depth of investigation) (**Plate P10**). Drilling identified interbedded soft and hard bands which indicates likely interbedded

sandstone (as per geological mapping and surrounding geotechnical boreholes). However, sandstone was not identified during drilling.

9.1.2 Soil Analytical Results

Soil analytical results are presented in **Table T1** and are summarised in **Table 19** below. Laboratory reports are presented in **Appendix H**.

Table 19: Soil Laboratory Results Summary

Analyte	Summary of Exceedances
TRH	One sample (BH07_0.1-0.3) reported a concentration of C ₁₆ -C ₃₄ above the commercial/industrial ESL (6,600 mg/kg).
BTEXN	All samples analysed reported concentrations less than the assessment criteria.
Metals (As, Be, Cd, Cr, Cu, Ni, Pb, Zn)	Four samples (BH02_1.0-1.1, BH03_0.2-0.4, BH08_0.2-0.3, and BH10_0.2-0.3) reported concentrations of zinc above the commercial/industrial EIL (600 mg/kg).
PAH	Five samples (BH01_0.0-0.2, BH07_0.1-0.3, QC01 (BH08_0.2-0.3), BH10_0.2-0.3, and BH23_0.4-0.5) reported concentrations of benzo(a)pyrene above the commercial/industrial ESL (1.4 mg/kg). One sample (BH07_0.1-0.3) reported concentrations of benzo(a)pyrene TEQ above the HIL-D (40 mg/kg).
PCBs	All samples analysed reported concentrations less than the laboratory LOR.
VOCs	All samples analysed reported concentrations less than the assessment criteria.
OCP/OPP	All samples analysed reported concentrations less than the assessment criteria.
PFAS	All samples analysed reported concentrations less than the laboratory LOR.
Asbestos	11 soil samples were analysed for the presence of asbestos with no detections of asbestos noted

9.1.3 Waste Classification Analytical Results

Soil analytical results assessed against waste classification criteria and the TCLP analytical results are presented in **Table T2**. Laboratory reports are presented in **Appendix H**.

At request of AFJV, a summary of the results for waste classification is not included in this report.

9.2 GROUNDWATER ASSESSMENT

Groundwater was identified in two borehole locations (BH05 and BH16) during the soil investigation. The water strike at BH05 was at 7.0 mbgl and BH16 was at 6.5 mbgl within the Ashfield shale. Based on the highly weathered shale and the drilling conditions (i.e. no perched water identified and interbedded soft and hard bands within the shale), it is likely that groundwater is within the soft bands of the weathered shale and the existing GWMW are suitable for assessing the groundwater quality underlying the site.

9.2.1 Hydrogeology

Standing water levels were gauged in each existing GWMW using an interface probe during the GME prior to sampling. Standing water levels were measured with reference to the top of casing at each well.

Monitoring well gauging results from the 16 December 2021, are summarised in **Table 20**, and field parameters and water quality observations are summarised in **Table 21**. Groundwater sampling sheets are included in **Appendix G** and equipment calibration certificates are included in **Appendix E**.

Table 20: Monitoring Well Gauging Results

Well ID	Well depth (mBTC)	SWL (mBTC)*
SMW_BH082	13.245	2.900
BH718	15.900	4.075

*Historical SWL were not available at the time of this investigation.

Table 21: Water Quality Characteristics

Parameter	SMW_BH082	BH718
Electrical Conductivity ($\mu\text{S}/\text{cm}$)	7,623	324
pH	6.34	6.81
Redox (mV)	3.9	-141.2
Dissolved Oxygen (ppm)*	0.72	0.44
Temperature ($^{\circ}\text{C}$)	21.2	22.7
Observations	No odours or sheen Clear, rare black sand/silt	No odours or sheen Clear

In general, the groundwater encountered onsite was observed to be neutral (pH 6.34 – 6.81) and brackish water (324 – 7,623 $\mu\text{S}/\text{cm}$).

9.2.2 Phase Separated Hydrocarbons

Phase separated hydrocarbons (PSH) were not observed during the sampling of groundwater.

9.2.3 Groundwater Analytical Results

Groundwater analytical results are presented in **Table T3** and are summarised in **Table 22** below. Laboratory reports are presented in **Appendix H**.

Table 22: Groundwater Laboratory Exceedances Summary

Analyte	Summary of Exceedances
TRH	All samples analysed reported concentrations less than the laboratory LOR.
BTEXN	All samples analysed reported concentrations less than the laboratory LOR.
Metals (As, Be, Cd, Cr, Cu, Ni, Pb, Zn)	One location (SMW_BH082 and its duplicate pairs) reported concentrations of nickel above the freshwater 95% LOSP and the freshwater GIL. One location (SMW_BH082 and its duplicate pairs) reported concentrations of zinc above the fresh and marine water 95% LOSP and the fresh and marine water GILs.
PCBs	All samples analysed reported concentrations less than the laboratory LOR.
VOCs	All samples analysed reported concentrations less than the laboratory LOR.

9.3 QUALITY ASSURANCE / QUALITY CONTROL ASSESSMENT

Epic accepts the integrity of the analytical data. A review of the investigation's quality procedures are presented in **Appendix D**.

10 DISCUSSION

The intrusive investigation completed at the site did not identify significant filling or areas of environmental concern. A summary of each construction zone is included below.

10.1 WESTERN CONSTRUCTION ZONE

The fill depth in the western construction zone was assessed, with fill recovered as brown gravelly clay or gravelly sand to a maximum depth of 0.9 mbgl. Gravels consisted of concrete, slag, brick, ironstone, sandstone, and shale with occasional anthropogenic material including tile fragments, glass, and burnt wood and ash. No potential ACM was observed within fill material.

Five locations in the northern area of the western zone were refused or terminated due to concrete (BH18, BH20, and BH22), cemented aggregate (BH24) or collapsing sand (BH23). With the exception of BH18, four of the locations (BH20, BH22 – BH24) were terminated due to the locations being unable to be accessed with a drilling rig (i.e. were located inside the buildings). Based on the site's history and the adjacent locations (BH25 and BH21) and other interior locations (BH12 and BH17), it is envisaged that the fill in the northern part of the western zone will be consistent with the rest of the western construction zone (i.e. will generally follow the topography of the site and will comprise shallow fill, less than 0.5 mbgl).

The samples collected from the western construction zone, reported concentrations all below the human health assessment criteria.

10.2 EASTERN CONSTRUCTION ZONE

The fill depth in the eastern construction zone was assessed at locations outside of the building footprints. Fill (recovered as brown gravelly clay) or reworked natural clays were identified at a maximum depth of 0.8 mbgl. No potential ACM was observed within fill material, however asbestos was noted within existing residential structures.

One sample (BH05_9.8-10) reported a concentration of xylene only above the laboratory LOR (2 mg/kg) in deep natural material. The concentration reported was 3 mg/kg (1 mg/kg above the laboratory LOR) and no other TRH or BTEXN analytes were reported. Additionally, other natural material analysed did not identify TRH or BTEXN compounds (BH05_4-4.2, BH05_7-7.2, BH16_3-3.2, and BH16_6-6.2) indicating the xylene detection is likely a false positive.

One sample (BH07_0.1-0.3) reported a concentration of benzo(a)pyrene TEQ (BaP TEQ) of 120 mg/kg, which was more than 2.5 times the human health commercial/industrial assessment criteria (40 mg/kg). This location is within the proposed shaft excavation and therefore the material associated with this

concentration will be removed as part of the construction works. The remainder of the benzo(a)pyrene analytical results were all well below the human health assessment criteria.

The following observations are made regarding this concentration:

- The actual benzo(a)pyrene concentration was 89 mg/kg and other PAH components in this sample were similarly elevated, contributing to the BaP TEQ calculated result of 120 mg/kg
- Apart from the BH07_0.1-0.3 BaP concentration (89 mg/kg), BaP in surface fill ranged from below the LOR (0.05 mg/kg) to 3.6 mg/kg
- The sample associated with the elevated result at BH07 was located adjacent to a pathway between two residential buildings on Waterview Street, which is not known to have had any industrial history
- Anthropogenic inclusions, including burnt wood, ash, brick and slag fragments were noted in surface fill at BH07 and randomly distributed at some other locations
- The distribution of PAH concentrations exceeding the LOR in surface fill are randomly distributed and are not suggestive of a pattern of contamination that may be associated with a point source or 'hot-spot' zone of contamination.

Based on these observations, Epic considers that:

- The elevated BaP TEQ result at BH07 is a statistical outlier, but is likely a 'true' value not associated with laboratory or transcription error or cross contamination of the sample
- The distribution of BaP in fill is random, consistent with a laydown mechanism associated with imported fill of varying quality

Based on the above, the exceedance in shallow soils at BH07 is considered to be an outlier and not representative of fill material within the eastern construction zone. Lateral delineation sampling is not considered to be required as this concentration is not representative of an area based hot spot, is a discernible outlier and deviates markedly from other concentrations reported within the fill profile.

10.3 PRELIMINARY WASTE CLASSIFICATION

Epic note the waste classification and resource recovery assessment is to be undertaken by a third-party consultant as a project wide assessment and therefore a discussion and 95%UCL calculations have not been included as part of this DSI.

10.4 GROUNDWATER

Groundwater analytical results were reported below the adopted assessment criteria with the exception of nickel and zinc concentrations reported above the adopted assessment criteria for freshwater, and marine water, respectively. An exceedance of the assessment criteria does not imply an environmental

impact is occurring or remediation is necessary, it implies further assessment may be warranted to assess the environmental risk.

The historical groundwater analytical data from SMW_BH082, noted nickel and zinc (in addition to cobalt, copper, iron, and manganese) as 'elevated' (Jacobs, 2020c). The nickel and zinc exceedances are likely associated with the parent rock (Ashfield Shale and Hawkesbury Sandstone) and given the low levels detected (concentrations within the same order of magnitude as the criteria) and the absence of a heavy metals source on the site, Epic considers the dissolved metals indicative of background levels and does not warrant further investigation.

Based on the results and given that groundwater is unlikely to be extracted for beneficial uses at the site or in the surrounding areas (i.e. drinking water, irrigation, etc), groundwater beneath the site is not considered to pose a risk to human health, including vapour intrusion, and does not preclude the site from commercial/industrial land use.

10.5 REVISED CONCEPTUAL SITE MODEL

A summary of the revised CSM for the site is presented in **Table 23** and two conceptual diagrams are included in **Figure F3a** and **Figure 3b**.

Table 23: Revised conceptual site model

Relevant Exposure Pathways	Receptors			
	On site users	On site construction workers	Neighbouring site users	Other
Soil ingestion / dermal contact / dust	X	X	X	Terrestrial ecology X ^(a)
Indoor inhalation of vapours derived from soil	X	X	--	--
Outdoor inhalation of vapours derived from soil	X	X	--	Trench workers X
Indoor inhalation of vapours derived from groundwater	X	X	X	--
Outdoor inhalation of vapours derived from groundwater	X ^(b)	X ^(b)	X ^(b)	Trench workers X
Soils leaching to groundwater	--	--	--	Groundwater impact X
Groundwater discharge to surface water	--	--	Recreational users of Hen and Chicken Bay X	Aquatic ecosystem X
Notes				

Relevant Exposure Pathways	Receptors			
	On site users	On site construction workers	Neighbouring site users	Other
X – exposure pathway incomplete no unacceptable risk ✓ – exposure pathway potentially complete and requires investigation -- Not relevant (a) Surface seal prevents soil exposure (b) Outdoor air dilution				

No complete exposure pathways for the proposed Five Dock station development have been identified.

10.6 DATA GAPS AND UNCERTAINTY

Based on the investigation undertaken, the following data gaps and uncertainties should be considered:

- The investigation works were undertaken pre demolition and as such, areas of the site were not accessible. Shallow refusal was encountered at five boreholes and due to restrictions within buildings, fill depth was not proven at these locations.
- The drilling method and sampling approach adopted was based on the site constraints and the preferred method for sampling for volatile analytes. Based on this method the asbestos assessment is considered to be limited. However, due to the limited historical land use (i.e. residential and commercial properties with no major developments or industrial activities) and the presence of shallow (less than 0.5 m) inert fill, the investigation method is considered suitable. Excavation works should be undertaken in accordance with the construction environmental management plans, and if asbestos is identified, the material should be managed under the unexpected ACM finds protocol.
- PFAS was not analysed within groundwater (and was limited within soil) as no sources of PFAS contamination were identified on or surrounding the site. Additionally, as per the project requirements, the laboratory LOR for PFAS in soil was raised to 5 µg/kg.
- No historical land uses that may be indicative of USTs were identified on or surrounding the site, nor were contaminants typically associated with USTs identified within soils or groundwater during the investigation. However, no dangerous goods search was undertaken as part of this investigation and therefore the presence of USTs may not be precluded.

11 COMPLIANCE WITH THE DEED AND COA

The following table provides an assessment of the investigation's compliance with the deed and CoA requirements.

Table 24: Assessment of Compliance

Clause	Requirement	Compliance
Deed Requirement		
12.19 (a)	Except for Preliminary Works, the Tunnelling Contractor must perform and submit to the Principal's Representative and the Independent Certifier a Detailed Site Investigation prior to commencing any excavation Activities	This DSI has been submitted to and reviewed by the Principal's Representative and the Independent Certifier
(i)	at any Area of Contamination Concern; and	The Areas of Contamination Concern at Five Dock are summarised in Section 4.1 .
(ii)	to the extent otherwise required under the Planning Approvals	See CoA D71
12.19 (b)	Notwithstanding clause 12.19(a), the Tunnelling Contractor may also perform additional Detailed Site Investigations carried out in other areas of the Construction Site or outside the Construction Site if the Tunnelling Contractor deems it necessary to manage the risks associated with contaminated land and to appropriately plan for Remediation. Any additional Detailed Site Investigation performed in accordance with this clause 12.19(b) must also be submitted to the Principal's Representative and the Independent Certifier.	A supplementary investigation is proposed to close out the data gaps identified in Section 10.6 . The proposed investigation is summarised in Section 12.1.1 and will fulfill the remaining requirements of the Deed.
12.19 (c)	Each Detailed Site Investigation	
(i)	Must	
A	Investigate areas of proposed excavation or disturbance	The whole footprint of the Five Dock construction zones is covered by the DSI (and proposed supplementary investigation), and therefore all areas of potential excavation or disturbance will be adequately investigated. The investigation locations and the proposed shaft excavation areas are shown on Figure F2 .
B	Investigation land within the construction site or extra land surrounding the areas of proposed excavation or disturbance with respect to the potential migration of contamination via groundwater, ground gas, vapour and odour into the areas of excavation or disturbance and	The land within the Five Dock construction zones has been adequately investigated with respect to potential migration via groundwater, ground gas (not likely to be present), vapour (no significant volatile substances detected, and not considered likely) and odours (no significantly odorous material encountered).
C	Characterise risks to the construction operation and maintenance of Sydney Metro West and its infrastructure from contamination	Contamination risks are summarised in Section 10.5 .
(ii)	Be prepared in accordance with Law, Good Industry Practice, the Planning Approvals, all guidelines made or approved by the EPA and any other requirements of this deed	The DSI has been prepared in accordance with this requirement.
(iii)	Be reviewed and approved by a Certified Contaminated Land Consultant	The DSI has been reviewed and approved by a Certified Contaminated Land Consultant (Brad May, CEnvP SC)

Clause	Requirement	Compliance
(iv)	Characterise the risk of Contamination migrating from the Construction Site as a result of the Tunnelling Contractors Activities	Contamination risks are summarised in Section 10 .
12.19 (d)	In addition to the requirements set out in clause 12.19(c), each Detailed Site Investigation performed within an Area of Contamination Concern must:	
(i)	To be reviewed and endorsed by an Accredited Site Auditor	This report is scheduled to be reviewed and endorsed by NSW accredited Site Auditor James Davis of Enviroview
(ii)	Be accompanied by an Interim Site Audit Advice prepared by the Accredited Site Auditor when submitted to the Principal's Representative and the Independent Certifier in accordance with clause 12.19(a)	The Interim Site Audit Advice is in preparation and will be provided separately by James Davis
12.19 (e)	In addition to the requirements set out in clauses 12.19(c) and 12.19(d), each Detailed Site Investigation performed within a Key Contaminated Area (KCA) must in accordance with the relevant EPA guidelines:	The Five Dock construction area is not classified as a KCA.
(i)	Determine and delineate the lateral and vertical extent of Contamination within each Key Contaminated Area	Waste classification of soils generated from the excavation of materials will not be conducted by Epic, as such this information has not been included in the DSI
(ii)	Include in-situ classification of Solid Waste at sampling densities not less than that specified within the NEPM (2013) and the Industrial Waste Resources Guidelines (7), Sampling and Analysis: Soil Sampling (EPA Victoria 2010), except for Virgin Excavated Natural Material (VENM) and Excavated Natural Material (ENM) which are to be classified in accordance with the requirements of the Protection of the Environment Operations Act 1997 (NSW)	
(iii)	Classify the Solid Waste in accordance with the Waste Classification Guidelines using a statistical approach where relevant	
(iv)	Be suitably detailed so as to inform the development of the Remediation Action Plan, any Remediation Cost Estimate and any Agreed Remediation Scope and to characterise contamination risk to the construction, operation and maintenance of Sydney Metro West (including but not limited to soil, groundwater, ground gas, vapour and odour risks arising from Contamination within the area of proposed excavation or disturbance or migrating into the area of proposed excavation or disturbance)	Based on the findings of the DSI (i.e. no contaminants onsite that would require remediation), the development of a RAP is not required.
(v)	Without limiting the Tunneling Contractors obligations under clause 12.20A(h), characterise the risk of any PFAS contained in Solid Wastes in respect of The Bays PFAS Key Contaminated Area.	Not applicable
CoA Requirement		

Clause	Requirement	Compliance
D71	Before commencement of any construction that would result in the disturbance of moderate to high risk contaminated sites as identified in the documents identified in Condition A1 of this schedule, Detailed Site Investigations (for contamination) must be conducted to determine the full nature and extent of the contamination. The Detailed Site Investigation Report(s) and the subsequent report(s) must be prepared, or reviewed and approved, by consultants certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. The Detailed Site Investigations must be undertaken in accordance with guidelines made or approved under section 105 of Contaminated Land Management Act 1997 (NSW). The Detailed Site Investigation for Sydney Olympic Park metro construction site must be prepared in consultation with SOPA.	The moderate to high risk areas referred to have been defined in the Environmental Impact Statement (EIS) for the project. There are five at Five Dock, including: - AEI 46 - funeral home - AEI 47 - former and existing structures - AEI 48 - chamber substation - AEI 49 - former service station - AEI 50 - historical commercial / industrial use within locality Epic confirms that the DSI has been prepared in accordance with the specified guidance to investigate the risk areas (or source areas) above. The supplementary investigation proposed will close out the data gaps identified in Section 10.6 and will fulfill the remaining requirements of condition D71. The DSI has been reviewed and approved by a CEnvP(SC).
D72	Should remediation be required to make land suitable for the final intended land use, a Remedial Action Plan must be prepared, or reviewed and approved, by consultants certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. The Remedial Action Plan must be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997 (NSW) and must include measures to remediate the contamination at the site to ensure the site will be suitable for the proposed use when the Remedial Action Plan is implemented. The Remedial Action Plan for Sydney Olympic Park metro construction site must be prepared in consultation with SOPA.	The DSI did not identify the requirement for remediation.
REMM Requirement		
C1	For sites where potential contamination risk is moderate, high or very high, a further review of data would be performed. Where the additional data review provides sufficient information to confirm that contamination is likely to have a very low or low risk, the site would then be managed in accordance with the Soil and Water Management Plan. This would typically occur where there is minor, isolated contamination that can be readily remediated through standard construction practices such as excavation and off-site disposal.	An assessment of previous investigations and a site history review was undertaken as part of the preparation of the SAQP and DSI.

Clause	Requirement	Compliance
C2	Where data from the additional data review (mitigation measure C1) is insufficient to understand the risk of contamination, a Detailed Site Investigation would be carried out in accordance with the National Environment Protection Measure (2013) and other guidelines made or endorsed by the NSW EPA. The sites requiring a Detailed Site Investigation would be confirmed following the additional data review (mitigation measure C1), however on the basis of the Stage 1 assessment, it is anticipated that Detailed Site Investigations would be required at the specified application locations.	The DSI has been prepared in accordance with this requirement.

12 CONCLUSIONS

Based on the information obtained during this DSI, Epic concludes the following:

- The historical review of the site indicated that residential and commercial properties have been present on the site prior to the 1930s
- Based on the historical review, no major developments or industrial activities have occurred on or adjacent to the site. This indicates minimal sources of contamination are present onsite with the exception of potential uncontrolled fill.
- Samples collected during the soil investigation reported CoPC below the adopted human health commercial/industrial assessment criteria, indicating the site is suitable for commercial/industrial land use and does not pose a risk to future site users (construction workers and general public)
- Groundwater samples collected during the GME reported CoPC below the adopted assessment criteria (with the exception of nickel and zinc). Based on the results and given that groundwater is unlikely to be extracted for beneficial uses at the site or in the surrounding areas (i.e. drinking water, irrigation, etc), groundwater beneath the site is not considered to pose a risk to human health (construction workers and future site users), including vapour intrusion, and does not preclude the site from commercial/industrial land use.

12.1 RECOMMENDATIONS

The extent of fill material across the northern area of the western construction zone is not well understood due to refusal/termination within fill at five borehole locations (see Figure F2). Based on the site history and the data collected to date, it is envisaged that the material underlying the buildings will consist of inert shallow (less than 0.5 m) fill.

Several buildings contained hazardous building materials (i.e. asbestos and lead paint). Following building demolition, shallow fill immediately surrounding and in the footprint of the buildings, may require additional assessment.

Based on the considerations above, Epic provides the following recommendations:

- Following the building demolition, additional assessment should be undertaken to prove the depth of fill within the northern area of the western construction zone and to close-out the remaining data gap with regard to potential contamination in these areas. This additional assessment will fulfill the requirements of Clause 12.19(a)(ii) of the Deed.
- Following the building demolition, a site inspection and clearance report should be undertaken to ensure no residual hazardous building materials remain on site

In addition, excavation works should be undertaken in accordance with the construction environmental management plans, specifically the unexpected finds and unexpected ACM finds protocols.

12.1.1 Proposed Supplementary Investigation Scope

To confirm the depth of fill and to comply with the requirements of the Deed, the following scope of works should be undertaken:

- Advancement of five hand auger locations to 1.0 m or 0.5 m into natural material at the five boreholes which previously identified shallow refusal (BH18, BH20, BH22, BH23 and BH24)
- Logging of the lithological profile encountered at each location and collection of soil samples at targeted depths (minimum of one fill sample and one natural sample)
- Submission of selected soil samples to a NATA accredited laboratory for analysis of:
 - TRH
 - BTEXN
 - PAHs
 - Heavy metals
 - 20% Asbestos
 - 20% PCBs
 - 20% OCP/OPP
 - 10% VOCs
- Site walkover and visual inspection of all site areas
- Preparation of a supplementary investigation letter report

This supplementary investigation will close out the remaining data gaps and will ensure compliance with 12.19(a)(ii) of the Deed and CoA D71.

Epic understands the supplementary investigation will be undertaken by a third party consultant (ADE Consulting Group) as part of the additional waste classification samples to be collected from the western construction zone.

13 LIMITATIONS AND DISCLAIMER

Epic Environmental Pty Ltd (Epic) has prepared the following report for the exclusive benefit of the Acciona Ferrovia Joint Venture (Client) and for the singular purpose of a detailed site investigation at the Sydney Metro West proposed Five Dock Station. All interpretations, findings or recommendations outlined in this report should be read and relied upon only in the context of the report as a whole.

The following report cannot be relied upon for any other purpose, at any other location or for the benefit of any other person, without the prior written consent of Epic. Except with Epic's prior written consent, this report may not be:

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- b. used or relied upon by any other party; or
- c. filed with any Governmental agency or other person or quoted or referred to in any public document.

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- b. has not undertaken any verification to the accuracy or reliability included in this information (with the exception where such verification formed part of the scope of works);
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- c. where another person has a different interpretation of the same information contained in the report;
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ACRONYMS

▪ ACM	Asbestos containing material
▪ AHD	Australian height datum
▪ BTEXN	Benzene, toluene, ethylbenzene, xylenes, naphthalene
▪ CBD	Central business district
▪ CoA	Conditions of Approval
▪ COC	Chain of Custody
▪ CoPC	Contaminants of potential concern
▪ CSM	Conceptual site model
▪ DBYD	Dial Before You Dig
▪ DQI	Data quality indicators
▪ DQOs	Data quality objectives
▪ EIL	Ecological investigation level
▪ EIS	Environmental Impact Statement
▪ EPA	Environmental Protection Authority
▪ ESL	Ecological screening level
▪ HIL	Health investigation level
▪ HSL	Health screening level
▪ KCA	Key Contaminated Area
▪ LOSP	Level of species protection
▪ mbgl	Metres below ground level
▪ mBTOC	Metres below top of casing
▪ NATA	National Association of Testing Authorities
▪ NEPM	National Environmental Protection Measure
▪ PAHs	Polycyclic aromatic hydrocarbons
▪ PFAS	Per- and Polyfluoroalkyl Substances
▪ QA/QC	Quality assurance / quality control
▪ REMM	Revised Environmental Management Measures
▪ RPD	Relative percent difference
▪ SVOCs	Semi-volatile organic compounds
▪ SWL	Standing water level
▪ TRH	Total recoverable hydrocarbons
▪ UCL	Upper confidence limit
▪ VOCs	Volatile organic compounds

FIGURES

Figure F1: Site location

Figure F2: Investigation locations

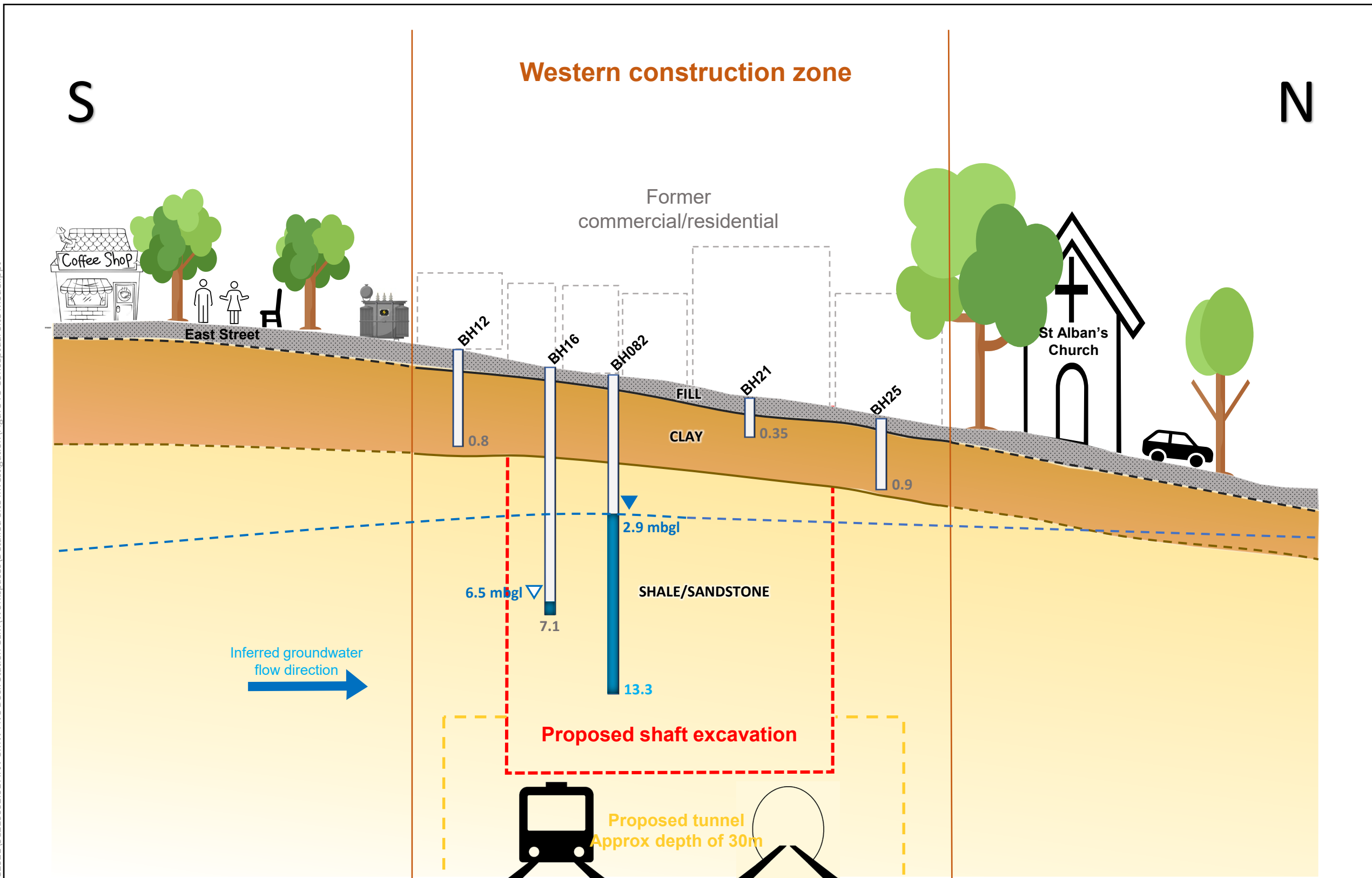
Figure F3a: Conceptual site model – North-South

Figure F3b: Conceptual site model – West-East





SC2021\SC210092.01 AFIV SMM Five Dock Station CLM\Workspaces\Detailed Site Investigation\Figure F3 Conceptual Site Model.ppt



2.9 Borehole depth (metres below ground level)

▼ Standing water level

▽ Water strike

13.3 Well depth (metres below ground level)

Not to scale

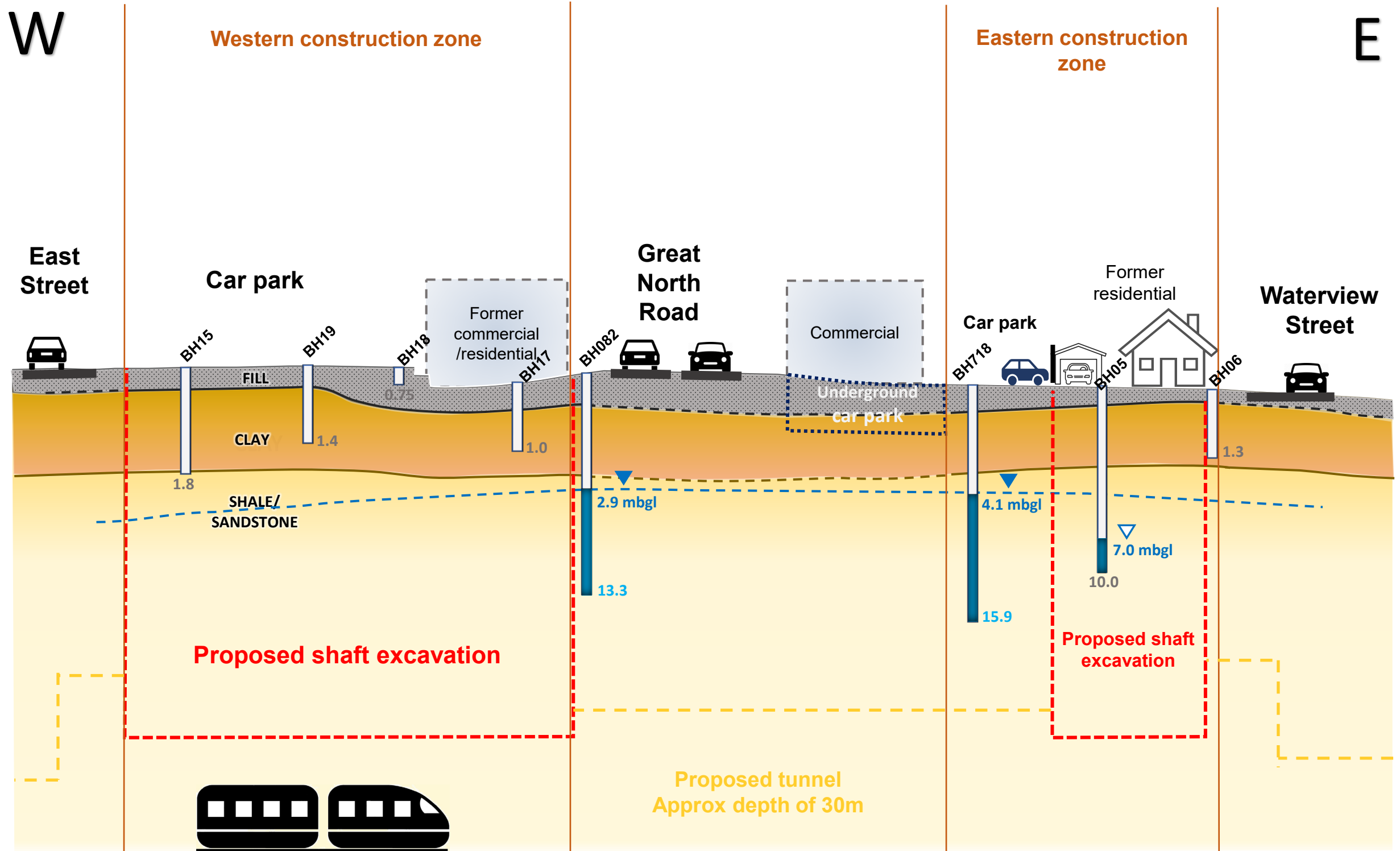
*Selected boreholes have been projected on the cross section
due to shallow refusal depths in the northern area*

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Sydney Metro West - Five Dock Station
Detailed Site Investigation**

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Figure F3a
Conceptual Site Model

SC2021\SC210092.01 AFJV SMM Five Dock Station CLM\Workspaces\Detailed Site Investigation\Figure F3 Conceptual Site Model.ppt



2.9 Borehole depth (metres below ground level)
▼ Standing water level
▽ Water strike
13.3 Well depth (metres below ground level)

Not to scale

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Sydney Metro West - Five Dock Station
Detailed Site Investigation

Draft

Figure F3b
Conceptual Site Model

TABLES

Table T1: Soil analytical results

Table T2: Soil and TCLP analytical results

Table T3: Groundwater analytical results

Table T4: QA/QC - Soil RPD's

Table T5: QA/QC - Groundwater RPD's

Table T6: QA/QC - Rinsates and Trip Blanks

Table T7: QA/QC - Trip Spikes

Table T1: Soil Analytical Results



					Asbestos	NA	Metals										TRH					
					Asbestos fibres	Moisture Content	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Lead (filtered)	Mercury	Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	
EQL			0.1	2	0.4	1	1	10	1	0.03	0.1	1	1	20	20	50	50	100				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil														800	20	1,000						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay															310 480							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand														260 370 630								
NEPM 2013 Table 1B(5) EIL - Comm/Ind							160		240		1,800		170	600								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil														215	170	170	2,500					
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil							3,000	900	240,000		1,500		730	6,000	400,000							
Field ID	Parent Sample	Depth	Date	Matrix Type																		
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	25	9	<0.4	23	34	-	160	-	0.1	3	130	<25	<25	<50	<50	<100	
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	22	6	<0.4	13	6	-	17	-	<0.1	<1	2	<25	<25	<50	<50	<100	
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	27	7	<0.4	16	17	-	57	-	<0.1	2	91	<25	<25	<50	<50	<100	
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	0	18	11	0.5	21	51	-	490	-	0.2	5	730	<25	<25	<50	<50	<100	
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	17	8	0.8	19	72	-	590	-	0.1	5	770	<25	<25	<50	<50	<100	
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	20	8	<0.4	20	7	-	23	-	<0.1	2	14	<25	<25	<50	<50	<100	
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	0	20	6	0.4	16	53	-	110	-	<0.1	3	290	<25	<25	<50	<50	<100	
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	22	6	<0.4	7	9	-	18	-	<0.1	<1	3	<25	<25	<50	<50	<100	
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	0	17	8	<0.4	19	5	-	19	-	<0.1	2	8	<25	<25	<50	<50	<100	
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	22	7	<0.4	20	9	-	17	-	<0.1	2	4	<25	<25	<50	<50	<100	
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	19	<4	<0.4	3	7	-	13	-	<0.1	<1	1	<25	<25	<50	<50	<100	
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	13	6	<0.4	2	30	-	11	-	<0.1	1	10	<25	<25	<50	<50	<100	
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	7.0	9	<0.4	12	21	-	17	-	<0.1	32	130	<25	<25	<50	<50	<100	
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	4.0	9	<0.4	10	20	-	17	-	<0.1	21	72	<25	<25	<50	<50	<100	
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	0	23	8	<0.4	22	10	-	20	-	<0.1	2	7	<25	<25	<50	<50	<100	
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	23	6	<0.4	13	7	-	19	-	<0.1	<1	2	<25	<25	<50	<50	<100	
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	21	5	<0.4	12	16	-	47	-	<0.1	2	90	<25	<25	95	95	4,100	
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	26	6	<0.4	17	8	-	17	-	<0.1	1	3	<25	<25	<50	<50	<100	
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	0	19	9	<0.4	21	18	-	87	-	<0.1	3	820	<25	<25	<50	<50	<100	
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	20	8	<0.4	18	16	-	150	-	0.1	2	260	<25	<25	<50	<50	160	
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	7.4	<0.4	15	36	-	18	-	<0.1	20	85	<20	<20	<50	<50	<100	
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	27	6	<0.4	17	8	-	19	-	<0.1	1	130	<25	<25	<50	<50	<100	
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	13	6	<0.4	16	25	-	36	-	<0.1	3	56	<25	<25	<50	<50	<100	
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	21	<4	<0.4	10	6	-	17	-	<0.1	<1	2	<25	<25	<50	<50	<100	
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	0	13	4	<0.4	13	24	-	1,200	-	<0.1	10	620	<25	<25	<50	<50	160	
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	22	8	<0.4	20	11	-	37	-	<0.1	3	28	<25	<25	<50	<50	<100	
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	23	<4	<0.4	11	7	-	21	-	<0.1	<1	2	<25	<25	<50	<50	<100	
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	22	6	<0.4	17	6	51,000	19	-	<0.1	2	12	<25	<25	<50	<50	<100	
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	22	11	<0.4	12	15	56,000	16	-	<0.1	<1	4	<25	<25	<50	<50	<100	
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	18	6	<0.4	14	11	-	46	-	0.1	2	35	<25	<25	<50	<50	<100	
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	26	6	<0.4	17	8	-	17	-	<0.1	2	3	<25	<25	<50	<50	<100	
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	0	17	5	<0.4	7	10	-	18	-	<0.1	1	11	<25	<25	<50	<50	<100	
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	17	6	<0.4	18	11	-	60	-	0.1	5	26	<25	<25	<50	<50	<100	
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	20	6	<0.4	16	10	-	41	-	0.2	2	11	<25	<25	<50	<50	<100	
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	15	<0.4	33	16	-	57	-	0.1	5.6	20	<20	<20	<50	<50	<100	
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	21	<4	<0.4	8	7	-	17	-	<0.1	<1	3	<25	<25	<50	<50	<100	
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	18	8	<0.4	22	15	-	39	-	0.1	3	120	<25	<25	<50	<50	<100	
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	14	4	<0.4	13	8	-	15	-	<0.1	<1	3	<25	<25	<50	<50	<100	

Table T1: Soil Analytical Results



					Asbestos	NA	Metals										TRH				
					Asbestos fibres	Moisture Content	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Lead (filtered)	Mercury	Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34
					Detect	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	14	5	<0.4	5	14	-	19	-	<0.1	<1	15	<25	<25	<50	<50	<100
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	7.3	10	<0.4	10	42	-	21	-	<0.1	33	170	<25	<25	<50	<50	<100
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	10	<4	<0.4	25	6	-	4	-	<0.1	3	16	<25	<25	<50	<50	<100
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	13	<4	<0.4	24	4	-	3	-	<0.1	2	4	<25	<25	<50	<50	<100
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	2.2	<0.4	36	11	-	5.4	-	<0.1	9.3	8.7	<20	<20	<50	<50	<100
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	20	<4	<0.4	3	6	-	15	-	<0.1	<1	2	<25	<25	<50	<50	<100
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	12	<4	<0.4	4	2	-	4	-	<0.1	<1	3	<25	<25	<50	<50	<100
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	0	17	4	<0.4	11	17	-	32	-	<0.1	6	59	<25	<25	<50	<50	<100
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	20	6	<0.4	18	7	-	15	-	<0.1	1	3	<25	<25	<50	<50	<100
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	15	5	<0.4	6	7	-	74	-	<0.1	6	68	<25	<25	<50	<50	<100
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	17	<4	<0.4	2	7	-	14	-	<0.1	<1	1	<25	<25	<50	<50	<100
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	0	14	<4	<0.4	<1	2	-	7	-	<0.1	1	9	<25	<25	<50	<50	<100
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	0	10	7	<0.4	11	9	-	41	-	<0.1	2	24	<25	<25	<50	<50	<100
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	26	6	<0.4	18	6	-	18	-	<0.1	1	2	<25	<25	<50	<50	<100
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	22	8	<0.4	13	15	-	14	-	<0.1	3	8	<25	<25	<50	<50	<100
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	0	16	9	<0.4	25	16	-	49	-	0.1	4	87	<25	<25	<50	<50	<100
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	16	8	<0.4	36	15	-	35	-	<0.1	17	110	<25	<25	<50	<50	<100
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	21	<0.4	65	19	-	68	-	<0.1	8.5	160	<20	<20	<50	<50	<100
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	17	<4	<0.4	4	6	-	16	-	<0.1	<1	2	<25	<25	<50	<50	<100
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	19	9	<0.4	17	30	-	62	-	0.1	2	140	<25	<25	<50	<50	<100
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	17	<4	<0.4	2	5	-	12	-	<0.1	<1	1	<25	<25	<50	<50	<100

Statistics

Number of Results	11	56	63	63	63	63	2	63	3	63	63	63	59	59	59	59	59
Number of Detects	11	56	50	3	62	63	2	63	3	12	48	63	0	0	1	1	3
Minimum Concentration	0	4	2.2	0.4	<1	2	51,000	3	0.1	0.1	1	1	<20	<20	<50	<50	<100
Minimum Detect	0	4	2.2	0.4	2	2	51,000	3	0.1	0.1	1	1	ND	ND	95	95	160
Maximum Concentration	0	27	21	0.8	65	72	56,000	1,200	0.1	0.2	33	820	<25	<25	95	95	4,100
Maximum Detect	0	27	21	0.8	65	72	56,000	1,200	0.1	0.2	33	820	ND	ND	95	95	4,100
Average Concentration *	0	18	6.2	0.22	16	15	53,500	87	0.1	0.063	4.3	103	12	12	26	26	122
Median Concentration *	0	19	6	0.2	16	11	53,500	19	0.1	0.05	2	15	12.5	12.5	25	25	50
Standard Deviation *	0	5.1	3.4	0.087	10	13	3,536	217	0	0.031	6.7	199	0.63	0.63	9.1	9.1	527
95% UCL (Student's-t) *	0	19.35	6.931	0.236	17.78	18.18	69,284	132.2	0.1	0.0692	5.732	145.3	12.47	12.47	28.17	28.17	237.1
% of Detects	100	100	79	5	98	100	100	100	100	19	76	100	0	0	2	2	5
% of Non-Detects	0	0	21	95	2	0	0	0	0	81	24	0	100	100	98	98	95

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

			TPH						BTEX								
	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene
EQL	100	50	20	20	50	50	50	0.5	0.1	0.1	0.1	0.2	0.1	0.3	1	1	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil	10,000																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay									4 6 9 20								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand									3 3 3 3					230			
NEPM 2013 Table 1B(5) EIL - Comm/Ind								370									
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil	6,600								95	135	185			95			
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																	

Field ID	Parent Sample	Depth	Date	Matrix Type																	
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	3	<1	<3	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	1,100	5,200	<25	<50	2,400	2,100	4,500	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	<100	160	<25	<50	110	<100	110	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<100	160	<25	<50	110	<100	110	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-

Table T1: Soil Analytical Results



					TPH							BTEX									
					C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-

Statistics																				
Number of Results	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	5	5	5	
Number of Detects	1	3	0	0	3	1	3	0	0	0	0	0	0	1	0	0	0	0	0	
Minimum Concentration	<100	<50	<20	<20	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<1	<1	<1		
Minimum Detect	1,100	160	ND	ND	110	2,100	110	ND	ND	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration	1,100	5,200	<25	<50	2,400	2,100	4,500	<1	<0.2	<0.5	<1	3	<1	<3	<1	<1	<1	<1	<1	
Maximum Detect	1,100	5,200	ND	ND	2,400	2,100	4,500	ND	ND	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	
Average Concentration *	68	119	12	24	90	83	104	0.48	0.097	0.24	0.47	0.97	0.47	1.4	0.5	0.5	0.5	0.5	0.5	
Median Concentration *	50	25	12.5	25	50	50	25	0.5	0.1	0.25	0.5	1	0.5	1.5	0.5	0.5	0.5	0.5	0.5	
Standard Deviation *	137	673	0.63	3.8	306	267	582	0.063	0.013	0.051	0.11	0.35	0.11	0.34	0	0	0	0	0	
95% UCL (Student's-t) *	97.54	265.5	12.47	24.81	156.8	141.2	230.5	0.497	0.0994	0.247	0.494	1.05	0.494	1.483	0.5	0.5	0.5	0.5	0.5	
% of Detects	2	5	0	0	5	2	5	0	0	0	0	2	0	0	0	0	0	0	0	
% of Non-Detects	98	95	100	100	95	98	95	100	100	100	100	98	100	100	100	100	100	100	100	

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	MAH						Halogenated Hydrocarbons										
	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																	
NEPM 2013 Table 1B(5) EIL - Comm/Ind																	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil													1,800				

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results



					MAH						Halogenated Hydrocarbons											
					n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Statistics

Number of Results	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Median Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

Chlorinated Hydrocarbons																				
1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane				
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg				
EQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																				
NEPM 2013 Table 1B(5) EIL - Comm/Ind																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil															10					
Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results



					Chlorinated Hydrocarbons																
					1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics																				
Number of Results	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Median Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	Halogenated Benzenes											
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.2
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																		
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																		
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																		
NEPM 2013 Table 1B(5) EIL - Comm/Ind																		
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																		
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil		15	70			2											80	

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	2
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	2
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	100	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	2	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0.6	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	3.4
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.2	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	0.3	-
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2

Table T1: Soil Analytical Results



					Halogenated Benzenes																
					Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Benzo(b+j+k)fluoranthene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.3
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.2
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	2
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2

Statistics

Number of Results	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	56
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Minimum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.2
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	100
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.095	2.3
Median Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.1
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14	13
95% UCL (Student's-t) *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.177	5.295
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	70

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	Benzo(b+j+k)fluoranthene (filtered)	Acenaphthene	Acenaphthene (filtered)	Acenaphthylene	Acenaphthylene (filtered)	Anthracene	Anthracene (filtered)	Benzo(a)anthracene	Benzo(a)anthracene (filtered)	Benzo(a)pyrene	Benzo(a)pyrene (filtered)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene (filtered)	Benzo(k)fluoranthene	Chrysene	Chrysene (filtered)
	mg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	mg/kg	µg/L
EQL	0.002	0.1	1	0.1	1	0.1	1	0.1	1	0.05	1	0.5	0.1	1	0.5	0.1	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																	
NEPM 2013 Table 1B(5) EIL - Comm/Ind																	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil										1.4							
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																	

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	<0.1	-	<0.1	-	0.2	-	1.1	-	1.6	-	-	1.2	-	-	1.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	<0.002	-	<1	-	<1	-	<1	-	<1	-	<1	-	-	<1	-	<1
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.3	-	0.67	-	-	0.4	-	-	0.6
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	<0.1	-	0.1	-	0.2	-	0.5	-	0.90	-	-	0.4	-	-	0.9
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.8	-	1.4	-	-	1.0	-	-	0.8
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	<0.05	-	-	<0.1	-	-	0.1
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	<1	-	<1	-	3.2	-	46	-	89	-	-	61	-	-	37
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	<0.1	-	0.1	-	0.1	-	0.8	-	1.3	-	-	0.8	-	-	0.7
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<0.002	-	<1	-	<1	-	<1	-	<1	-	<1	-	-	<1	-	<1
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	<0.1	-	0.2	-	0.4	-	2.8	-	3.6	-	-	1.7	-	-	3.2
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.3	-	0.5	-	-	0.4	-	-	0.3
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	<0.1	-	<0.1	-	0.6	-	2.0	-	2.7	-	-	1.8	-	-	2.0
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<0.002	-	<1	-	<1	-	<1	-	<1	-	<1	-	-	<1	-	<1
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.1	-	-	<0.1	-	-	0.1
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.2	-	-	0.1	-	-	0.2
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1

Table T1: Soil Analytical Results



					Benzo(b+j+k)fluoranthene (filtered)	Acenaphthene	Acenaphthene (filtered)	Acenaphthylene	Acenaphthylene (filtered)	Anthracene	Anthracene (filtered)	Benzo(a)anthracene	Benzo(a)anthracene (filtered)	Benzo(a) pyrene	Benzo(a) pyrene (filtered)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene (filtered)	Benzo(k)fluoranthene	Chrysene	Chrysene (filtered)
					mg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	mg/kg	µg/L
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2	-	-	0.1	-	-	0.2	-
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	<0.1	-	<0.1	-	0.2	-	0.4	-	0.4	-	-	0.2	-	-	0.5	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	<0.1	-	0.3	-	0.5	-	1.2	-	1.8	-	-	0.8	-	-	1.6	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	<0.002	-	<1	-	<1	-	<1	-	<1	-	<1	-	-	<1	-	-	<1
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.3	-	0.4	-	-	0.2	-	-	0.3	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.2	-	-	0.1	-	-	0.2	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	<0.1	-	<0.1	-	0.3	-	0.7	-	1.2	-	-	0.7	-	-	0.8	-
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-

Statistics

Number of Results	4	60	4	60	4	60	4	60	4	60	4	4	60	4	4	60	4
Number of Detects	0	0	0	5	0	10	0	19	0	18	0	0	17	0	0	19	0
Minimum Concentration	<0.002	<0.1	<1	0.1	<1	0.1	<1	0.1	<1	<0.05	<1	<0.5	0.1	<1	<0.5	0.1	<1
Minimum Detect	ND	ND	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	ND	0.1	ND	ND	0.1	ND
Maximum Concentration	<0.002	<1	<1	<1	<1	3.2	<1	46	<1	89	<1	<0.5	61	<1	<0.5	37	<1
Maximum Detect	ND	ND	ND	0.3	ND	3.2	ND	46	ND	89	ND	ND	61	ND	ND	37	ND
Average Concentration *	0.001	0.071	0.5	0.08	0.5	0.16	0.5	1	0.5	1.8	0.5	0.25	1.3	0.5	0.25	0.92	0.5
Median Concentration *	0.001	0.05	0.5	0.05	0.5	0.05	0.5	0.05	0.5	0.025	0.5	0.25	0.05	0.5	0.25	0.05	0.5
Standard Deviation *	0	0.076	0	0.082	0	0.42	0	5.9	0	11	0	0	7.9	0	0	4.8	0
95% UCL (Student's-t) *	0.001	0.0871	0.5	0.0978	0.5	0.251	0.5	2.326	0.5	4.316	0.5	0.25	2.949	0.5	0.25	1.952	0.5
% of Detects	0	0	0	8	0	17	0	32	0	30	0	0	28	0	0	32	0
% of Non-Detects	100	100	100	92	100	83	100	68	100	70	100	100	72	100	100	68	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	PAH																
	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene (filtered)	Fluoranthene	Fluoranthene (filtered)	Fluorene	Fluorene (filtered)	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-c,d)pyrene (filtered)	Naphthalene	Naphthalene (filtered)	Phenanthrene	Phenanthrene (filtered)	Pyrene	Pyrene (filtered)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)
	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	mg/kg
EQL	0.1	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1	1	0.5	0.5	0.5
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																	
NEPM 2013 Table 1B(5) EIL - Comm/Ind									370								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil															40	40	40

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	0.1	-	1.9	-	<0.1	-	1.4	-	<0.1	-	0.6	-	2.1	-	2.2	2.2
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	<0.1	-	0.7	-	<0.1	-	0.3	-	<0.1	-	0.2	-	0.8	-	0.9	0.9
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	<0.1	-	1.4	-	<0.1	-	0.3	-	<0.1	-	0.6	-	1.5	-	1.2	1.2
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	0.2	-	1	-	<0.1	-	1.2	-	<0.1	-	0.1	-	1.1	-	2.1	2.1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	<0.1	-	<0.1	-	0.1	-	<0.1	-	0.5	-	0.3	-	<0.1	-	<0.5	<0.5
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	12	-	28	-	<1	-	36	-	<1	-	4.2	-	44	-	120	120
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<0.1	-	0.9	-	<0.1	-	1.0	-	<0.1	-	0.2	-	1.1	-	1.7	1.7
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	0.3	-	4.7	-	<0.1	-	1.3	-	<0.1	-	0.8	-	5.6	-	4.8	4.8
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	0.6	1.2
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	<0.1	-	0.4	-	<0.1	-	0.4	-	<0.1	-	0.1	-	0.5	-	0.7	0.7
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	0.4	-	3.3	-	<0.1	-	2.1	-	<0.1	-	1.3	-	3.4	-	3.8	3.8
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<0.1	-	0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	-	<0.5	<0.5
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	0.6	1.2
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<0.1	-	0.2	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5

Table T1: Soil Analytical Results



					PAH																
					Dibenz(a,h)anthracene	Dibenz(a,h)anthracene (filtered)	Fluoranthene	Fluoranthene (filtered)	Fluorene	Fluorene (filtered)	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-c,d)pyrene (filtered)	Naphthalene	Naphthalene (filtered)	Phenanthrene	Phenanthrene (filtered)	Pyrene	Pyrene (filtered)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)
					mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	0.6	1.2	<0.5
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<0.1	-	0.3	-	<0.1	-	0.2	-	<0.1	-	0.1	-	0.3	-	<0.5	<0.5	<0.5
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	<0.1	-	0.8	-	<0.1	-	0.2	-	<0.1	-	0.3	-	0.8	-	0.6	0.7	0.6
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	0.2	-	2.6	-	<0.1	-	0.7	-	<0.1	-	1.3	-	2.7	-	2.5	2.5	2.5
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	<0.1	-	0.5	-	<0.1	-	0.2	-	<0.1	-	0.2	-	0.5	-	0.5	0.6	<0.5
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	<0.5	<0.5
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	0.6	1.2	<0.5
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	0.1	-	1.5	-	<0.1	-	0.5	-	<0.1	-	0.7	-	1.6	-	1.7	1.7	1.7
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5

Statistics

Number of Results	60	4	60	4	60	4	60	4	60	4	60	4	60	4	60	4	60	60	60
Number of Detects	8	0	18	0	1	0	16	0	1	0	17	0	18	0	18	0	18	18	13
Minimum Concentration	0.1	<1	0.1	<1	0.1	<1	<0.1	<1	<0.1	<1	0.1	<1	<0.1	<1	0.5	<0.5	<0.5		
Minimum Detect	0.1	ND	0.1	ND	0.1	ND	0.2	ND	0.5	ND	0.1	ND	0.1	ND	0.2	ND	0.5	0.6	0.6
Maximum Concentration	12	<1	28	<1	<1	<1	36	<1	<1	<1	4.2	<1	4.2	<1	44	<1	120	120	120
Maximum Detect	12	ND	28	ND	0.1	ND	36	ND	0.5	ND	4.2	ND	4.2	ND	44	ND	120	120	120
Average Concentration *	0.28	0.5	0.92	0.5	0.072	0.5	0.83	0.5	0.078	0.5	0.26	0.5	1.2	0.5	2.6	0.5	2.7	2.6	
Median Concentration *	0.05	0.5	0.05	0.5	0.05	0.5	0.05	0.5	0.05	0.5	0.05	0.5	0.05	0.5	0.05	0.5	0.25	0.25	0.25
Standard Deviation *	1.5	0	3.7	0	0.076	0	4.6	0	0.094	0	0.61	0	5.7	0	15	0	15	15	15
95% UCL (Student's-t) *	0.616	0.5	1.712	0.5	0.088	0.5	1.832	0.5	0.0985	0.5	0.393	0.5	2.456	0.5	5.978	0.5	6.02	5.945	
% of Detects	13	0	30	0	2	0	27	0	2	0	28	0	30	0	30	0	30	30	22
% of Non-Detects	87	100	70	100	98	100	73	100	98	100	72	100	70	100	70	100	70	70	78

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

				PCBs													
	PAHs (Sum of total)	PAHs (Sum of positives)	PAHs (Sum of positives) (filtered)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (dis)	Chlordane (trans)
	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.05		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																	
NEPM 2013 Table 1B(5) EIL - Comm/Ind																	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	4,000										7			50		560	560

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	13	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	0 ^{#1}	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	4.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	-	9.6	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	460	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	8.5	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	0 ^{#1}	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	3.7	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	23	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	0 ^{#1}	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	<0.05	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	0.66	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	1.6	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results



					PCBs																
					PAHs (Sum of total)	PAHs (Sum of positives)	PAHs (Sum of positives) (filtered)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (dis)	Chlordane (trans)
					mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	<0.05	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	-	1.9	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	<0.05	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	0 ^{#1}	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	<0.05	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	9.6	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics																			
Number of Results	4	56	4	13	13	13	13	13	13	13	13	13	10	10	10	10	10	10	10
Number of Detects	0	20	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Minimum Concentration	<0.5	<0.05	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect	ND	0.1	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	0.2
Maximum Concentration	<0.5	460	0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	460	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	0.2
Average Concentration *	0.25	11	0	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.095	0.095	0.095	0.095	0.095	0.11	0.11
Median Concentration *	0.25	0.025	0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *	0	61	0	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.14	0.14	0.14	0.14	0.14	0.14	0.14
95% UCL (Student's-t) *	0.25	24.85	0	0.146	0.146	0.146	0.146	0.146	0.146	0.146	0.146	0.146	0.177	0.177	0.177	0.177	0.177	0.194	0.194
% of Detects	0	36	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10
% of Non-Detects	100	64	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	90	90

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	Organochlorine Pesticides																
	α-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																	
NEPM 2013 Table 1B(5) EIL - Comm/Ind			640														
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil				3,600	50	2,000	2,000		100			50		2,700			2,000

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results



					Organochlorine Pesticides																
					α-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics																			
Number of Results	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
95% UCL (Student's-t) *	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	Organophosphorous Pesticides									Perfluoroalkyl Sulfonic Acids							
	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexanoic acid (PFHxA)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.005	5	5	5	5	5	0.005	5
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																	
NEPM 2013 Table 1B(5) EIL - Comm/Ind																	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																	

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5	<5	<5	<0.005	<5
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<0.005	<5
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results



					Organophosphorous Pesticides									Perfluoroalkyl Sulfonic Acids							
					Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexanoic acid (PFHxA)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<5	<0.005	<5
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<5	<0.005	<5
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	10	10	10	10	10	10	10	10	10	10	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5	<5	<5	<5	<0.005	<5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.005	<5	<5	<5	<5	<5	<0.005	<5
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.0025	2.5	2.5	2.5	2.5	2.5	0.0025	2.5
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0025	2.5	2.5	2.5	2.5	2.5	0.0025	2.5
Standard Deviation *	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.0025	2.5	2.5	2.5	2.5	2.5	0.0025	2.5
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	Perfluoroalkyl Carboxylic Acid										Perfluoroalkyl Sulfonamides						
	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-ethyl-perfluorooctanesulfonamide (NEtFOSA)	N-ethylperfluorooctanesulfonamide (NEtFOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctanesulfonamide (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)
	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg
EQL	5	5	5	5	5	5	5	5	5	0.005	5	5	5	5	5	0.005	5
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																	
NEPM 2013 Table 1B(5) EIL - Comm/Ind																	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																	

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results



					Perfluoroalkyl Carboxylic Acid										Perfluoroalkyl Sulfonamides						
					Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-ethyl-perfluorooctanesulfonamide (NEtFOSAA)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)
					µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<0.005	<5
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<0.005	<5
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<0.005	<5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<0.005	<5
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	0.0025
Median Concentration *	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	0.0025
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	0.0025
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

	Fluorotelomer Sulfonic Acids			
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
	µg/kg	mg/kg	µg/kg	mg/kg
EQL	5	0.005	5	0.005
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand				
NEPM 2013 Table 1B(5) EIL - Comm/Ind				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil				

Field ID	Parent Sample	Depth	Date	Matrix Type				
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<5	<0.005	<5	<0.005
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<5	<0.005	<5	<0.005
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	-	-	-
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-

Table T1: Soil Analytical Results



					Fluorotelomer Sulfonic Acids			
					10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
					µg/kg	mg/kg	µg/kg	mg/kg
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<5	<0.005	<5	<0.005
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<5	<0.005	<5	<0.005
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	-	-	-
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-

Statistics

Number of Results	4	4	4	4
Number of Detects	0	0	0	0
Minimum Concentration	<5	<0.005	<5	<0.005
Minimum Detect	ND	ND	ND	ND
Maximum Concentration	<5	<0.005	<5	<0.005
Maximum Detect	ND	ND	ND	ND
Average Concentration *	2.5	0.0025	2.5	0.0025
Median Concentration *	2.5	0.0025	2.5	0.0025
Standard Deviation *	0	0	0	0
95% UCL (Student's-t) *	2.5	0.0025	2.5	0.0025
% of Detects	0	0	0	0
% of Non-Detects	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T2: Soil and TCLP Analytical Results

	Asbestos	NA		Particulates											
	Asbestos fibres	Moisture Content	Mass of test sample	Rubber, plastic, bitumen	Electrical Conductivity (Non Compensated)	Exchangeable Calcium	Exchangeable Magnesium	pH 1:5 soil:water	Exchangeable Potassium	Exchangeable Sodium	CEC	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium (III+VI)
	Detect	%	mg	%	µS/cm	meq/100g	meq/100g	-	meq/100g	meq/100g	meq/100g	%	mg/kg	mg/kg	mg/kg
EQL		0.1		0.05	1	0.1	0.1		0.1	0.1	1	1	2	0.4	1
NSW 2014 Excavated Natural Material (Absolute Max)													40	1	150
NSW 2014 Excavated Natural Material (Max Average)													20	0.5	75
NSW 2014 General Solid Waste CT1 (No Leaching)													100	20	
NSW 2014 General Solid Waste SCC1 (with leached)													500	100	
NSW 2014 General Solid Waste TCLP1 (leached)															

Field ID	Parent Sample	Depth	Date	Matrix Type														
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	25	-	-	-	-	-	-	-	-	-	9	<0.4	23
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	22	-	-	-	-	-	-	-	-	-	6	<0.4	13
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	27	-	-	-	-	-	-	-	-	-	7	<0.4	16
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	0	18	-	-	-	-	-	-	-	-	-	11	0.5	21
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	17	6	<0.05	120	-	-	8.0	-	-	-	8	0.8	19
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	20	-	-	-	-	-	-	-	-	-	8	<0.4	20
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	0	20	-	-	-	-	-	-	-	-	-	6	0.4	16
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	22	-	-	-	-	-	-	-	-	-	6	<0.4	7
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	0	17	-	-	-	-	-	-	-	-	-	8	<0.4	19
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	22	-	-	-	-	-	-	-	-	-	7	<0.4	20
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	19	-	-	-	-	-	-	-	-	-	<4	<0.4	3
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	13	-	-	-	-	-	-	-	-	-	6	<0.4	2
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	7.0	-	-	-	-	-	-	-	-	-	9	<0.4	12
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	4.0	-	-	-	-	-	-	-	-	-	9	<0.4	10
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	0	23	-	-	-	-	-	-	-	-	-	8	<0.4	22
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	23	-	-	-	-	-	-	-	-	-	6	<0.4	13
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	21	3.6	<0.05	85	-	-	8.5	-	-	-	5	<0.4	12
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	26	-	-	-	-	-	-	-	-	-	6	<0.4	17
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	0	19	-	-	-	-	-	-	-	-	-	9	<0.4	21
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	20	-	-	-	-	-	-	-	-	-	8	<0.4	18
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	16	7.4	<0.4	15
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	27	-	-	-	-	-	-	-	-	-	6	<0.4	17
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	13	-	-	-	-	-	-	-	-	-	6	<0.4	16
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	21	-	-	-	-	-	-	-	-	-	<4	<0.4	10
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	0	13	-	-	-	-	-	-	-	-	-	4	<0.4	13
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	22	-	-	-	-	-	-	-	-	-	8	<0.4	20
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	23	-	-	-	-	-	-	-	-	-	<4	<0.4	11
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	19	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	22	-	-	-	6.2	0.9	5.5	0.2	<0.1	7.2	6	<0.4	17
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	22	-	-	-	6.1	2.2	5.6	0.2	0.3	8.7	11	<0.4	12
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	18	-	-	-	-	-	-	-	-	-	6	<0.4	14
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	26	-	-	-	-	-	-	-	-	-	6	<0.4	17
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	0	17	-	-	-	-	-	-	-	-	-	5	<0.4	7
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	17	3.6	<0.05	230	-	-	7.5	-	-	-	6	<0.4	18
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	20	-	-	-	-	-	-	-	-	-	6	<0.4	16
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	20	15	<0.4	33
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	21	-	-	-	-	-	-	-	-	-	<4	<0.4	8
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	18	-	-	-	-	-	-	-	-	-	8	<0.4	22
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	14	-	-	-	-	-	-	-	-	-	4	<0.4	13
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	14	-	-	-	-	-	-	-	-	-	5	<0.4	5

Table T2: Soil and TCLP Analytical Results

					Asbestos	NA		Particulates											
					Asbestos fibres	Moisture Content	Mass of test sample	Rubber, plastic, bitumen	Electrical Conductivity (Non Compensated)	Exchangeable Calcium	Exchangeable Magnesium	pH 1:5 soil:water	Exchangeable Potassium	Exchangeable Sodium	CEC	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium (III+VI)
					Detect	%	mg	%	µS/cm	meq/100g	meq/100g	-	meq/100g	meq/100g	meq/100g	%	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	7.3	-	-	-	-	-	-	-	-	-	-	10	<0.4	10
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	10	-	-	-	-	-	-	-	-	-	-	<4	<0.4	25
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	13	-	-	-	-	-	-	-	-	-	-	<4	<0.4	24
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	18	2.2	<0.4	36
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	20	-	-	-	-	-	-	-	-	-	-	<4	<0.4	3
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	12	3.5	<0.05	150	-	-	9.5	-	-	-	-	<4	<0.4	4
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	0	17	-	-	-	-	-	-	-	-	-	-	4	<0.4	11
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	20	-	-	-	-	-	-	-	-	-	-	6	<0.4	18
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	15	-	-	-	-	-	-	-	-	-	-	5	<0.4	6
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	17	-	-	-	-	-	-	-	-	-	-	<4	<0.4	2
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	0	14	-	-	-	-	-	-	-	-	-	-	<4	<0.4	<1
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	0	10	-	-	-	-	-	-	-	-	-	-	7	<0.4	11
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	26	-	-	-	-	-	-	-	-	-	-	6	<0.4	18
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	22	-	-	-	-	-	-	-	-	-	-	8	<0.4	13
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	0	16	-	-	-	-	-	-	-	-	-	-	9	<0.4	25
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	16	-	-	-	-	-	-	-	-	-	-	8	<0.4	36
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	15	21	<0.4	65
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	17	-	-	-	-	-	-	-	-	-	-	<4	<0.4	4
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	19	-	-	-	-	-	-	-	-	-	-	9	<0.4	17
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	17	-	-	-	-	-	-	-	-	-	-	<4	<0.4	2

Statistics

Number of Results	11	56	4	4	6	2	2	6	2	2	2	4	63	63	63
Number of Detects	11	56	4	0	6	2	2	6	2	1	2	4	50	3	62
Minimum Concentration	0	4	3.5	<0.05	85	6.1	0.9	5.5	0.2	<0.1	7.2	15	2.2	0.4	<1
Minimum Detect	0	4	3.5	ND	85	6.1	0.9	5.5	0.2	0.3	7.2	15	2.2	0.4	2
Maximum Concentration	0	27	6	<0.05	8,600	6.2	2.2	9.5	0.2	0.3	8.7	20	21	0.8	65
Maximum Detect	0	27	6	ND	8,600	6.2	2.2	9.5	0.2	0.3	8.7	20	21	0.8	65
Average Concentration *	0	18	4.2	0.025	1,589	6.2	1.6	7.4	0.2	0.18	8	17	6.2	0.22	16
Median Concentration *	0	19	3.6	0.025	190	6.15	1.55	7.75	0.2	0.175	7.95	17	6	0.2	16
Standard Deviation *	0	5.1	1.2	0	3,436	0.071	0.92	1.6	0	0.18	1.1	2.2	3.4	0.087	10
95% UCL (Student's-t) *	0	19.35	5.608	0.025	4,416	6.466	5.654	8.751	0.2	0.964	12.69	19.86	6.931	0.236	17.78
% of Detects	100	100	100	0	100	100	100	100	100	50	100	100	79	5	98
% of Non-Detects	0	0	0	100	0	0	0	0	0	50	0	0	21	95	2

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)

NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)

NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)

NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results



Metals						TRH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Iron	Lead	Lead (filtered)	C6-C10 (F1 minus BTEX)												C10-C16 (F2 minus Naphthalene)												C16-C34												C34-C40												C10-C40 (Sum of total)												C6-C9												C10-C14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	

Field ID	Parent Sample	Depth	Date	Matrix Type															
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	160	-	0.1	3	130	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	17	-	<0.1	<1	2	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	57	-	<0.1	2	91	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	490	-	0.2	5	730	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	590	-	0.1	5	770	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	23	-	<0.1	2	14	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	-	110	-	<0.1	3	290	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	18	-	<0.1	<1	3	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	19	-	<0.1	2	8	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	17	-	<0.1	2	4	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	13	-	<0.1	<1	1	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	11	-	<0.1	1	10	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	17	-	<0.1	32	130	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	17	-	<0.1	21	72	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	20	-	<0.1	2	7	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	19	-	<0.1	<1	2	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	47	-	<0.1	2	90	<25	<25	95	95	4,100	1,100	5,200	<25	<50
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	17	-	<0.1	1	3	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	87	-	<0.1	3	820	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	150	-	0.1	2	260	<25	<25	<50	<50	160	<100	160	<25	<50
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	18	-	<0.1	20	85	<20	<20	<50	<50	<100	<100	<100	<20	<20
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	19	-	<0.1	1	130	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	36	-	<0.1	3	56	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	17	-	<0.1	<1	2	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	1,200	-	<0.1	10	620	<25	<25	<50	<50	160	<100	160	<25	<50
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	37	-	<0.1	3	28	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	21	-	<0.1	<1	2	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	51,000	19	-	<0.1	2	12	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	56,000	16	-	<0.1	<1	4	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	46	-	0.1	2	35	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	17	-	<0.1	2	3	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	18	-	<0.1	1	11	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	60	-	0.1	5	26	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	41	-	0.2	2	11	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	57	-	0.1	5.6	20	<20	<20	<50	<50	<100	<100	<100	<20	<20
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	17	-	<0.1	<1	3	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	39	-	0.1	3	120	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	15	-	<0.1	<1	3	<25	<25	<50	<50	<100	<100	<50	<25	<50
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	19	-	<0.1	<1	15	<25	<25	<50	<50	<100	<100	<50	<25	<50

Table T2: Soil and TCLP Analytical Results



Metals						TRH									
Iron	Lead	Lead (filtered)	Mercury	Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	
mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
-	21	-	<0.1	33	170	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	4	-	<0.1	3	16	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	3	-	<0.1	2	4	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	5.4	-	<0.1	9.3	8.7	<20	<20	<50	<50	<100	<100	<100	<20	<20	
-	15	-	<0.1	<1	2	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	4	-	<0.1	<1	3	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	32	-	<0.1	6	59	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	15	-	<0.1	1	3	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	74	-	<0.1	6	68	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	14	-	<0.1	<1	1	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	7	-	<0.1	1	9	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	41	-	<0.1	2	24	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	18	-	<0.1	1	2	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	14	-	<0.1	3	8	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	49	-	0.1	4	87	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	35	-	<0.1	17	110	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	68	-	<0.1	8.5	160	<20	<20	<50	<50	<100	<100	<100	<20	<20	
-	16	-	<0.1	<1	2	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	62	-	0.1	2	140	<25	<25	<50	<50	<100	<100	<50	<25	<50	
-	12	-	<0.1	<1	1	<25	<25	<50	<50	<100	<100	<50	<25	<50	

Statistics

Number of Results	2	63	6	63	63	63	59	59	59	59	59	59	59	59	59
Number of Detects	2	63	3	12	48	63	0	0	1	1	3	1	3	0	0
Minimum Concentration	51,000	3	<0.001	0.1	1	1	<20	<20	<50	<50	<100	<100	<50	<20	<20
Minimum Detect	51,000	3	0.1	0.1	1	1	ND	ND	95	95	160	1,100	160	ND	ND
Maximum Concentration	56,000	1,200	0.1	0.2	33	820	<25	<25	95	95	4,100	1,100	5,200	<25	<50
Maximum Detect	56,000	1,200	0.1	0.2	33	820	ND	ND	95	95	4,100	1,100	5,200	ND	ND
Average Concentration *	53,500	87	0.05	0.063	4.3	103	12	12	26	26	122	68	119	12	24
Median Concentration *	53,500	19	0.05025	0.05	2	15	12.5	12.5	25	25	50	50	25	12.5	25
Standard Deviation *	3,536	217	0.054	0.031	6.7	199	0.63	0.63	9.1	9.1	527	137	673	0.63	3.8
95% UCL (Student's-t) *	69,284	132.2	0.0951	0.0692	5.732	145.3	12.47	12.47	28.17	28.17	237.1	97.54	265.5	12.47	24.81
% of Detects	100	100	50	19	76	100	0	0	2	2	5	2	5	0	0
% of Non-Detects	0	0	50	81	24	0	100	100	98	98	95	98	95	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

- NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
- NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
- NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
- NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
- NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

	TPH			BTEX							MAH				
	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	50	50	50	0.5	0.1	0.1	0.1	0.2	0.1	0.3	1	1	1	1	1
NSW 2014 Excavated Natural Material (Absolute Max)			500		0.5	65	25			15					
NSW 2014 Excavated Natural Material (Max Average)			250												
NSW 2014 General Solid Waste CT1 (No Leaching)			10,000		10	288	600			1,000					
NSW 2014 General Solid Waste SCC1 (with leached)			10,000		18	518	1,080			1,800					
NSW 2014 General Solid Waste TCLP1 (leached)															

Field ID	Parent Sample	Depth	Date	Matrix Type															
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	3	<1	<3	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	2,400	2,100	4,500	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	110	<100	110	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	110	<100	110	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results



					TPH			BTEX							MAH				
					C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	-	-	-	-

Statistics

Number of Results	59	59	59	59	59	59	59	59	59	59	59	5	5	5	5	5
Number of Detects	3	1	3	0	0	0	0	1	0	0	0	0	0	0	0	0
Minimum Concentration	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<1	<1	<1	<1	<1	<1
Minimum Detect	110	2,100	110	ND	ND	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	2,400	2,100	4,500	<1	<0.2	<0.5	<1	3	<1	<3	<1	<1	<1	<1	<1	<1
Maximum Detect	2,400	2,100	4,500	ND	ND	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	90	83	104	0.48	0.097	0.24	0.47	0.97	0.47	1.4	0.5	0.5	0.5	0.5	0.5	0.5
Median Concentration *	50	50	25	0.5	0.1	0.25	0.5	1	0.5	1.5	0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation *	306	267	582	0.063	0.013	0.051	0.11	0.35	0.11	0.34	0	0	0	0	0	0
95% UCL (Student's-t) *	156.8	141.2	230.5	0.497	0.0994	0.247	0.494	1.05	0.494	1.483	0.5	0.5	0.5	0.5	0.5	0.5
% of Detects	5	2	5	0	0	0	0	2	0	0	0	0	0	0	0	0
% of Non-Detects	95	98	95	100	100	100	100	98	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

					Halogenated Hydrocarbons											
	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NSW 2014 Excavated Natural Material (Absolute Max)																
NSW 2014 Excavated Natural Material (Max Average)																
NSW 2014 General Solid Waste CT1 (No Leaching)			60						200	600	26	24		14		
NSW 2014 General Solid Waste SCC1 (with leached)			108						360	1,080	46.8	43.2		25		
NSW 2014 General Solid Waste TCLP1 (leached)																

Field ID	Parent Sample	Depth	Date	Matrix Type															
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results

								Halogenated Hydrocarbons												
					p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Statistics

Number of Results	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Median Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
 NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
 NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
 NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
 NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

	Chlorinated Hydrocarbons															
	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NSW 2014 Excavated Natural Material (Absolute Max)																
NSW 2014 Excavated Natural Material (Max Average)																
NSW 2014 General Solid Waste CT1 (No Leaching)		10							10			120				
NSW 2014 General Solid Waste SCC1 (with leached)		18							18			126				
NSW 2014 General Solid Waste TCLP1 (leached)																

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results

					Chlorinated Hydrocarbons															
					1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Median Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)

NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)

NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)

NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

[illegible]

Table T2: Soil and TCLP Analytical Results

											Halogenated Benzenes									
					Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.095
Median Concentration *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14
95% UCL (Student's-t) *	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.177
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)

NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)

NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)

NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

	PAH																
	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(a) pyrene (filtered)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	0.2	0.1	0.1	0.1	0.1	0.05	1	0.5	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	
NSW 2014 Excavated Natural Material (Absolute Max)						1											
NSW 2014 Excavated Natural Material (Max Average)						0.5											
NSW 2014 General Solid Waste CT1 (No Leaching)						0.8											
NSW 2014 General Solid Waste SCC1 (with leached)						10											
NSW 2014 General Solid Waste TCLP1 (leached)							40										

Field ID	Parent Sample	Depth	Date	Matrix Type	2	<0.1	<0.1	0.2	1.1	1.6	-	-	1.2	-	1.1	0.1	1.9	<0.1	1.4	<0.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	2	<0.1	<0.1	0.2	1.1	1.6	-	-	1.2	-	1.1	0.1	1.9	<0.1	1.4	<0.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	0.9	<0.1	<0.1	<0.1	0.3	0.67	-	-	0.4	-	0.6	<0.1	0.7	<0.1	0.3	<0.1
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	1	<0.1	0.1	0.2	0.5	0.90	-	-	0.4	-	0.9	<0.1	1.4	<0.1	0.3	<0.1
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	2	<0.1	<0.1	<0.1	0.8	1.4	-	-	1.0	-	0.8	0.2	1	<0.1	1.2	<0.1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	<0.2	<0.1	<0.1	<0.1	0.1	<0.05	-	-	<0.1	-	0.1	<0.1	<0.1	0.1	<0.1	0.5
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	100	<1	<1	3.2	46	89	-	-	61	-	37	12	28	<1	36	<1
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	2	<0.1	0.1	0.1	0.8	1.3	-	-	0.8	-	0.7	<0.1	0.9	<0.1	1.0	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	4.2	<0.1	0.2	0.4	2.8	3.6	-	-	1.7	-	3.2	0.3	4.7	<0.1	1.3	<0.1
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	0.6	<0.1	<0.1	<0.1	0.3	0.5	-	-	0.4	-	0.3	<0.1	0.4	<0.1	0.4	<0.1
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	3.4	<0.1	<0.1	0.6	2.0	2.7	-	-	1.8	-	2.0	0.4	3.3	<0.1	2.1	<0.1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	0.1	0.1	-	-	<0.1	-	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	0.3	<0.1	<0.1	<0.1	0.1	0.2	-	-	0.1	-	0.2	<0.1	0.2	<0.1	0.2	<0.1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Table T2: Soil and TCLP Analytical Results

					PAH															
					Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a) pyrene	Benzo(a) pyrene (filtered)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	0.3	<0.1	<0.1	<0.1	0.2	0.2	-	-	0.1	-	0.2	<0.1	0.3	<0.1	0.2	<0.1
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	0.7	<0.1	<0.1	0.2	0.4	0.4	-	-	0.2	-	0.5	<0.1	0.8	<0.1	0.2	<0.1
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	2.3	<0.1	0.3	0.5	1.2	1.8	-	-	0.8	-	1.6	0.2	2.6	<0.1	0.7	<0.1
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	0.5	<0.1	<0.1	<0.1	0.3	0.4	-	-	0.2	-	0.3	<0.1	0.5	<0.1	0.2	<0.1
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	0.4	<0.1	<0.1	<0.1	0.1	0.2	-	-	0.1	-	0.2	<0.1	0.2	<0.1	<0.1	<0.1
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	2	<0.1	<0.1	0.3	0.7	1.2	-	-	0.7	-	0.8	0.1	1.5	<0.1	0.5	<0.1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistics

Number of Results	56	60	60	60	60	60	4	4	60	4	60	60	60	60	60	60
Number of Detects	17	0	5	10	19	18	0	0	17	0	19	8	18	1	16	1
Minimum Concentration	<0.2	<0.1	0.1	0.1	0.1	<0.05	<1	<0.5	0.1	<0.5	0.1	0.1	0.1	0.1	<0.1	<0.1
Minimum Detect	0.3	ND	0.1	0.1	0.1	0.1	ND	ND	0.1	ND	0.1	0.1	0.1	0.1	0.2	0.5
Maximum Concentration	100	<1	<1	3.2	46	89	<1	<0.5	61	<0.5	37	12	28	<1	36	<1
Maximum Detect	100	ND	0.3	3.2	46	89	ND	ND	61	ND	37	12	28	0.1	36	0.5
Average Concentration *	2.3	0.071	0.08	0.16	1	1.8	0.5	0.25	1.3	0.25	0.92	0.28	0.92	0.072	0.83	0.078
Median Concentration *	0.1	0.05	0.05	0.05	0.05	0.025	0.5	0.25	0.05	0.25	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *	13	0.076	0.082	0.42	5.9	11	0	0	7.9	0	4.8	1.5	3.7	0.076	4.6	0.094
95% UCL (Student's-t) *	5.295	0.0871	0.0978	0.251	2.326	4.316	0.5	0.25	2.949	0.25	1.952	0.616	1.712	0.088	1.832	0.0985
% of Detects	30	0	8	17	32	30	0	0	28	0	32	13	30	2	27	2
% of Non-Detects	70	100	92	83	68	70	100	100	72	100	68	87	70	98	73	98

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
 NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
 NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
 NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
 NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

								PCBs									
	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)									PCBs (Sum of total)	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/L	mg/kg	
EQL	0.1	0.1	0.5	0.5	0.5	0.5	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2	0.1
NSW 2014 Excavated Natural Material (Absolute Max)						40											
NSW 2014 Excavated Natural Material (Max Average)						20											
NSW 2014 General Solid Waste CT1 (No Leaching)						200											50
NSW 2014 General Solid Waste SCC1 (with leached)						200											50
NSW 2014 General Solid Waste TCLP1 (leached)																	

Field ID	Parent Sample	Depth	Date	Matrix Type																
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	0.6	2.1	2.2	2.2	2.2	-	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	0.2	0.8	0.9	0.9	0.8	-	4.9	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	0.6	1.5	1.2	1.2	1.1	-	8.1	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	0.1	1.1	2.1	2.1	2.1	-	9.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	0.1	<0.1	<0.5	<0.5	<0.5	-	0.1	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	0.3	<0.1	<0.5	<0.5	<0.5	-	1.1	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	4.2	44	120	120	120	-	460	<1	<1	<1	<1	<1	<1	<1	-	<1
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	0.2	1.1	1.7	1.7	1.6	-	8.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	0.8	5.6	4.8	4.8	4.8	-	29	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	0.1	0.5	0.7	0.7	0.6	-	3.7	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	1.3	3.4	3.8	3.8	3.8	-	23	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<0.1	0.2	<0.5	<0.5	<0.5	-	0.66	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<0.1	0.2	<0.5	<0.5	<0.5	-	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results

												PCBs								
					Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)									PCBs (Sum of total)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	µg/L	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	0.1	0.3	<0.5	<0.5	<0.5	-	1.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	0.3	0.8	0.6	0.7	0.6	-	4.4	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	1.3	2.7	2.5	2.5	2.5	-	16	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	0.2	0.5	0.5	0.6	<0.5	-	3.1	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	<0.1	0.2	<0.5	<0.5	<0.5	-	1.5	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	0.7	1.6	1.7	1.7	1.7	-	9.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	60	60	60	60	60	4	56	13	13	13	13	13	13	13	13	2	13
Number of Detects	17	18	18	18	13	0	20	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	0.1	<0.1	0.5	<0.5	<0.5	<0.5	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<2	<0.1
Minimum Detect	0.1	0.2	0.5	0.6	0.6	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	4.2	44	120	120	120	<0.5	460	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
Maximum Detect	4.2	44	120	120	120	ND	460	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.26	1.2	2.6	2.7	2.6	0.25	11	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	1	0.085
Median Concentration *	0.05	0.05	0.25	0.25	0.25	0.25	0.025	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	1	0.05
Standard Deviation *	0.61	5.7	15	15	15	0	61	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0	0.12
95% UCL (Student's-t) *	0.393	2.456	5.978	6.02	5.945	0.25	24.85	0.146	0.146	0.146	0.146	0.146	0.146	0.146	0.146	1	0.146
% of Detects	28	30	30	30	22	0	36	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	72	70	70	70	78	100	64	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)

NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)

NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)

NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

	Organochlorine Pesticides															
	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NSW 2014 Excavated Natural Material (Absolute Max)																
NSW 2014 Excavated Natural Material (Max Average)																
NSW 2014 General Solid Waste CT1 (No Leaching)																
NSW 2014 General Solid Waste SCC1 (with leached)																
NSW 2014 General Solid Waste TCLP1 (leached)																

Field ID	Parent Sample	Depth	Date	Matrix Type															
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results

					Organochlorine Pesticides															
					4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Number of Detects	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect	ND	ND	ND	ND	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.095	0.095	0.095	0.095	0.11	0.11	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
95% UCL (Student's-t) *	0.177	0.177	0.177	0.177	0.194	0.194	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177
% of Detects	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	90	90	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)

NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)

NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)

NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

					Organophosphorous Pesticides											
	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel
EQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NSW 2014 Excavated Natural Material (Absolute Max)																
NSW 2014 Excavated Natural Material (Max Average)																
NSW 2014 General Solid Waste CT1 (No Leaching)							4									
NSW 2014 General Solid Waste SCC1 (with leached)							7.5									
NSW 2014 General Solid Waste TCLP1 (leached)																

Field ID	Parent Sample	Depth	Date	Matrix Type															
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results

									Organophosphorous Pesticides												
					g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
95% UCL (Student's-t) *	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177	0.177
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)

NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)

NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)

NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

	Perfluoroalkyl Sulfonic Acids							Perfluoroalkyl Carboxylic Acid								
	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexanoic acid (PFHxA)	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluorooheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTriDA)
	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
EQL	0.005	5	5	5	5	5	0.005	5	5	5	5	5	5	5	5	5
NSW 2014 Excavated Natural Material (Absolute Max)																
NSW 2014 Excavated Natural Material (Max Average)																
NSW 2014 General Solid Waste CT1 (No Leaching)																
NSW 2014 General Solid Waste SCC1 (with leached)						1,800										
NSW 2014 General Solid Waste TCLP1 (leached)																

Field ID	Parent Sample	Depth	Date	Matrix Type															
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<0.005	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<0.005	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results



					Perfluoroalkyl Sulfonic Acids							Perfluoroalkyl Carboxylic Acid								
					Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexanoic acid (PFHxA)	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluorooheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTriDA)
					mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<0.005	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<0.005	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.005	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.005	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Median Concentration *	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results

			Perfluoroalkyl Sulfonamides							Fluorotelomer Sulfonic Acids			
	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-Methyl perfluorooctane sulfonamide (NMtFOSA)	N-methylperfluorooctane sulfonamidoacetic acid (NMtFOSAA)	N-Methylperfluorooctane sulfonamidoethanol (N-MtFOSE)	Perfluorooctane sulfonamide (PFOSA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	mg/kg	µg/kg	mg/kg
EQL	5	0.005	5	5	5	5	5	0.005	5	5	0.005	5	0.005
NSW 2014 Excavated Natural Material (Absolute Max)													
NSW 2014 Excavated Natural Material (Max Average)													
NSW 2014 General Solid Waste CT1 (No Leaching)													
NSW 2014 General Solid Waste SCC1 (with leached)		18											
NSW 2014 General Solid Waste TCLP1 (leached)													

Field ID	Parent Sample	Depth	Date	Matrix Type													
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH01		1.1 - 1.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH02		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.2 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH03		0.6 - 0.7	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH04		0.1 - 0.2	1/12/2021	Soil	<5	<0.005	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005	<5
Epic-FD-BH04		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.3 - 0.4	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		4 - 4.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		7 - 7.2	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH05		9.8 - 10	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		0.4 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH06		1 - 1.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		0.1 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH07		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC01	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC02	BH08_0.2-0.3		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH08		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		0.15 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH09		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	<5	<0.005	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005	<5	<0.005
Epic-FD-BH10		0.2 - 0.3	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH10		1 - 1.1	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0 - 0.2	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH11		0.5 - 0.6	1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH12		0.2 - 0.3	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		0.5 - 0.7	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH13		1 - 1.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH14		0.2 - 0.3	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		0.2 - 0.4	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC03	BH15_0.2-0.4		2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC04	BH15_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH15		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		0.45 - 0.6	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH16		3 - 3.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results

							Perfluoroalkyl Sulfonamides							Fluorotelomer Sulfonic Acids			
					Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NETFOSA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NETFOSAA)	N-ethylperfluorooctanesulfonamidoethanol (NETFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
					µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	mg/kg	µg/kg	mg/kg
Epic-FD-BH16		6 - 6.2	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.2 - 0.4	3/12/2021	Soil	<5	<0.005	<5	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
Epic-FD-QC05	BH17_0.2-0.4		3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC06	BH17_0.2-0.4		1/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH17		0.9 - 1	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH18		0.3 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH19		0.15 - 0.3	2/12/2021	Soil	<5	<0.005	<5	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
Epic-FD-BH19		1.2 - 1.4	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH20		0.11 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH21		0.25 - 0.35	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH22		0.1 - 0.2	3/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH23		0.4 - 0.5	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.15 - 0.25	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH25		0.8 - 0.9	2/12/2021	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.3 - 0.4	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC07	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-QC08	BH26_0.3-0.4		17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH26		0.8 - 0.9	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		0.4 - 0.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic-FD-BH27		1.4 - 1.5	17/01/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	0.0025	2.5	0.0025
Median Concentration *	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	0.0025	2.5	0.0025
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	0.0025	2.5	0.0025
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)

NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)

NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)

NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T3: Groundwater Analytical Results



	Physico-Chemical & Major Ions														Inorganics				
	pH (Lab)	TDS	Chloride	Fluoride	Alkalinity (Hydroxide) as CaCO3	Carbonate as CaCO3	Bicarbonate as CaCO3	Alkalinity (total) as CaCO3	Calcium (filtered)	Magnesium (filtered)	Sodium (filtered)	Potassium (filtered)	Ionic Balance	Sulphate	Hardness (filtered)	Electrical Conductivity (Non Compensated)	Arsenic (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)
EQL	-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	%	mg/L	mgCaCO3/L	µS/cm	mg/L	mg/L	mg/L
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs		5	1	0.1	5	5	5	5	0.5	0.5	0.5	0.5		1		1	0.001	0.0002	0.001
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs																		0.0055	
NEPM 2013 Table 1C GILs, Fresh Waters																		0.0002	
NEPM 2013 Table 1C GILs, Marine Waters																		0.0007	
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand																			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay																			

Field ID	Parent Sample	Date	Matrix Type																			
BH713		16/12/2021	Water	7.0	220	49	0.1	<5	<5	90	90	26	4	24	14	-6.0	11	83	350	<0.001	<0.0001	<0.001
SMW-BH082		16/12/2021	Water	6.6	6,000	2,400	2.3	<5	<5	500	500	120	190	1,500	27	1.0	470	1,100	8,600	0.002	<0.0001	<0.001
QC01	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	<0.0001	<0.001
QC02	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001

Statistics																					
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3
Number of Detects	2	2	2	2	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0
Minimum Concentration	6.6	220	49	0.1	<5	<5	90	90	26	4	24	14	-6	11	83	350	0.001	<0.0001	<0.001		
Minimum Detect	6.6	220	49	0.1	ND	ND	90	90	26	4	24	14	-6	11	83	350	0.001	ND	ND		
Maximum Concentration	7	6,000	2,400	2.3	<5	<5	500	500	120	190	1,500	27	1	470	1,100	8,600	0.002	<0.0001	<0.001		
Maximum Detect	7	6,000	2,400	2.3	ND	ND	500	500	120	190	1,500	27	1	470	1,100	8,600	0.002	ND	ND		
Average Concentration *	6.8	3,110	1,224	1.2	2.5	2.5	295	295	73	97	762	20	-2.5	240	592	4,475	0.0012	0.00005	0.0005		
Median Concentration *	6.8	3,110	1,224.5	1.2	2.5	2.5	295	295	73	97	762	20.5	-2.5	240.5	591.5	4,475	0.001	0.00005	0.0005		
Standard Deviation *	0.28	4,087	1,662	1.6	0	0	290	290	66	132	1,044	9.2	4.9	325	719	5,834	0.00076	0	0		
95% UCL (Student's-t) *	8.063	21,357	8,646	8.145	2.5	2.5	1,589	1,589	369.7	684.2	5,422	61.54	19.6	1,690	3,802	30,519	0.00245	0.00005	0.0005		
% of Detects	100	100	100	100	0	0	100	100	100	100	100	100	100	100	100	100	67	0	0		
% of Non-Detects	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	33	100	100		

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs
ANZG, March 2021, ANZG (2018) Marine Water 95% LOSP Toxicant DGVs
2013, NEPM 2013 Table 1C GILs, Fresh Waters
2013, NEPM 2013 Table 1C GILs, Marine Waters
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay

Table T3: Groundwater Analytical Results



							TRH							TPH					
	pH (Lab)	Copper (filtered)	Lead (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)
	-	mg/L	mg/L	mg/L	mg/L	mg/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	mg/L
EQL		0.001	0.001	0.00005	0.001	0.001	10	10	50	50	100	100	50	10	50	100	100	50	0.001
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs		0.0014	0.0034	0.0006	0.011	0.008													0.016
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs		0.0013	0.0044	0.0004	0.07	0.015													0.07
NEPM 2013 Table 1C GILs, Fresh Waters		0.0014	0.0034	0.00006	0.011	0.008													0.016
NEPM 2013 Table 1C GILs, Marine Waters		0.0013	0.0044	0.0001	0.007	0.015													0.05
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand								6,000 6,000 7,000											5
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay																			30

Field ID	Parent Sample	Date	Matrix Type																			
BH713		16/12/2021	Water	7.0	<0.001	<0.001	<0.00005	0.003	0.004	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50	<0.001
SMW-BH082		16/12/2021	Water	6.6	<0.001	<0.001	<0.00005	0.027	0.026	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50	<0.001
QC01	SMW-BH082	16/12/2021	Water	-	<0.001	<0.001	<0.00005	0.026	0.025	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50	<0.001
QC02	SMW-BH082	16/12/2021	Water	-	<0.001	<0.001	<0.0001	0.024	0.020	<20	<20	<50	<50	<100	<100	<100	<20	<50	<100	<100	<100	<0.01

Statistics

Number of Results	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	6.6	<0.001	<0.001	<0.00005	0.003	0.004	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100	<50	<0.001
Minimum Detect	6.6	ND	ND	ND	0.003	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	7	<0.001	<0.001	<0.00005	0.027	0.026	<20	<20	<50	<50	<100	<100	<100	<20	<50	<100	<100	<100	<0.01
Maximum Detect	7	ND	ND	ND	0.027	0.026	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	6.8	0.0005	0.0005	0.000025	0.019	0.018	6.2	6.2	25	25	50	50	31	6.2	25	50	50	31	0.0016
Median Concentration *	6.8	0.0005	0.0005	0.000025	0.026	0.025	5	5	25	25	50	50	25	5	25	50	50	25	0.0005
Standard Deviation *	0.28	0	0	0	0.014	0.012	2.5	2.5	0	0	0	0	12	2.5	0	0	0	12	0.0022
95% UCL (Student's-t) *	8.063	0.0005	0.0005	0.000025	0.0416	0.0393	9.192	9.192	25	25	50	50	45.96	9.192	25	50	50	45.96	0.00427
% of Detects	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	0	100	100	100	0	0	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs
ANZG, March 2021, ANZG (2018) Marine Water 95% LOSP Toxicant DGVs
2013, NEPM 2013 Table 1C GILs, Fresh Waters
2013, NEPM 2013 Table 1C GILs, Marine Waters
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay

Table T3: Groundwater Analytical Results



	BTEX						MAH									Halogenated Hydrocarbons			
	pH (Lab)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane
EQL		1	1	1	2	1	3	1	1	1	1	1	1	1	1	1	1	10	10
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs		950	180	80		350				30									
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs		700	180	80						30									
NEPM 2013 Table 1C GILs, Fresh Waters		950				350	550												
NEPM 2013 Table 1C GILs, Marine Waters		500																	
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand		5,000 5,000 5,000																	
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay		30,000 30,000 35,000																	

Field ID	Parent Sample	Date	Matrix Type																		
BH713		16/12/2021	Water	7.0	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
SMW-BH082		16/12/2021	Water	6.6	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
QC01	SMW-BH082	16/12/2021	Water	-	<1	<1	<1	<2	<1	-	-	-	-	-	-	-	-	-	-	-	-
QC02	SMW-BH082	16/12/2021	Water	-	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-

Statistics																			
Number of Results	2	4	4	4	4	4	1	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	6.6	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
Minimum Detect	6.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	7	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
Maximum Detect	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	6.8	0.5	0.5	0.5	1	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5
Median Concentration *	6.8	0.5	0.5	0.5	1	0.5	1.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5
Standard Deviation *	0.28	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	8.063	0.5	0.5	0.5	1	0.5		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5
% of Detects	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs
ANZG, March 2021, ANZG (2018) Marine Water 95% LOSP Toxicant DGVs
2013, NEPM 2013 Table 1C GILs, Fresh Waters
2013, NEPM 2013 Table 1C GILs, Marine Waters
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay

Table T3: Groundwater Analytical Results



	pH (Lab)	Chlorinated Hydrocarbons																	
		Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride
		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
EQL		10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs				270	400	6,500		700				1,900	900	1,100				240	
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs				270	400	1,900		700				1,900	900	1,100				240	
NEPM 2013 Table 1C GILs, Fresh Waters						6,500													
NEPM 2013 Table 1C GILs, Marine Waters						1,900													
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand																			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay																			

Field ID	Parent Sample	Date	Matrix Type																	
BH713		16/12/2021	Water	7.0	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SMW-BH082		16/12/2021	Water	6.6	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
QC01	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics																				
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	6.6	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Minimum Detect	6.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	7	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	6.8	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Median Concentration *	6.8	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation *	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	8.063	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
% of Detects	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs
ANZG, March 2021, ANZG (2018) Marine Water 95% LOSP Toxicant DGVs
2013, NEPM 2013 Table 1C GILs, Fresh Waters
2013, NEPM 2013 Table 1C GILs, Marine Waters
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay

Table T3: Groundwater Analytical Results



															Halogenated Benz				
	pH (Lab)	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
	-	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
EQL		1	10	1	10	1	1	1	1	1	1	1	1	10	1	1	1	1	1
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs				770						330	70			100	10	170	160	260	60
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs				770						330	70			100		80			
NEPM 2013 Table 1C GILs, Fresh Waters															3	85	160	260	60
NEPM 2013 Table 1C GILs, Marine Waters																20			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand																			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay																			

Field ID	Parent Sample	Date	Matrix Type																	
BH713		16/12/2021	Water	7.0	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1
SMW-BH082		16/12/2021	Water	6.6	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
QC01	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics																				
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	6.6	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1
Minimum Detect	6.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	7	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1
Maximum Detect	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	6.8	0.5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5
Median Concentration *	6.8	0.5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation *	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	8.063	0.5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5
% of Detects	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs
ANZG, March 2021, ANZG (2018) Marine Water 95% LOSP Toxicant DGVs
2013, NEPM 2013 Table 1C GILs, Fresh Waters
2013, NEPM 2013 Table 1C GILs, Marine Waters
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay

Table T3: Groundwater Analytical Results



				enes					PCBs						
				pH (Lab)	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260
				-	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	2	2	2	2	2
ANZG (2018) Freshwater 95% LOSP Toxicant DGVs								55				0.6		0.03	
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs								55							
NEPM 2013 Table 1C GILs, Fresh Waters												0.3		0.01	
NEPM 2013 Table 1C GILs, Marine Waters															
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand															
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay															

Field ID	Parent Sample	Date	Matrix Type												
BH713		16/12/2021	Water	7.0	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2
SMW-BH082		16/12/2021	Water	6.6	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2
QC01	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-
QC02	SMW-BH082	16/12/2021	Water	-	-	-	-	-	-	-	-	-	-	-	-

Statistics															
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	6.6	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Minimum Detect	6.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	7	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Maximum Detect	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	6.8	0.5	0.5	0.5	0.5	1	1	1	1	1	1	1	1	1	1
Median Concentration *	6.8	0.5	0.5	0.5	0.5	1	1	1	1	1	1	1	1	1	1
Standard Deviation *	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	8.063	0.5	0.5	0.5	0.5	1	1	1	1	1	1	1	1	1	1
% of Detects	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

ANZG, March 2021, ANZG (2018) Freshwater 95% LOSP Toxicant DGVs
ANZG, March 2021, ANZG (2018) Marine Water 95% LOSP Toxicant DGVs
2013, NEPM 2013 Table 1C GILs, Fresh Waters
2013, NEPM 2013 Table 1C GILs, Marine Waters
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Sand
2013, NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion, Clay

Table T4: QA/QC - Soil RPDs



Field or Interlab Duplicates

				NA	Metals								TRH							TPH			
				Moisture Content	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36
				%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	2	0.4	1	1	1	0.1	1	1	20	20	50	50	100	100	50	20	20	50	50
Lab Report	Field ID	Matrix Type	Date																				
286772	Epic-FD-BH26_0.3-0.4	Soil	17/01/2022	16	9	<0.4	25	16	49	0.1	4	87	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
286772	Epic-FD-QC07	Soil	17/01/2022	16	8	<0.4	36	15	35	<0.1	17	110	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
RPD				0	12	0	36	6	33	0	124	23	0	0	0	0	0	0	0	0	0	0	0
286772	Epic-FD-BH26_0.3-0.4	Soil	17/01/2022	16	9	<0.4	25	16	49	0.1	4	87	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
855765	Epic-FD-QC08	Soil	17/01/2022	-	21	<0.4	65	19	68	<0.1	8.5	160	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50
RPD				-	80	0	89	17	32	0	72	59	0	0	0	0	0	0	0	0	0	0	0
284886	Epic-FD-BH08	Soil	1/12/2021	19	9	<0.4	21	18	87	<0.1	3	820	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
284886	Epic-FD-QC01	Soil	1/12/2021	20	8	<0.4	18	16	150	0.1	2	260	<25	<25	<50	<50	160	<100	160	<25	<50	110	<100
RPD				5	12	0	15	12	53	0	40	104	0	0	0	0	46	0	105	0	0	10	0
284886	Epic-FD-BH08	Soil	1/12/2021	19	9	<0.4	21	18	87	<0.1	3	820	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
849920	Epic-FD-QC02	Soil	1/12/2021	-	7.4	<0.4	15	36	18	<0.1	20	85	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50
RPD				-	20	0	33	67	131	0	148	162	0	0	0	0	0	0	0	0	0	0	0
284886	Epic-FD-BH15	Soil	3/12/2021	17	6	<0.4	18	11	60	0.1	5	26	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
284886	Epic-FD-QC03	Soil	2/12/2021	20	6	<0.4	16	10	41	0.2	2	11	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
RPD				16	0	0	12	10	38	67	86	81	0	0	0	0	0	0	0	0	0	0	0
284886	Epic-FD-BH15	Soil	3/12/2021	17	6	<0.4	18	11	60	0.1	5	26	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
849920	Epic-FD-QC04	Soil	1/12/2021	-	15	<0.4	33	16	57	0.1	5.6	20	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50
RPD				-	86	0	59	37	5	0	11	26	0	0	0	0	0	0	0	0	0	0	0
284886	Epic-FD-BH17	Soil	3/12/2021	10	<4	<0.4	25	6	4	<0.1	3	16	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
284886	Epic-FD-QC05	Soil	3/12/2021	13	<4	<0.4	24	4	3	<0.1	2	4	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
RPD				26	0	0	4	40	29	0	40	120	0	0	0	0	0	0	0	0	0	0	0
284886	Epic-FD-BH17	Soil	3/12/2021	10	<4	<0.4	25	6	4	<0.1	3	16	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100
849920	Epic-FD-QC06	Soil	1/12/2021	-	2.2	<0.4	36	11	5.4	<0.1	9.3	8.7	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50
RPD				-	0	0	36	59	30	0	102	59	0	0	0	0	0	0	0	0	0	0	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Table T4: QA/QC - Soil RPDs



Field or Interlab Duplicates

					BTEX							Halogenated Benzenes											
				C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Hexachlorobenzene	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL				50	0.5	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.05	0.5	0.1	0.5	0.1	
Lab Report	Field ID	Matrix Type	Date																				
286772	Epic-FD-BH26_0.3-0.4	Soil	17/01/2022	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	0.5	<0.1	<0.1	<0.1	0.3	0.4	-	0.2	-	0.3	
286772	Epic-FD-QC07	Soil	17/01/2022	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	0.4	<0.1	<0.1	<0.1	0.1	0.2	-	0.1	-	0.2	
RPD				0	0	0	0	0	0	0	0	-	22	0	0	0	100	67	-	67	-	40	
286772	Epic-FD-BH26_0.3-0.4	Soil	17/01/2022	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	0.5	<0.1	<0.1	<0.1	0.3	0.4	-	0.2	-	0.3	
855765	Epic-FD-QC08	Soil	17/01/2022	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	-	0	-	0
284886	Epic-FD-BH08	Soil	1/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.1	2	<0.1	0.1	0.1	0.8	1.3	-	0.8	-	0.7	
284886	Epic-FD-QC01	Soil	1/12/2021	110	<1	<0.2	<0.5	<1	<2	<1	<3	-	4.2	<0.1	0.2	0.4	2.8	3.6	-	1.7	-	3.2	
RPD				75	0	0	0	0	0	0	0	-	71	0	67	120	111	94	-	72	-	128	
284886	Epic-FD-BH08	Soil	1/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.1	2	<0.1	0.1	0.1	0.8	1.3	-	0.8	-	0.7	
849920	Epic-FD-QC02	Soil	1/12/2021	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	46	89	-	46	-	33	
284886	Epic-FD-BH15	Soil	3/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.1	<0.2	<0.1	<0.1	<0.1	0.1	0.1	-	<0.1	-	0.1	
284886	Epic-FD-QC03	Soil	2/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.1	-	<0.1	
RPD				0	0	0	0	0	0	0	0	-	0	0	0	0	0	67	-	0	-	0	
284886	Epic-FD-BH15	Soil	3/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.1	<0.2	<0.1	<0.1	<0.1	0.1	0.1	-	<0.1	-	0.1	
849920	Epic-FD-QC04	Soil	1/12/2021	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	-	0	-	0
284886	Epic-FD-BH17	Soil	3/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.1	-	<0.1	
284886	Epic-FD-QC05	Soil	3/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.1	-	<0.1	
RPD				0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	0	-	0
284886	Epic-FD-BH17	Soil	3/12/2021	<50	<1	<0.2	<0.5	<1	<2	<1	<3	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.1	-	<0.1	
849920	Epic-FD-QC06	Soil	1/12/2021	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD				0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	-	0	-	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Table T4: QA/QC - Soil RPDs



Field or Interlab Duplicates

				PAH											
				Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	0.05
Lab Report	Field ID	Matrix Type	Date												
286772	Epic-FD-BH26_0.3-0.4	Soil	17/01/2022	<0.1	0.5	<0.1	0.2	<0.1	0.2	0.5	0.5	0.6	<0.5	-	3.1
286772	Epic-FD-QC07	Soil	17/01/2022	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	-	1.5
RPD				0	86	0	67	0	67	86	0	18	0	-	70
286772	Epic-FD-BH26_0.3-0.4	Soil	17/01/2022	<0.1	0.5	<0.1	0.2	<0.1	0.2	0.5	0.5	0.6	<0.5	-	3.1
855765	Epic-FD-QC08	Soil	17/01/2022	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-
RPD				0	0	0	0	0	0	0	18	67	0	-	-
284886	Epic-FD-BH08	Soil	1/12/2021	<0.1	0.9	<0.1	1.0	<0.1	0.2	1.1	1.7	1.7	1.6	-	8.5
284886	Epic-FD-QC01	Soil	1/12/2021	0.3	4.7	<0.1	1.3	<0.1	0.8	5.6	4.8	4.8	4.8	-	29
RPD				100	136	0	26	0	120	134	95	95	100	-	109
284886	Epic-FD-BH08	Soil	1/12/2021	<0.1	0.9	<0.1	1.0	<0.1	0.2	1.1	1.7	1.7	1.6	-	8.5
849920	Epic-FD-QC02	Soil	1/12/2021	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-
RPD				0	57	0	67	0	0	75	96	34	105	-	-
284886	Epic-FD-BH15	Soil	3/12/2021	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	-	0.66
284886	Epic-FD-QC03	Soil	2/12/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05
RPD				0	0	0	0	0	0	67	0	0	0	-	172
284886	Epic-FD-BH15	Soil	3/12/2021	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.5	<0.5	<0.5	-	0.66
849920	Epic-FD-QC04	Soil	1/12/2021	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-
RPD				0	0	0	0	0	0	0	18	82	0	-	-
284886	Epic-FD-BH17	Soil	3/12/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05
284886	Epic-FD-QC05	Soil	3/12/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05
RPD				0	0	0	0	0	0	0	0	0	0	-	0
284886	Epic-FD-BH17	Soil	3/12/2021	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05
849920	Epic-FD-QC06	Soil	1/12/2021	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	-
RPD				0	0	0	0	0	0	0	18	82	0	-	-

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Table T5: QA/QC - Groundwater RPDs



Field or Interlab Duplicates

												TRH								
				Arsenic (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Lead (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.001	0.0001	0.001	0.001	0.001	0.00005	0.001	0.001	10	10	50	50	100	100	50	10	50
Lab Report Number	Field ID	Matrix Type	Date																	
285563	SMW-BH082	Water	16/12/2021	0.002	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.027	0.026	<10	<10	<50	<50	<100	<100	<50	<10	<50
285563	QC01	Water	16/12/2021	0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.026	0.025	<10	<10	<50	<50	<100	<100	<50	<10	<50
RPD				67	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
285563	SMW-BH082	Water	16/12/2021	0.002	<0.0001	<0.001	<0.001	<0.001	<0.00005	0.027	0.026	<10	<10	<50	<50	<100	<100	<50	<10	<50
852333	QC02	Water	16/12/2021	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.024	0.020	-	<20	<20	<50	<50	<100	<100	<100	<20
RPD				0	0	0	0	0	0	12	13	0	0	0	0	0	0	0	0	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 50 (1 - 10 x EQL); 50 (10 - 30 x EQL); 50 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Table T5: QA/QC - Groundwater RPDs



Field or Interlab Duplicates

	TPH			BTEX						MAH	
	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	1,2,4-trimethylbenzene	
	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	100	100	50	0.001	1	1	1	2	1	1	

Lab Report Number	Field ID	Matrix Type	Date										
285563	SMW-BH082	Water	16/12/2021	<100	<100	<50	<0.001	<1	<1	<1	<2	<1	<1
285563	QC01	Water	16/12/2021	<100	<100	<50	<0.001	<1	<1	<1	<2	<1	-
RPD				0	0	0	0	0	0	0	0	0	-
285563	SMW-BH082	Water	16/12/2021	<100	<100	<50	<0.001	<1	<1	<1	<2	<1	<1
852333	QC02	Water	16/12/2021	<50	<100	<100	<100	<0.01	<1	<1	<1	<2	<3
RPD				0	0	0	0	0	0	0	0	0	-

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 50 (1 - 10 x EQL); 50 (10 - 30 x EQL); 50 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Table T6: QA/QC - Rinsates and Trip Blanks



Field Blanks

	TRH							TPH					BTEX						
	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	25	25	50	50	100	100	50	25	50	100	100	50	1	0.2	0.5	1	2	1	3

Lab Report	Sample ID	Matrix Type	Date																			
284886	Epic-FD-TB01	Soil	1/12/2021	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3
286772	Epic-FD-TB03	Soil	17/01/2022	<25	<25	-	-	-	-	-	<25	-	-	-	-	<1	<0.2	<0.5	<1	<2	<1	<3

	Metals								TRH		TPH	BTEX					
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C6-C9	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0001	0.001	0.001	0.001	0.00005	0.001	0.001	10	10	10	0.001	1	1	1	2	1

Lab Report	Sample ID	Matrix Type	Date																
284886	Epic-FD-RB01	Water	1/12/2021	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	-	-	-	-	-	-	-	-
284886	Epic-FD-RB02	Water	2/12/2021	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	-	-	-	-	-	-	-	-
284886	Epic-FD-RB03	Water	3/12/2021	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	-	-	-	-	-	-	-	-
285563	Epic-FD-RB04	Water	16/12/2021	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	<0.001	-	-	-	-	-	-	-	-
286772	Epic-FD-RB05	Water	17/01/2022	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	-	-	-	-	-	-	-	-
285563	Epic-FD-TB02	Water	16/12/2021	-	-	-	-	-	-	-	-	<10	<10	<10	<0.001	<1	<1	<1	<2

Table T7: QA/QC - Trip Spikes



Trip Spikes													
Lab Report Number	Matrix Type	Analysis Batch	Field ID	Sampled Date/Time	Chem Name	Trip Spike Result	Trip Spike Control	Result Units	Spike Recovery %	LCL	UCL	Lab Sample ID	Sample Type
284886	Soil	2021-12-10	Epic-FD-TS01	1/12/2021	Ethylbenzene	NA	NA	NA	80			284886-37	Trip_S
284886	Soil	2021-12-10	Epic-FD-TS01	1/12/2021	Xylene (m & p)	NA	NA	NA	81			284886-37	Trip_S
284886	Soil	2021-12-10	Epic-FD-TS01	1/12/2021	Toluene	NA	NA	NA	82			284886-37	Trip_S
284886	Soil	2021-12-10	Epic-FD-TS01	1/12/2021	Benzene	NA	NA	NA	82			284886-37	Trip_S
284886	Soil	2021-12-10	Epic-FD-TS01	1/12/2021	Xylene (o)	NA	NA	NA	80			284886-37	Trip_S
285563	Water	2021-12-20	Epic-FD-TS02	16/12/2021	Ethylbenzene	NA	NA	NA	97			285563-6	Trip_S
285563	Water	2021-12-20	Epic-FD-TS02	16/12/2021	Xylene (m & p)	NA	NA	NA	90			285563-6	Trip_S
285563	Water	2021-12-20	Epic-FD-TS02	16/12/2021	Toluene	NA	NA	NA	106			285563-6	Trip_S
285563	Water	2021-12-20	Epic-FD-TS02	16/12/2021	Benzene	NA	NA	NA	114			285563-6	Trip_S
285563	Water	2021-12-20	Epic-FD-TS02	16/12/2021	Xylene (o)	NA	NA	NA	100			285563-6	Trip_S
286772	Soil	2022-01-18	Epic-FD-TS03	22/01/2022	Ethylbenzene	NA	NA	NA	76			286772-2	Trip_S
286772	Soil	2022-01-18	Epic-FD-TS03	22/01/2022	Xylene (m & p)	NA	NA	NA	76			286772-2	Trip_S
286772	Soil	2022-01-18	Epic-FD-TS03	22/01/2022	Toluene	NA	NA	NA	76			286772-2	Trip_S
286772	Soil	2022-01-18	Epic-FD-TS03	22/01/2022	Benzene	NA	NA	NA	83			286772-2	Trip_S
286772	Soil	2022-01-18	Epic-FD-TS03	22/01/2022	Xylene (o)	NA	NA	NA	74			286772-2	Trip_S

Trip Spike Recoveries. Where no lab LCL and UCL is available, user defined limits between 30% and 150% have been adopted for non-compliance.

PLATES



Plate P1: Great North Road, eastern boundary of the western construction zone (facing north)



Plate P2: Western construction zone car park (facing east)



Plate P3: Waterview Street, eastern boundary of the eastern construction zone (facing northwest)



Plate P4: Eastern construction zone car park (facing north)



Plate P5: Electrical substation south of the western construction zone (facing northeast)

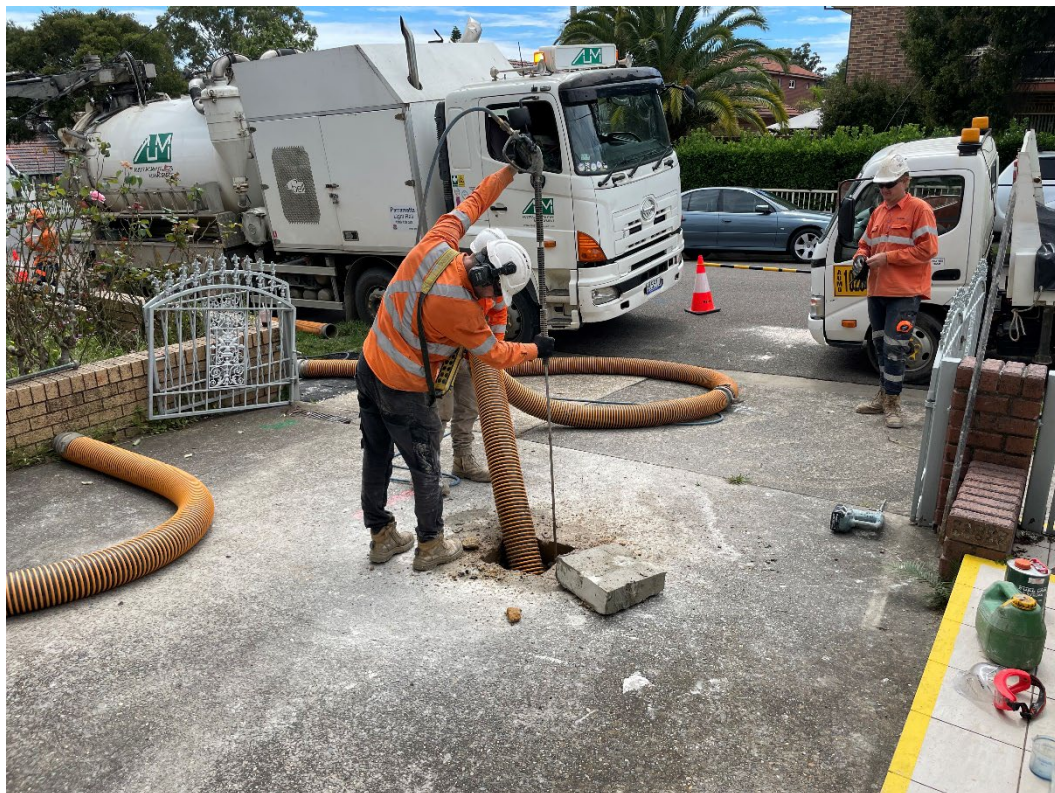


Plate P6: NDD of BH09 (facing northeast)



Plate P7: Recovered material at BH06, fill overlying natural clays



Plate P8: Fill material at BH26

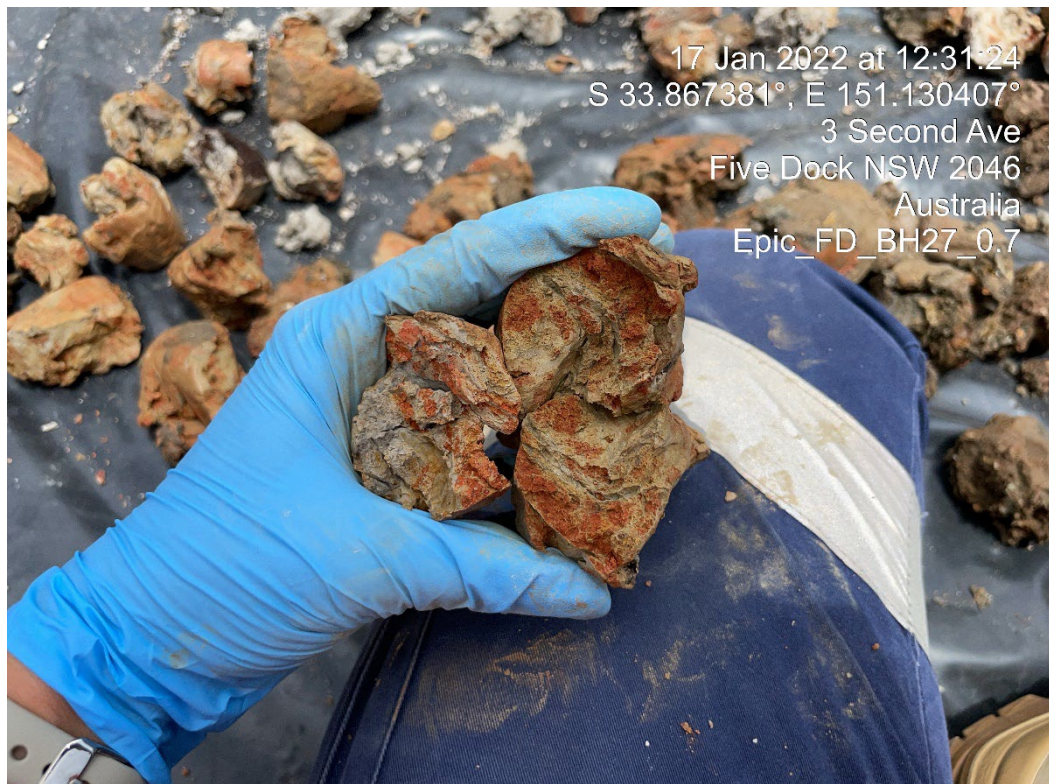


Plate P9: Natural clay at BH27



Plate P10: Recovered shale from BH05

APPENDIX A – LAND INSIGHT REPORT

Due Diligence Insight Report

Great North Road/Second Avenue
Five Dock, NSW

26 November 2021



An aerial photograph of a dense, green forest. A prominent, light-colored, rocky outcrop or cliff face is visible, running diagonally from the upper left towards the lower right. The forest is thick with various shades of green, and the rock face shows some texture and shadows.

Understanding your report

Your Report has been produced by Land Insight and Resources (Land Insight).

Your Report is based on information available from public databases and sources at the date of reporting. The information gathered relates to land that is within a 200 to 2000m radius (buffer zone) from the boundaries of the Property. A smaller or larger radius may be applied for certain records (as listed under records and as shown in report maps).

While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information or data provided.

The report provided by Land Insight includes data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact info@liresources.com.au

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SUMMARY

	Section 1	PROPERTY SETTING	Identified
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography			
	Section 2	HYDROGEOLOGY	Identified
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands			
	Section 3	ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS	Identified
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)			
	Section 4	POTENTIALLY CONTAMINATED AREAS	Identified
Former Potentially Contaminated Land Current and Historical Potentially Contaminating activities (PCA)			
	Section 5	NATURAL HAZARDS	Identified
Erosion risk Bushfire prone land Fire history Flood hazards			



Section 1 Property Setting



1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Category	Distance (m)	Direction
St Alban's Anglican Church	Places of Worship & Religious Organisations	5	North
Sunshine Early Learning Centre	Child Care Services	15	West
Sunshine Early Learning Centre	Child Care Services	25	North
Five Dock Library	Community Centres & Services	40	South-west
Five Dock Public School	School Education	95	West
Five Dock Public School Preschool	School Education	95	West
Uniting Church	Places of Worship & Religious Organisations	125	South
Jump Start Learning School Readiness Centres	School Education	125	North-west
Garfield Street Children's Centre	Child Care Services	133	South
Five Dock Family Medical	Health Care Services	135	North-west
Park View Nursing Home	Residential Care Services	165	East

1.2 PLANNING CONTROLS

Map 1.2 (onsite)

Zoning

Code	Zoning	Details
B4	Mixed Use	Canada Bay Local Environmental Plan 2013

Environmental Planning Instruments

Type	Category	Details
Not identified	-	-

Other Planning Information

Type	Category	Details
Not identified	-	-

1.3 HERITAGE

Map 1.3 (200m Buffer)

State and Local Heritage

Site ID	Site Name	Type	Details	Distance (m)	Direction
I226	St Alban's Anglican Church	Heritage conservation Area	Item - General significance= Local	5	North
I227	St Alban's Anglican Church Rectory	Heritage conservation Area	Item - General significance= Local	18	North
I228	St Alban's Anglican Church Hall and Shops	Heritage conservation Area	Item - General significance= Local	35	North
I211	Police Station	Heritage conservation Area	Item - General significance= Local	40	West
I225	Attached shops	Heritage conservation Area	Item - General significance= Local	70	South
I224	Former CBC of Sydney Bank	Heritage conservation Area	Item - General significance= Local	75	South
I229	Post Office	Heritage conservation Area	Item - General significance= Local	81	North
I247	Five Dock Public School and Garden	Heritage conservation Area	Item - General significance= Local	85	West
I230	Terrace of three shops	Heritage conservation Area	Item - General significance= Local	90	North
I223	Five Dock Hotel	Heritage conservation Area	Item - General significance= Local	133	South
I403	Pair of Shops	Heritage conservation Area	Item - General significance= Local	150	South
I195	Five Dock Masonic Hall	Heritage conservation Area	Item - General significance= Local	160	South

Australian Heritage Database

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Commonwealth Heritage List, National Heritage List and World Heritage Area.

1.4 SOIL AND LAND USE INFORMATION

Map 1.4a/1.4b (onsite)

Soil Landscape

Soil Landscape	REbt	BLACKTOWN	Soil Group	RESIDUAL
Description	Landscape—gently undulating rises on Wianamatta Group shales. Local relief to 30 m, slopes usually >5%. Broad rounded crests and ridges with gently inclined slopes. Cleared Eucalypt woodland and tall open-forest (dry sclerophyll forest). Soils—shallow to moderately deep (>100 cm) hardsetting mottled texture contrast soils, red and brown podzolic soils (Dr3.21, Dr3.31, Db2.11, Db2.21) on crests grading to yellow podzolic soils (Dy2.11, Dy3.11) on lower slopes and in drainage lines. Limitations—localised seasonal waterlogging, localised water erosion hazard, moderately reactive highly plastic subsoil, localised surface movement potential.			

Salinity

Salinity Hazard	Not identified	-
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Radon

Radon Level	Bq/m ³	7
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Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

Acid Sulfate Soil

ASS Risk Map (Table 1.4.1)	On the Property?	Within Buffer?
Class	5	5

National Acid Sulfate Soils Atlas

Atlas of Australian ASS (Table 1.4.2)	Cq(p4)	ASS in inland lakes, waterways, wetlands and riparian zones	Probability of Occurrence	Extremely low probability of occurrence
--	--------	---	---------------------------	---

Table 1.4.1. Classification scheme in the ASS Planning Maps

Class of Land as shown on ASS Planning Maps	
1	Any works.
2a	Works below the natural ground surface. Works by which the watertable is likely to be lowered.
2b	Works other than ploughing below the natural ground surface. Works by which the watertable is likely to be lowered.
3	Works more than 1 metre below the natural ground surface. Works by which the watertable is likely to be lowered more than 1 metre below the natural ground surface.
4	Works more than 2 metres below the natural ground surface. Works by which the watertable is likely to be lowered more than 2 metres below the natural ground surface.
5	Works within 500 metres of adjacent Class 1, 2a, 2b, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2a, 2b, 3 or 4 land.

For each class of land, the maps identify the type of works likely to present an environmental risk if undertaken in the particular class of land. If these types of works are proposed, further investigation is required to determine if ASS are actually present and whether they are present in such concentrations as to pose a risk to the environment.

Table 1.4.2. Atlas of Australian Acid Sulfate Soils¹ (ASRIS) (CSIRO/NatCASS)

Probability of Occurrence of ASS ¹	
A	High Probability of occurrence - (>70% chance of occurrence in mapping unit)
B	Low Probability of occurrence - (6-70% chance of occurrence in mapping unit)
C	Extremely low probability of occurrence - (1-5% chance of occurrence in mapping unit)
D	No probability of occurrence - (<1% chance of occurrence in mapping unit)
x	Disturbed ASS¹ terrain - (ASS ¹ material present below urban development).
u	Unclassified - (Insufficient information to classify map unit)
Zones	
a	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
b, c	Potential acid sulfate soil generally within upper 1 m.
c, d, e	ASS ¹ generally within upper 1 m.
f	ASS ¹ generally below 1 m from the surface
g	ASS ¹ , generally below 3 m from the surface.
h	ASS ¹ generally within 1 m of the surface.
i, j	ASS ¹ generally below 1 m of the surface.
k	ASS ¹ material and/or Monosulfidic Black Ooze (MBO).
l, m, n, o, p, q	ASS ¹ generally within upper 1 m in wet / riparian areas.
Subscripts to codes	
(a)	Actual acid sulfate soil (AASS) = sulfuric material.
(p)	Potential acid sulfate soil (PASS) = sulfidic material.
(q)	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
Confidence levels	
(1)	All necessary analytical and morphological data are available
(2)	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
(3)	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
(4)	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

¹Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics (Pons 1973). Acid sulfate soil (ASS) may include PASS or AASS + PASS. Potential acid sulfate soil (PASS) = sulfidic material. Actual acid sulfate soil (AASS) = sulfuric material.

1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (onsite)

Geology

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description
Sydney 1:100,000 Geological Sheet	Twia	Ashfield Shale	Middle Triassic	Wianamatta Group	Shale	Black to light grey shale and laminite.

Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

Topography

Topography	18 mAHd
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Section 2 Hydrogeology



2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
Aquifer Type	Porous, extensive aquifers of low to moderate productivity	Porous, extensive aquifers of low to moderate productivity Porous, extensive highly productive aquifers
Drinking Water Catchments	Not identified	Not identified
Protected Riparian Corridor	Not identified	Not identified
UPSS Environmentally Sensitive Zone	Sydney Coast – Georges River	Sydney Coast – Georges River
Wetlands	Not identified	Estuarine Wetland Wetlands Protection Area

Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
21	GW112143	Monitoring	3/02/2002	0.0	67.2	<Null>	<Null>	<Null>	645.0	South-west
22	GW112144	Monitoring	20/11/2002	0.0	57.1	<Null>	<Null>	<Null>	741.9	South
23	GW112145	Monitoring	12/12/2002	0.0	29.8	<Null>	<Null>	<Null>	818.9	South-east
6	GW110178	Monitoring	25/11/2004	48.0	48.0	<Null>	<Null>	<Null>	852.0	South-east
2	GW110179	Monitoring	23/06/2009	5.2	5.2	<Null>	<Null>	<Null>	852.3	South-east
3	GW110180	Monitoring	7/12/2004	34.0	34.0	<Null>	<Null>	<Null>	877.1	South-east

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
5	GW110181	Monitoring	7/12/2004	3.1	3.1	<Null>	<Null>	<Null>	877.8	South-east
1	GW072018	Monitoring	30/06/1994	18.0	18.0	1.5	1001-3000 ppm	<Null>	879.1	North-east
7	GW110177	Monitoring	2/12/2004	3.8	3.8	<Null>	<Null>	<Null>	940.0	South-east
10	GW110176	Monitoring	2/12/2004	37.0	37.0	<Null>	<Null>	<Null>	940.5	South-east
4	GW110182	Monitoring	10/12/2004	7.2	7.2	<Null>	<Null>	<Null>	995.8	East
20	GW112142	Monitoring	28/11/2002	0.0	76.1	<Null>	<Null>	<Null>	1004.2	West
13	GW106159	Household	19/03/2004	3.0	3.0	<Null>	<Null>	<Null>	1198.9	North
9	GW110174	Monitoring	27/11/2004	30.1	30.1	1.9	<Null>	<Null>	1215.4	East
8	GW110175	Monitoring	22/11/2004	3.8	3.8	1.9	<Null>	<Null>	1219.0	East
15	GW110184	Monitoring	20/12/2004	3.0	3.0	<Null>	<Null>	<Null>	1516.3	South
14	GW110183	Monitoring	20/12/2004	13.2	30.0	<Null>	<Null>	<Null>	1518.4	South
19	GW112110	Monitoring	13/11/2002	4.0	4.0	<Null>	<Null>	<Null>	1569.4	South
18	GW112109	Monitoring	13/11/2002	4.0	4.0	<Null>	<Null>	<Null>	1579.2	South
16	GW112107	Monitoring	13/11/2002	5.0	5.0	<Null>	<Null>	<Null>	1590.8	South
17	GW112108	Monitoring	1/11/2002	0.0	8.5	<Null>	<Null>	<Null>	1591.4	South
12	GW112141	Monitoring	8/11/2002	67.2	67.2	<Null>	<Null>	<Null>	1745.1	West
30	GW113098	Monitoring	12/04/2011	6.0	6.0	<Null>	<Null>	<Null>	1748.1	South-east
24	GW113092	Monitoring	12/04/2011	5.0	5.0	<Null>	<Null>	<Null>	1749.4	South-east
29	GW113097	Monitoring	11/04/2011	6	6	<Null>	<Null>	<Null>	1751.3	South-east
25	GW113093	Monitoring	12/04/2011	0	5.6	<Null>	<Null>	<Null>	1755.1	South-east
31	GW113099	Monitoring	13/04/2011	6	6	<Null>	<Null>	<Null>	1757.4	South-east
28	GW113096	Monitoring	13/04/2011	0	5.6	<Null>	<Null>	<Null>	1764.1	South-east
26	GW113094	Monitoring	12/04/2011	0	4.85	<Null>	<Null>	<Null>	1764.7	South-east
27	GW113095	Monitoring	13/04/2011	5	5	<Null>	<Null>	<Null>	1766.4	South-east
11	GW114577	Monitoring	2/02/2011	2.5	2.5	<Null>	<Null>	<Null>	1943.3	West

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m)	Lithology	Distance (m)	Direction
GW112143	#N/A		645.0	South-west
GW112144	#N/A		741.9	South
GW112145	#N/A		818.9	South-east

Groundwater Bore ID	From Depth – To Depth (m)	Lithology	Distance (m)	Direction
GW110178	0m-0.5m Fill 0.5m-4m Silty clay 4m-5.24m Sandstone 5.24m-14.5m Sandstone 14.5m-15.5m Basalt 15.5m-17.5m Sandstone 17.5m-22m Basalt 22m-40.1m Sandstone 40.1m-40.4m Basalt 40.4m-48.03m Sandstone		852.0	South-east
GW110179	0m-0.5m Fill 0.5m-4m Silty clay 4m-5.24m Sandstone		852.3	South-east
GW110180	0m-1.7m Fill 1.7m-2.4m Sandy clay 2.4m-3.1m Sandstone 3.1m-20.3m Sandstone 20.3m-20.5m Shale 20.5m-34m Sandstone		877.1	South-east
GW110181	0m-1.7m Fill 1.7m-2.4m Sandy clay 2.4m-3.1m Sandstone		877.8	South-east
GW072018	5m-8m Residual clay soil 8m-18m Sandstone		879.1	North-east
GW110177	0m-1.5m Fill 1.5m-2.4m Sandy clay 2.4m-3.75m Clayey sand		940.0	South-east
GW110176	0m-0.5m Fill 0.5m-2.4m Sandy clay 2.4m-3.75m Clayey sand 3.75m-3.77m Sandy clay 3.77m-37.01m Sandstone		940.5	South-east
GW110182	0m-1.45m Fill 1.45m-6m Sandy clay 6m-7.2m Fine coarse sand		995.8	East
GW112142	#N/A		1004.2	West
GW106159	0m-0.5m Topsoil 0.5m-3m Silty sand, dark grey and clay		1198.9	North
GW110174	0m-1m Fill 1m-2.5m Sand, fine to medium 2.5m-3.75m Sand, fine to medium and silty 3.75m-14.72m Sandstone 14.72m-14.8m Shale 14.8m-14.9m Sandstone 14.9m-18m Shale 18m-30.1m Sandstone		1215.4	East
GW110175	0m-1m Fill 1m-2.5m Sand, fine to medium 2.5m-3.75m Sand, fine to medium silty		1219.0	East
GW110184	0m-0.5m Fill 0.5m-1.5m Silty clay 1.5m-3m Shale		1516.3	South
GW110183	0m-0.5m Fill 0.5m-1.5m Silty clay 1.5m-3m Shale 3m-13.2m Shale 13.2m-13.2m Sandstone		1518.4	South
GW112110	#N/A		1569.4	South
GW112109	#N/A		1579.2	South
GW112107	#N/A		1590.8	South

Groundwater Bore ID	From Depth – To Depth (m)	Lithology	Distance (m)	Direction
GW112108	#N/A		1591.4	South
GW112141	#N/A		1745.1	West
GW113098	#N/A		1748.1	South-east
GW113092	#N/A		1749.4	South-east
GW113097	#N/A		1751.3	South-east
GW113093	#N/A		1755.1	South-east
GW113099	#N/A		1757.4	South-east
GW113096	#N/A		1764.1	South-east
GW113094	#N/A		1764.7	South-east
GW113095	#N/A		1766.4	South-east
GW114577	0m-0.1m Concrete 0.1m-0.3m Gravel, Silt Minor Sand 0.3m-0.8m Sand, Gravel, Minor Clay 0.8m-1.4m Silty Clay Medium Soft Wet And Moist 1.4m-2.5m Clay, Stiff, Moist, Low Plasticity red Brown		1943.3	West

2.2 HYDROGEOLOGY AND OTHER BOREHOLES

Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Vulnerability	Not identified	Not identified
Groundwater Exclusion Zones ^{1,2}	Not identified	Not identified
Hydrogeologic Unit	Late Permian/Triassic sediments (porous media - consolidated)	Late Permian/Triassic sediments (porous media - consolidated)

¹ - Botany Groundwater Management Zones (BGMZ): Zone 1 – the use of groundwater remains banned; Zones 2 to 4 – domestic groundwater use is banned, especially for drinking water, watering gardens, washing windows and cars, bathing, or to fill swimming pools.

² - Williamstown Groundwater Management Zones (WGMZ): Primary Management Zone – this area has significantly higher levels of PFAS detected and therefore, the strongest advice applies. Secondary Management Zone – this area has some detected levels of PFAS; Broader Management Zone – the topography and hydrology of the area means PFAS detections could occur now and into the future.

Groundwater Dependent Ecosystems (GDE)

	On the Property?	Within Buffer?
Aquatic	Not identified	Not identified
Terrestrial	Not identified	Not identified

Aquatic - Ecosystems that rely on the Surface expression of groundwater.

Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.

Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
3103_BH140	BH	SydneyMetroDatabase	<Null>		24.1	169.3	South
3103_BH141	BH	SydneyMetroDatabase	<Null>		36.1	189.5	South
3103_BH228	BH	SydneyMetroDatabase	<Null>		25.1	212.2	South

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
3103_BH218	BH	SydneyMetroDatabase	<Null>		42.0	217.4	South
3103_BH217	BH	SydneyMetroDatabase	<Null>		27.3	230.8	South
3103_BH219	BH	SydneyMetroDatabase	<Null>		36.1	246.1	South
3103_BH139	BH	SydneyMetroDatabase	<Null>		34.1	371.2	West



Section 3 Environmental Registers, Licences and Incidents



3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

Sites Notified as Contaminated to the EPA

Site Name	Address	Activity that caused Contamination	EPA Site Management Class (Table 3.1.1)	Distance (m)	Direction
BP Ashfield	584 Parramatta Road, CROYDON	Service Station	Regulation under CLM Act not required	710.0	South-west
7-Eleven Five Dock Service Station	231-235 Great North Road, FIVE DOCK	Service Station	Regulation under CLM Act not required	235.0	North
Caltex Five Dock Service Station	47 Ramsay Road, corner Fairlight Street, FIVE DOCK	Service Station	Regulation under CLM Act not required	242.0	South

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Contaminated Land Record of Notices

Site Name	Area n°	Address	Notices	Distance (m)	Direction
Not identified	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Table 3.1.1. EPA Site Management Class Explanation

Table 3.1.1 EPA Site Management Class	
EPA Site Management Class	
Under Assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations

Table 3.1.1 EPA Site Management Class

	Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Contamination currently regulated under the CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under the POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

The EPA maintains a record of sites that have been notified to the EPA by owners or occupiers as contaminated land. The sites notified to the EPA are recorded on the register at various stages of the assessment and/or remediation process.

3.2 SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.2 (2000m Buffer)

Defence, Military Sites and UXO Areas

Site name	Type*	Details	Distance (m)	Direction
Haberfield Army Reserve Depot, Sydney NSW	RCIP	The 1.9 hectare former Army Reserve Depot (the site) is located in the suburb of Haberfield and is approximately five kilometres west of the Sydney central business district. In 2003, Defence conducted comprehensive due diligence activities to identify any on-site contaminants. Following this, Defence conducted remediation works to address the low risk site contaminants that were present on the site. Subsequent audit reports have confirmed that the site no longer contains contaminants that would restrict future development of the site for alternate uses	1860.0	South-east

Site name	Type*	Details	Distance (m)	Direction
Former 5th Ordnance Leichhardt Depot	RCIP	Situated adjacent the banks of the Hawthorne Canal, the former Commonwealth Munitions repository and the NSW Department of Public Works Depot have been converted to commercial purposes.	1912.0	South-east

*RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)

Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Former Gaswork	The gasworks was closed in the 1900s and residual gasworks wastes and infrastructure remained at the site. Remediation through the excavation and disposal was completed over 18 months.	1565.0	North

PFAS Sites

Site name	Description	Source	Distance (m) *	Direction
Not identified	-	-	-	-

National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Visy Packaging Five Dock	53 - 75 Queens Road	Other Metal Container Manufacturing	2000/2001	780.0	West

3.3 LICENCES, APPROVALS & NOTICES

Map 3.3 (500m Buffer)

Licences

Licence N°	Licence holder	Location Name	Premise Address	Fee Based Activity	Distance (m)*	Direction
Not identified	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Other Licences still Regulated by EPA

Licence N°	Licence holder	Location Name	Premise Address	Fee Based Activity	Status	Distance (m)*	Direction
Not identified	-	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Clean Up and Penalty Notices

Location ID	Notice Type	Notice N°	Licence holder	Location Name	Premise Address	Distance (m)*	Direction
Not identified	-	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.



Section 4 Potentially Contaminated Areas



4.1 FORMER POTENTIALLY CONTAMINATED LAND

Map 4.1 (500m Buffer)

Contaminated Legacy Areas / Historic Incident Sites

Site Name	Description	Distance (m)	Direction
Not identified	-	-	-

Includes known contaminated areas such as James Hardies Asbestos waste legacy areas, Pasminco Smelter and Uranium processing site.

Derelict Mines and Quarries

Site name	Description	Distance (m)	Direction
Udall Avenue, Fivedock	Rickwood 1985 notes quarry located NW of Lyons Road/Udall Avenue junction contained basalt dyke.	385.0	North
Fivedock: Wests Quarry	AMGs refer to Story Park Fivedock, exact location unknown. Quarry shown on Sydney 1 Mile Topographic Sheet 1933.	360.0	North

Historical Landfills

Site name	Description	Distance (m)	Direction
Parramatta River Reclamation Areas	From 1955 to 1969 landfill (including industrial wastes) was increasingly used to reclaim land. In addition, reclamation was also seen as a means of garbage disposal due to a growing city and lack of existing land.	455.0	North

4.2 CURRENT POTENTIALLY CONTAMINATING ACTIVITIES (PCA)

Map 4.2 (500m Buffer)

Industries, businesses and activities that may cause contamination

Site name	Category	Location	Status*	Distance (m)	Direction
Ampol Foodary Five Dock	Petrol Station	47 Ramsay Road, Five Dock	Operational	269.0	South
Five Dock	Petrol Station	231-235 Great North Road, Five Dock	Operational	253.0	North
Quality Dry Cleaners & Alterations Five Dock	Dry Cleaner	71 Great North Road, Five Dock NSW	Operational	200.0	South
Five Dock (FIVE)	Telephone Exchange	190-192 Great North , Five Dock	Operational	485.0	North

***Status:**

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.

Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

Included in this search:

Type	Type	Type
Cattle Dip Sites	Liquid Fuel Depots	Substation/Switching Stations
Dry Cleaners	Operating Mines	Telephone Exchanges
Fire Rescue	Power Stations	Wastewater Treatment Plants
Gas Terminals	Petrol Stations	Waste Management Facilities

Includes industries or business activities associated with potentially contaminating activities. Records identified within section 4.2 are considered to have a higher likelihood of contamination risk associated with the type of business activity. The contamination risk associated with these records is based solely on the type of activity undertaken by the business, and in conjunction with business activities deemed to be of moderate to high risk of potential contamination identified in State Government regulatory body (EPA) published regulations or guidelines.

The records identified have not been risk ranked based on any current or previous site inspection. Please note that records not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

4.3 OTHER POTENTIALLY CONTAMINATING ACTIVITIES

Map 4.3 (200m Buffer)

Industries, businesses and activities that may cause contamination considered of lesser risk

Site name	Category	Location	Status*	Distance (m)	Direction
Burson Auto Parts	Auto parts store	138 Great N Rd, Five Dock NSW 2046	Operational	173.0	North

***Status:**

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.

Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

Includes industries or business activities records associated with potentially contaminating activities that are not listed in section 4.2 of this report. Records identified within this section are considered to have a lesser likelihood of contamination risk associated with the type of business activity. The contamination risk associated with the records listed in this section are based solely on the type of activity undertaken and have not been risk ranked based on any current or previous site inspection, as such, some of the sites listed in section 4.3 can be potentially of high risk. Industries or business activities deemed of a negligible risk of contamination are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

4.4 HISTORICAL POTENTIALLY CONTAMINATING ACTIVITIES

(not mapped)

1930 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Motor Garage Equipment & Supplies	Sargent AP	2 Garfield Street, Five Dock, NSW	Address	61.5	South
Fuel Merchants & Buyers	Nicholson H	Waterview Street, Five Dock, NSW	Street		North-east
Fuel Merchants & Buyers	Thompson & Topley	Great North Road, Five Dock, NSW	Street		North
Motor Garage Equipment & Supplies	Beard SJ	Great North Road, Five Dock, NSW	Street		North
Motor Garage Equipment & Supplies	Borthwick Bros.	Great North Road, Five Dock, NSW	Street		North
Motor Garage Equipment & Supplies	Kyle W	Great North Road, Five Dock, NSW	Street		North
Printers - General	Bonny & Beauchamp Pty	Great North Road, Five Dock, NSW	Street		North

1940 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Electrical Contractors & Consultants	FIVE DOCK ELECTRICAL CO	102 Great North Road, Five Dock, NSW	Address	46.1	South-west
Plumbers & Gasfitters	Teudt G	4 Garfield Street, Five Dock, NSW	Address	47.4	South
Chemist & Pharmaceutical Supplies	Warren H F	94 Great North Road, Five Dock, NSW	Address	82.3	South-west
Dairies	Donohoe N J	9 Sutton Street, Five Dock, NSW	Address	113.9	North-east
Builder Handyman Contractor Equipment Sale/ Hire	Morrison G D C	8 Barnstaple Road, Five Dock, NSW	Address	126.8	North
Wedding - Cakes & Pastry Retailers	Koala Cake Shop	76 Great North Road, Five Dock, NSW	Address	145.5	South
Carriers - Light Transportation	Creasy A	136 Great North Road, Five Dock, NSW	Address	152.2	North-east
Smallgoods M/Facrs & W/Salers	Harris F A	211 Great North Road, Five Dock, NSW	Address	155.4	North
Chemist & Pharmaceutical Supplies	Lawrance's Pharmacy	103 Great North Road, Five Dock, NSW	Address	174.4	South
Book Manufacturers	Australian Terrazzo Co	18 Third Avenue, Five Dock, NSW	Address	175.6	South
Book Manufacturers	Western Manufacturing Co	18 Third Avenue, Five Dock, NSW	Address	175.6	South
Carriers - Light Transportation	Lyall A	46 Bay Road, Five Dock, NSW	Address	175.6	South
Carriers - Light Transportation	Macleod F M	10 Argyle Street, Five Dock, NSW	Address	175.6	South
Instrument Case Designers & M/Facrs	WESTERN MANUFACTURING CO	18 Third Avenue, Five Dock, NSW	Address	175.6	South
Bicycles & Accessories - Retailers & Repairers	Vahtrik R	72 Great North Road, Five Dock, NSW	Address	198.8	South
Builder Handyman Contractor Equipment Sale/ Hire	Baker O	Great North Road, Five Dock, NSW	Street		North
Builder Handyman Contractor Equipment Sale/ Hire	Gilbert N G	Great North Road, Five Dock, NSW	Street		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Builder Handyman Contractor Equipment Sale/ Hire	Robinson J C	Great North Road, Five Dock, NSW	Street		North
Chemist & Pharmaceutical Supplies	Thomas' Pharmacy	Great North Road, Five Dock, NSW	Street		North
Hardware - Retailers	Johnstone W R	Great North Road, Five Dock, NSW	Street		North
Motor Garage Equipment & Supplies	Beards Garage	Great North Road, Five Dock, NSW	Street		North
Motor Garage Equipment & Supplies	Milcoy C Five Dock Motel	Great North Road, Five Dock, NSW	Street		North
Printers - General	Bonny & Beauchamp	Great North Road, Five Dock, NSW	Street		North
Quarries	Whittall C W	Quarry Grounds, Five Dock, NSW	Street		South

1950 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Jewellers	Watson A L Trading Co	14 East Street, Five Dock, NSW	Address	41.7	North
Carriers - Heavy Industrial Transportation	Jeffree F M	30 Waterview, Kogarah, NSW	Address	42.4	North-east
Chemist & Pharmaceutical Supplies	Five Dock Pharmacy Ltd	143 Great North Road, Five Dock, NSW	Address	48.8	South
Engineers - Refrigeration	Five Dock Radio Service	124 Great North Road, Five Dock, NSW	Address	53.9	North-east
Paging Systems	Burdekin Radio	124 Great North Road, Five Dock, NSW	Address	53.9	North-east
Carriers - Light Transportation	Plummer Bros	183 Great North Road, Five Dock, NSW	Address	57.6	North
Chemist & Pharmaceutical Supplies	Warren H F	96 Great North Road, Five Dock, NSW	Address	69.4	South-west
Engineers - Heating & Combustion	Metz R W	7 Sutton Street, Five Dock, NSW	Address	98.1	North-east
Taxi - Truck Service	Mackay D	6 Barnstaple Road, Five Dock, NSW	Address	120.0	North
Rubber & Metal Stamps	Barnwell W	1b Lancelot Street, Five Dock, NSW	Address	121.7	West
Belts (Clothing) - M/Factors &/Or W/Salers	Doctor H T	132 Great North Road, Five Dock, NSW	Address	124.2	North-east
Builder Handyman Contractor Equipment Sale/ Hire	Morrison GDC	8 Barnstaple Rd, Five Dock, NSW	Address	126.8	North
Electric Hand Dryers	Five Dock Valet Service	148 First Avenue, Five Dock, NSW	Address	134.0	South
Hardware - Retailers	Lemon C	213 Great North Road, Five Dock, NSW	Address	162.0	North
Publishers' Representatives	Jackson I Mrs	12 Barnstaple Road, Five Dock, NSW	Address	164.0	North-east
Builder Handyman Contractor Equipment Sale/ Hire	Townsend W	169 First av, Five Dock, NSW	Address	164.2	South
Electric Hand Dryers	Civic Dry Cleaners The	219 Great North Road, Five Dock, NSW	Address	170.8	North
Chemist & Pharmaceutical Supplies	Lawrence's Pharmacy	103 Great North Road, Five Dock, NSW	Address	174.4	South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Book Manufacturers	Burgess F W H	3 Arthur Street, Five Dock, NSW	Address	175.6	South
Carriers - Heavy Industrial Transportation	Drummoyne & Five Dock Carriers	26 The Parade, Five Dock, NSW	Address	175.6	South
Carriers - Light Transportation	Drummoyne & Five Dock Carriers	26 The Parade, Five Dock, NSW	Address	175.6	South
Electrical Appliances & Products - Service & Repairs	Thompson H & J Pty Ltd	1 Embarn Lane, Five Dock, NSW	Address	175.6	South
Engineers - Chemical	Paraxane Industries	3 Russell, Five Dock, NSW	Address	175.6	South
Furniture Storage & Removals	Drummoyne & Five Dock Carriers	26 The Parade, Five Dock, NSW	Address	175.6	South
China & Glassware - Decoration & Supplies	Hutchinson S	1a Newcastle Street, Five Dock, NSW	Address	186.2	North-west
Builder Handyman Contractor Equipment Sale/ Hire	Armstrong H	5 West St., Five Dock, NSW	Address	198.2	North
Bicycles & Accessories - Retailers & Repairers	Munns H	72 Great North Road, Five Dock, NSW	Address	198.8	South
Hardware - Retailers	Munns H	72 Great North Road, Five Dock, NSW	Address	198.8	South
Chemist & Pharmaceutical Supplies	Thomas' Pharmacy	Great North Road, Five Dock, NSW	Street		North
Hardware - Retailers	Johnstone W R	Great North Road, Five Dock, NSW	Street		North
Motor Garage Equipment & Supplies	Beards Garage	Great North Road, Five Dock, NSW	Street		North
Motor Garage Equipment & Supplies	Milcoy C	Great North Road, Five Dock, NSW	Street		North

1965 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Chemist & Pharmaceutical Supplies	Comino's Pharmacy	157, Great North Rd, NSW	Address	0.0	Onsite
Dental Equipment & Supplies	Air-Dent Pty Ltd	108a, Great North Rd, NSW	Address	10.4	West
Cork Products & Services	European Ironcraft	116, Great North Rd, NSW	Address	26.7	East
Chemist & Pharmaceutical Supplies	Five Dock Pharmacy Ltd	143, Great North Rd, NSW	Address	48.8	South
Chemist & Pharmaceutical Supplies	Warren H F	96, Great North Rd, NSW	Address	69.4	South-west
Quarries	ALLEN J A	96c, Great North Rd, NSW	Address	69.4	South-west
Tip Truck Hire Or Contractors	A. A C. HIRING CO	96c, Great North Rd, NSW	Address	69.4	South-west
Tip Truck Hire Or Contractors	CHAIR & TABLE HIRING CO OF SYDNEY	96c, Great North Rd, NSW	Address	69.4	South-west
Motor Garage Equipment & Supplies	Great North Road Auto Port	126, Great North Rd, NSW	Address	70.9	North-east
Motor Sport Services	SHELL SERVICE STATIONS	126, Great North Rd, NSW	Address	70.9	North-east
Printers - General	RECORDER PRESS PTY LTD THE	130, Great North Rd, NSW	Address	99.9	North-east
Printers - General	The Recorder Press Pty Ltd	130, Great North Rd, NSW	Address	99.9	North-east

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Publishers' Representatives	Jackson I	130,GreatNorthRd,NSW	Adress	99.9	North-east
Hardware - Retailers	Nicholson's Hardware	191,GreatNorthRd,NSW	Adress	100.7	North
Printers - Photogravure	LIGHT ft DENTOM	42,Waterview,NSW	Adress	104.5	North-east
Fabric - Knitted/Woven	Palamara M&C	197,GreatNorthRd,NSW	Adress	109.5	North
Washers	Doctor H T	132,GreatNorthRd,NSW	Adress	124.2	North-east
Chemist & Pharmaceutical Supplies	Michael's Pharmacy	84,GreatNorthRd,NSW	Adress	125.6	South
Towing Service	Adams K W	1,SecondAv,NSW	Adress	127.2	East
Weavers & Weaving	McCallum W R	18,Garfield,NSW	Adress	128.6	West
Chemist & Pharmaceutical Supplies	Post Office Pharmacy	205,GreatNorthRd,NSW	Adress	138.9	North
Motor Sport Services	Five Dock Auto Port	134,GreatNorthRd,NSW	Adress	147.2	North-east
Motor Garage Equipment & Supplies	MacKay D	136,GreatNorthRd,NSW	Adress	152.2	North-east
Hardware - Retailers	Lemon C	213,GreatNorthRd,NSW	Adress	162.0	North
Builder Handyman Contractor Equipment Sale/ Hire	Townsend G M	167,FirstAv,NSW	Adress	164.2	South
Builder Handyman Contractor Equipment Sale/ Hire	Townsend Wm&Sons Pty Ltd	169,FirstAv,NSW	Adress	164.2	South
Electrical Contractors & Consultants	Ryan E L	169,FirstAv,NSW	Adress	164.2	South
Metal Sanitary Ware	Merlite Products Pty Ltd	107,GreatNorthRd,NSW	Adress	164.5	South
Dry Cleaning Services	Five Dock Valet Service	175,FirstAv,NSW	Adress	165.3	South
Dry Cleaning Services	SINCERE DRY CLEANERS	219,GreatNorthRd,NSW	Adress	170.8	North
Builder Handyman Contractor Equipment Sale/ Hire	Goodwin A W	22,Garfield,NSW	Adress	172.1	West
Boat Motors & Outboards	Chalmers L	181,FirstAv,NSW	Adress	173.9	South
Motor Sport Services	The Avenue Service Station Pty Ltd	181,FirstAv,NSW	Adress	173.9	South
Chemist & Pharmaceutical Supplies	Lawrances Pharmacy	103,GreatNorthRd,NSW	Adress	174.4	South
Taxi - Truck Service	Mustafa M	5,Australia,NSW	Adress	175.6	South
Dry Cleaning Services	NuLex Dry Cleaners	90,RamsayRd,NSW	Adress	177.4	South
Carriers - Heavy Industrial Transportation	M.&H. Transport	14,BarnstapleRd,NSW	Adress	195.2	North-east

1970 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Chemist & Pharmaceutical Supplies	Comino's Pharmacy,	157 Great North Rd, Five Dock	Adress	0.0	Onsite
Television - Retail Sales	Whltfords of Five Dock Pty. Ltd.,	167 Great North Rd.,NSW	Adress	0.0	Onsite

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Motor Garage Equipment & Supplies	Amoco Service Station,	110 Great North Road, Five Dock	Address	13.6	West
Electronic Parts - M/Facrs &/Or W/Salers	Texas Instruments Aust Ltd	118 Great North Road, Five Dock, NSW	Address	25.2	North
Barge M/Factr Or Hire	Watson, A. L. Manufacturing Co. Pty. Ltd.,	14 East St., Five Dock	Address	41.7	North
Buckle & Button - Retail	Watson A L Mfrg Co Pty Ltd	14 East Street, Five Dock, NSW	Address	41.7	North
Buckle & Button - Retail	Watson, A. L. Manufacturing Co. Pty. Ltd.,	14 East St., Five Dock	Address	41.7	North
Carpet - Layers' Supplies	Watson, A. L. Manufacturing Co. Pty. Ltd.,	14 East St., Five Dock	Address	41.7	North
Jewellers	Watson, A. L. Manufacturing Co. Pty. Ltd.,	14 East St., Five Dock	Address	41.7	North
Lapidaries' & Gem Cutters' Supplies & Service	Watson, A. L. Manufacturing Co. Pty. Ltd.,	14 East St., Five Dock	Address	41.7	North
Manufacturers' Agents & Representatives	Watson, A. L. Manufacturing Co. Pty. Ltd.,	14 East St., Five Dock	Address	41.7	North
Marine Contractors & Construction	Certified Concrete Pty. Ltd.,	14a East St., Five Dock	Address	41.7	North
Road Construction Contractors	Road Constructions	14a East Street, Five Dock, NSW	Address	41.7	North
Studio & Portrait Photography	Coronet Studios,	120 Great North Road, Five Dock	Address	42.9	North-east
Chemist & Pharmaceutical Supplies	Five Dock Pharmacy Ltd.,	143 Great North Road, Five Dock	Address	48.8	South
Rotary Hoeing Services	A. & C. Hiring Co.,	96A Great North Road, Five Dock	Address	69.4	South-west
Motor Garage Equipment & Supplies	Great North Road Auto Port	126 Great North Road, Five Dock, NSW	Address	70.9	North-east
Motor Garage Equipment & Supplies	Great North Road Auto Port,	126-8 Great North Rd., NSW	Address	70.9	North-east
Motor Sport Services	Great North Road Auto Port	126 Great North Road, Five Dock, NSW	Address	70.9	North-east
Hardware - Retailers	Johnstone, W. R.,	135 Great North Rd., NSW	Address	72.8	South
Carriers - Light Transportation	Rose GH	1 Sutton, Five Dock, NSW	Address	82.4	East
Grain & Produce Retailers	Central Produce,	92A Great North Road, Five Dock	Address	98.6	South
Printers - General	Recorder Press Pty Ltd	130 Great North Road, Five Dock, NSW	Address	99.9	North-east
Printers - General	Recorder Press Pty. Ltd. (The),	130 Great North Road, Five Dock	Address	99.9	North-east
Publishers' Representatives	Recorder Press Pty. Ltd. (The),	130 Great North Road, Five Dock	Address	99.9	North-east
Timber - Retailer/Trader	Recorder Press Pty. Ltd. (The),	130 Great North Road, Five Dock	Address	99.9	North-east
Concrete - Form Ties Formwork & Accessories	Fyna Constructions (Hire & Sales) Pty Ltd	125 Great North Road, Five Dock, NSW	Address	111.6	South
Concrete - Form Ties Formwork & Accessories	Fyna Constructions (NSW) Pty Ltd	125 Great North Road, Five Dock, NSW	Address	111.6	South
Electrical Switches & Control Equipment & Machinery	Square D Co Aust Pty LTD	125 Great North Road, Five Dock, NSW	Address	111.6	South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Engineers - General	Zenford Pty Ltd	125 Great North Road, Five Dock, NSW	Address	111.6	South
Engineers - Plastics & Toolmakers	Zenford Pty Ltd	125 Great North Road, Five Dock, NSW	Address	111.6	South
Engineers - Precision	Zenford Pty Ltd	125 Great North Road, Five Dock, NSW	Address	111.6	South
Plastic - Raw Materials	Hogg ME Pty Ltd	125 Great North Road, Five Dock, NSW	Address	111.6	South
Scaffolding Sale Or Hire	Fyna Constructions (Hire & Sales) Pty Ltd	125 Great North Road, Five Dock, NSW	Address	111.6	South
Chemist & Pharmaceutical Supplies	Michael, B.,	84 Great North Road, Five Dock	Address	125.6	South
Metal - Spraying Equipment	Nobilia B	9 Garfield Street, Five Dock, NSW	Address	127.8	South-west
Petrol Stations & Garages	Total Service Station,	146 First Ave., NSW	Address	128.7	South
Chemist & Pharmaceutical Supplies	Post Office Pharmacy,	205 Great North Road, Five Dock	Address	138.9	North
Handbag Retailers & Repairers	Five Dock Bag Store,	80 Great North Road, Five Dock	Address	141.1	South
Handbag Retailers & Repairers	Ross, Thomas, Five Dock Bag Store,	80 Great North Road, Five Dock	Address	141.1	South
Inter-Communication Systems	Electronics Engineering (Communications) Pty Ltd	207 Great North Road, Five Dock, NSW	Address	144.4	North
Concrete - Pumping	Abbottsford Concrete Pumping Service Pty Ltd	134 Great North Ryde, Five Dock, NSW	Address	147.2	North-east
Motor Garage Equipment & Supplies	Five Dock Auto Port,	134 Great North Rd., NSW	Address	147.2	North-east
Motor Sport Services	Five Dock Auto Port	134 Great North Road, Five Dock, NSW	Address	147.2	North-east
Motor Garage Equipment & Supplies	MacKay D	136 Great North Road, Five Dock, NSW	Address	152.2	North-east
Edible Oil Merchants	Lemon, C.,	213 Great North Road, Five Dock	Address	162.0	North
Publishers' Representatives	Five Dock Recorder The,	217 Great North Road, Five Dock	Address	162.0	North
Cleaning - Products	Aldon Sales Pty Ltd	107 Great North Road, Five Dock, NSW	Address	164.5	South
Toilet & Washroom Services & Equipment	Pura Pan Sales	107 Great North Road, Five Dock, NSW	Address	164.5	South
Dry Cleaning Services	Five Dock Valet Service,	175 First Ave, Five Dock	Address	165.3	South
Electric Hand Dryers	Five Dock Valet Services Pty Ltd	175 First Avenue, Five Dock, NSW	Address	165.3	South
Dry Cleaning Services	Sincere Dry Cleaners,	219 Great North Road, Five Dock	Address	170.8	North
Electric Hand Dryers	Sincere Dry Cleaners	219 Great North Road, Five Dock, NSW	Address	170.8	North
Analysts & Analytical Services	Micro Scientific Laboratories Pty Ltd	187 First Avenue, Five Dock, NSW	Address	173.9	South
Bakeries	Independent Tyre Sales & Service Pty Ltd	181 First Avenue, Five Dock, NSW	Address	173.9	South
Engineers - Motor & Repairers	Avenue Service Station Pty. Ltd.,	181 First Ave., Five Dock	Address	173.9	South
Chemist & Pharmaceutical Supplies	Lawrence's Pharmacy,	103 Great North Road, Five Dock	Address	174.4	South
Concrete - Form Ties Formwork & Accessories	G.M.A. Brothers Formwork Pty Ltd	3 Arthur Street, Five Dock, NSW	Address	175.6	South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Engineers - Manufacturing	Lincoln Electric Co. (Aust.) Pty. Ltd.,	35 Bryant St. Padstowmatta Road, Five Dock	Adress	175.6	South
Suede & Flock Finishing	Taylor W (Flock & Wadding) Pty Ltd	5 ?, NSW	Adress	175.6	South
Tyre Retailers	Avenue Tyre Service (The),	183 First Ave., Five Dock	Adress	176.2	South
Motor Cycle - New Parts & Accessories Retail	Five Dock Sports Store.	72 Great North Road, Five Dock	Adress	198.8	South
Cars - Used	Trader Horn Motors	Great North Road, Five Dock, NSW	Street		North
Importers	Pix T.V. Components Pty. Ltd.,	Jersey La., Five Dock	Street		South
Motor Sport Services	Parisi A&A Service Station	Great North Road, Five Dock, NSW	Street		North
Television & Radio Schools	Pix T.V. Components Pty. Ltd.,	Jersey La., Five Dock	Street		South

1980 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Chemist & Pharmaceutical Supplies	Ming Pharmacy	157 Great North Road, Five Dock, NSW	Adress	0.0	Onsite
Chemist & Pharmaceutical Supplies	Wong W Ming	157 Great North Road, Five Dock, NSW	Adress	0.0	Onsite
Motor Garage Equipment & Supplies	Amoco Aust Ltd	110 Great North Road, Five Dock, NSW	Adress	13.6	West
Motor Garage Equipment & Supplies	Andrews Service Station	110 Great North Road, Five Dock, NSW	Adress	13.6	West
Cleaning - Industrial/Commercial Contractors	Punch F P	118 Great North Road, Five Dock, NSW	Adress	25.2	North
Fire Brick M/Factrs & Repairers	Harbison A C I Pty Ltd	118 Great North Road, Five Dock, NSW	Adress	25.2	North
Lighting Specialists	Watson A L Mfrg Co Pty Ltd	14 East St., Five Dock, NSW	Adress	41.7	North
Batteries - Rechargeable & Dry Cell	ALLSYD PTY LTD	96 Great North Road, Five Dock, NSW	Adress	69.4	South-west
Motor Garage Equipment & Supplies	Great North Road Auto Port	126 Great North Road, Five Dock, NSW	Adress	70.9	North-east
Motor Garage Equipment & Supplies	Shell Service Stations	126 Great North Road, Five Dock, NSW	Adress	70.9	North-east
Hardware - Retailers	B & M Hardware	135 Great North Road, Five Dock, NSW	Adress	72.8	South
Lithographic Printers	Recorder Press Pty Ltd The	130 Great North Road, Five Dock, NSW	Adress	99.9	North-east
Printers - General	Recorder Press Pty Ltd The	130 Great North Road, Five Dock, NSW	Adress	99.9	North-east
Laundries - Commercial/Industrial	Stringers Laundrette	195 Great North Road, Five Dock, NSW	Adress	109.5	North
Chemist & Pharmaceutical Supplies	Papalia Joseph A	125 Great North Road, Five Dock, NSW	Adress	111.6	South
Electrical Switches & Control Equipment & Machinery	Square D Co Aust Pty Ltd	125 Great North Road, Five Dock, NSW	Adress	111.6	South
Engineers - General	Zenford Pty Ltd	125 Great North Road, Five Dock, NSW	Adress	111.6	South
Insulation Materials & Supplies	Australia Wide Home Insulators	125 Great North Road, Five Dock, NSW	Adress	111.6	South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Novelty Message Services	Free Enterprise Courier Systems	125 Great North Road, Five Dock, NSW	Address	111.6	South
Motor Cycle - New Parts & Accessories Retail	Ideal Auto Parts & Accessories	199 Great North Road, Five Dock, NSW	Address	123.1	North
Chemist & Pharmaceutical Supplies	Goldshafts Pharmacy	84 Great North Road, Five Dock, NSW	Address	125.6	South
Chemist & Pharmaceutical Supplies	McGregors Pharmacy	201 Great North Road, Five Dock, NSW	Address	128.0	North
Tyre Retailers	Independent Tyre Sales & Service Pty Ltd	181 First Avenue (Head Office & Wholesale Division), Five Dock, NSW	Address	144.0	South
Concrete - Contractors & Paving Specialists	Abbotsford Concrete Pumping Service Pty Ltd	134 Great North Road, Five Dock, NSW	Address	147.2	North-east
Concrete - Contractors & Paving Specialists	Five Dock Concrete Pty Ltd	134 Great North Road, Five Dock, NSW	Address	147.2	North-east
Concrete - Pumping	Abbotsford Concrete Pumping Service Pty Ltd	134 Great North Road, Five Dock, NSW	Address	147.2	North-east
Concrete - Pumping	Five Dock Concrete Pty Ltd	134 Great North Road, Five Dock, NSW	Address	147.2	North-east
Motor Garage Equipment & Supplies	Five Dock Auto Port	134 Great North Road, Five Dock, NSW	Address	147.2	North-east
Builder Handyman Contractor Equipment Sale/ Hire	Western Suburbs Plant Hire	136 Great North Road, Five Dock, NSW	Address	152.2	North-east
Motor Garage Equipment & Supplies	Mackay D	136 Great North Road, Five Dock, NSW	Address	152.2	North-east
Hardware - Retailers	Paul J C & Sons	213 Great North Road, Five Dock, NSW	Address	162.0	North
Builder Handyman Contractor Equipment Sale/ Hire	Townsend G M	167 First Avenue, Five Dock, NSW	Address	164.2	South
Cleaning - Products	Aldon Sales Pty Ltd	107 Great North Road, Five Dock, NSW	Address	164.5	South
Window - Cleaners & Cleaning	Aldon Sales Pty Ltd	107 Great North Road, Five Dock, NSW	Address	164.5	South
Dry Cleaning Services	Sincere Dry Cleaners	219 Great North Road, Five Dock, NSW	Address	170.8	North
Bakeries	Independent Tyre & Battery Service	181 First Avenue, Five Dock, NSW	Address	173.9	South
Tyres - Recapping Retreading & Repairing	Independent Retreads Pty Ltd	181 First Avenue, Five Dock, NSW	Address	173.9	South
Tyres - W/Salers	Avenue Tyre Service The	181 First Avenue, Five Dock, NSW	Address	173.9	South
Carpenters Joiners & Fitters	Palazzolo R	29 The Parade, Five Dock, NSW	Address	175.6	South
Builder Handyman Contractor Equipment Sale/ Hire	French K D	99a Great North Road, Five Dock, NSW	Address	183.1	South

1990 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Motor Garage Equipment & Supplies	Andrews Service Station	110 Great North Road, Five Dock, NSW	Address	13.6	West
Motor Garage Equipment & Supplies	Great North Road Auto Port	126 Great North Road, Five Dock, NSW	Address	70.9	North-east
Laundries - Commercial/Industrial	Five Dock Laundrette	195 Great North Road, Five Dock, NSW	Address	109.5	North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Motor Garage Equipment & Supplies	Meckler Chris Garage	134 Great North Road,Five Dock,NSW	Adress	147.2	North-east
Motor Garage Equipment & Supplies	Mobil Oil Aust Ltd	134 Great North Road,Five Dock,NSW	Adress	147.2	North-east
Dry Cleaning Services	Sincere Dry Cleaners	219 Great North Road,Five Dock,NSW	Adress	170.8	North
Bakeries	Independent Tyre & Battery Service	181 First Avenue,Five Dock,NSW	Adress	173.9	South
Textiles - Wholesale	National Textiles Ltd	138 Great North Road,Five Dock,NSW	Adress	179.3	North-east
Motor Garage Equipment & Supplies	BP Australia Ltd	Corner of Great North Road & Second Avenue,Five Dock,NSW	Street		East

2005 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Audio-Visual Equipment Sales Hire Or Service	Whitfords Home Theatre Discounts	165-167 Great North Rd,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Building Contractors - Renovations Alterations & Extensions	Modum Pty Ltd	2 East St,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Electrical Appliances & Products - M/Facrs & W/Salers	Essential Electrics	4-8 East St,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Electrical Appliances & Products - M/Facrs & W/Salers	Whitfords Commercial Sales	4-8 East St,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Electrical Appliances & Products - Retail	Electrical Bargain Centre	4-8 East St,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Electrical Appliances & Products - Retail	Retravision (NSW) Ltd, Five dock	167 Great North Rd,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Electrical Appliances & Products - Retail	Whitfords Electrical Bargain Centre	4-8 East St,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Electrical Appliances & Products - Retail	Whitfords Electrical Warehouse Online	4-8 East St,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Electrical Appliances & Products - Retail	Whitfords Retravision	165-167 Great North Rd,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Photographer -Fashion & Advertising	Studio Tech Photo & Video Productions	27 Waterview St,FIVE DOCK,NSW,2046	Adress	0.0	Onsite
Motor Sport Services	B P Five Dock	110 Great North Rd,FIVE DOCK,NSW,2046	Adress	13.6	West
Bus & Coach Services	Travelmark Tours	118 Great North Rd,FIVE DOCK,NSW,2046	Adress	25.2	North
Car Accessories - M/Facrs & W/Salers	Ngk Spark Plug (Australia) Pty Ltd	118 Great Northern Rd (Suite 101),FIVE DOCK,NSW,2046	Adress	25.2	North
Chauffeur Driven Cars/Limousine Services	City Limousines.	Suite 108, 118 Great North Rd,FIVE DOCK,NSW,2046	Adress	25.2	North
Chauffeur Driven Cars/Limousine Services	Travelmark Tours.	Suite 108, 118 Great North Rd,FIVE DOCK,NSW,2046	Adress	25.2	North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Inspection Testing & Calibrating Services	WBM Pty Ltd, Five dock	Suite 206/ 118 Great North Rd,FIVE DOCK,NSW,2046	Adress	25.2	North
Textile Mills	F.M. Textiles Agencies	118 Great North Rd,FIVE DOCK,NSW,2046	Adress	25.2	North
Video & Dvd Equipment Retailers	Civic Video Pty Ltd, Five dock	118 Great North Rd,FIVE DOCK,NSW,2046	Adress	25.2	North
Video & Dvd Equipment Retailers	Civic Video, Five dock	118 Great North Rd,FIVE DOCK,NSW,2046	Adress	25.2	North
Wedding - Venues & Receptions	Castel D'Oro Function Centre	120 Great North Rd,FIVE DOCK,NSW,2046	Adress	42.9	North-east
Jewellers	Amore Design Jewellers Pty Ltd	122 Great North Rd,FIVE DOCK,NSW,2046	Adress	52.1	North
Bridal & Evening Wear - Retail & Hire	Velani By Nicky	124 Great North Rd,FIVE DOCK,NSW,2046	Adress	53.9	North-east
Kitchens Renovations & Equipment- New	Ripoutz	41 Waterview St,FIVE DOCK,NSW,2046	Adress	56.2	North
Architect	Back & Riggs Architects	Suite 2, Level 1, 185 Great North Rd,FIVE DOCK,NSW,2046	Adress	63.1	North
Architect	Nicholas Back Architects Pty Ltd	Suite 2, Level 1, 185 Great North Rd,FIVE DOCK,NSW,2046	Adress	63.1	North
Bakeries	Bakersville	137 Great North Rd,FIVE DOCK,NSW,2046	Adress	66.3	South
Incinerating Equipment Sales & Service	Allens Hearing Aid Specialists	96 Great North Rd,FIVE DOCK,NSW,2046	Adress	69.4	South-west
Incinerating Equipment Sales & Service	Allens' Hearing and Specialists Five Dock	96 Great North Rd,FIVE DOCK,NSW,2046	Adress	69.4	South-west
Incinerating Equipment Sales & Service	John Allens Hearing Aids	96 Great North Rd,FIVE DOCK,NSW,2046	Adress	69.4	South-west
Photography Processing Services - Domestic	Five Dock Photo Express	96b Great North Rd,FIVE DOCK,NSW,2046	Adress	69.4	South-west
Medical Clinics	Merlino Felix & Piazza Peter	126 Great North Rd,FIVE DOCK,NSW,2046	Adress	70.9	North-east
Medical Clinics	Piazza Peter & Merlino Felix	126 Great North Rd,FIVE DOCK,NSW,2046	Adress	70.9	North-east
Computer Equipment - Hardware Home Office	Q Flow Technology Pty Ltd	Unit 1, 128 Great North Rd,FIVE DOCK,NSW,2046	Adress	84.7	North
Conveyancers	Serio & Associates	1st Floor 128 Great North Rd,FIVE DOCK,NSW,2046	Adress	84.7	North
Strata Title Management Consultants	Five Dock Realty	92a Great North Rd,FIVE DOCK,NSW,2046	Adress	98.6	South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Engineers - Consultants	Catterson D & Associates	92 Great North Rd,FIVE DOCK,NSW,2046	Adress	101.3	South
Furniture - Metal & Iron	Tinks & Tonks	Rear 92 Great North Rd,FIVE DOCK,NSW,2046	Adress	101.3	South
Quarries	Five Dock Laundrette	195 Great North Rd,FIVE DOCK,NSW,2046	Adress	109.5	North
Trailer Hire	Five Dock Formal Hire & Menswear	4/ 125 Great North Rd,FIVE DOCK,NSW,2046	Adress	111.6	South
Lighting Repairs & Maintenance	Advance Lifts	6/207 Great North Rd,FIVE DOCK,NSW,2046	Adress	116.1	North
Waterproofing Contractors & Consultants	Aaction Waterproofing Pty Ltd	Suite 104/166 Great North Rd,FIVE DOCK,NSW,2046	Adress	116.1	North
Medical Clinics	Crea Phillip	12 Henry St,FIVE DOCK,NSW,2046	Adress	133.5	North-west
Photographer - General	Royal Studios	121a Great North Rd,FIVE DOCK,NSW,2046	Adress	134.0	South
Oil Merchants Oil Refineries & Distributors	Film Factory The	Unit 4/ 34 East St,FIVE DOCK,NSW,2046	Adress	143.2	North
Dental & Dentistry - Laboratories	Alfodontics Dental Lab Pty Ltd	Suite 13 207 Great North Rd,FIVE DOCK,NSW,2046	Adress	144.4	North
Herbs & Herbalists	Natures Treats Australia Pty Ltd	207 Great North Rd,FIVE DOCK,NSW,2046	Adress	144.4	North
Photographer - General	Oscar Photography	209 Great North Rd,FIVE DOCK,NSW,2046	Adress	144.4	North
Timeshare Resorts & Consultants	Business Bytes	Suite 10, 207 Great North Rd,FIVE DOCK,NSW,2046	Adress	144.4	North
Carpet - Tiles & Carpet Retail	Bernard Sophie	163 First Ave,FIVE DOCK,NSW,2046	Adress	145.0	South
Medical Clinics	Chu Colin	163 First Ave,FIVE DOCK,NSW,2046	Adress	145.0	South
Medical Clinics	First Avenue Family Practice	163 First Ave,FIVE DOCK,NSW,2046	Adress	145.0	South
Medical Clinics	Mann Ruth	163 First Ave,FIVE DOCK,NSW,2046	Adress	145.0	South
Medical Clinics	Ulrick Megan	163 First Ave,FIVE DOCK,NSW,2046	Adress	145.0	South
Hotel Restaurant & Club Supplies	Five Dock Hotel	74 Great North Rd,FIVE DOCK,NSW,2046	Adress	145.5	South
Halls For Hire	Masonic Halls & Centres, Five dock	177 First Ave,FIVE DOCK,NSW,2046	Adress	168.0	South
Air Services	Moso Elite Marketing	Suite 2/ 191 First Ave,FIVE DOCK,NSW,2046	Adress	172.1	South
Air Services	Tribute Tracks	Suite 2/ 191 First Ave,FIVE DOCK,NSW,2046	Adress	172.1	South
Conveyancers	Sydney Conveyancing, Five dock	82 Ramsay,FIVE DOCK,NSW,2046	Adress	178.5	South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Electrical W/Salers	TLE Electrical, Five dock	138 Great North Rd,FIVE DOCK,NSW,2046	Adress	179.3	North-east
Insurance Carriers n.e.c.	City Commercial Insurance Brokers Pty Ltd	Lvl 1/ 99 Great North Rd,FIVE DOCK,NSW,2046	Adress	183.1	South
Retirement Villages & Homes	Kitty Doyle Home Units Trust	8 Kings Rd,FIVE DOCK,NSW,2046	Adress	190.1	South
Ship Builders & Repairers	Kevin Waters Engineering Pty Ltd	72 Great North Rd,FIVE DOCK,NSW,2046	Adress	198.8	South
Air Conditioning - Industrial & Commercial	Austal Air Conditioning Pty Ltd	FIVE DOCK,NSW,2046	Suburb		South
Bakeries	Anthony's Fine Bread	FIVE DOCK,NSW,2046	Suburb		South
Balustrades Timber & Metal	Frameless Glass by DK	FIVE DOCK,NSW,2046	Suburb		South
Bridal & Evening Wear - Retail & Hire	Atelier of Alterations & Adjustments	FIVE DOCK,NSW,2046	Suburb		South
Bridal & Evening Wear - Retail & Hire	Basilica Brides	FIVE DOCK,NSW,2046	Suburb		South
Building Contractors - General	Ideal Homes Pty Ltd	FIVE DOCK,NSW,2046	Suburb		South
Building Design & Drafting Services	A J P Design Services	FIVE DOCK,NSW,2046	Suburb		South
Building Design & Drafting Services	A P B Design Services	FIVE DOCK,NSW,2046	Suburb		South
Bus & Coach Services	Gala Tours & Bus Hire	FIVE DOCK,NSW,2046	Suburb		South
Car Alarm Systems	Brant Corporation	FIVE DOCK,NSW,2046	Suburb		South
Car Replacement Parts	Pedders, Five dock	FIVE DOCK,NSW,2046	Suburb		South
Carpenters Joiners & Fitters	A & R Renovations	FIVE DOCK,NSW,2046	Suburb		South
Carpenters Joiners & Fitters	Argyle Building Excellence	FIVE DOCK,NSW,2046	Suburb		South
Carpenters Joiners & Fitters	Sydney Carpentry Building Services Pty Ltd	FIVE DOCK,NSW,2046	Suburb		South
Cars - New	Steve Jarvin Kia	FIVE DOCK,NSW,2046	Suburb		South
Cleaning - Industrial/Commercial Contractors	Cleano Patra	FIVE DOCK,NSW,2046	Suburb		South
Cleaning - Products	Mopheads	FIVE DOCK,NSW,2046	Suburb		South
Cleaning - Products	Ron Kavanagh Cleaning	FIVE DOCK,NSW,2046	Suburb		South
Coin & Note Handling Machines	ACM Bus & Coaches	FIVE DOCK,NSW,2046	Suburb		South
Concrete Cutting, Grinding & Drilling	Prestige Concrete Drilling & Sawing	FIVE DOCK,NSW,2046	Suburb		South
Degreasing Equipment & Machinery	ADS, Five dock	FIVE DOCK,NSW,2046	Suburb		South
Electrical Contractors & Consultants	Five Dock Electrical	FIVE DOCK,NSW,2046	Suburb		South
Electrical Contractors & Consultants	Tibbles Electrical Services Aust Pty Ltd	FIVE DOCK,NSW,2046	Suburb		South
Engineers - Motor & Repairers	Onsite Lube Mobile Mechanic	FIVE DOCK,NSW,2046	Suburb		South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Engineers - Motor & Repairers	Pedders Suspension, Five dock	FIVE DOCK,NSW,2046	Suburb		South
Engineers - Patternmakers	Mortgage Find, Five dock	FIVE DOCK,NSW,2046	Suburb		South
Grease Trap Cleaners	Canada Bay Roofing Service	FIVE DOCK,NSW,2046	Suburb		South
Industrial & Product Designers	All Design Solutions	FIVE DOCK,NSW,2046	Suburb		South
Landscape Design & Consultants	The Landscape Co	FIVE DOCK,NSW,2046	Suburb		South
Lawn Cutting & Garden Maintenance	Master Gardening Services	FIVE DOCK,NSW,2046	Suburb		South
Lawn Cutting & Garden Maintenance	Mel's Lawn Mowing Service	FIVE DOCK,NSW,2046	Suburb		South
Marketing Consultants & Services	intex International Trading Partners	FIVE DOCK,NSW,2046	Suburb		South
Painters' & Decorators' Supplies	Amore's Painting & Maintenance	FIVE DOCK,NSW,2046	Suburb		South
Painters' & Decorators' Supplies	Oz Bros Painting Services	FIVE DOCK,NSW,2046	Suburb		South
Plasterers & Plasterboard Fixers	J F Interior Linings	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	A Five Dock Plumbing	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	A-Hi Line Plumbing Pty Ltd	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	Bunnell Plumbing	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	Five Dock Plumbing	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	Glenn Pearce Plumbing	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	Marx Plumbing	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	The Plumbing Guru	FIVE DOCK,NSW,2046	Suburb		South
Plumbers & Gasfitters	True Plumbing Services	FIVE DOCK,NSW,2046	Suburb		South
Refrigeration - Domestic Service & Repairs	A Aark Refrigeration	FIVE DOCK,NSW,2046	Suburb		South
Refrigeration - Domestic Service & Repairs	A Jason Refrigeration & Washing Machine & Dryer Repairs	FIVE DOCK,NSW,2046	Suburb		South
Refrigeration - Domestic Service & Repairs	A Jason Refrigeration & Washing Machine Repairs & Service, Five dock	FIVE DOCK,NSW,2046	Suburb		South
Refrigeration - Domestic Service & Repairs	A Jason Washing Machine, Dryer & Refrigeration Repairs	FIVE DOCK,NSW,2046	Suburb		South
Refrigeration - Domestic Service & Repairs	A. Jason Refrigeration & Washing Machine & Dryer Repairs	FIVE DOCK,NSW,2046	Suburb		South
Rubbish & Waste Removal	A AA Aussie Skips	FIVE DOCK,NSW,2046	Suburb		South
Shower Screens Supply & Installation	B.B's Fast Glass Pty Ltd	FIVE DOCK,NSW,2046	Suburb		South
Tilers - Wall & Floor	Five Dock Tiling & Bathroom Renovations	FIVE DOCK,NSW,2046	Suburb		South
Timber - Retailer/Trader	Mr Rosette	FIVE DOCK,NSW,2046	Suburb		South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Trustee Services	Distinctive R?um? Five Dock	FIVE DOCK,NSW,2046	Suburb		South
Trustee Services	R?um? That Work(tm) Five Dock	FIVE DOCK,NSW,2046	Suburb		South
Video & Dvd Production & Duplication Service	AV Presentations.com.au	FIVE DOCK,NSW,2046	Suburb		South
Washing Machines & Dryers - Service Parts & Repairs	A Jason Refrigeration, Washing Machine & Dryer Repairs & Service, Five dock	FIVE DOCK,NSW,2046	Suburb		South
Washing Machines & Dryers - Service Parts & Repairs	A Jason Washing Machine, Dryer, Refrigeration Repairs & Sevice	FIVE DOCK,NSW,2046	Suburb		South
Waste Reduction & Disposal Equipment & Machinery	RGDance.Com	FIVE DOCK,NSW,2046	Suburb		South
Wedding - Car Hire	Bayside Limousines & Hire Cars, Five dock	FIVE DOCK,NSW,2046	Suburb		South
Window & Glass Tinting & Insulation	A Mobile Tinting Installation	FIVE DOCK,NSW,2046	Suburb		South

2010 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Air Conditioning - Domestic	Whitfords Electrical Discounts	165- 167 Great North Rd FIVE DOCK 2046 NSW	Adress	0.0	Onsite
Air Conditioning - Domestic	Whitfords Of Five Dock	165-167 Great North Rd FIVE DOCK 2046 NSW	Adress	0.0	Onsite
Building Contractors - Renovations Alterations & Extensions	Modum Pty Ltd	2 East St FIVE DOCK 2046 NSW	Adress	0.0	Onsite
Waste Reduction & Disposal Equipment & Machinery	Wanless Enviro Services	171 Five Docks Rd WOLLONGONG 2500 NSW	Adress	12.3	North
Petrol Stations & Garages	B P Five Dock	110 Great North Rd FIVE DOCK 2046 NSW	Adress	13.6	West
Bus & Coach Charters & Tours	Travelmark Tours	Suite 108 118 Great North Rd FIVE DOCK 2046 NSW	Adress	25.2	North
Car Accessories - Retail	Ngk Spark Plug (Australia) Pty Ltd	Suite 101 118 Great North Rd FIVE DOCK 2046 NSW	Adress	25.2	North
Chauffeur Driven Cars/Limousine Services	Airport Ltd Limousine	118 Great North Rd FIVE DOCK 2046 NSW	Adress	25.2	North
Chauffeur Driven Cars/Limousine Services	City Limousine & Wedding Car Hire Service	Suite 108 118 Great North Rd FIVE DOCK 2046 NSW	Adress	25.2	North
Chauffeur Driven Cars/Limousine Services	City Limousines	Suite 108 118 Great North Rd FIVE DOCK 2046 NSW	Adress	25.2	North
Engineers - Consultants	Bmt Wbm Pty Ltd	Suite 206/ 118 Great North Rd FIVE DOCK 2046 NSW	Adress	25.2	North
Asphalt & Bitumen Paving	Durkin Construction	39 Waterview St FIVE DOCK 2046 NSW	Adress	43.1	North
Engineers - Consultants	Catterson D & Associates	92 Great North Rd FIVE DOCK 2046 NSW	Adress	101.3	South

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Laundries - Commercial/Industrial	Five Dock Laundrette	195 Great North Rd FIVE DOCK 2046 NSW	Adress	109.5	North
Car Accessories - Retail	Autopro	199 Great North Rd FIVE DOCK 2046 NSW	Adress	123.1	North
Car Accessories - Retail	J & N Auto Spares & Accessories	199 Great North Rd FIVE DOCK 2046 NSW	Adress	123.1	North
Building Contractors - General	Sydney Carpentry & Building Services Pty Ltd	U2/ 84 Great North Rd FIVE DOCK 2046 NSW	Adress	125.6	South
Door & Gate Equipment - Automatic	All Sliding Rollers	Unit 6 1-3 Second Ave FIVE DOCK 2046 NSW	Adress	127.2	East
Building Contractors - Repairs & Maintenance	Productive Services Pty Ltd	U1/ 34 East St FIVE DOCK 2046 NSW	Adress	143.2	North
Couriers	Impact Couriers	Suite 4 34 East St FIVE DOCK 2046 NSW	Adress	143.2	North
Printers - General	Visual Printing & Signs Pty Ltd	209 Great North Rd FIVE DOCK 2046 NSW	Adress	144.4	North
Photography Processing Services - Professional	Fujitech 1 Hour Photo	105 Great North Rd FIVE DOCK 2046 NSW	Adress	167.8	South
Swimming Pool - Construction & Installation	Leisure Pools Hills District	26 West St FIVE DOCK 2046 NSW	Adress	172.6	North
Air Conditioning - Domestic	Agl Energy Shop	181-187 First Ave FIVE DOCK 2046 NSW	Adress	173.9	South
Engineers - Electrical	Haron Robson Pty Ltd	181 First Ave FIVE DOCK 2046 NSW	Adress	173.9	South
Heating Appliances & Systems - Service & Repairs	Agl	181-187 First Ave FIVE DOCK 2046 NSW	Adress	173.9	South
Chauffeur Driven Cars/Limousine Services	L.A.R Limousines	114 First St FIVE DOCK 2046 NSW	Adress	175.6	South
Ship Builders & Repairers	Kevin Waters Engineering Pty Ltd	72 Great North Rd FIVE DOCK 2046 NSW	Adress	198.8	South
Batteries - Automotive & Marine	Bp Australia Limited	Cnr Great North Rd & Second Ave FIVE DOCK 2046 NSW	Street		East
Hardware - M/Factrs	Star Tools Pty Ltd	Upstairs FIVE DOCK 2046 NSW	Street		South
Motor Vehicle - Leasing & Fleet Management	Aussie Car Loans	Great North Rd FIVE DOCK 2046 NSW	Street		North

2015 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Counselling - Family Personal Partner & Marriage	Fivedock Counselling & Psychotherapy Service	2 Second Ave, Five Dock, NSW, 2046	Adress	5.8	North
Electrical Appliances & Products - M/Factrs & W/Salers	Whitfords Commercial Sales	4- 8 East St, Five Dock, NSW, 2046	Adress	9.0	West
Washing Machines & Dryers - Retailers	Essential Electrics	4- 8 East St, Five Dock, NSW, 2046	Adress	9.0	West
Air Conditioning - Domestic	Whitfords Home Appliances	165- 167 Great North Rd, Five Dock, NSW, 2046	Adress	11.4	East
Building Contractors - Renovations Alterations & Extensions	Modum Pty Ltd	2 East St, Five Dock, NSW, 2046	Adress	11.6	West
Printers - General	First Class Digital Print & Design	Shp 2/ 110 Great North Rd, Five Dock, NSW, 2046	Adress	13.4	West
Property & Real Estate Management	Richardson & Wrench Five Dock	Shop 5 110 Great North Rd, Five Dock, NSW, 2046	Adress	13.4	West

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Property & Real Estate Management	W.W. Real Estate	Shop 3 110 Great North Rd, Five Dock, NSW, 2046	Address	13.4	West
Chuches & Other Places Of Worship	Anglican Church Sydney Diocese	173 Great North Rd, Five Dock, NSW, 2046	Address	16.8	North
Chemists - Retail Pharmacies	Five Dock Pharmacy	Shp 1/ 157 Great North Rd, Five Dock, NSW, 2046	Address	16.9	East
Management Development & Training	Essential Business Training	Ste103/ 118 Great Northern Rd, Five Dock, NSW, 2046	Address	21.5	West
Market Research Consultants	Forward M R S Pty Ltd	Ste208/ 118 Great North Rd, Five Dock, NSW, 2046	Address	24.2	North-east
Bus & Coach Charters & Tours	Travelmark Tours.	Suite 108 118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Car Accessories - M/Factrs & W/Salers	NGK Spark Plug (Australia) Pty Ltd	Suite 101 118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Chauffeur Driven Cars/Limousine Services	City Limousine & Wedding Car Hire Service	Suite 108 118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Chauffeur Driven Cars/Limousine Services	City Limousines	Suite 108 118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Engineers - Consultants	WBM Pty Ltd	Suite 206/ 118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Engineers - Structural	Insignia Designcorp Pty Ltd	Ste207/ 118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Manufacturers' Agents & Representatives	F.M. Textiles Agencies	118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Wedding - Gifts Planners & Organisers	Sposabella Weddings & Events	Level2 Suite 204 118 Great North Rd, Five Dock, NSW, 2046	Address	27.1	North
Asphalt & Bitumen Paving	Durkin Construction	39 Waterview St, Five Dock, NSW, 2046	Address	39.9	North-east
Wedding - Venues & Receptions	Castel D'Oro Function Centre	120 Great North Rd, Five Dock, NSW, 2046	Address	43.8	North-east
Wedding - Venues & Receptions	Ottimo House	120 Great North Rd, Five Dock, NSW, 2046	Address	43.8	North-east
Audiologist	Connect Hearing	122 Great North Rd, Five Dock, NSW, 2046	Address	49.5	North
Liquor Retailers	BWS	100 Great North Rd, Five Dock, NSW, 2046	Address	50.8	South
Bridal & Evening Wear - Retail & Hire	Velani By Nicky	124 Great North Rd, Five Dock, NSW, 2046	Address	54.0	North
Liquor Retailers	BWS Liquor Stores	100 Great North Rd, Five Dock, NSW, 2046	Address	55.4	South-west
Architect	Back & Riggs Architects	Suite 2 Level 1 185 Great North Rd, Five Dock, NSW, 2046	Address	63.1	North
Architect	Nicholas Back Architects Pty Ltd	Suite 2 Level 1 185 Great North Rd, Five Dock, NSW, 2046	Address	63.1	North
Bakeries	Bakersville	137 Great North Rd, Five Dock, NSW, 2046	Address	66.3	South
Hearing Aid & Audio Specialists & Services	Allens Hearing Aid Specialists	96 Great North Rd, Five Dock, NSW, 2046	Address	82.3	South-west
Hearing Aid & Audio Specialists & Services	John Allens Hearing Aids	96 Great North Rd, Five Dock, NSW, 2046	Address	82.3	South-west
Hearing Aid & Audio Specialists & Services	Smith Peter	96 Great North Rd, Five Dock, NSW, 2046	Address	82.3	South-west
Conveyancers	Serio & Associates	1st Floor 128 Great North Rd, Five Dock, NSW, 2046	Address	83.9	North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Floor & Flooring - Parquetry	Alajja Parquetry & Timber Floor	462 Lyons Road West,,Five Dock,NSW,2046	Address	93.6	North
Furniture Stores	Tinks & Tonks	Rear 92 Great North Rd,Five Dock,NSW,2046	Address	105.8	South
Lighting Fixtures & Accessories - M/Factrs & W/Salers	Lampright	Unit 26 13 Berry St,Clyde,NSW,2142	Address	105.8	South
Chemists - Retail Pharmacies	Cincotta Discount Chemist	Shop 1A 125 Great North Rd,Five Dock,NSW,2046	Address	112.7	South
Chemists - Retail Pharmacies	Cincotta Discount Chemist Five Dock	Shp1a/ 125 Great North Rd,Five Dock,NSW,2046	Address	112.7	South
Bakeries	La Dolceria	197 Great North Rd,Five Dock,NSW,2046	Address	119.5	North
Hot Water Systems Sales Installation & Repairs	Tipico Five Dock Pty Ltd	86 Great North Rd,Five Dock,NSW,2046	Address	122.6	South
Car Accessories - Retail	Autopro	199 Great North Rd,Five Dock,NSW,2046	Address	125.0	North
Car Accessories - Retail	J & N Auto Spares & Accessories	199 Great North Rd,Five Dock,NSW,2046	Address	125.0	North
Advertising - Promotional Goods	Imagemax	Suite 2 / 84 Great North Rd,Five Dock,NSW,2046	Address	127.8	South
Bridal & Evening Wear - Retail & Hire	Si Bella Bridal	84 Great North Rd Fve Dk 84 Great North Rd,Five Dock,NSW,2046	Address	127.8	South
Chemists - Retail Pharmacies	David Low Pharmacy	201 Great North Rd,Five Dock,NSW,2046	Address	129.1	North
Furniture Storage & Removals	Paul King Transport	13 Sutton St,Five Dock,NSW,2046	Address	129.2	North-east
Kitchens Renovations & Equipment- New	Crea P	12 Henry St,Five Dock,NSW,2046	Address	129.7	North-west
Bakeries	Michel's Patisserie	121 Great North Rd,Five Dock,NSW,2046	Address	131.2	South
Interior Designer & Decorator	Craig Interiors Pty Ltd	Suite 1/ 34 East St,Five Dock,NSW,2046	Address	131.6	North
Door & Gate Fittings & Hardware	All Sliding Rollers	Unit 6 1-3 Second Ave,Five Dock,NSW,2046	Address	136.5	East
Chuches & Other Places Of Worship	Uniting Church In Australia	5 Garfield St,Five Dock,NSW,2046	Address	138.1	South
Cars - Used	Sapphire Car Sales	205 Great North Rd,Five Dock,NSW,2046	Address	138.9	North
Painting & Decorating Services	Morris C Painting & Decorating	9/ 207 Great North Rd,Five Dock,NSW,2046	Address	138.9	North
Web Design & Development	Webdesk Solutions Pty Ltd	U10/ 207 Great North Rd,Five Dock,NSW,2046	Address	138.9	North
Building Maintenance - Commercial & Industrial Services	Productive Services Pty Ltd	U1/ 34 East St,Five Dock,NSW,2046	Address	139.9	North
Couriers	Impact Couriers	Ste 4/ 34 East St,Five Dock,NSW,2046	Address	139.9	North
Dental & Dentistry - Laboratories	Alfodontics Dental Lab Pty Ltd	Suite 13 207 Great North Rd,Five Dock,NSW,2046	Address	140.0	North
Motor Vehicle - Finance	1800 Approved	10/ 207 Great North Rd,Five Dock,NSW,2046	Address	140.0	North
Telephones & Accessories - Retail	Da Giulia Finance	9/ 207 Great North Rd,Five Dock,NSW,2046	Address	140.0	North
Management Development & Training	Reading Face Value	8 Sutton St,Five Dock,NSW,2046	Address	142.2	East
Management Development & Training	Zorica	8 Sutton St,Five Dock,NSW,2046	Address	142.2	East

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Digital Printers	Visual Printing & Signs Pty Ltd	209 Great North Rd, Five Dock, NSW, 2046	Address	145.5	North
Locks & Locksmith Services	Sydney Central Locksmiths	211 Great North Rd, Five Dock, NSW, 2046	Address	151.0	North
Bakeries	Nam Viet Hot Bread	113 Great North Rd, Five Dock, NSW, 2046	Address	152.5	South
Photography Processing Services - Professional	Fujitech 1 Hour Photo	105 Great North Rd, Five Dock, NSW, 2046	Address	167.8	South
Swimming Pool - Construction & Installation	Leisure Pools Hills District	26 West St, Five Dock, NSW, 2046	Address	169.4	North
Engineers - Electrical	Haron Robson Pty Ltd	181 First Ave, Five Dock, NSW, 2046	Address	173.9	South
Farm & Agricultural Equipment & Suppliers	Farmers Marketing Network	181 First Ave, Five Dock, NSW, 2046	Address	173.9	South
Lighting Specialists	Lightmatters	181 First Ave, Five Dock, NSW, 2046	Address	173.9	South
Electrical W/Salers	TLE Electrical	138 Great North Rd, Five Dock, NSW, 2046	Address	179.3	North-east
Dental & Dentistry - Laboratories	Cerapress Dental Services	68 Ramsay Rd, Five Dock, NSW, 2046	Address	185.5	South
Blinds & Shades	Vetro Blinds	7 Barnstaple Rd, Five Dock, NSW, 2046	Address	185.9	North
Retirement Villages & Homes	Kitty Doyle Home Units Trust	8 Kings Rd, Five Dock, NSW, 2046	Address	193.1	South
Air Conditioning - Domestic	Austal Air Conditioning Pty Ltd	Five Dock, NSW, 2046	Suburb		North
Air Conditioning - Domestic	Ecologistics Air Conditioning & Ventilation	Abbotsford, NSW, 2046	Street		North
Air Conditioning - Domestic	Wark Air Conditioning & Heating	Five Dock, NSW, 2046	Suburb		North
Air Conditioning - Installations/Repairs	ACR Air Conditioning Pty Ltd	Abbotsford, NSW, 2046	Street		North
Air Conditioning - Installations/Repairs	Supreme Air Pty Ltd	Abbotsford, NSW, 2046	Street		North
Antennas - Supply & Installation	Jim's Antennas	Five Dock, NSW, 2046	Suburb		North
Asbestos Removal & Disposal	BreathEasy Asbestos Removal	Five Dock, NSW, 2046	Suburb		North
Asbestos Removal & Disposal	Metal Deck Roofing	Five Dock, NSW, 2046	Suburb		North
Asphalt & Bitumen Paving	Ozpave (Aust) Pty Ltd	Abbotsford, NSW, 2046	Street		North
Awnings & Shades	Stylemaster Patios Pty Ltd	Five Dock, NSW, 2046	Suburb		North
Bathroom Accessories & Equipment - M/Facets & W/Salers	QueAus Pty Ltd	Abbotsford, NSW, 2046	Street		North
Bathroom Renovations	AJM Bathroom & Kitchen Renovations	Five Dock, NSW, 2046	Suburb		North
Bathroom Renovations	Caliber Construction Pty Ltd	Five Dock, NSW, 2046	Suburb		North
Bathroom Renovations	Five Dock Tiling & Bathroom Renovations	Five Dock, NSW, 2046	Suburb		North
Bathroom Renovations	Innovative Bathroom Makeovers	Five Dock, NSW, 2046	Suburb		North
Bathroom Renovations	Oxford Bathrooms	Five Dock, NSW, 2046	Suburb		North
Batteries - Automotive & Marine	Battery World	Five Dock, NSW, 2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Batteries - Automotive & Marine	Supercharge Batteries	Canada Bay,NSW,2046	Suburb		North
Blinds & Shades	Accent Blinds	Five Dock,NSW,2046	Suburb		North
Blinds & Shades	Australian Outdoor Living	Abbotsford,NSW,2046	Street		North
Blinds & Shades	Inside Out Shutters & Blinds	Abbotsford,NSW,2046	Street		North
Blinds & Shades	Le Sands Screens & Blinds Pty Ltd	Five Dock,NSW,2046	Suburb		North
Blinds & Shades	Sydney Blinds & Screens Pty Ltd	Five Dock,NSW,2046	Suburb		North
Boat Charters	Bucks Party Cruises	Abbotsford,NSW,2046	Street		North
Boat Charters	Sydney Harbour Tours	Chiswick,NSW,2046	Suburb		North
Boat Self Hire	Oz Boat Hire	Chiswick,NSW,2046	Suburb		North
Bookkeeping	Matheson & Osman	Chiswick,NSW,2046	Suburb		North
Bricklayers	All Phase Constructions	Abbotsford,NSW,2046	Street		North
Bricklayers	COB Bricklaying	Five Dock,NSW,2046	Suburb		North
Bricklayers	Leebryce Construction Pty Ltd	Five Dock,NSW,2046	Suburb		North
Bridal & Evening Wear - Retail & Hire	The Wedding Salon	Five Dock,NSW,2046	Suburb		North
Building - Construction Management Consultants	CMD Construction	Canada Bay,NSW,2046	Suburb		North
Building - Restoration Supplies & Service	A Stonecraft Restoration Cleaning	Chiswick,NSW,2046	Suburb		North
Building Contractors - General	Arrage Group Pty Ltd	Five Dock,NSW,2046	Suburb		North
Building Contractors - General	Pazcon Pty Ltd	Abbotsford,NSW,2046	Street		North
Building Contractors - General	True North Projects	Abbotsford,NSW,2046	Street		North
Building Contractors - Renovations Alterations & Extensions	BuildAbode Australia	Russell Lea,NSW,2046	Suburb		North
Building Contractors - Renovations Alterations & Extensions	Remmi Building & Carpentry	Five Dock,NSW,2046	Suburb		North
Building Contractors - Repairs & Maintenance	Ashberry Building Services	Five Dock,NSW,2046	Suburb		North
Building Design & Drafting Services	A J P Design Architects Pty Ltd	Five Dock,NSW,2046	Suburb		North
Car Alarm Systems	Brant Corporation	Five Dock,NSW,2046	Suburb		North
Car Wash Services	Oz Car Detailing	Chiswick,NSW,2046	Suburb		North
Cargo & Freight Containers - Retail Sale & Hire	Spacewise Australia	Five Dock,NSW,2046	Suburb		North
Carpenters Joiners & Fitters	A & R Renovations	Five Dock,NSW,2046	Suburb		North
Carpenters Joiners & Fitters	Home Maintenance & Repairs	Five Dock,NSW,2046	Suburb		North
Carpenters Joiners & Fitters	Inner West Carpentry and Building Solutions	Five Dock,NSW,2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Carpenters Joiners & Fitters	Izico Carpentry & Roofing	Five Dock,NSW,2046	Suburb		North
Carpert - Restorers & Repairers	Flood Fix	Russell Lea,NSW,2046	Suburb		North
Carpet Furniture & Upholstery Cleaning	Drymaster Carpet Cleaning	Five Dock,NSW,2046	Suburb		North
Carpet Furniture & Upholstery Cleaning	Millicare Australia Pty Ltd	Five Dock,NSW,2046	Suburb		North
Cars - Used	CASH FOR CARS	Canada Bay,NSW,2046	Suburb		North
Ceilings	Professional Plaster And Paint	Abbotsford,NSW,2046	Street		North
Cleaning - Industrial/Commercial Contractors	Abate Cleaning Services	Wareemba,NSW,2046	Suburb		North
Cleaning - Industrial/Commercial Contractors	Costello's Cleaning Services (Sydney)	Five Dock,NSW,2046	Suburb		North
Cleaning - Industrial/Commercial Contractors	Jovani Cleaning Services	Chiswick,NSW,2046	Suburb		North
Cleaning - Industrial/Commercial Contractors	Maxi Clean Sydney	Canada Bay,NSW,2046	Suburb		North
Cleaning - Industrial/Commercial Contractors	SKG Pty Ltd	Abbotsford,NSW,2046	Street		North
Cleaning Services - Domestic	Clearview Cleaning	Five Dock,NSW,2046	Suburb		North
Cleaning Services - Domestic	Homeclean Commercial & Domestic Cleaning	Five Dock,NSW,2046	Suburb		North
Cleaning Services - Domestic	Ron Kavanagh Cleaning	Five Dock,NSW,2046	Suburb		North
Computer Equipment - Hardware Home Office	Bizits Computer Services	Five Dock,NSW,2046	Suburb		North
Computer Equipment - Hardware Home Office	Black Eagle Computers	Russell Lea,NSW,2046	Suburb		North
Computer Equipment - Hardware Home Office	Computer Troubleshooters Pymont	Five Dock,NSW,2046	Suburb		North
Computer Equipment - Hardware Home Office	Voitech Solutions	Five Dock,NSW,2046	Suburb		North
Computer Equipment - Repairs Upgrades & Service	Geeks2U	Abbotsford,NSW,2046	Street		North
Computer Equipment - Repairs Upgrades & Service	Nak PC Solutions	Great North Rd,Five Dock,NSW,2046	Street		North-east
Concrete - Cement Rendering & Bagging Specialists	AAC Rendering	Abbotsford,NSW,2046	Street		North
Concrete - Cement Rendering & Bagging Specialists	Fantastic Rendering	Five Dock,NSW,2046	Suburb		North
Concrete - Contractors & Paving Specialists	Hytech Concrete Group	Five Dock,NSW,2046	Suburb		North
Concrete - Contractors & Paving Specialists	Hytech Concrete Supplies	Five Dock,NSW,2046	Suburb		North
Concrete - Sawing Drilling & Grinding Services	Mastercut Concrete Aust Pty Ltd	Abbotsford,NSW,2046	Street		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Concrete - Sawing Drilling & Grinding Services	Prestige Concrete Drilling & Sawing	Five Dock,NSW,2046	Suburb		North
Counselling - Family Personal Partner & Marriage	GreenGrass Australia	Russell Lea,NSW,2046	Suburb		North
Crane & Travel Tower Hire Or Servicing	Five Dock Cranes	Five Dock,NSW,2046	Suburb		North
Curtains - Custom & Ready-Made	Macka's Timber Hard Wood Flooring	Wareemba,NSW,2046	Suburb		North
Curtains - Custom & Ready-Made	Top Mark Installations	Abbotsford,NSW,2046	Street		North
Damp Houses - Waterproofing & Repairs	Building and Waterproofing	Five Dock,NSW,2046	Suburb		North
Damp Houses - Waterproofing & Repairs	Ecologistics	Abbotsford,NSW,2046	Street		North
Damp Houses - Waterproofing & Repairs	Smart Fans	Russell Lea,NSW,2046	Suburb		North
Damp Houses - Waterproofing & Repairs	The Damp Champ	Five Dock,NSW,2046	Suburb		North
Debt Collection/Mercantile Agents	Turnbull Hill Lawyers	Five Dock,NSW,2046	Suburb		North
Dishwashing Machines Servicing & Parts	Fisher & Paykel	Five Dock,NSW,2046	Suburb		North
Door & Gate Fittings & Hardware	Architectural Glass Systems	Five Dock,NSW,2046	Suburb		North
Drafting & Permit Services	Blymark Pty Ltd	Five Dock,NSW,2046	Suburb		North
Drainers & Drainage Services	Battaglia Plumbing Service Pty Ltd	Five Dock,NSW,2046	Suburb		North
Dry Cleaning Services	A&G Laundry & Dry Cleaning	Wareemba,NSW,2046	Suburb		North
Earth Moving &/Or Excavating Contractors	DP Wathen Heavy Haulage	Chiswick,NSW,2046	Suburb		North
Electrical Contractors & Consultants	All Local Area Emergency 24/7	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Caslec Electrical & Data	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Electrician To The Rescue	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Faraday Group	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Fisicaro Electrical	Canada Bay,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Glenco Electrical Services	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Graham & Sons Electrics	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Josh Cabarrus	Chiswick,NSW,2046	Suburb		North
Electrical Contractors & Consultants	LEVEL 2 ELECTRICIAN	Abbotsford,NSW,2046	Street		North
Electrical Contractors & Consultants	Mr Power Electrical	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Mr Switch Electrical	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Mr Washer Electrical Services	Abbotsford,NSW,2046	Street		North
Electrical Contractors & Consultants	Stamelec P/L	Five Dock,NSW,2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Electrical Contractors & Consultants	Stamelec Pty Ltd.	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	StayWired Electrical	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Switch Master Electrical & Lighting	Five Dock,NSW,2046	Suburb		North
Electrical Contractors & Consultants	Tibbles Electrical Services Aust Pty Ltd	Five Dock,NSW,2046	Suburb		North
Engineers - Consultants	PC Consulting Engineers Pty Ltd	Wareemba,NSW,2046	Suburb		North
Engineers - General	Robert Wark Engineering	Five Dock,NSW,2046	Suburb		North
Engineers - Motor & Repairers	Autocure Mobile Mechanics	Abbotsford,NSW,2046	Street		North
Engineers - Motor & Repairers	Hondrepair	Five Dock,NSW,2046	Suburb		North
Engineers - Motor & Repairers	Lube Mobile - The Mobile Mechanics	Abbotsford,NSW,2046	Street		North
Engineers - Motor & Repairers	Midas	Abbotsford,NSW,2046	Street		North
Engineers - Motor & Repairers	Onsite Lube Mobile Mechanic	Five Dock,NSW,2046	Suburb		North
Engineers - Refrigeration	Rago Refrigeration Pty Ltd	Wareemba,NSW,2046	Suburb		North
Entertainers Musicians & Agents	Murder Mystery Fun	Canada Bay,NSW,2046	Suburb		North
Fashion Accessories - Importers & W/Salers	Tiffany Rose	Canada Bay,NSW,2046	Suburb		North
Fencing Contractors	Boresi Pty Ltd	Five Dock,NSW,2046	Suburb		North
Fire Prevention Consultants	National Fire & Electrical	Five Dock,NSW,2046	Suburb		North
Fire Prevention Consultants	NSW Fire Certificate Consultants	Canada Bay,NSW,2046	Suburb		North
Fire Prevention Consultants	State One Fire Protection & Security Pty Ltd	Canada Bay,NSW,2046	Suburb		North
Floor & Flooring - Timber	Ironwood	Five Dock,NSW,2046	Suburb		North
Florists & Flowers - Retail	1300 Flowers Florist	Five Dock,NSW,2046	Suburb		North
Florists & Flowers - Retail	Fast Flowers	Five Dock,NSW,2046	Suburb		North
Florists & Flowers - Retail	Flowers by Amanda Jane	Abbotsford,NSW,2046	Street		North
Florists & Flowers - Retail	Roses Only	Five Dock,NSW,2046	Suburb		North
Florists & Flowers - Retail	Vintage Lily	Abbotsford,NSW,2046	Street		North
Florists & Flowers - Retail	VIP Flowers	Five Dock,NSW,2046	Suburb		North
Furniture Storage & Removals	AAA Able Removal	Five Dock,NSW,2046	Suburb		North
Furniture Storage & Removals	Allied Pickfords	Abbotsford,NSW,2046	Street		North
Furniture Storage & Removals	Chess Moving	Abbotsford,NSW,2046	Street		North
Furniture Storage & Removals	Conroy Removals	Five Dock,NSW,2046	Suburb		North
Furniture Storage & Removals	David Jones Removals & Storage Pty Ltd	Five Dock,NSW,2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Furniture Storage & Removals	Grace Removals	Abbotsford,NSW,2046	Street		North
Garage Door Installation & Repairs	Ryde Garage Doors Pty Ltd	Five Dock,NSW,2046	Suburb		North
Gardening Services	Canada Bay Lawn Mowing Service	Canada Bay,NSW,2046	Suburb		North
Gardening Services	Five Dock Mowers	Chiswick,NSW,2046	Suburb		North
Gardening Services	Jim's Mowing	Abbotsford,NSW,2046	Street		North
Glass Merchants & Installation Service Glaziers	Aussie Emergency Glass	Five Dock,NSW,2046	Suburb		North
Glass Merchants & Installation Service Glaziers	O'Brien	Five Dock,NSW,2046	Suburb		North
Glass Merchants & Installation Service Glaziers	Pete's Glass	Abbotsford,NSW,2046	Street		North
Health Insurance Providers	Compare The Market	Chiswick,NSW,2046	Suburb		North
Hearing Aid & Audio Specialists & Services	Platinum Hearing	Five Dock,NSW,2046	Suburb		North
Home Repairs & Maintenance	Able Handyman Services and Property Maintenance	Five Dock,NSW,2046	Suburb		North
Home Repairs & Maintenance	Nicholas Carpentry & Handyman Services	Five Dock,NSW,2046	Suburb		North
Homewares	Interior Intellect	Abbotsford,NSW,2046	Street		North
Hot Water Systems Sales Installation & Repairs	Affordable Hot Water	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Anytime Hot Water	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Australian Hot Water	Abbotsford,NSW,2046	Street		North
Hot Water Systems Sales Installation & Repairs	Fast Hot Water	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Hi Line Plumbing	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Inline Plumbing & Electrical	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Parramatta Hot Water	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Rheem	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Scott Baldwin Plumbing	Russell Lea,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	Solahart	Five Dock,NSW,2046	Suburb		North
Hot Water Systems Sales Installation & Repairs	The Daily Plumber - Hot Water	Five Dock,NSW,2046	Suburb		North
Insulation Supply Or Installation	Bradford Insulation	Abbotsford,NSW,2046	Street		North
Insurance - Fire Marine Casualty/Accident & General	Budget Direct Insurance	Chiswick,NSW,2046	Suburb		North
Interior Designers &/Or Decorators	M.B.S	Five Dock,NSW,2046	Suburb		North
Kitchens Renovations & Equipment- New	Majestic Kitchens - Sydneys Premier Kitchen Renovation Specialists	Five Dock,NSW,2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Landscape Design & Consultants	The Landscape Company	Five Dock,NSW,2046	Suburb		North
Lawn Cutting & Garden Maintenance	Lush Garden Maintenance	Five Dock,NSW,2046	Suburb		North
Lawn Cutting & Garden Maintenance	Master Gardening Services	Five Dock,NSW,2046	Suburb		North
Lawn Cutting & Garden Maintenance	Quick-Cut Lawn Mowing Services	Russell Lea,NSW,2046	Suburb		North
Locks & Locksmith Services	A.Abbott Locksmiths	Abbotsford,NSW,2046	Street		North
Locks & Locksmith Services	Abbotsford Chiswick Locksmiths Lock & Key	Chiswick,NSW,2046	Suburb		North
Locks & Locksmith Services	Ameen's Locksmith	Canada Bay,NSW,2046	Suburb		North
Locks & Locksmith Services	Asic Locksmiths	Russell Lea,NSW,2046	Suburb		North
Locks & Locksmith Services	Balmain East Locksmiths	Five Dock,NSW,2046	Suburb		North
Locks & Locksmith Services	Five Dock Locksmith Mobile Service	Five Dock,NSW,2046	Suburb		North
Locks & Locksmith Services	Five Dock Locksmiths	Five Dock,NSW,2046	Suburb		North
Machinery New - General	CNC Machinery Sales Australia Pty Ltd	Wareemba,NSW,2046	Suburb		North
Management Development & Training	A1 Effective Training Strategies	Five Dock,NSW,2046	Suburb		North
Marine Contractors & Construction	M D R Marine Services Pty Ltd	Five Dock,NSW,2046	Suburb		North
Marketing Consultants & Services	intex International Trading Partners	Five Dock,NSW,2046	Suburb		North
Marketing Consultants & Services	Text-Centric	Five Dock,NSW,2046	Suburb		North
Millinery Retailers	Tammy Gill Design	Wareemba,NSW,2046	Suburb		North
Motor Vehicle - Leasing & Fleet Management	Aussie Car Loans	Great North Rd,Five Dock,NSW,2046	Street		North-east
Organisers - Home & Office	Keeping House	Canada Bay,NSW,2046	Suburb		North
Painting & Decorating Services	Aqua Painting	Five Dock,NSW,2046	Suburb		North
Painting & Decorating Services	Colour Palette The	Chiswick,NSW,2046	Suburb		North
Painting & Decorating Services	Pro-Fresh Painting Pty Ltd	Five Dock,NSW,2046	Suburb		North
Painting & Decorating Services	Super painters	Canada Bay,NSW,2046	Suburb		North
Party Supplies & Hire	Such Much Entertainment	Five Dock,NSW,2046	Suburb		North
Paving - Bricks & Stone	Central Coast Paving	Abbotsford,NSW,2046	Street		North
Pest Control Services	Amalgamated Pest Control	Abbotsford,NSW,2046	Street		North
Pest Control Services	Blakes Pest Management	Wareemba,NSW,2046	Suburb		North
Pest Control Services	Dependable Pest Control	Five Dock,NSW,2046	Suburb		North
Pest Control Services	Ecologistics Pest Management & Ventilation	Abbotsford,NSW,2046	Street		North
Pest Control Services	Enviropest	Five Dock,NSW,2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Pest Control Services	Pestaway Sydney	Five Dock,NSW,2046	Suburb		North
Pest Control Services	Pestop Pest Control	Five Dock,NSW,2046	Suburb		North
Pest Control Services	Pink Pest Control	Five Dock,NSW,2046	Suburb		North
Photographer - General	Kathy Burr Photography	Five Dock,NSW,2046	Suburb		North
Pipe & Rod Cutting & Threading Services	Plasbon Pty Ltd	Five Dock,NSW,2046	Suburb		North
Plasterers & Plasterboard Fixers	J F Interior Linings	Five Dock,NSW,2046	Suburb		North
Plasterers & Plasterboard Fixers	Professional Plaster & Paint Services P/L	Abbotsford,NSW,2046	Street		North
Plumbers & Gasfitters	A Five Dock Plumbing	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	AAA Your Local Plumber	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Baker & Son Plumbers	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Bonner & Sons Plumbing	Abbotsford,NSW,2046	Street		North
Plumbers & Gasfitters	Bonner & Sons Plumbing Services	Abbotsford,NSW,2046	Street		North
Plumbers & Gasfitters	Canada Bay Plumbing	Canada Bay,NSW,2046	Suburb		North
Plumbers & Gasfitters	Chiswick Plumbing	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Chiswick Plumbing Fast 24 Hour Service	Chiswick,NSW,2046	Suburb		North
Plumbers & Gasfitters	D.R. King Plumbing Services Pty Ltd	Abbotsford,NSW,2046	Street		North
Plumbers & Gasfitters	Drain Master Plumbing & Hotwater	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Fix It Now Plumbing	Abbotsford,NSW,2046	Street		North
Plumbers & Gasfitters	JAB Plumbing Solutions	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	JR Burns Plumbing	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Mates Rates Plumbing Pty Ltd	Abbotsford,NSW,2046	Street		North
Plumbers & Gasfitters	Mr H2O Plumbing Services	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Plumbing Solutions 2 U	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Rescue U Plumbing Sydney	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Supaman Plumbing Services	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	Sydney's Plumbing Specialists	Five Dock,NSW,2046	Suburb		North
Plumbers & Gasfitters	The Daily Plumber	Five Dock,NSW,2046	Suburb		North
Private Investigators - Commercial & Domestic	Inner Sydney Investigators	Abbotsford,NSW,2046	Street		North
Refrigeration - Domestic Service & Repairs	Jason's Refrigeration	Five Dock,NSW,2046	Suburb		North
Roof Construction Specialists	Izico Metal Roofing	Five Dock,NSW,2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Roof Construction Specialists	Monier Roofing	Abbotsford,NSW,2046	Street		North
Roof Repairs & Roof Cleaning & Maintenance	All Metal P/L	Five Dock,NSW,2046	Suburb		North
Roof Repairs & Roof Cleaning & Maintenance	Canada Bay Roofing Service	Five Dock,NSW,2046	Suburb		North
Roof Repairs & Roof Cleaning & Maintenance	Factor 1 Roofing And Guttering	Abbotsford,NSW,2046	Street		North
Roof Repairs & Roof Cleaning & Maintenance	Sydney Gutter & Roof Restoration	Abbotsford,NSW,2046	Street		North
Rubbish & Waste Removal	AAA Aussie Skips	Five Dock,NSW,2046	Suburb		North
Rubbish & Waste Removal	Cheapest Load of Rubbish	Five Dock,NSW,2046	Suburb		North
Rubbish & Waste Removal	Dial A Dump	Abbotsford,NSW,2046	Street		North
Rubbish & Waste Removal	Fast Eddy's Rubbish Removers	Five Dock,NSW,2046	Suburb		North
Rubbish & Waste Removal	memates.com.au	Canada Bay,NSW,2046	Suburb		North
Sand Soil & Gravel - Retailers	Seymour Building Supplies	Rodd Point,NSW,2046	Street		North
Scaffolding Sale Or Hire	Saferway Pty Ltd	Five Dock,NSW,2046	Suburb		North
Secretarial & Typing Services	Cosmopolitan Secretarial Services	Abbotsford,NSW,2046	Street		North
Security & Alarm Systems & Consultants	Axiom Security	Five Dock,NSW,2046	Suburb		North
Security & Alarm Systems & Consultants	Home Security HQ	Five Dock,NSW,2046	Suburb		North
Security Doors & Windows Equipment & Installation	Amplimesh Security Screens	Abbotsford,NSW,2046	Street		North
Security Doors & Windows Equipment & Installation	Sydney Flyscreen & Door Factory	Five Dock,NSW,2046	Suburb		North
Security Guard & Patrol Services	All Five Star Security	Five Dock,NSW,2046	Suburb		North
Security Guard & Patrol Services	En Garde Security (Australia) Pty Ltd	Abbotsford,NSW,2046	Street		North
Security Guard & Patrol Services	Unified Security Group (Australia) Pty Ltd	Five Dock,NSW,2046	Suburb		North
Shade Sails & Structures	Shade Sails Centre	Five Dock,NSW,2046	Suburb		North
Shower Screens Supply & Installation	B.B's Fast Glass Pty Ltd	Five Dock,NSW,2046	Suburb		North
Shower Screens Supply & Installation	Pride Shower Screens	Five Dock,NSW,2046	Suburb		North
Signwriters	Fen Systems Australia	Five Dock,NSW,2046	Suburb		North
Signwriters	Signs On Site	Five Dock,NSW,2046	Suburb		North
Skylights Retail Installation & M/Factrs	Belle Ceiling Domes Sydney	Five Dock,NSW,2046	Suburb		North
Solar Energy Equipment & Machinery	AGL Solar	Five Dock,NSW,2046	Suburb		North
Stone Masons Stonework & Masonry	AAA Master Stonework	Rodd Point,NSW,2046	Street		North
Stoves & Ranges - Parts & Service	Electric Stove Repairs	Five Dock,NSW,2046	Suburb		North
Stoves & Ranges - Parts & Service	Electrolux	Abbotsford,NSW,2046	Street		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Stoves & Ranges - Parts & Service	Local Appliance Repairs	Five Dock,NSW,2046	Suburb		North
Strata Title Management Consultants	Phoenix Strata Management	Abbotsford,NSW,2046	Street		North
Studio & Portrait Photography	Vogue Wedding Photography	Five Dock,NSW,2046	Suburb		North
Swimming Pool - Construction & Installation	Aquatic Blue Pools Pty Ltd	Five Dock,NSW,2046	Suburb		North
Swimming Pool - Construction & Installation	Sterns Pools	Abbotsford,NSW,2046	Street		North
Television Antennas Retail & Installation	AAA AAA Aarons Antenna Services Pty Ltd	Five Dock,NSW,2046	Suburb		North
Television Antennas Retail & Installation	DigiMax TV Antenna Service	Abbotsford,NSW,2046	Street		North
Television Antennas Retail & Installation	NuLife TV Antenna Service	Abbotsford,NSW,2046	Street		North
Tilers - Wall & Floor	Sydney Tile Group	Five Dock,NSW,2046	Suburb		North
Timber - Retailer/Trader	Mr Rosette	Five Dock,NSW,2046	Suburb		North
Toilets & Washrooms - Portable	TFH Hire Services	Five Dock,NSW,2046	Suburb		North
Toys - W/Salers	Glottogon Toys Wholesale	Five Dock,NSW,2046	Suburb		North
Tree Felling & Tree/ Stump Removal	Jim's Tree & Stump Removal	Five Dock,NSW,2046	Suburb		North
Tree Felling & Tree/ Stump Removal	Schmick Tree Services	Abbotsford,NSW,2046	Street		North
Tree Felling & Tree/ Stump Removal	Stuart's Tree Service	Five Dock,NSW,2046	Suburb		North
Tree Felling & Tree/ Stump Removal	Treecreation Pty Ltd	Five Dock,NSW,2046	Suburb		North
Tyre Retailers	Bob Jane T-Marts	Rodd Point,NSW,2046	Street		North
Tyre Retailers	Tyres Central	Five Dock,NSW,2046	Suburb		North
Ventilation & Ventilating Systems & Equipment	Ecologistics Subfloor Ventilation	Abbotsford,NSW,2046	Street		North
Veterinary Surgeon	Aussie Mobile Vet	Great North Rd, Five Dock,NSW,2046	Street		North-east
Washing Machines & Dryers - Service Parts & Repairs	Jason's Washing Machines	Five Dock,NSW,2046	Suburb		North
Water Coolers Retail Or Hire	Value H2O	Five Dock,NSW,2046	Suburb		North
Wedding - Video & Dvd Services	Eminence Productions	Abbotsford,NSW,2046	Street		North
Wedding Portrait & Special Occasion Photographers	AP Photography	Five Dock,NSW,2046	Suburb		North
Window - Dressing Equipment & Supplies	Visual Vantage	Chiswick,NSW,2046	Suburb		North
Window & Glass Tinting & Insulation	A 1 Mobile Tinting Installation	Five Dock,NSW,2046	Suburb		North
Window & Glass Tinting & Insulation	Advanced Window Tinting	Five Dock,NSW,2046	Suburb		North
Window & Glass Tinting & Insulation	Instant Window Tinting	Abbotsford,NSW,2046	Street		North
Windows - Aluminium & Metallic	Abbey Aluminium Pty Ltd	Five Dock,NSW,2046	Suburb		North

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Windows - Aluminium & Metallic	Hanlon Windows	Five Dock,NSW,2046	Suburb		North
Windscreens New & Repairs	ABC Auto Glass	Five Dock,NSW,2046	Suburb		North
Windscreens New & Repairs	ABC Auto Glass P/L	Five Dock,NSW,2046	Suburb		North
Windscreens New & Repairs	Aussie Windscreens	Five Dock,NSW,2046	Suburb		North
Windscreens New & Repairs	Competitive Windscreens	Rodd Point,NSW,2046	Street		North

Land Insight uses a number of address geocoding techniques and characterised them according to the following criteria: completeness (match rates) and positional accuracy. When a historical street address does not contain complete details or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. The positional accuracy of the records is listed below:

Historical data positional accuracy and georeferencing results explanation		
Positional accuracy	Georeferenced	Description
Address	Located to the address level	<i>When street address and names fully match.</i>
Street	Located to the street centroid	<i>When street names match but no exact address was found. Location is approximate.</i>
Place	Located to the structure, building or complex	<i>When building, residential complex or structure name match but no exact address was found. Location is approximate.</i>
Suburb	Located to the suburb area	<i>When suburb name match but no exact address was found. Location is approximate.</i>

The data used in this section was extracted from range of historical commercial trade directories and historical business listing information. The business addresses were geocoded using historical information and cannot be relied upon as some of the addresses no longer exist. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at info@landinsight.co.

Historical Industries or business activities deemed to be of negligible or lesser risk are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.



Section 5 Natural Hazards



5.1 Natural Hazards

Map 5.1 (500m Buffer)

Erosion Risk

Category	On the Property?	Within Buffer?
Erosion Hazard	Minor to moderate	Minor to moderate

Fire Hazard

Category	On the Property?	Within Buffer?
Bush Fire Prone Land (BLP)	-	-
Fire History	-	-

Flood Hazard

Category	On the Property?	Within Buffer?
Not identified	-	-



Tower Three, Level 24
300 Barangaroo Avenue
Sydney NSW 2000 Australia
02 8067 8870
info@liresources.com.au
www.liresrouces.com.au

A low-angle, upward-looking photograph of a suspension bridge at night. The bridge's steel truss structure and suspension cables are silhouetted against a deep blue twilight sky. In the background, a tall, modern city building with some lit windows is visible. The overall mood is architectural and urban.

Appendix A

REPORT MAPS



Subject Area and Sensitive Receptors

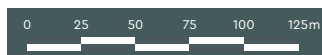


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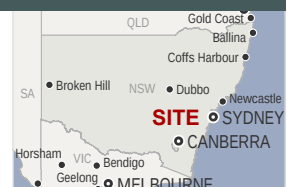
- Subject area**
- Sensitive receptors**
- Child Care Services
 - Community Centres & Services

- Health Care Services
- Places of Worship & Religious Organisations
- Residential Care Services

- School Education
- Sewer main
- Water main

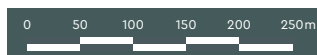
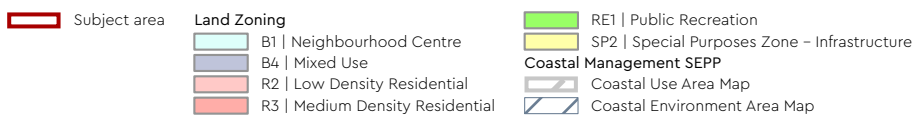
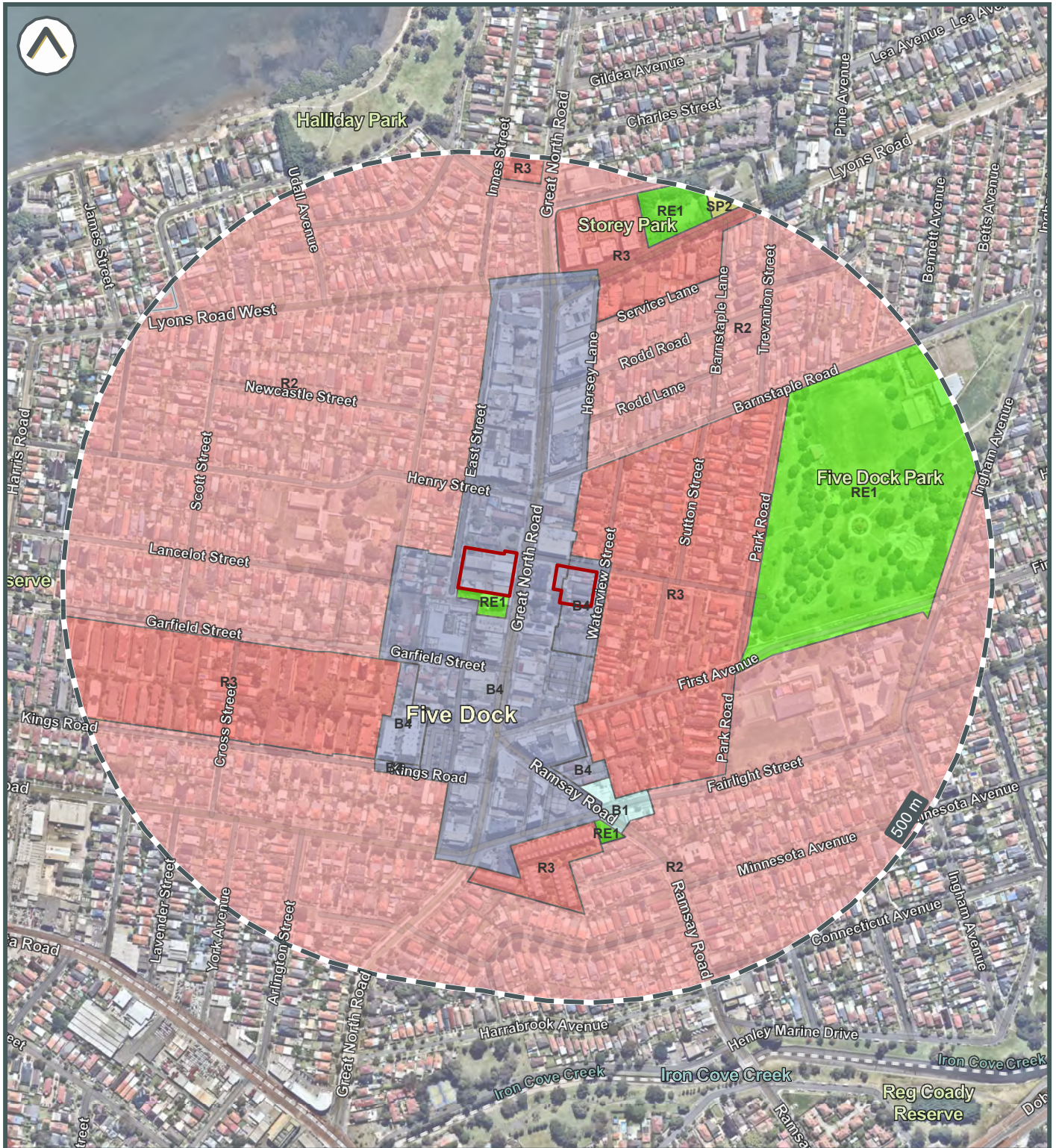


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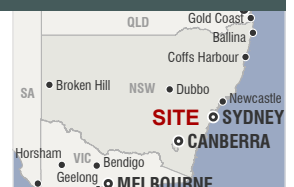




Planning Controls



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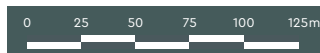




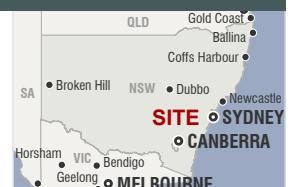
Heritage



- Subject area
- Heritage conservation Area (LEP)
- National Heritage List (NHL)
- State Heritage Register
- Commonwealth Heritage List (CHL)
- World Heritage Area (WHA)

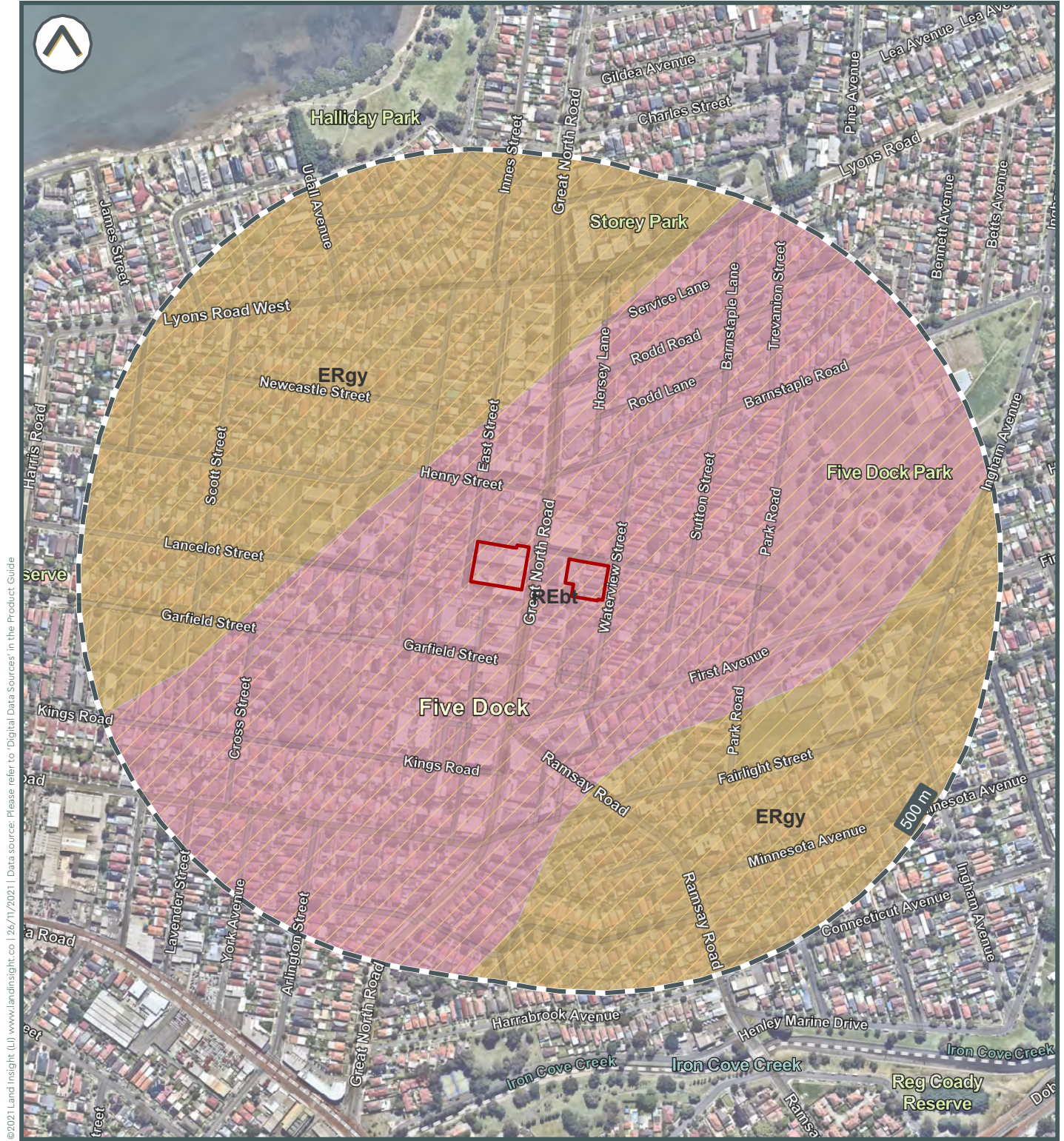


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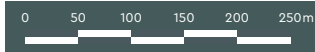


Soil Landscape and Salinity

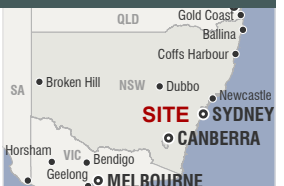


Subject area
Radon Level (Bq/m3)
5-19

Soils Landscape
ERgy | EROSIONAL
REbt | RESIDUAL

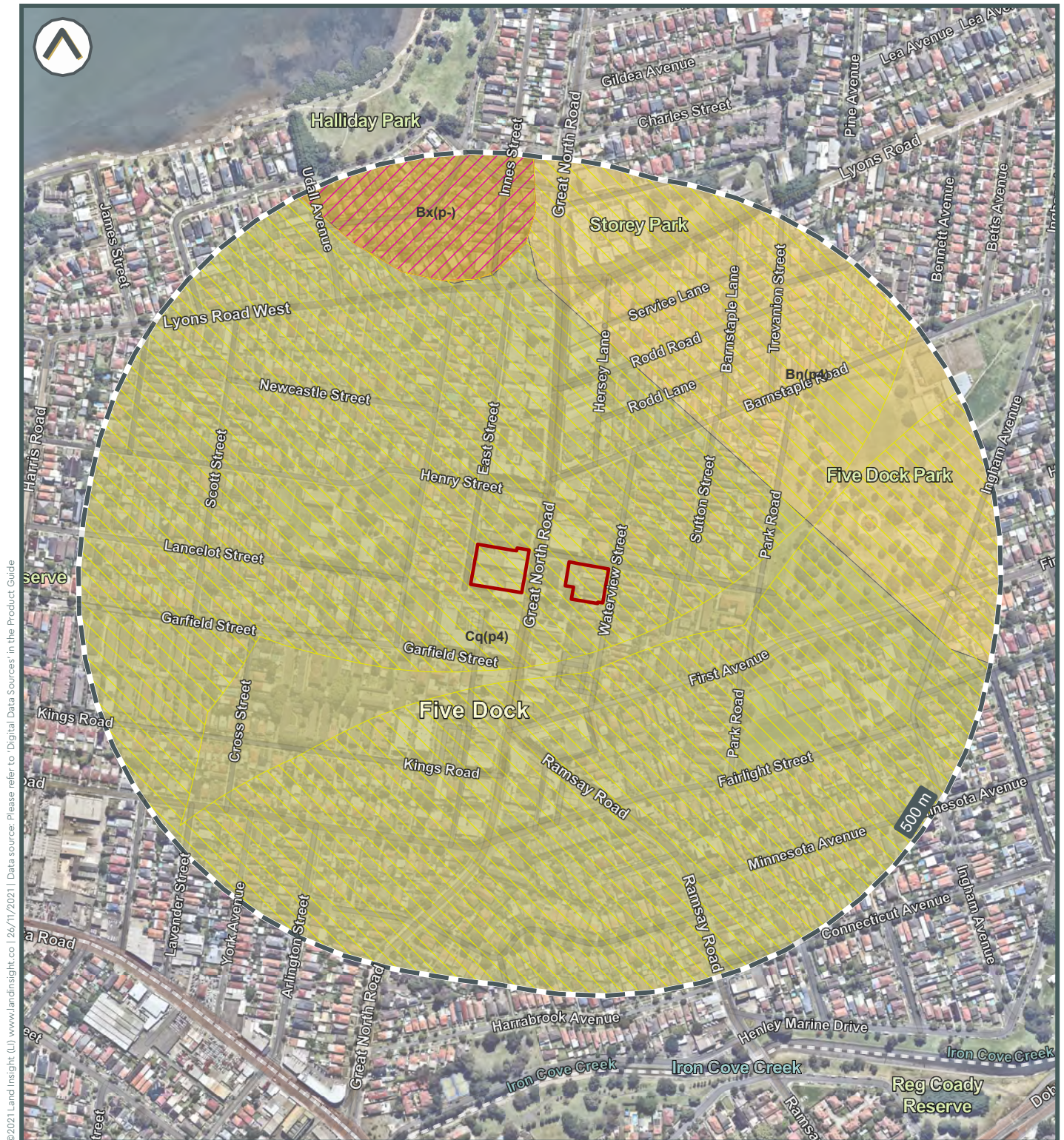


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Acid Sulfate Soils



Subject area

Acid Sulfate Soil Risk

Class 2

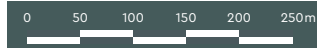
Class 5

ASRIS Atlas of Australian Sulfate Soils

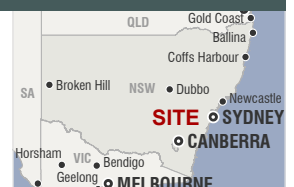
Bn(p4) | ASS in inland lakes, waterways, wetlands and riparian zones

Bx(p-) | Disturbed ASS

Cq(p4) | ASS in inland lakes, waterways, wetlands and riparian zones

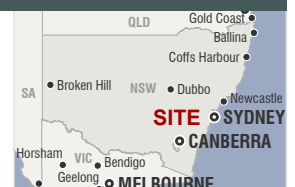
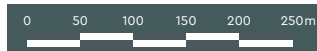
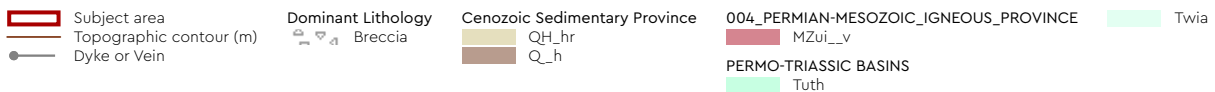
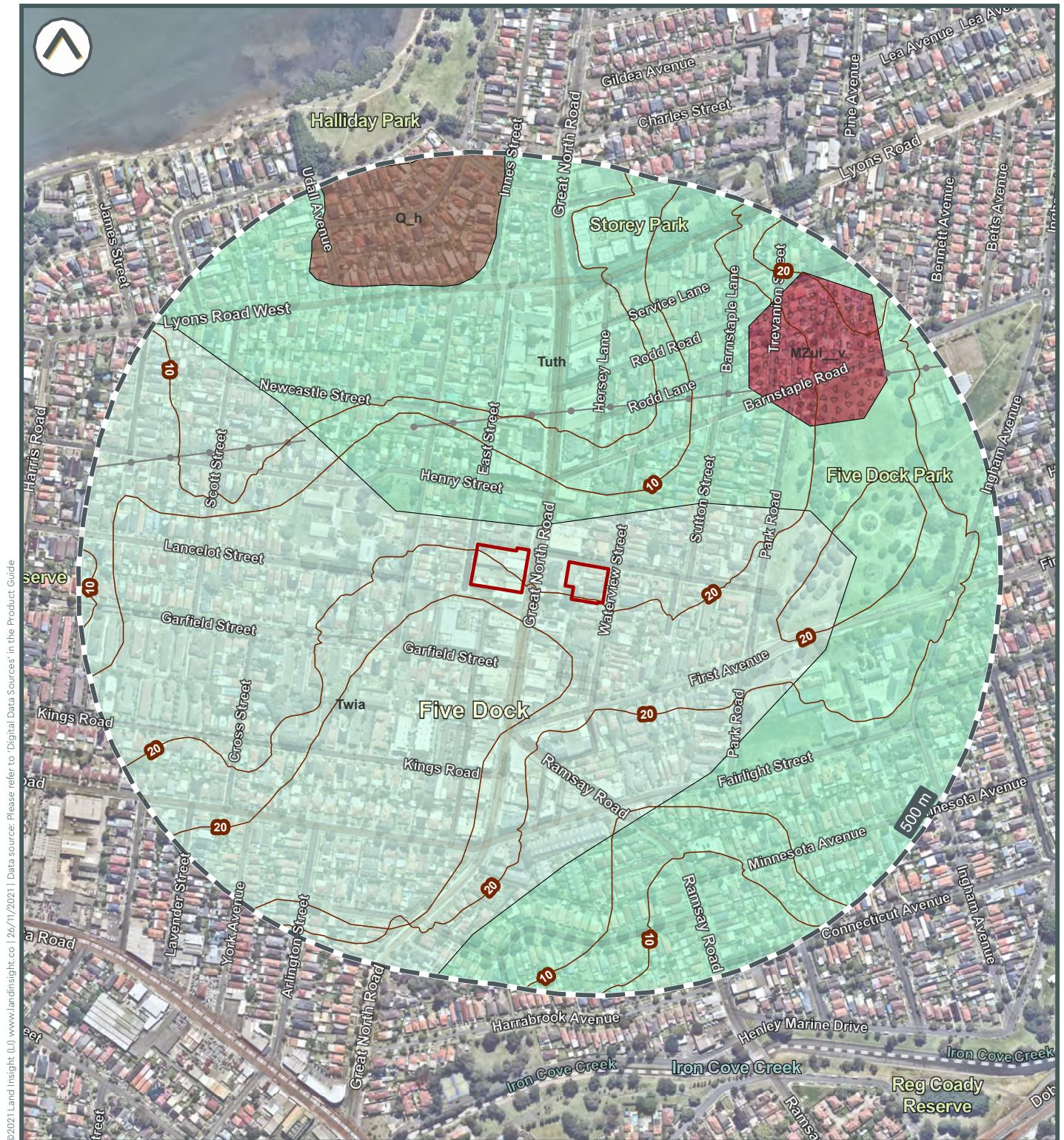


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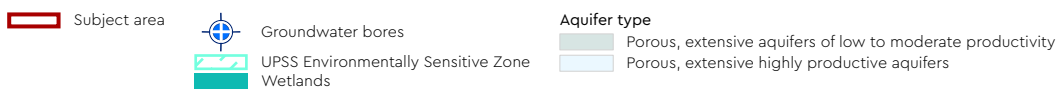
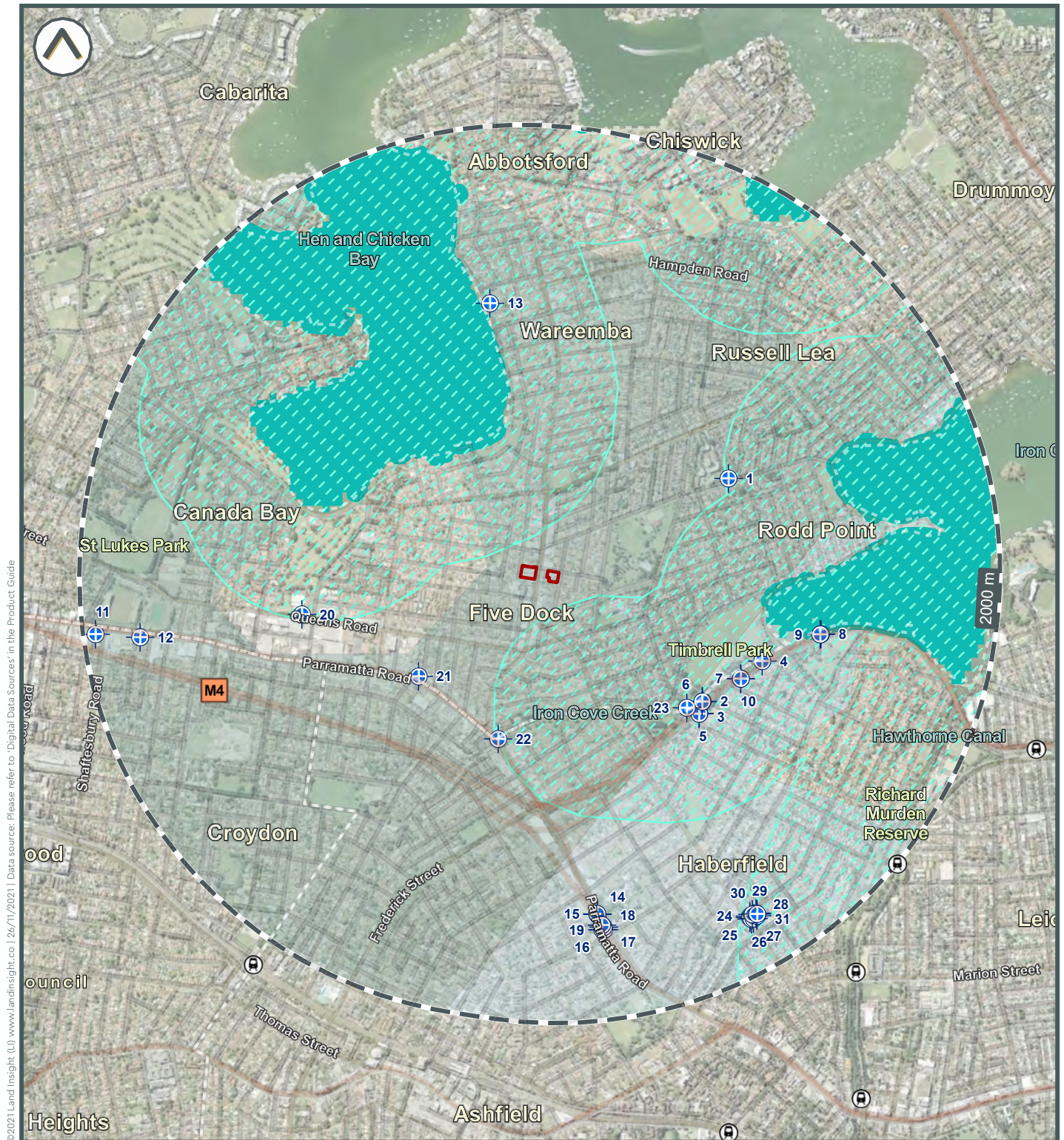


Geology and Topography

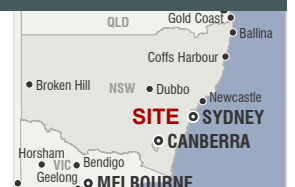




Hydrogeology and Groundwater Boreholes

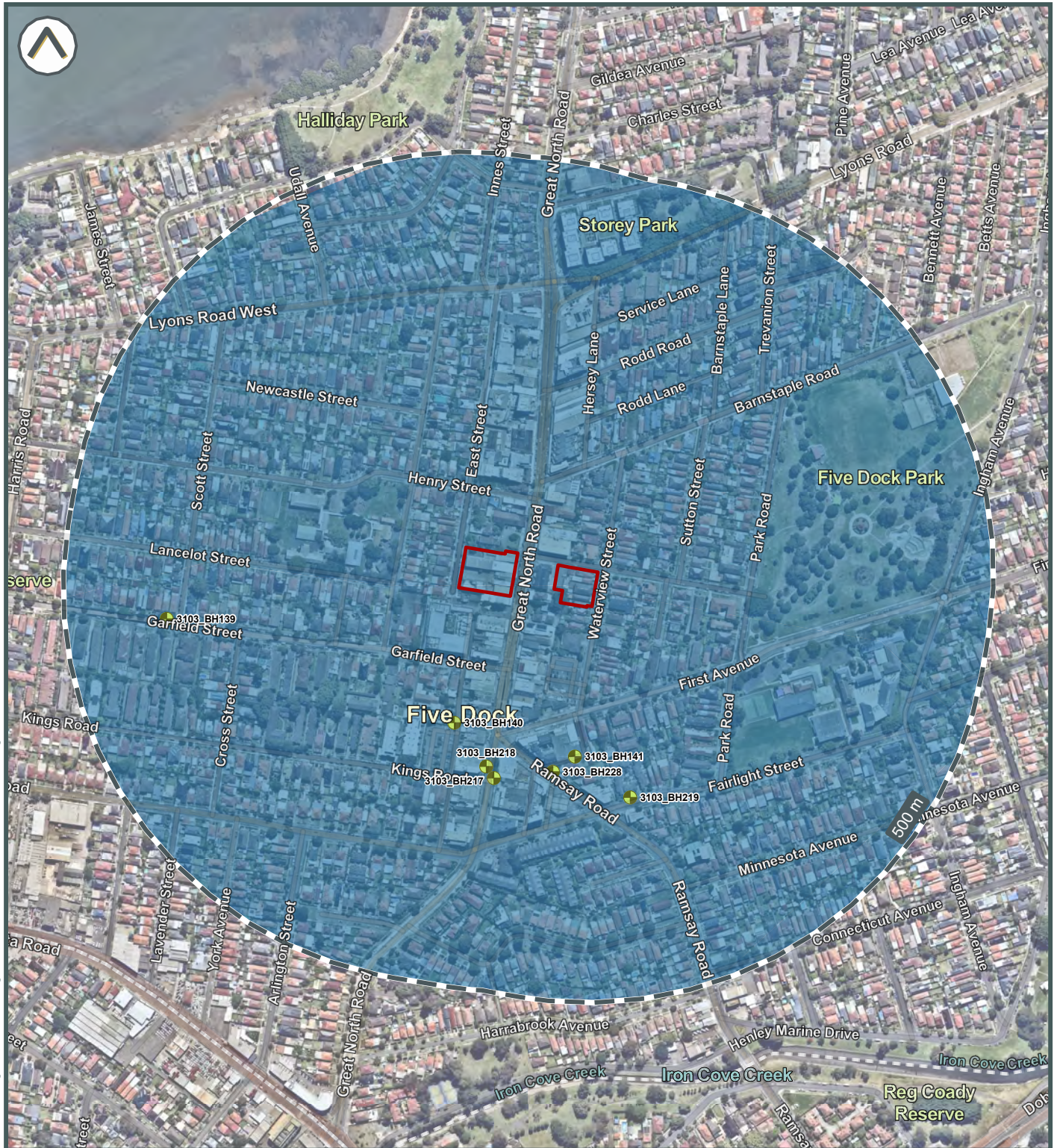


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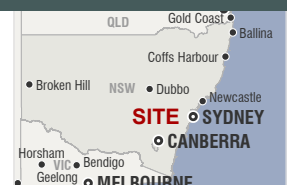
Hydrogeology and Other Boreholes



- Subject area
- Other borehole/monitoring well location
- Hydrogeologic Unit**
- Late Permian/Triassic sediments (porous media – consolidated)



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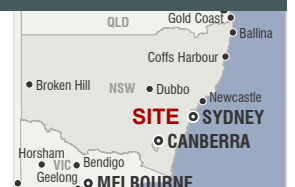
Contaminated Land Public Register



- Subject area
- Contaminated Land Register (EPA)
- Contaminated Land Register (EPA)
- Contaminated Land Record of Notices

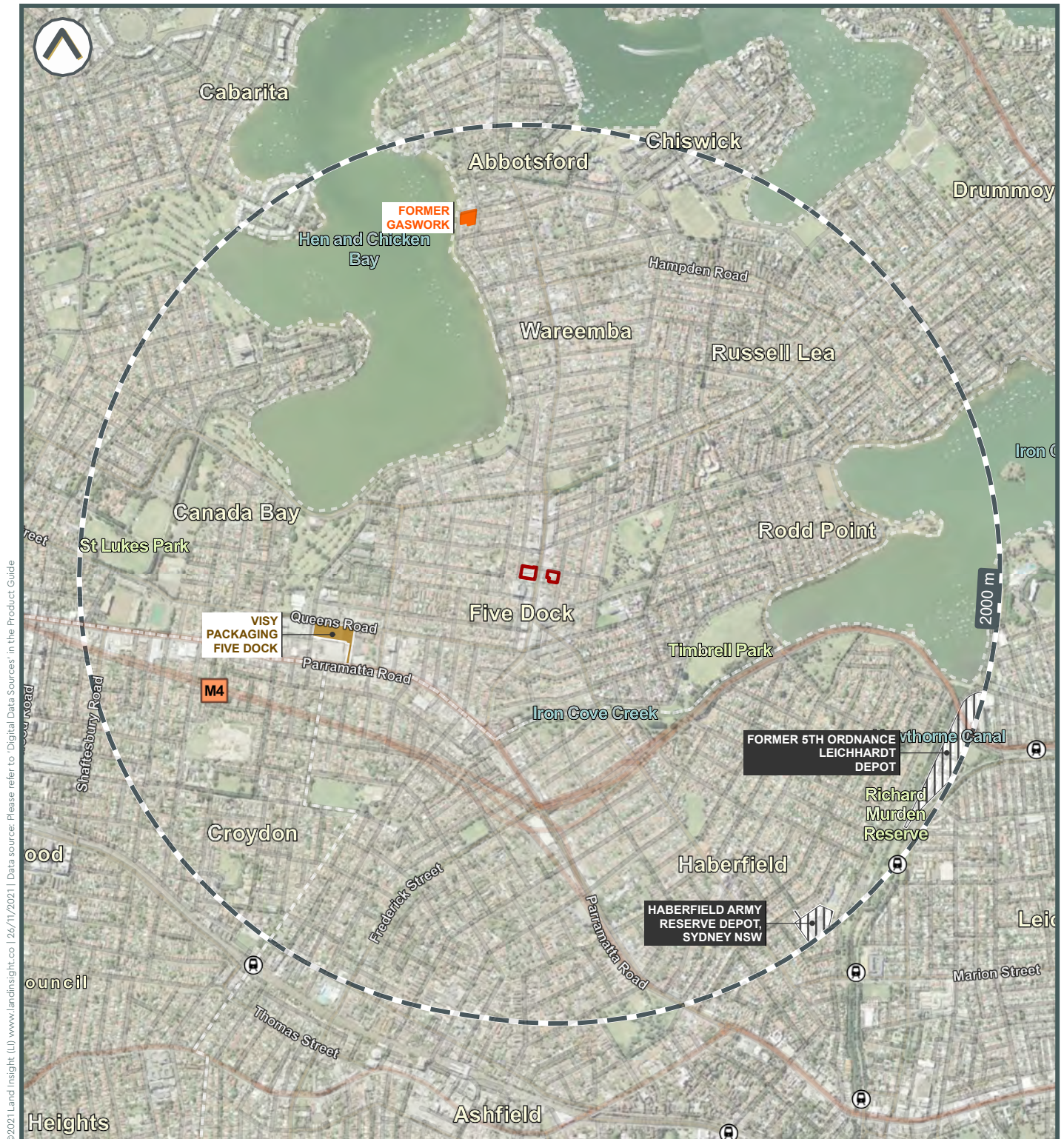


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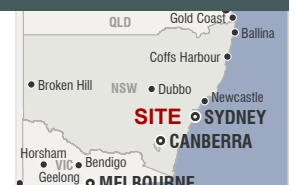
Sites Regulated by other Jurisdictional Body



- Subject area
- NPI Facilities
- Former Gasworks Sites
- Defence Area / Military Sites; Defence Area / Military Sites

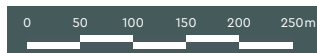
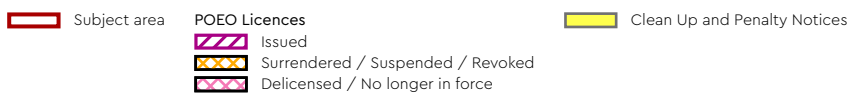


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Licensing Under the POEO Act



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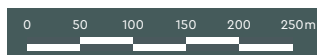




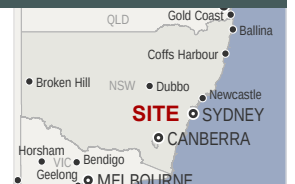
Former Potentially Contaminated Land



- | | | |
|--|---|---|
|  Subject area |  Contaminated Legacy Areas |  Derelict Mines and Quarries |
| |  James Hardie asbestos | |
| |  Historical (Legacy) Landfills | |



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Current Potentially Contaminating Activities (PCAs)



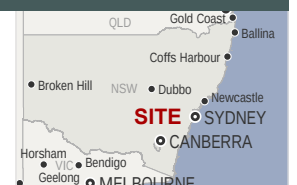
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- | | | | |
|--------------------------|--------------------|-----------------------------|------------------------------|
| Subject area | Fire Rescue | Operating Mines | Substation/switching station |
| Cattle Dip Sites | Gas Terminals | Power Stations | Telephone Exchanges |
| Operational Dry Cleaners | Liquid Fuel Depots | Operational Petrol Stations | Wastewater Treatment Plants |
| Former Dry Cleaners | | Former Petrol Stations | Waste Management Facilities |

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.



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Other Potentially Contaminating Activities



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Commercial & Trade Directory

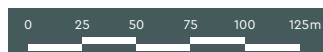


Other potentially contaminating activities

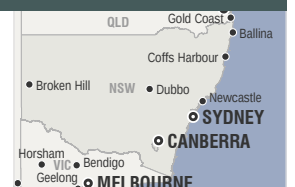


Former potentially contaminating activities

*This is not an exhaustive list of all tanks

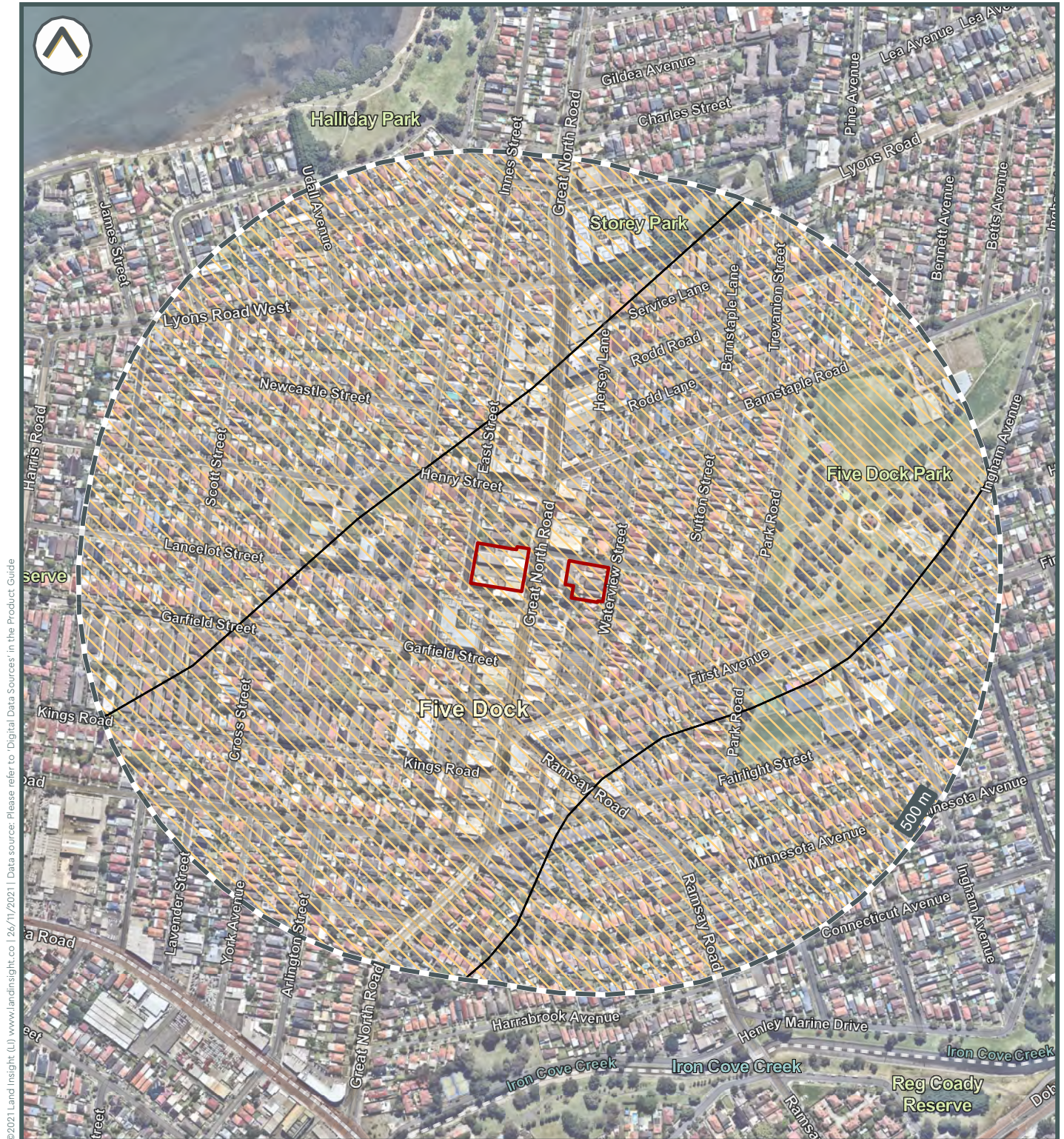


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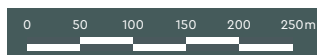




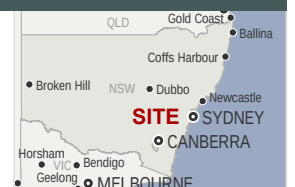
Fire and Flood Hazards



Subject area Erosion Hazard
Minor to moderate



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An aerial photograph of a vibrant turquoise river winding through a rugged, rocky landscape. The river is flanked by steep, rocky banks and dense, lush green vegetation. The water's color is a striking contrast to the surrounding earthy tones of the rocks and foliage. The river flows from the top left towards the bottom right of the frame.

Appendix B

HISTORIC IMAGERY

Historic Aerial Photograph - 1930



LIR-02245 Aerial Photograph 1930 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 1943



LIR-02245 Aerial Photograph 1943 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 1955



LIR-02245 Aerial Photograph 1955 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 1965



Historic Aerial Photograph - 1970



LIR-02245 Aerial Photograph 1970 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Historic Aerial Photograph - 1970



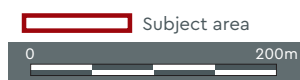
Historic Aerial Photograph - 1986



Historic Aerial Photograph - 1991



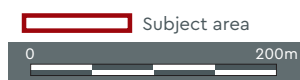
LIR-02245 Aerial Photograph 1986.25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



Historic Aerial Photograph - 1994



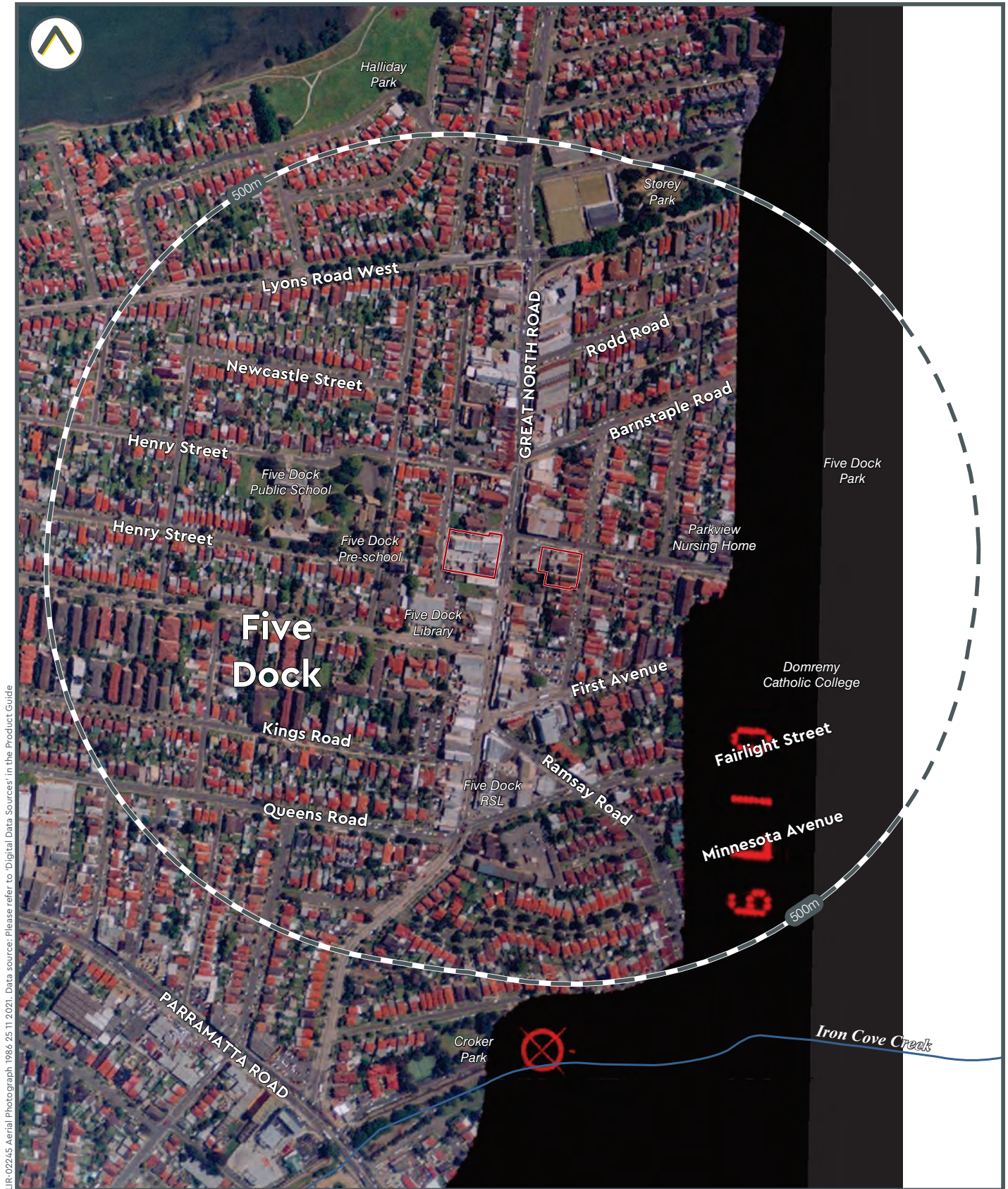
LIR-02245 Aerial Photograph 1986.25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



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Historic Aerial Photograph - 1998



LIR-02245 Aerial Photograph 1986.25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 2002



LIR-02245 Aerial Photograph 2002 25 11 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 2004



LIR-02245 Aerial Photograph 2002/25/11/2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 2007



LIR-02245 Aerial Photograph 2007 25 11 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Historic Aerial Photograph - 2009



LIR-02245 Aerial Photograph 2009 25 11 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 2012



LIR-02245 Aerial Photograph 2012 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

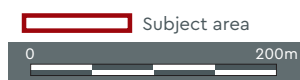
Subject area

0 200m

Historic Aerial Photograph - 2015



LIR-02245 Aerial Photograph 2015 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



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Historic Aerial Photograph - 2018



LIR-02245 Aerial Photograph 2015 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Historic Aerial Photograph - 2021



LIR-02245 Aerial Photograph 2021 25.11.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

County Of Cumberland Planning Scheme - 1951



1969-1991 1:25,000 Topographic Map (Parramatta River 9130-3N)



APPENDIX B – FIVE DOCK STATION SITE LAYOUT



Stations & Shafts

Five Dock
Station Shaft
Single Cavern

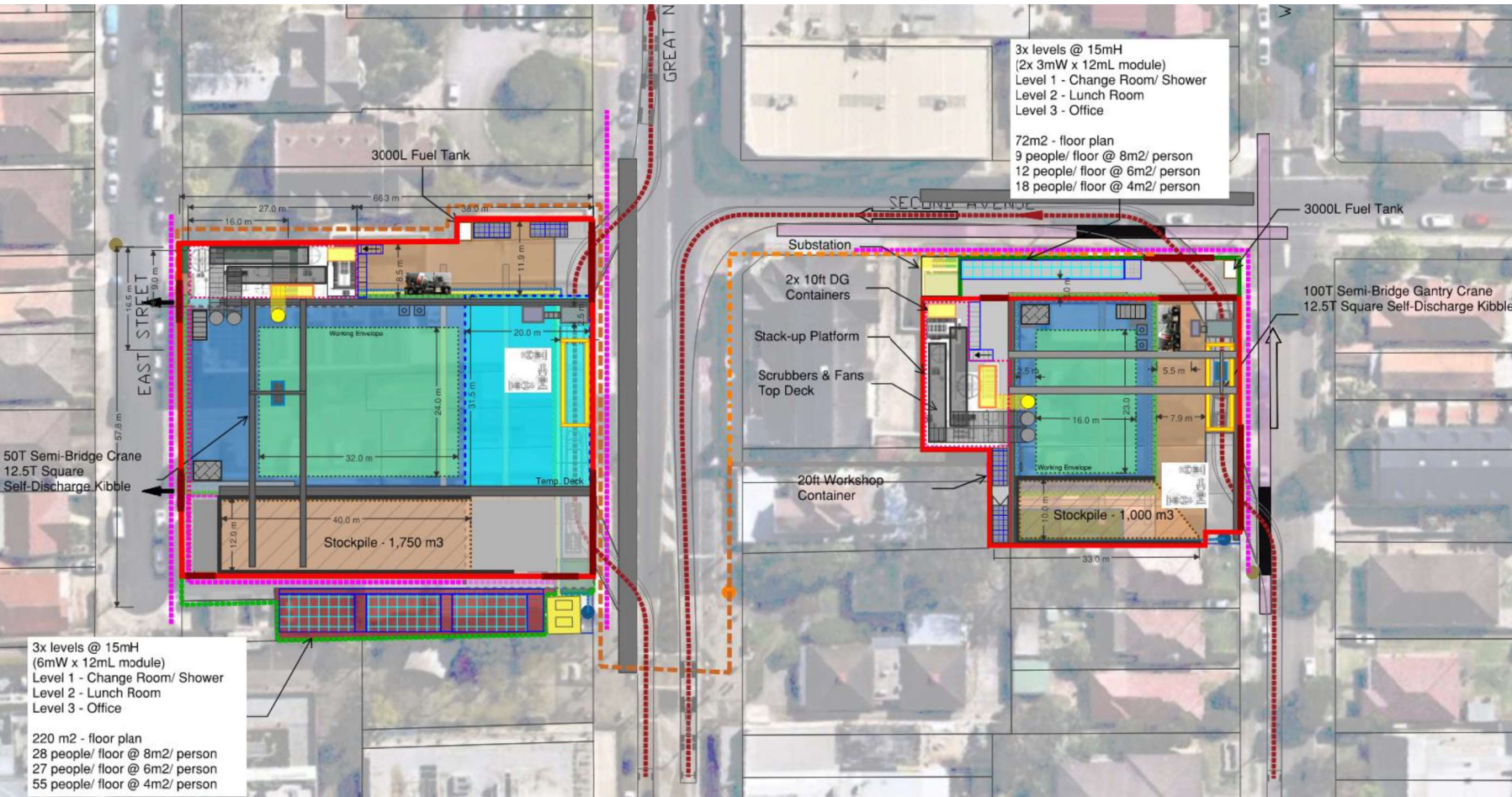


Stations & Shafts – Five Dock Station

Access / Handover dates



Stations & Shafts – Five Dock Station – Site Layout



APPENDIX C – HISTORICAL DATA

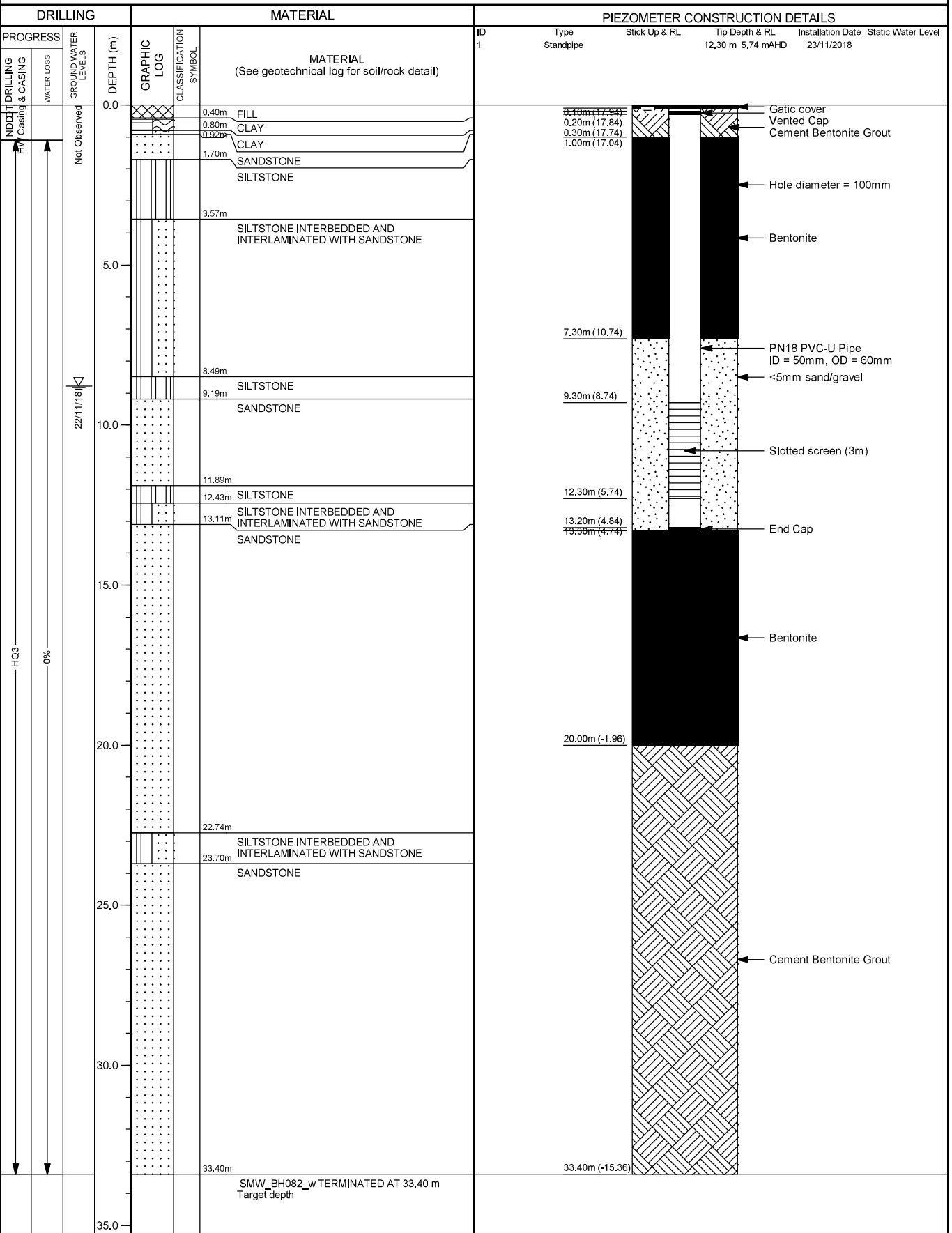
PIEZOMETER CONSTRUCTION

HOLE NO : **SMW_BH082_w**

PROJECT : Sydney Metro West
LOCATION : Five Dock - Great North Road

FILE / JOB NO : 00013/11180
SHEET : 1 OF 1

POSITION : E: 327013.4, N: 6250966.4 (56 MGA94) SURFACE ELEVATION : 18.04 (mAHD) ANGLE FROM HORIZONTAL : 90°
RIG TYPE : Comacchio 405 MOUNTING : Track CONTRACTOR : Terratest
DATE STARTED : 19/11/18 DATE COMPLETED : 23/11/18 DATE LOGGED : 19/11/18 LOGGED BY : SL CHECKED BY : GS



This report of well/VWP installation must be read in conjunction with accompanying notes and abbreviations. The geotechnical log is a summary only and the detailed log should be referred to for strata details and any core loss zones.

Location	No bores/data	Bore references/Well depth	Durability					PFAS	Hydrocarbons	Other	Comments																
Lilyfield Shaft	No groundwater data.	-						-	-	-	High potential for ASS/PASS in Holocene (marine sediments) and contaminants in lower portion of fill (as referenced in bore logs), but no current GW data here.																
Five Dock Station	Three (one within the excavation footprint); BH082 (within station footprint) BH050 (~100m south west of excavation) BH051 (~100m south of excavation)	SMW-BH082 (13.3m), screened from 9.3 - 12.3m SMW-BH050 (26m) SMW-BH051 (11m)	<table><tr><th>Location</th><th>pH</th><th>Chloride (mg/L)</th><th>Sulfate (as SO4) (mg/L)</th><th>Ammonia (as N) (µg/L)</th></tr><tr><td>SMW_BH082 (on-site)</td><td>7.57</td><td>1,520</td><td>1,580</td><td>300</td></tr><tr><td>SMW_BH050 (off-site)</td><td>7.38</td><td>2,640</td><td>191</td><td>90</td></tr><tr><td>SMW_BH051 (off-site)</td><td>8.26</td><td>1,510</td><td>361</td><td>860</td></tr></table>	Location	pH	Chloride (mg/L)	Sulfate (as SO4) (mg/L)	Ammonia (as N) (µg/L)	SMW_BH082 (on-site)	7.57	1,520	1,580	300	SMW_BH050 (off-site)	7.38	2,640	191	90	SMW_BH051 (off-site)	8.26	1,510	361	860	BH082 - Below LOR BH050/BH051 - not analysed	Below LOR or applicable criteria	Elevated metals (cobalt, copper, iron, manganese, nickel and zinc) exceeding eco, irrigation or drinking water criteria. Human health (recreational/direct contact) criteria exceeded for manganese in BH051 and nitrite in BH050 (Sep, 2018) All others below LOR or applicable criteria	Considerations for dewatering and water disposal/re-use, water does not exceed human health criteria on-site, however very limited data. Limited data within the excavation
Location	pH	Chloride (mg/L)	Sulfate (as SO4) (mg/L)	Ammonia (as N) (µg/L)																							
SMW_BH082 (on-site)	7.57	1,520	1,580	300																							
SMW_BH050 (off-site)	7.38	2,640	191	90																							
SMW_BH051 (off-site)	8.26	1,510	361	860																							
Five Dock to Burwood North	No GW data	No GW data in SMW - Geotech Investigation - 1791865-023-R-GWMR - October 2020									Insufficient data for assessment																
Burwood North Station	No GW data	No GW data in SMW - Geotech Investigation - 1791865-023-R-GWMR - October 2020						-	-	-	Insufficient data for assessment																
Burwood North to North Strathfield	No GW data	No GW data in SMW - Geotech Investigation - 1791865-023-R-GWMR - October 2020						-	-	-	Insufficient data for assessment																
North Strathfield Station	One GWMW in footprint of excavation Low risk however only one data point.	SMW_BH073 - 19.4 m SMW_BH036 (No lab data)	<table><tr><th>Location</th><th>pH</th><th>Chloride (mg/L)</th><th>Sulfate (as SO4) (mg/L)</th><th>Ammonia (as N) (µg/L)</th></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	Location	pH	Chloride (mg/L)	Sulfate (as SO4) (mg/L)	Ammonia (as N) (µg/L)						SMW_BH073 below LOR	SMW_BH073 below LOR MAHs < LOR PAHs <LOR TPH/TRH/BTEX <LOR	Some exceedance of ecological criteria for iron (1,540 ug/L) and exceedance of recreational / direct contact for manganese (5,620 ug/L)	Considered low risk, however insufficient data for assessment										
Location	pH	Chloride (mg/L)	Sulfate (as SO4) (mg/L)	Ammonia (as N) (µg/L)																							

APPENDIX D – QA/QC PROGRAM

The following sections provide an assessment of the QA/QC for the DSI at the proposed Five Dock station. The QA/QC protocols that were adopted for the investigation are summarised below.

Field quality control program

The ASC NEPM (NEPC 2013) and PFAS NEMP (HEPA, 2020) outline the approaches adopted for QC verification of field procedures. The QC samples collected during the investigation are described as follows:

- Blind duplicate: Blind duplicate samples are used to identify variation in the analyte concentration between samples from the same sampling point
- Split duplicate: Split duplicate samples provide an indication of the repeatability of the results between laboratories
- Trip spike: A sample of laboratory supplied soil that was spiked with a known concentration of compounds of interest and accompanied the other samples over the course of fieldworks. The sample was submitted to the laboratory for analysis to identify the potential loss of volatile contaminants throughout the fieldworks. Compounds of interest are reported as a percentage of the original spiked concentration.
- Trip blank: A sample of laboratory supplied soil or deionised water accompanied the other samples over the course of the fieldworks and was submitted to the laboratory for analysis. Trip blanks provide an indication of contamination introduced during sample transport and handling, and also ensure that the testing laboratory is not reporting “false positives”. Trip blanks should not indicate concentrations of the contaminants of potential concern (CoPC) above the laboratory detection limits.
- Rinsate blanks were used to estimate the amount of contamination introduced during the re-use of sampling equipment. Rinsate blanks were collected into laboratory supplied bottles and then kept cool in insulated containers until delivery to the laboratory. All rinsate samples were collected using laboratory supplied deionised water.
 - Rinsate blank samples were obtained by pouring laboratory supplied deionised water over decontaminated sampling equipment (e.g. push tube shoe, groundwater interface probe, hand auger) and collecting the water in laboratory supplied bottles

Relative percentage difference calculations

Blind and split duplicate samples were assessed by calculating the relative percentage difference (RPD) between the primary, blind and split samples.

RPD values are calculated using the following equation.

$$RPD(\%) = \frac{(C_o - C_s)}{\left(\frac{C_o + C_s}{2}\right)} \times 100$$

Where C_o = reported concentration from primary sample

C_s = reported concentration from duplicate sample

According to AS 4482.1 – 2005 (Standards Australia, 2005), typical RPDs are expected to range between 30% and 50%; however, this may be higher for concentrations which are close to the laboratory LOR. Considering this, Epic have adopted the following acceptable RPD limits for the DSI, based on standard industry practice:

- 200% for concentrations within one to ten times the analyte LOR
- 50% for concentrations within ten to 30 times the analyte LOR
- 30% for concentrations greater than 30 times the analyte LOR

It is noted that these limits may not always be achieved, particularly in heterogeneous soils or sediments.

Laboratory QA/QC program

Laboratory methods to be used by the primary and secondary laboratories are suitable for environmental contaminant analysis and are based on established internationally recognised procedures. Each of the laboratories is NATA accredited for the proposed analyses.

The following laboratory QC procedures were used during the investigation.

Laboratory duplicate samples

Laboratory duplicate sample analysis is the analysis of a laboratory derived duplicate sample from the process batch, at a rate equivalent to one in 10 samples per analytical batch, or one sample per batch if less than 10 samples are analysed in a batch. A laboratory duplicate provides data on the analytical precision and reproducibility of the analytical results.

The permitted ranges for the RPD of laboratory duplicates are dependent on the magnitude of the results in comparison to the level of reporting as summarised in **Table D1**.

Table D1: Acceptable laboratory relative percentage difference ranges

Magnitude of result	Acceptable RPD range
< 10 x limit of reporting (LOR)	No limits
10 - 20 x LOR	0% - 50%
> 20 x LOR	0% - 20%

Method blank samples

Method or blank sample analysis are the analyses of a sample that is as free as possible of the analyte(s) of interest, but has been prepared the same as the samples under investigation. The analysis is to ascertain if laboratory reagents, glassware and other laboratory consumables contribute to the observed concentration of analytes in the process batch. If below the maximum acceptable method blank (below practical quantification limit), the contribution is subtracted from the gross analytical signal for each analysis before calculating the sample analyte concentration. The method blank should return analyte concentrations as 'not detected'.

Laboratory control samples

Laboratory control spike analysis is the analysis of either a reference material or a control matrix fortified with analytes representative of the analyte class. The purpose of laboratory control spike samples is to monitor method precision and accuracy independent of the sample matrix. Typically, the percentage recovery of the laboratory control spike sample is compared to the dynamic recovery limits based on the statistical analysis of the processed laboratory control spike sample analysis. Recoveries should lie between 70% and 130%.

Matrix spike samples

Matrix spike sample analysis is the analysis of one or more replicate portions of samples from the batch, after fortifying the additional portion(s) with known quantities of the analyte(s) of interest. The percentage recovery of target analyte(s) from matrix spike samples is used to determine the bias of the method in the specific sample matrix. Recoveries should lie between 70% and 130%.

Surrogate spike samples

Surrogate spike samples are samples with known additions of known amounts of compounds, which are similar to the analytes of interests in terms of extractability, recovery through clean-up procedures and response to chromatographic or other measurement. Surrogate compounds may be alkylated or halogenated analogues or structural isomers of analytes of interest. The purpose of surrogate spikes, which are added immediately before the sample extraction step, is to provide a check for every analysis that no gross processing errors have occurred, which could have led to significant analyte loss or faulty calculation. Recoveries should lie between 50% and 150%.

Internal standards

Internal standards are known additions of known amounts of compounds which are not found in real samples, will not interfere with quantification of analytes of interest and may be separately and

independently quantified. The purpose of internal standards in instrumental techniques is to provide independent signals, which serve to check the consistency of the analytical step.

Field QA/QC assessment results

Duplicate samples

A total of eight soil and two groundwater duplicate samples were collected during the investigation. All duplicates were analysed and are summarised in **Table D2**.

Table D2: Quality control samples summary

Matrix	QA/QC sample type	Sample ID	Parent sample	Date
Soil	Intra-laboratory duplicate	QC01	BH08_0.2-0.3	1 December 2021
	Inter-laboratory duplicate	QC02		
	Intra-laboratory duplicate	QC03	BH15_0.2-0.4	2 December 2021
	Inter-laboratory duplicate	QC04		
	Intra-laboratory duplicate	QC05	BH17_0.2-0.4	3 December 2021
	Inter-laboratory duplicate	QC06		
	Intra-laboratory duplicate	QC07	BH26_0.3-0.4	17 January 2022
	Inter-laboratory duplicate	QC08		
Groundwater	Intra-laboratory duplicate	QC01	SMW_BH082	16 December 2021
	Inter-laboratory duplicate	QC02		

Calculated RPDs

Of the ten duplicate samples analysed, eight samples exceeded the nominated RPD acceptance criteria based on the detected concentrations between the primary and duplicate samples.

The acceptance criteria for the RPD limits are less than:

- 81% for concentrations within one to ten times the analyte LOR;
- 50% for concentrations within ten to 30 times the analyte LOR; and
- 30% for concentrations greater than 30 times the analyte LOR

The RPD results are presented in **Table T4** and **Table T5**.

The RPD exceedances in soil are likely associated with the heterogeneity of the soil. Overall, Epic notes that the variation between the primary and duplicate pairs was not sufficiently large as the results were generally within the same order of magnitude. The differences have not triggered exceedances of the criteria, affected the interpretation of data with reference to the nominated screening levels and have not altered the conclusions of the investigation. As such, the level of precision is considered to be suitable for the purposes of this investigation.

Rinsate samples

Rinsate samples were collected from sampling equipment. Results of rinsate blank analysis are summarised in **Table D3** and are included in **Table T6**.

Table D3: Rinsate sample details

Equipment	Sample media	Sample ID	Detect (Y/N)
Hand auger	Soil	RB01	N
Pushtube shoe	Soil	RB02	N
Hand auger	Soil	RB03	N
Groundwater IP dip meter	Groundwater	RB04	N
Hand auger	Soil	RB05	N

Trip blank

Results of trip blank analysis are provided in **Table T6**. Three trip blank samples were analysed and all results were below the laboratory LOR, indicating that there was unlikely cross-contamination during sample transport.

Trip spike

Results of trip spike analysis are provided in **Table T7**. Three trip spike samples were analysed and all results were within the acceptance criteria.

Laboratory QA/QC results

The NATA certified laboratories utilised for this assessment (Envirolab and Eurofins) undertook their own quality assurance and quality control procedures for sample analysis. The data presented in the laboratory QA/QC reports is generally considered adequate in demonstrating the precision and accuracy of the methods used to analyse field samples.

All soil and water samples were received and analysed within the specified laboratory holding times.

Laboratory quality control samples included laboratory control samples, internal duplicates, matrix spike and matrix spike duplicates, and method blanks. The types of QA/QC samples analysed by the

laboratories were considered appropriate to assess the precision and accuracy of the laboratory methods used.

Epic has reviewed the internal laboratory control data provided within the laboratory reports (refer to **Appendix H**). It is noted comments have been provided by the laboratory where a failure result was reported in laboratory QA/QC procedures. Laboratory QA/QC reports are provided on respective laboratory reports (included in **Appendix H**) and are summarised in **Table D4**.

Table D4: Laboratory QA/QC summary

Lab report #	Analysis within holding time	Surrogate recovery	Lab duplicate RPD %	Lab Matrix Spike recovery	Lab Control sample	Lab Method Blank
284886	X	✓	X	✓	✓	✓
285563	✓	✓	✓	✓	✓	✓
286772	✓	✓	X	✓	✓	✓
849920-S	✓	✓	✓	✓	✓	✓
852333-W	✓	✓	✓	✓	✓	✓
855765-S	✓	✓	X	X	✓	✓

✓ = Pass X = Fail - = not required * = Refer to report text

284886

Samples were out of the recommended holding time for pH analysis.

Where the laboratory RPD acceptance criteria was exceeded, a triplicate result was issued. All triplicate results noted an acceptable RPD.

286772

The duplicate RPD reported passed Envirolabs internal acceptance criteria. It was noted the sample was non homogenous and likely resulted in the RPD failure.

855765-S

The duplicate RPD reported passed Eurofins internal environment testings QC acceptance criteria.

The matrix spike recovery was outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Summary

The exceedances of the holding time for analysis of pH are not considered to affect the overall interpretation of the results.

The matrix spike recovery outlier was noted for Nickel which noted low concentrations in the primary and duplicate samples. Therefore, the outlier is not considered to affect the overall interpretation of the results.

The outliers noted for the laboratory duplicate RPDs are not considered to affect the overall interpretation of the results as the failed samples passed each respective laboratories internal quality process.

Epic accepts the integrity of the analytical data.

APPENDIX E – CALIBRATION CERTIFICATES

PID Calibration Certificate

Instrument **PhoCheck Tiger**
Serial No. **T-105759**



Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6eV			
Alarms	Beeper	✓	Low	High	TWA	STEL
	Settings	✓	50ppm	100ppm	N/A	N/A
Software	Version	✓				
Data logger	Operation					
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		93ppm Isobutylene	NATA	SY361		92.9 ppm

Calibrated by: Darcy Keogh

Calibration date: 26/11/2021

Next calibration due: 25/05/2022

Oil / Water Interface Meter

Instrument **Geotech Interface Meter (30M)**
 Serial No. **3908**



Air-Met Scientific Pty Ltd
 1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: _____ **Gary Needs**

Calibration date: **23/11/2021**

Next calibration due: **22/01/2022**

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
 Serial No. **18J104328**



Air-Met Scientific Pty Ltd
 1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor		Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 10.00		pH 10.00		370064	pH 9.76
2. pH 7.00		pH 7.00		368081	pH 7.22
3. pH 4.00		pH 4.00		367234	pH 4.11
4. ORP		231.8mV		365451/370891	231.2mV
5. EC		2.76mS		362912	2.74mS
6. D.O		0.00ppm		371864	0.02ppm
7. Temp		21°C		MultiTherm	20.6°C

Calibrated by: Gary Needs

Calibration date: **14/12/2021**

Next calibration due: **13/01/2022**

PID Calibration Certificate

Instrument **PhoCheck Tiger**
 Serial No. **T-118252**



Air-Met Scientific Pty Ltd
 1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓	10.6 ev			
Connectors	Condition	✓				
Sensor	PID	✓				
Alarms	Beeper	✓	Low	High	TWA	STEL
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		93ppm Isobutylene	NATA	SY361		93.0ppm

Calibrated by: Gary Needs

Calibration date: **13/01/2022**

Next calibration due: **12/07/2022**

APPENDIX F – BOREHOLE LOGS

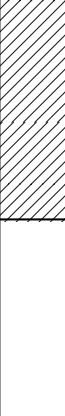
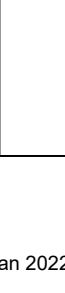
PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327111.44
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250968.83
CLIENT AFJV	TOTAL DEPTH 1.3 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
--	---------------	---------------

Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1	BH01_0.0-0.2			Grass Fill: dark brown, sandy clay, medium plasticity, fine to medium sand, firm, moist	Topsoil
0.2					Gravelly CLAY: brown, medium plasticity, subangular to subrounded fine to medium ironstone gravels, stiff, humid, Rare rootlet remains	Reworked Natural
0.5	<0.1	BH01_0.5-0.7			CLAY: red grey orange mottled, medium plasticity, stiff to very stiff, humid, rare rootlet remains	Residual
1.1	<0.1	BH01_1.1-1.3				
1.3					Termination at target depth 1.3 m	
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327083.90
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250975.60
CLIENT AFJV	TOTAL DEPTH 1.5 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1	BH02_0.0-0.2			Fill: dark brown, sandy clay, medium plasticity, fine to coarse sand, trace gravel, fine to medium, angular to subrounded gravels, humid to moist, firm to stiff	Frequent rootlets
0.2						Trace brick and blue metal
0.3						
0.4	<0.1	BH02_0.5-0.6			CLAY: red brown, medium plasticity, trace subrounded ironstone gravels, humid, stiff	Reworked natural
0.5						Residual
0.6						Trace black organic material
0.7	<0.1	BH02_1.0-1.1			CLAY: grey red orange mottled, medium plasticity, trace fine, subangular to subrounded ironstone gravels, humid, stiff, rare rootlet remains.	
0.8						
0.9						
1.0	<0.1				Borehole terminated at target depth 1.5 m	
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327081.97
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250963.71
CLIENT AFJV	TOTAL DEPTH 1.3 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2		BH03_0.15-0.3			Fill: light brown, fine to coarse, sand, dry, loose	No odours or staining
0.3	<0.1	BH03_0.2-0.4			FILL: brown, sandy gravelly clay, fine to coarse sand, fine to coarse, angular to subrounded ironstone gravels, humid, firm to stiff	Trace slag
0.4						
0.5						
0.6	<0.1	BH03_0.6-0.7				
0.7						
0.8						
0.9					CLAY: Grey, red orange mottled, medium plasticity, humid, stiff	Residual
1.0	<0.1	BH03_1.0-1.2				
1.1						
1.2						
1.3					Borehole terminated at target depth of 1.3 m	
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327095.19
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250960.90
CLIENT AFJV	TOTAL DEPTH 1.3 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1	BH04_0.1-0.2			Concrete	
0.2					FILL: brown sandy gravelly clay, low plasticity, fine to coarse sand, fine to coarse angular to subrounded ironstone gravels, humid, firm to stiff	FM: concrete, fragments of brick and tile
0.3						
0.4	<0.1				Soft	
0.5		BH04_0.5-0.6				
0.6						
0.7						
0.8						
0.9					Gravelly CLAY: grey red orange mottled, fine to coarse, angular to subrounded ironstone gravels, humid, stiff, rare rootlet remains	Residual
1.0	<0.1	BH04_1.0-1.1				
1.1						
1.2						
1.3					Borehole terminated at target depth of 1.3m	
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327084.89
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250954.20
CLIENT AFJV	TOTAL DEPTH 10.0 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 0-1.3 m 01/12/2021		CHECKED BY GB
DRILLING DATE 1.3-10 m 17/01/2022		

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.2	<0.1	BH05_0.1-0.2			Brick FILL: light brown, sand, medium to coarse grain, humid, loose	FM: Brick
0.4	<0.1	BH05_0.3-0.4			FILL: brown, gravelly clay, medium plasticity, fine to coarse angular to subrounded gravel, trace fine to coarse sand, moist, firm	Reworked natural
0.6		BH05_0.5-0.6			FILL: brown orange, sandy clay, medium plasticity, fine to coarse sand, moist, firm	Residual
0.8					CLAY: red orange mottled, medium plasticity, trace fine subrounded ironstone gravels, humid firm to stiff, rare rootlet remains	
1.0		BH05_1.0-1.2				
1.2						
1.4						
1.6	<0.1	BH05_1.5-1.7			SHALE: brown, extremely weathered (Ashfield shale)	Interbedded soft and hard bands Becoming less weathered and grey with depth
1.8						
2.0	<0.1	BH05_2.0-2.2				
2.2						
2.4						
2.6						
2.8						
3.0	<0.1	BH05_3.0-3.2				
3.2						
3.4						
3.6						
3.8						
4.0	<0.1	BH05_4.0-4.2				
4.2						
4.4						
4.6						
4.8						
5.0						

Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
5.0	<0.1	BH05_5.0-5.2				
5.2						
5.4						
5.6						
5.8						
6.0	<0.1	BH05_6.0-6.2				
6.2						
6.4						
6.6						
6.8						
7.0	<0.1	BH05_7.0-7.2				
7.2						
7.4						
7.6						
7.8						
8.0	<0.1	BH05_8.0-8.2				
8.2						
8.4						
8.6						
8.8						
9.0	<0.1	BH05_9.0-9.2				
9.2						
9.4						
9.6						
9.8	<0.1	BH05_9.8-10.0				
10.0					Borehole terminated at target depth of 10.0 m bgl	
10.2						
10.4						
10.6						
10.8						
11.0						

Very hard drilling

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327109.51
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250953.62
CLIENT AFJV	TOTAL DEPTH 1.3 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1	BH06_0.1-0.3			Woodchips	
0.2					Fill: dark brown, sandy clay, medium plasticity, fine to medium sand, moist, soft	
0.3					Fill: brown sandy gravelly clay, medium plasticity, fine to coarse sand, fine to medium, angular to subrounded ironstone gravel, moist, soft to firm	
0.4	<0.1	BH06_0.4-0.6				Burnt wood, ash, and brick fragments
0.5						
0.6						
0.7	<0.1				CLAY: medium plasticity, grey red orange mottled, trace fine to medium, subangular to subrounded ironstone gravels, humid, firm to stiff	Residual
0.8						
0.9						
1.0						
1.1		BH06_1.0-1.2				
1.2	<0.1					
1.3					Borehole terminated at target depth of 1.3m bgl	
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327093.35
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250946.46
CLIENT AFJV	TOTAL DEPTH 1.3 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2	0.7	BH07_0.1-0.3			Fill: dark brown, sandy gravelly clay, medium plasticity, fine to coarse sand, fine to coarse, angular to subrounded gravels, moist, firm	FM: concrete brick and tiles Ash at 0.2-0.4m mbgl
0.4	<0.1	BH07_0.4-0.5				Becoming less sandy and gravelly
0.8					CLAY: brown red mottled, medium plasticity, humid, firm, rare rootlet remains	Residual
1.0	<0.1	BH07_1.0-1.1			CLAY: grey red orange mottled, medium plasticity, trace iron stone gravels, humid, firm	
1.3					Borehole terminated at target depth of 1.3m bgl	
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327079.41
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250948.75
CLIENT AFJV	TOTAL DEPTH 1.3 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2		BH08_0.2-0.3			Fill: brown, sandy gravelly clay, medium plasticity, fine to coarse sand, fine to medium gravel, angular to subrounded gravel, humid, firm	FM: concrete, brick, trace slag, trace ash, becoming less with depth
0.3	<0.1	QC01				Glass fragments
0.4		QC02				
0.5		BH08_0.4-0.5			CLAY: brown-red, medium plasticity, trace fine to medium, subangular to subrounded ironstone gravels, humid, stiff	Residual
0.6	<0.1					
0.7						
0.8					Becoming grey red orange mottled, very stiff, rare rootlet remains	
0.9						
1.0		BH08_1.0-1.1				
1.1	<0.1				Borehole terminated at target depth of 1.3 m bgl	
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327106.33
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250939.10
CLIENT AFJV	TOTAL DEPTH 1.1 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	0.4				Concrete	
0.2		BH09_0.15-0.3			FILL: light brown/orange/black, gravelly sand, fine to coarse grain, partially cemented, fine to coarse, angular to subrounded gravels, humid, dense Becoming clayey, firm with depth	Concrete, shale and ironstone
0.3						
0.4	<0.1				CLAY: brown red medium plasticity, fine to coarse, angular to subrounded trace ironstone gravels, humid, soft to firm	Residual
0.5		BH09_0.5-0.7				
0.6						
0.7	<0.1					
0.8					Becoming grey red orange mottled, stiff	Rare rootlet remains
0.9						
1.0	<0.1	BH09_1.0-1.1				
1.1					Borehole terminated at target depth of 1.1 m bgl	
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327085.11
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250940.61
CLIENT AFJV	TOTAL DEPTH 1.2 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2		BH10_0.2-0.3			FILL: brown sandy gravelly clay, medium plasticity, fine to coarse sand, fine to coarse, angular to subrounded gravel, humid, firm	FM: concrete, brick, tile, trace slag becoming less sandy/gravelly with depth
0.3	0.2					
0.4						
0.5		BH10_0.5-0.6			CLAY: brown red mottled, medium plasticity, trace fine to medium, subangular to subrounded ironstone gravels, humid, stiff	Residual
0.6	0.3					
0.7						
0.8					Borehole terminated at target depth of 1.2 m bgl	
0.9						
1.0		BH10_1.0-1.1				
1.1	<0.1					
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

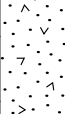
PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327078.20
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250937.61
CLIENT AFJV	TOTAL DEPTH 1.2 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	0.2	BH11_0.0-0.2			Grass, frequent rootlets	Topsoil
0.2					FILL: dark brown, sandy gravelly clay, medium plasticity, fine to coarse sand, fine to coarse, angular to subrounded gravel	Trace ironstone FM: brick, concrete, slag
0.3					becoming less sandy	
0.4						
0.5	0.6	BH11_0.5-0.6				
0.6						
0.7						
0.8					CLAY: red brown mottled, medium plasticity, trace fine to medium, angular to subrounded gravels, humid, firm to stiff	Residual
0.9						
1.0	<0.1	BH11_1.0-1.1				
1.1					becoming grey red orange, very stiff and ironstone gravels	
1.2					Borehole terminated at target depth of 1.2 m bgl	
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327000.40
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250949.39
CLIENT AFJV	TOTAL DEPTH 0.8 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 01/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Tile/concrete	
0.2	<0.1	BH12_0.2_0.3			FILL: brown, sand, fine to medium grain	
0.3					FILL: brown red mottled, clay, medium plasticity humid, firm.	Reworked natural
0.4					CLAY: grey red orange mottled, medium plasticity, trace fine to medium, angular to subrounded ironstone gravels, humid, stiff	Residual
0.5						
0.6	<0.1	BH12_0.6-0.7				
0.7						
0.8					Borehole terminated at target depth of 0.8 m bgl	
0.9						
1						
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326976.62
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250954.64
CLIENT AFJV	TOTAL DEPTH 2.0 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 02/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2		BH13_0.15-0.35			Fill: light brown sand, fine to coarse grain	
0.3	0.3				FILL: dark brown/black, gravelly clay with trace sand, medium plasticity, fine to coarse sand, fine to coarse angular to subrounded ironstone gravels, moist, soft to firm	Reworked natural
0.4						Slight organic odour, no staining
0.5		BH13_0.5-0.7				
0.6	0.4				Becoming brown	
0.7						
0.8						
0.9						
1.0		BH13_1.0-1.2			CLAY: brown red mottled, medium plasticity, trace fine to coarse, angular to subrounded ironstone gravels, humid, firm to stiff, rare rootlet remains	Residual
1.1	<0.1					
1.2						
1.3						
1.4						
1.5						
1.6						
1.7		BH13_1.7-1.9				
1.8	<0.1					
1.9						
2.0					Refusal at 2.0 m bgl	

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326944.65
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250961.79
CLIENT AFJV	TOTAL DEPTH 1.0 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 02/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2		BH14_0.2-0.3			Sub base	
0.3					FILL: brown sandy gravelly clay, medium plasticity, fine to coarse sand, fine to coarse, angular to subrounded ironstone gravel, humid, firm	FM: concrete
0.4					CLAY: red brown mottled, medium plasticity, tract fine to coarse, angular to subrounded ironstone gravels, humid, firm to stiff	Residual
0.5		BH14_0.5-0.6				
0.6	<0.1					
0.7					Becoming grey-red-orange	
0.8						
0.9						
1.0	<0.1	BH14_0.9-1.0				
1.1					Borehole terminated at target depth of 1.0 mbgl	
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326952.03
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250970.35
CLIENT AFJV	TOTAL DEPTH 1.8 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 02/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2	0.2	BH15_0.15-0.3			FILL: dark brown, gravelly clay trace sand, medium plasticity, fine to coarse angular to subrounded ironstone gravels, fine to coarse sand, humid, firm	Slight organic odour, no staining
0.3		BH15_0.2-0.4 QC03 QC04				
0.4		BH15_0.4-0.5				Wood fragments
0.5						
0.6					becoming brown	Reworked natural
0.7	<0.1				Gravelly CLAY: red brown mottled medium plasticity, fine to coarse angular to subrounded ironstone gravels, humid, stiff to very stiff	Residual
0.8						
0.9						
1.0						
1.1						
1.2		BH15_1.2-1.4				
1.3						
1.4						
1.5	<0.1	BH15_1.5-1.7				
1.6						
1.7						
1.8					Refusal at 1.8 m bgl	
1.9						

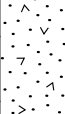
PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326976.38
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250966.15
CLIENT AFJV	TOTAL DEPTH 7.1 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 02/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.2		BH16_0.15-0.25			Concrete	
0.5	<0.1	BH16_0.45-0.6			FILL: light brownish white, sand, fine to coarse grain, humid, loose	FM: Trace brick, concrete
1					FILL: brown-grey, sandy gravelly clay, medium plasticity, fine to coarse sand, fine to coarse, angular to subrounded ironstone gravels, humid, firm	Wood fragments, black organic matter
1.5	<0.1	BH16_1.2-1.4			Gravelly CLAY: red brown mottled, medium plasticity, fine to coarse, angular to subrounded ironstone gravels, humid, stiff	Residual
2					grey red orange mottled	
2.5	<0.1	BH16_2.0-2.2				Push tube refusal at 2.2 m bgl Continue with solid flight auger
3						
3.5	<0.1	BH16_3.0-3.2				
4					becoming brown/grey	
4.5	<0.1	BH16_4.0-4.2				
5					SHALE: brown, extremely weathered (Ashfield shale)	Interbedded soft and hard bands Becoming less weathered and grey with depth
5.5	<0.1	BH16_5.0-5.2				
6						
6.5	<0.1	BH16_6.0-6.2				Very hard drilling
7						
					Refusal at 7.1 m bgl	

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327001.27
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250964.64
CLIENT AFJV	TOTAL DEPTH 1.0 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 02/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1				Tile/concrete	
0.2		BH17_0.2-0.4			FILL: light brown to brown sand, fine to coarse grain, humid, loose	
0.3		QC05 QC06				
0.4	<0.1				CLAY: grey red orange mottled, medium plasticity, trace fine to medium angular to subrounded ironstone gravels, humid, firm	Residual
0.5						
0.6						
0.7						
0.8						
0.9		BH17_0.9-1.0				
1					Borehole terminated at target depth of 1.0 m bgl	
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326983.75
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250972.30
CLIENT AFJV	TOTAL DEPTH 0.75 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 02/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
COMMENT Fill depth not proven		

Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2					FILL: Light brown to brown, gravelly sand, fine to coarse sand, fine to coarse, angular to subrounded gravel, humid, loose	FM: concrete, trace brick, trace tiles
0.3	0.7	BH18_0.3-0.5				
0.4						
0.5		BH18_0.5-0.6				
0.6						
0.7	<0.1					Concrete slab - too deep to core
0.8					Refusal at 0.75 m bgl	
0.9						
1						
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326965.06
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250975.03
CLIENT AFJV	TOTAL DEPTH 1.4 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 02/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	0.9				FILL: dark brown, sandy gravelly clay, Medium plasticity, fine to coarse sand, fine to coarse, angular to subrounded ironstone and sandstone gravels, humid, firm	Slight organic odour, no staining FM: trace brick, trace tiles
0.2		BH19_0.15-0.3			0.2-0.4 becoming very sandy	FM: ash
0.3						
0.4	0.2					
0.5		BH19_0.3-0.7				
0.6					becoming brown, less sandy, ironstone gravels only	Reworked natural
0.7	0.2					
0.8					CLAY: red brown mottled, medium plasticity, trace ironstone gravels, fine to coarse, angular to subrounded, humid, stiff	Residual
0.9						
1.0	0.2					
1.1						
1.2		BH19_1.2-1.4				
1.3	0.2					
1.4					Borehole terminated at target depth of 1.4 m bgl	
1.5						
1.6	0.2					
1.7						
1.8						
1.9	0.2					

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326956.99
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250987.94
CLIENT AFJV	TOTAL DEPTH 0.2 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 03/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
COMMENT Fill depth not proven		

Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	0.5				Concrete	
0.2		BH20_0.11-0.2			FILL: brown, sand, fine to coarse grain, humid, loose	
0.3					Refusal at 0.22 m bgl, concrete sub slab	
0.4						
0.5						
0.6						
0.7						
0.8						
0.9						
1						
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326979.79
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250984.21
CLIENT AFJV	TOTAL DEPTH 0.35 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 03/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	0.3				Concrete	
0.2		BH21_0.15-0.25			FILL: light brown, sand fine to coarse grain, humid, loose	
0.3		BH21_0.25-0.35			CLAY: grey orange mottled, medium plasticity, humid, stiff becoming extremely weathered, very stiff	Residual
0.4					Refusal at 0.35 m bgl	
0.5						
0.6						
0.7						
0.8						
0.9						
1.0						
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327003.39
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250980.28
CLIENT AFJV	TOTAL DEPTH 0.35 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 03/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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COMMENT Fill depth not proven

Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1				Concrete	
0.2		BH22_0.1-0.2			FILL: dark brown-black, sand fine to coarse grain, humid, very loose	
0.3						
0.4					Refusal at 0.35 m bgl on concrete	
0.5						
0.6						
0.7						
0.8						
0.9						
1						
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327009.42
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250991.48
CLIENT AFJV	TOTAL DEPTH 0.63 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 03/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
COMMENT Fill depth not proven		

Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1				Concrete	
0.2						
0.3		BH23_0.25-0.35			FILL: light brown, sand, fine to coarse grain	Frequent rootlets
0.4		BH23_0.4-0.5			FILL: brown, gravelly sand, fine to coarse sand, fine to coarse, angular to subrounded gravels, humid, loose to very loose	FM: Concrete
0.5						
0.6						
0.7					Borehole terminated at 0.63 m bgl due to collapsing sand	
0.8						
0.9						
1						
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326977.96
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250996.31
CLIENT AFJV	TOTAL DEPTH 0.33 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 03/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
COMMENT Fill depth not proven		

Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1					Concrete	
0.2						
0.3					FILL: brown, sand, fine to coarse, humid, loose	
0.4					Refusal at 0.33 m bgl on cemented aggregate	
0.5						
0.6						
0.7						
0.8						
0.9						
1						
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 326957.29
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250999.25
CLIENT AFJV	TOTAL DEPTH 0.9 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 03/12/2021		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1	BH25_0.15-0.25			Asphalt	
0.2					Sub base	
0.3	<0.1	BH25_0.8-0.9			FILL: brown gravelly clay, medium plasticity, fine to coarse, angular to subrounded ironstone gravels, himid, firm	Reworked natural
0.4					Gravelly CLAY: red brown mottled, medium plasticity, fine to medium, angular to subrounded ironstone gravels, humid to stiff	Residual
0.5	<0.1	BH25_0.8-0.9			becoming grey red orange clay	
0.6						
0.7	<0.1	BH25_0.8-0.9				
0.8						
0.9	<0.1	BH25_0.8-0.9			Borehole terminated at target depth of 0.9 m bgl	
1.0						
1.1	<0.1	BH25_0.8-0.9				
1.2						
1.3	<0.1	BH25_0.8-0.9				
1.4						
1.5	<0.1	BH25_0.8-0.9				
1.6						
1.7	<0.1	BH25_0.8-0.9				
1.8						
1.9	<0.1	BH25_0.8-0.9				
2.0						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327066.49
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 625091.56
CLIENT AFJV	TOTAL DEPTH 1.5 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 17/01/2022		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	<0.1	BH26_0.1-0.2			Asphalt	FM: concrete, brick slag, trace ash/coal
0.2					FILL: dark brown, sandy gravelly clay, medium plasticity, fine to coarse sand, fine to coarse, angular to subrounded gravel, humid, firm.	
0.3		BH26_0.3-0.4 QC07 QC08				
0.4	<0.1					
0.5					Becoming brown clay	Reworked natural
0.6					CLAY: grey orange mottled, ironstone staining, medium plasticity, trace fine to medium subangular to rounded ironstone gravels, rare rootlet remains	Residual
0.7	<0.1	BH26_0.8-0.9				
0.8						
0.9						
1.0	<0.1					
1.1						
1.2						
1.3	<0.1	BH26_1.4-1.5				
1.4						
1.5					Borehole terminated at target depth of 1.5 m bgl	
1.6						
1.7						
1.8						
1.9						

PROJECT NUMBER SC210092.01	DRILLING COMPANY Stratacore Drilling	EASTING 327069.38
PROJECT NAME SMW Five Dock DSI	DRILL RIG Geoprobe	NORTHING 6250976.80
CLIENT AFJV	TOTAL DEPTH 1.5 m	SURFACE ELEVATION -
ADDRESS Great North Road, Five Dock, NSW	Diameter 100 mm	LOGGED BY MSF
DRILLING DATE 17/01/2022		CHECKED BY GB

COMPLETION Backfilled with recovered material	CASING	SCREEN
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Depth (m)	PID (PPM)	Samples	Water	Graphic Log	Material Description	Additional Observations
0.1	0.4	BH27_0.1-0.2			Asphalt	
0.2					FILL: brown sandy gravelly clay, medium plasticity fine to coarse sand, fine to coarse, angular to subrounded gravel, humid to moist, firm	Trace organic odour, confined to pockets of black soft clay Ironstone, shale FM: slag
0.3						
0.4	<0.1	BH27_0.4-0.5				
0.5						
0.6						
0.7						
0.8	<0.1	BH27_0.8-0.9			CLAY, grey orange brown mottled, ironstone staining, medium plasticity, trace fine to medium, subrounded to rounded ironstone gravels, humid, stiff to very stiff	Residual
0.9						
1.0						Brown silty clay/ organic matter
1.1						
1.2						
1.3					Becoming grey, rare rootlet remains	
1.4	<0.1	BH27_1.4-1.5				
1.5					Borehole terminated at target depth of 1.5 m bgl	
1.6						
1.7						
1.8						
1.9						

APPENDIX G – GROUNDWATER SAMPLING LOGS

LOW FLOW GROUNDWATER SAMPLING FIELD SHEET

Job Name:	SMW - CTP - Five Deck	Well No:	SMW-BH082
Job No:	SC210092.01	Date:	16/12/21
Recorded By:	MSF	Time:	18:42 07:42
Weather:	Sunny 28°C Cloudy 23°C		

CONSTRUCTION INFORMATION

Well Type:	☒ Monitor ☐ Extraction ☐ Other:	Well Stick Up (m): (above/below ground level)	
Well Material:	☒ PVC ☐ SS ☐ Other:	Screen Interval - Top (m BTOC)	9.30
Well Head Condition:	Flooded / sl. oil staining	Screen Interval - Bottom (m BTOC)	12.30

WELL PURGING

PURGE VOLUME		PURGE METHOD	
LNAPL Level Depth (LL in m BTOC):	-	☐ Pump Type: ☐ Submersible ☐ Bladder ☒ Peristaltic ☐ Other	
Water Level Depth (WL in m BTOC):	2.470 2.900	Initial Pump Rate (L/min)	0.3
DNAPL Level Depth (DL in m BTOC):	-	PUMP INTAKE SETTING	
Total Depth of Well (TD in m BTOC):	13.245	Depth (m BTOC):	~ 10.0
Height of Standing Water Column (TD-WL, in m):	10.345	Purged dry?	☒ No ☐ Yes, at _____ L

In accordance with USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504), draw down to be limited to <0.1m during sampling. Typically, flow rates on the order of 0.1 - 0.5 L/min are used, however this is dependent on site-specific hydrogeology and flow rates up to 1 L/min may be acceptable where draw down is able to be maintained at <0.1m.

FIELD PARAMETER MEASUREMENTS

Time	Volume Purged	Pump Rate	SWL	pH	Electrical Conductivity	ORP or RedOx	DO	DO	Turbidity	Salinity	TDS	Temp.
HH:MM	L	L/min	m BTOC	-	µS/cm	mV	ppm	% Sat	NTU	ppt	mg/L	°C
08:02	2.5	0.17	3.572	6.22	7269	83.3	1.08	12.3		4.39	5135	20.9
08:05	3.0	0.17	3.625	6.36	7302	79.2	1.05	12.2		4.40	5141	20.9
08:08	3.4	0.13	3.630	6.39	7326	67.0	1.00	11.5		4.41	5161	21.0
08:11	3.7	0.13	3.625	6.42	7381	49.0	0.95	11.0		4.44	5200	21.0
08:20	5.0	0.13	3.625	6.37	7579	18.2	0.60	7.0		4.51	5284	21.6
08:23	5.4	0.13	3.625	6.34	7651	14.8	0.63	7.4		4.56	5330	21.5
08:26	5.8	0.13	3.625	6.33	7644	8.7	0.67	7.8		4.58	5343	21.3
08:29	6.2	0.13	3.625	6.33	7624	6.5	0.70	8.6		4.57	5336	21.2
08:32	6.6	0.13	3.625	6.34	7623	3.9	0.72	8.4		4.57	5336	21.2

Acceptable Variation	<0.1m	± 0.1	± 3%	± 10 mv	± 10%	± 10%	± 10%	-	-	-
Results Acceptable? Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Note: Results are acceptable after all parameters have achieved stabilisation for three successive readings within nominated tolerances as adopted from USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504).

Observations during purging (well condition, turbidity, colour, odour): Level logger in well.
Clear, rare black sand/silt, no odour/staining, Lowest pump setting

Discharge water disposal: ☐ Drums ☐ Other

WELL SAMPLING

SAMPLING METHOD	☒ Same as purge method
☐ Bailer - Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other	☐ Pump - Type: ☐ Submersible ☐ Bladder ☐ Other

SAMPLE DISTRIBUTION:

Sample ID & QC Samples	Primary	Duplicate	TriPLICATE	Rinsate Blank	Comments
SMW-BH082		QCO1	QCO2	RBO1	-
Analysis/ Bottles					



Job Name:	SMW-CTP-Five Deck	Well No:	BH718
Job No:	SC210092.01	Date:	16/12/21
Recorded By:	MSF	Time:	09:40
Weather:	Cloudy 24°C		

CONSTRUCTION INFORMATION

CONSTRUCTION INFORMATION

Well Type:	☒ Monitor ☐ Extraction ☐ Other:	Well Stick Up (m): (above/below ground level)	
Well Material:	☒ PVC ☐ SS ☐ Other:	Screen Interval – Top (m BTOC)	
Well Head Condition:	Fair	Screen Interval – Bottom (m BTOC)	

WELL PURGING

PURGE VOLUME		PURGE METHOD	
LNAPL Level Depth (LL in m BTOC):	—	☐ Pump Type: ☐ Submersible ☐ Bladder ☒ Peristaltic ☐ Other	
Water Level Depth (WL in m BTOC):	4.075	Initial Pump Rate (L/min)	
DNAPL Level Depth (DL in m BTOC):	—	PUMP INTAKE SETTING	
Total Depth of Well (TD in m BTOC):	15.900	Depth (m BTOC):	
Height of Standing Water Column (TD-WL in m):	11.825	Purged dry?	☒ No ☐ Yes, at _____ L

In accordance with USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504), draw down to be limited to <0.1m during sampling. Typically, flow rates on the order of 0.1 - 0.5 L/min are used, however this is dependent on site-specific hydrogeology and flow rates up to 1 L/min may be acceptable where draw down is able to be maintained at <0.1m.

FIELD PARAMETER MEASUREMENTS

Time	Volume Purged	Pump Rate	SWL	pH	Electrical Conductivity	ORP or RedOx	DO	DO	Turbidity	Salinity	TDS	Temp.
HH:MM	L	L/min	m BTOC	-	µS/cm	mV	ppm	% Sat	NTU	_____	_____	°C
09:55	3.48	0.13	4.883	7.05	327	-78.5	1.43	16.0		0.16	219	21.7
09:58	4.2	0.1	5.215	6.80	318	-122.0	0.59	17.8		0.16	221	21.8
10:09	4.7	0.1	5.305	6.82	319	-137	0.42	4.8		0.16	220	22.0
10:12	5.0	0.1	5.340	6.83	321	-138.9	0.47	5.3		0.16	221	22.2
10:15	5.3	0.1	5.392	6.81	324	-141.2	0.44	5.1		0.16	221	22.7
Acceptable Variation			<0.1m	± 0.1	± 3%	± 10 mv	± 10%	± 10%	± 10%	-	-	-
Results Acceptable? Y/N			Y/N	Y	Y	Y	Y	Y	-	Y	Y	Y

Note: Results are acceptable after all parameters have achieved stabilisation for three successive readings within nominated tolerances as adopted from USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504).

Observations during purging (well condition, turbidity, colour, odour):

Observations during purging (well condition, turbidity, colour, odour): ^{Level lower}
Clear, no odour/staining. Pump on lowest setting ^{off} → Unable to stabilise SWL.

Discharge water disposal: ☐ Drums ☐ Other

WELL SAMPLING

SAMPLING METHOD ☒ Same as purge method
☐ Bailor - Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other
☐ Pump - Type: ☐ Submersible ☐ Bladder ☐ Other

SAMPLE DISTRIBUTION:

Sample ID & QC Samples	Primary	Duplicate	Triplicate	Rinsate Blank	Comments
	B4718				
Analysis/ Bottles					

APPENDIX H – LABORATORY CERTIFICATES

CERTIFICATE OF ANALYSIS 284886

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	SC210092.01, SMW - CTP - Five Dock
Number of Samples	86 Soil, 3 Water
Date samples received	03/12/2021
Date completed instructions received	08/12/2000

Analysis Details

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

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

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

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	16/12/2021
Date of Issue	16/12/2021
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
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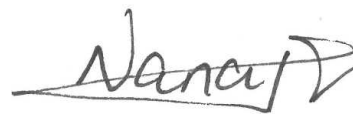
Asbestos Approved By

Analysed by Asbestos Approved Analyst: Panika Wongchanda
 Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By

Diego Bigolin, Inorganics Supervisor
 Dragana Tomas, Senior Chemist
 Hannah Nguyen, Metals Supervisor
 Josh Williams, LC Supervisor
 Lucy Zhu, Asbestos Supervisor
 Priya Samarawickrama, Senior Chemist
 Steven Luong, Organics Supervisor
 Thomas Lovatt, Chemist

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in soil					
Our Reference		284886-11	284886-26	284886-51	284886-55
Your Reference	UNITS	Epic-FD-BH04	Epic-FD-BH10	Epic-FD-BH19	Epic-FD-BH16
Depth		0.1-0.2	0.2-0.3	0.15-0.3	0.45-0.6
Date Sampled		1/12/2021	1/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1

VOCs in soil					
Our Reference		284886-11	284886-26	284886-51	284886-55
Your Reference	UNITS	Epic-FD-BH04	Epic-FD-BH10	Epic-FD-BH19	Epic-FD-BH16
Depth		0.1-0.2	0.2-0.3	0.15-0.3	0.45-0.6
Date Sampled		1/12/2021	1/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil
Ethylbenzene	mg/kg	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	103	103	103	103
Surrogate aaa-Trifluorotoluene	%	112	111	109	111
Surrogate Toluene-d ₈	%	105	104	105	105
Surrogate 4-Bromofluorobenzene	%	94	94	94	94

PFAS in Soils Extended					
Our Reference		284886-11	284886-26	284886-51	284886-73
Your Reference	UNITS	Epic-FD-BH04	Epic-FD-BH10	Epic-FD-BH19	Epic-FD-BH17
Depth		0.1-0.2	0.2-0.3	0.15-0.3	0.2-0.4
Date Sampled		1/12/2021	1/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Perfluorobutanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluoropentanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<5	<5	<5	<5
Perfluoroheptanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluorooctanesulfonic acid PFOS	µg/kg	<5	<5	<5	<5
Perfluorodecanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluorobutanoic acid	µg/kg	<5	<5	<5	<5
Perfluoropentanoic acid	µg/kg	<5	<5	<5	<5
Perfluorohexanoic acid	µg/kg	<5	<5	<5	<5
Perfluoroheptanoic acid	µg/kg	<5	<5	<5	<5
Perfluorooctanoic acid PFOA	µg/kg	<5	<5	<5	<5
Perfluorononanoic acid	µg/kg	<5	<5	<5	<5
Perfluorodecanoic acid	µg/kg	<5	<5	<5	<5
Perfluoroundecanoic acid	µg/kg	<5	<5	<5	<5
Perfluorododecanoic acid	µg/kg	<5	<5	<5	<5
Perfluorotridecanoic acid	µg/kg	<5	<5	<5	<5
Perfluorotetradecanoic acid	µg/kg	<5	<5	<5	<5
4:2 FTS	µg/kg	<5	<5	<5	<5
6:2 FTS	µg/kg	<5	<5	<5	<5
8:2 FTS	µg/kg	<5	<5	<5	<5
10:2 FTS	µg/kg	<5	<5	<5	<5
Perfluorooctane sulfonamide	µg/kg	<5	<5	<5	<5
N-Methyl perfluorooctane sulfonamide	µg/kg	<5	<5	<5	<5
N-Ethyl perfluorooctanesulfonamide	µg/kg	<5	<5	<5	<5
N-Me perfluorooctanesulfonamid ethanol	µg/kg	<5	<5	<5	<5
N-Et perfluorooctanesulfonamid ethanol	µg/kg	<5	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<5	<5	<5	<5
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<5	<5	<5	<5
Surrogate ¹³ C ₈ PFOS	%	105	104	106	104
Surrogate ¹³ C ₂ PFOA	%	100	107	110	102
Extracted ISTD ¹³ C ₃ PFBS	%	89	89	86	89
Extracted ISTD ¹⁸ O ₂ PFHxS	%	93	91	86	89
Extracted ISTD ¹³ C ₄ PFOS	%	92	92	81	88

PFAS in Soils Extended					
Our Reference		284886-11	284886-26	284886-51	284886-73
Your Reference	UNITS	Epic-FD-BH04	Epic-FD-BH10	Epic-FD-BH19	Epic-FD-BH17
Depth		0.1-0.2	0.2-0.3	0.15-0.3	0.2-0.4
Date Sampled		1/12/2021	1/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil
Extracted ISTD ¹³ C ₄ PFBA	%	88	85	80	83
Extracted ISTD ¹³ C ₃ PFPeA	%	91	88	86	90
Extracted ISTD ¹³ C ₂ PFHxA	%	87	91	81	87
Extracted ISTD ¹³ C ₄ PFHpA	%	94	94	82	88
Extracted ISTD ¹³ C ₄ PFOA	%	99	98	86	93
Extracted ISTD ¹³ C ₅ PFNA	%	92	94	82	82
Extracted ISTD ¹³ C ₂ PFDA	%	96	96	83	91
Extracted ISTD ¹³ C ₂ PFUnDA	%	97	100	90	91
Extracted ISTD ¹³ C ₂ PFDoDA	%	94	98	83	95
Extracted ISTD ¹³ C ₂ PFTeDA	%	95	94	84	91
Extracted ISTD ¹³ C ₂ 4:2FTS	%	96	93	84	85
Extracted ISTD ¹³ C ₂ 6:2FTS	%	116	124	94	95
Extracted ISTD ¹³ C ₂ 8:2FTS	%	137	151	96	97
Extracted ISTD ¹³ C ₈ FOSA	%	99	95	86	95
Extracted ISTD d ₃ N MeFOSA	%	93	89	84	91
Extracted ISTD d ₅ N EtFOSA	%	86	88	83	90
Extracted ISTD d ₇ N MeFOSE	%	89	87	82	89
Extracted ISTD d ₉ N EtFOSE	%	84	75	80	91
Extracted ISTD d ₃ N MeFOSAA	%	117	116	87	92
Extracted ISTD d ₅ N EtFOSAA	%	126	123	97	96
Total Positive PFHxS & PFOS	µg/kg	<5	<5	<5	<5
Total Positive PFOS & PFOA	µg/kg	<5	<5	<5	<5
Total Positive PFHxS & PFOS & PFOA	µg/kg	<5	<5	<5	<5
Total Positive PFAS WA DER (n=10)	µg/kg	<5	<5	<5	<5
Total Positive PFAS	µg/kg	<5	<5	<5	<5

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-1	284886-3	284886-5	284886-6	284886-7
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH01	Epic-FD-BH05	Epic-FD-BH05	Epic-FD-BH05
Depth		0.0-0.2	1.1-1.3	0.5-0.6	0.3-0.4	1.0-1.2
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	106	102	104	107	91

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-9	284886-10	284886-11	284886-13	284886-15
Your Reference	UNITS	Epic-FD-BH03	Epic-FD-BH03	Epic-FD-BH04	Epic-FD-BH04	Epic-FD-BH06
Depth		0.2-0.4	0.6-0.7	0.1-0.2	1.0-1.1	0.4-0.6
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	110	105	112	79	94

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-16	284886-17	284886-19	284886-20	284886-22
Your Reference	UNITS	Epic-FD-BH06	Epic-FD-BH09	Epic-FD-BH09	Epic-FD-BH07	Epic-FD-BH07
Depth		1.0-1.2	0.15-0.3	1.0-1.1	0.1-0.3	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	86	91	102	106	109

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-23	284886-25	284886-26	284886-27	284886-28
Your Reference	UNITS	Epic-FD-BH08	Epic-FD-BH08	Epic-FD-BH10	Epic-FD-BH10	Epic-FD-BH10
Depth		0.2-0.3	1.0-1.1	0.2-0.3	0.5-0.6	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	108	110	111	107	103

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-30	284886-31	284886-33	284886-34	284886-37
Your Reference	UNITS	Epic-FD-BH11	Epic-FD-BH02	Epic-FD-BH02	Epic-FD-QC01	Epic-FD-TS01
Depth		0.5-0.6	1.0-1.1	0.5-0.6	1.0-1.1	-
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	[NA]
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	[NA]
vTPH 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	82%
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	82%
Ethylbenzene	mg/kg	<1	<1	<1	<1	80%
m+p-xylene	mg/kg	<2	<2	<2	<2	81%
o-Xylene	mg/kg	<1	<1	<1	<1	80%
Naphthalene	mg/kg	<1	<1	<1	<1	[NA]
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	[NA]
Surrogate aaa-Trifluorotoluene	%	104	116	113	100	111

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-38	284886-40	284886-44	284886-45	284886-49
Your Reference	UNITS	Epic-FD-TB01	Epic-FD-BH14	Epic-FD-BH13	Epic-FD-BH13	Epic-FD-BH15
Depth		-	0.2-0.3	0.5-0.7	1.0-1.2	1.2-1.4
Date Sampled		1/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	105	96	101	89	112

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-51	284886-53	284886-55	284886-56	284886-58
Your Reference	UNITS	Epic-FD-BH19	Epic-FD-BH19	Epic-FD-BH16	Epic-FD-BH16	Epic-FD-QC03
Depth		0.15-0.3	1.2-1.4	0.45-0.6	1.2-1.4	-
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	109	106	111	113	108

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-60	284886-63	284886-65	284886-66	284886-67
Your Reference	UNITS	Epic-FD-BH16	Epic-FD-BH16	Epic-FD-BH18	Epic-FD-BH25	Epic-FD-BH25
Depth		3.0-3.2	6.0-6.2	0.3-0.5	0.15-0.25	0.8-0.9
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	113	115	114	113	101

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-69	284886-71	284886-73	284886-74	284886-75
Your Reference	UNITS	Epic-FD-BH23	Epic-FD-BH12	Epic-FD-BH17	Epic-FD-BH17	Epic-FD-QC05
Depth		0.4-0.5	0.2-0.3	0.2-0.4	0.9-1.0	-
Date Sampled		2/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	115	74	79	89	70

vTRH(C6-C10)/BTEXN in Soil

Our Reference		284886-77	284886-79	284886-80	284886-89
Your Reference	UNITS	Epic-FD-BH20	Epic-FD-BH21	Epic-FD-BH22	Epic-FD-BH15
Depth		0.11-0.2	0.25-0.35	0.1-0.2	0.2-0.4
Date Sampled		3/12/2021	3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	70	70	70	88

svTRH (C10-C40) in Soil

Our Reference		284886-1	284886-3	284886-5	284886-6	284886-7
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH01	Epic-FD-BH05	Epic-FD-BH05	Epic-FD-BH05
Depth		0.0-0.2	1.1-1.3	0.5-0.6	0.3-0.4	1.0-1.2
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	76	83	78	81	83

svTRH (C10-C40) in Soil

Our Reference		284886-9	284886-10	284886-11	284886-13	284886-15
Your Reference	UNITS	Epic-FD-BH03	Epic-FD-BH03	Epic-FD-BH04	Epic-FD-BH04	Epic-FD-BH06
Depth		0.2-0.4	0.6-0.7	0.1-0.2	1.0-1.1	0.4-0.6
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	84	87	80	75	83

svTRH (C10-C40) in Soil

Our Reference		284886-16	284886-17	284886-19	284886-20	284886-22
Your Reference	UNITS	Epic-FD-BH06	Epic-FD-BH09	Epic-FD-BH09	Epic-FD-BH07	Epic-FD-BH07
Depth		1.0-1.2	0.15-0.3	1.0-1.1	0.1-0.3	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	2,400	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	2,100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	4,500	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	95	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	95	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	4,100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	1,100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	5,200	<50
Surrogate o-Terphenyl	%	81	78	78	#	79

svTRH (C10-C40) in Soil

Our Reference		284886-23	284886-25	284886-26	284886-27	284886-28
Your Reference	UNITS	Epic-FD-BH08	Epic-FD-BH08	Epic-FD-BH10	Epic-FD-BH10	Epic-FD-BH10
Depth		0.2-0.3	1.0-1.1	0.2-0.3	0.5-0.6	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	110	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	110	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	160	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	160	<50	<50
Surrogate o-Terphenyl	%	77	73	76	75	68

svTRH (C10-C40) in Soil

Our Reference		284886-30	284886-31	284886-33	284886-34	284886-38
Your Reference	UNITS	Epic-FD-BH11	Epic-FD-BH02	Epic-FD-BH02	Epic-FD-QC01	Epic-FD-TB01
Depth		0.5-0.6	1.0-1.1	0.5-0.6	1.0-1.1	-
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	13/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	110	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	110	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	160	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	160	<50
Surrogate o-Terphenyl	%	69	72	69	76	71

svTRH (C10-C40) in Soil

Our Reference		284886-40	284886-44	284886-45	284886-49	284886-51
Your Reference	UNITS	Epic-FD-BH14	Epic-FD-BH13	Epic-FD-BH13	Epic-FD-BH15	Epic-FD-BH19
Depth		0.2-0.3	0.5-0.7	1.0-1.2	1.2-1.4	0.15-0.3
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	13/12/2021	13/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	72	69	79	76	75

svTRH (C10-C40) in Soil

Our Reference		284886-53	284886-55	284886-56	284886-58	284886-60
Your Reference	UNITS	Epic-FD-BH19	Epic-FD-BH16	Epic-FD-BH16	Epic-FD-QC03	Epic-FD-BH16
Depth		1.2-1.4	0.45-0.6	1.2-1.4	-	3.0-3.2
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	75	73	73	73	73

svTRH (C10-C40) in Soil

Our Reference		284886-63	284886-65	284886-66	284886-67	284886-69
Your Reference	UNITS	Epic-FD-BH16	Epic-FD-BH18	Epic-FD-BH25	Epic-FD-BH25	Epic-FD-BH23
Depth		6.0-6.2	0.3-0.5	0.15-0.25	0.8-0.9	0.4-0.5
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	71	70	73	84	86

svTRH (C10-C40) in Soil

Our Reference		284886-71	284886-73	284886-74	284886-75	284886-77
Your Reference	UNITS	Epic-FD-BH12	Epic-FD-BH17	Epic-FD-BH17	Epic-FD-QC05	Epic-FD-BH20
Depth		0.2-0.3	0.2-0.4	0.9-1.0	-	0.11-0.2
Date Sampled		3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	11/12/2021	11/12/2021	11/12/2021	11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	85	82	82	81	86

svTRH (C10-C40) in Soil

Our Reference		284886-79	284886-80	284886-89
Your Reference	UNITS	Epic-FD-BH21	Epic-FD-BH22	Epic-FD-BH15
Depth		0.25-0.35	0.1-0.2	0.2-0.4
Date Sampled		3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	13/12/2021	13/12/2021	13/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	78	79	83

PAHs in Soil						
Our Reference		284886-1	284886-3	284886-5	284886-6	284886-7
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH01	Epic-FD-BH05	Epic-FD-BH05	Epic-FD-BH05
Depth		0.0-0.2	1.1-1.3	0.5-0.6	0.3-0.4	1.0-1.2
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	13/12/2021	13/12/2021	13/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.6	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	1.9	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	2.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	1.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	1.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	1.6	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	1.4	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	1.2	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	13	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	2.2	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	2.2	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	2.2	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	82	112	113	111	114

PAHs in Soil						
Our Reference		284886-9	284886-10	284886-11	284886-13	284886-15
Your Reference	UNITS	Epic-FD-BH03	Epic-FD-BH03	Epic-FD-BH04	Epic-FD-BH04	Epic-FD-BH06
Depth		0.2-0.4	0.6-0.7	0.1-0.2	1.0-1.1	0.4-0.6
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	10/12/2021	09/12/2021	09/12/2021
Date analysed	-	13/12/2021	13/12/2021	10/12/2021	13/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.6	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	1.4	<0.1	1	<0.1	<0.1
Pyrene	mg/kg	1.5	<0.1	1.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.5	<0.1	0.8	<0.1	<0.1
Chrysene	mg/kg	0.9	<0.1	0.8	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	1	<0.2	2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.90	<0.05	1.4	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.3	<0.1	1.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.4	<0.1	1.0	<0.1	<0.1
Total +ve PAH's	mg/kg	8.1	<0.05	9.6	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	1.1	<0.5	2.1	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	1.2	<0.5	2.1	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	1.2	<0.5	2.1	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	113	110	86	108	109

PAHs in Soil						
Our Reference		284886-16	284886-17	284886-19	284886-20	284886-22
Your Reference	UNITS	Epic-FD-BH06	Epic-FD-BH09	Epic-FD-BH09	Epic-FD-BH07	Epic-FD-BH07
Depth		1.0-1.2	0.15-0.3	1.0-1.1	0.1-0.3	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	13/12/2021	10/12/2021	10/12/2021	10/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Phenanthrene	mg/kg	<0.1	0.1	<0.1	4.2	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	3.2	<0.1
Fluoranthene	mg/kg	<0.1	0.4	<0.1	28	<0.1
Pyrene	mg/kg	<0.1	0.5	<0.1	44	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.3	<0.1	46	<0.1
Chrysene	mg/kg	<0.1	0.3	<0.1	37	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.6	<0.2	100	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.5	<0.05	89	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.4	<0.1	36	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	12	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.4	<0.1	61	<0.1
Total +ve PAH's	mg/kg	<0.05	3.7	<0.05	460	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	0.6	<0.5	120	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	0.7	<0.5	120	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	0.7	<0.5	120	<0.5
Surrogate p-Terphenyl-d14	%	111	76	88	80	117

PAHs in Soil						
Our Reference		284886-23	284886-25	284886-26	284886-27	284886-28
Your Reference	UNITS	Epic-FD-BH08	Epic-FD-BH08	Epic-FD-BH10	Epic-FD-BH10	Epic-FD-BH10
Depth		0.2-0.3	1.0-1.1	0.2-0.3	0.5-0.6	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	13/12/2021	13/12/2021	13/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	1.3	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	0.6	<0.1	<0.1
Fluoranthene	mg/kg	0.9	<0.1	3.3	<0.1	<0.1
Pyrene	mg/kg	1.1	<0.1	3.4	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.8	<0.1	2.0	<0.1	<0.1
Chrysene	mg/kg	0.7	<0.1	2.0	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	2	<0.2	3.4	<0.2	<0.2
Benzo(a)pyrene	mg/kg	1.3	<0.05	2.7	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	1.0	<0.1	2.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.8	<0.1	1.8	<0.1	<0.1
Total +ve PAH's	mg/kg	8.5	<0.05	23	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	1.6	<0.5	3.8	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	1.7	<0.5	3.8	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	1.7	<0.5	3.8	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	78	107	62	101	101

PAHs in Soil						
Our Reference		284886-30	284886-31	284886-33	284886-34	284886-40
Your Reference	UNITS	Epic-FD-BH11	Epic-FD-BH02	Epic-FD-BH02	Epic-FD-QC01	Epic-FD-BH14
Depth		0.5-0.6	1.0-1.1	0.5-0.6	1.0-1.1	0.2-0.3
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	13/12/2021	13/12/2021	13/12/2021	10/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.2	<0.1	0.8	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1
Fluoranthene	mg/kg	<0.1	0.7	<0.1	4.7	<0.1
Pyrene	mg/kg	<0.1	0.8	<0.1	5.6	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.3	<0.1	2.8	<0.1
Chrysene	mg/kg	<0.1	0.6	<0.1	3.2	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.9	<0.2	4.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.67	<0.05	3.6	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.3	<0.1	1.3	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.4	<0.1	1.7	<0.1
Total +ve PAH's	mg/kg	<0.05	4.9	<0.05	29	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	0.8	<0.5	4.8	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	0.9	<0.5	4.8	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	0.9	<0.5	4.8	<0.5
Surrogate p-Terphenyl-d14	%	69	98	101	105	80

PAHs in Soil						
Our Reference		284886-44	284886-45	284886-49	284886-51	284886-53
Your Reference	UNITS	Epic-FD-BH13	Epic-FD-BH13	Epic-FD-BH15	Epic-FD-BH19	Epic-FD-BH19
Depth		0.5-0.7	1.0-1.2	1.2-1.4	0.15-0.3	1.2-1.4
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	13/12/2021	13/12/2021	13/12/2021	10/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.3	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.2	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	1.9	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	102	101	100	66	95

PAHs in Soil						
Our Reference		284886-55	284886-56	284886-58	284886-60	284886-63
Your Reference	UNITS	Epic-FD-BH16	Epic-FD-BH16	Epic-FD-QC03	Epic-FD-BH16	Epic-FD-BH16
Depth		0.45-0.6	1.2-1.4	-	3.0-3.2	6.0-6.2
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	13/12/2021	13/12/2021	13/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.3	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.2	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	1.6	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	62	95	96	95	93

PAHs in Soil						
Our Reference		284886-65	284886-66	284886-67	284886-69	284886-71
Your Reference	UNITS	Epic-FD-BH18	Epic-FD-BH25	Epic-FD-BH25	Epic-FD-BH23	Epic-FD-BH12
Depth		0.3-0.5	0.15-0.25	0.8-0.9	0.4-0.5	0.2-0.3
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	13/12/2021	10/12/2021	10/12/2021	13/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	1.3	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.5	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	2.6	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	2.7	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	1.2	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	1.6	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	2.3	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	1.8	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.7	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.8	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	16	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	2.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	2.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	2.5	<0.5
Surrogate p-Terphenyl-d14	%	90	64	80	108	111

PAHs in Soil						
Our Reference		284886-73	284886-74	284886-75	284886-77	284886-79
Your Reference	UNITS	Epic-FD-BH17	Epic-FD-BH17	Epic-FD-QC05	Epic-FD-BH20	Epic-FD-BH21
Depth		0.2-0.4	0.9-1.0	-	0.11-0.2	0.25-0.35
Date Sampled		3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	13/12/2021	13/12/2021	13/12/2021	13/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.8	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.8	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.5	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.7	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.4	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	4.4	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	0.6	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	0.6	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	0.7	<0.5
Surrogate p-Terphenyl-d14	%	71	108	105	109	103

PAHs in Soil				
Our Reference		284886-80	284886-89	284886-94
Your Reference	UNITS	Epic-FD-BH22	Epic-FD-BH15	Epic-FD-BH10 - [TRIPLICATE]
Depth		0.1-0.2	0.2-0.4	0.2-0.3
Date Sampled		3/12/2021	3/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	15/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	1.6
Anthracene	mg/kg	<0.1	<0.1	0.6
Fluoranthene	mg/kg	<0.1	0.1	3.7
Pyrene	mg/kg	<0.1	0.2	3.9
Benzo(a)anthracene	mg/kg	<0.1	0.1	2.2
Chrysene	mg/kg	<0.1	0.1	1.9
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	3.2
Benzo(a)pyrene	mg/kg	<0.05	0.1	2.4
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.9
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.3
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	1.4
Total +ve PAH's	mg/kg	<0.05	0.66	22
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	3.3
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	3.3
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	3.3
Surrogate p-Terphenyl-d14	%	76	72	82

Organochlorine Pesticides in soil						
Our Reference		284886-1	284886-11	284886-17	284886-20	284886-23
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH04	Epic-FD-BH09	Epic-FD-BH07	Epic-FD-BH08
Depth		0.0-0.2	0.1-0.2	0.15-0.3	0.1-0.3	0.2-0.3
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
gamma-Chlordane	mg/kg	<0.1	0.2	<0.1	<1	<0.1
alpha-chlordane	mg/kg	<0.1	0.2	<0.1	<1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Surrogate TCMX	%	80	81	78	71	80

Organochlorine Pesticides in soil					
Our Reference		284886-29	284886-55	284886-66	284886-89
Your Reference	UNITS	Epic-FD-BH11	Epic-FD-BH16	Epic-FD-BH25	Epic-FD-BH15
Depth		0.0-0.2	0.45-0.6	0.15-0.25	0.2-0.4
Date Sampled		1/12/2021	2/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021
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
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	71	66	63	76

Organophosphorus Pesticides in Soil						
Our Reference		284886-1	284886-11	284886-17	284886-20	284886-23
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH04	Epic-FD-BH09	Epic-FD-BH07	Epic-FD-BH08
Depth		0.0-0.2	0.1-0.2	0.15-0.3	0.1-0.3	0.2-0.3
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<1	<0.1
Surrogate TCMX	%	80	81	78	71	80

Organophosphorus Pesticides in Soil					
Our Reference		284886-29	284886-55	284886-66	284886-89
Your Reference	UNITS	Epic-FD-BH11	Epic-FD-BH16	Epic-FD-BH25	Epic-FD-BH15
Depth		0.0-0.2	0.45-0.6	0.15-0.25	0.2-0.4
Date Sampled		1/12/2021	2/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Dichlorvos	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
Chlorpyrifos-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
Chlorpyrifos	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
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	71	66	63	76

PCBs in Soil						
Our Reference	UNITS	284886-1	284886-11	284886-20	284886-23	284886-26
Your Reference		Epic-FD-BH01	Epic-FD-BH04	Epic-FD-BH07	Epic-FD-BH08	Epic-FD-BH10
Depth		0.0-0.2	0.1-0.2	0.1-0.3	0.2-0.3	0.2-0.3
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<1	<0.1	<0.1
Surrogate TCMX	%	80	81	71	80	69

PCBs in Soil						
Our Reference	UNITS	284886-40	284886-51	284886-55	284886-66	284886-73
Your Reference		Epic-FD-BH14	Epic-FD-BH19	Epic-FD-BH16	Epic-FD-BH25	Epic-FD-BH17
Depth		0.2-0.3	0.15-0.3	0.45-0.6	0.15-0.25	0.2-0.4
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	76	69	66	63	73

PCBs in Soil			
Our Reference		284886-80	284886-89
Your Reference	UNITS	Epic-FD-BH22	Epic-FD-BH15
Depth		0.1-0.2	0.2-0.4
Date Sampled		3/12/2021	3/12/2021
Type of sample		Soil	Soil
Date extracted	-	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	72	76

Acid Extractable metals in soil

Our Reference		284886-1	284886-3	284886-5	284886-6	284886-7
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH01	Epic-FD-BH05	Epic-FD-BH05	Epic-FD-BH05
Depth		0.0-0.2	1.1-1.3	0.5-0.6	0.3-0.4	1.0-1.2
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	9	6	7	8	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	23	13	20	19	3
Copper	mg/kg	34	6	9	5	7
Lead	mg/kg	160	17	17	19	13
Mercury	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	<1	2	2	<1
Zinc	mg/kg	130	2	4	8	1

Acid Extractable metals in soil

Our Reference		284886-9	284886-10	284886-11	284886-13	284886-15
Your Reference	UNITS	Epic-FD-BH03	Epic-FD-BH03	Epic-FD-BH04	Epic-FD-BH04	Epic-FD-BH06
Depth		0.2-0.4	0.6-0.7	0.1-0.2	1.0-1.1	0.4-0.6
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	8	8	6	6	8
Cadmium	mg/kg	0.8	<0.4	0.4	<0.4	<0.4
Chromium	mg/kg	19	20	16	7	22
Copper	mg/kg	72	7	53	9	10
Lead	mg/kg	590	23	110	18	20
Mercury	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	2	3	<1	2
Zinc	mg/kg	770	14	290	3	7

Acid Extractable metals in soil

Our Reference		284886-16	284886-17	284886-19	284886-20	284886-22
Your Reference	UNITS	Epic-FD-BH06	Epic-FD-BH09	Epic-FD-BH09	Epic-FD-BH07	Epic-FD-BH07
Depth		1.0-1.2	0.15-0.3	1.0-1.1	0.1-0.3	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	6	6	<4	5	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	16	10	12	17
Copper	mg/kg	7	25	6	16	8
Lead	mg/kg	19	36	17	47	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	3	<1	2	1
Zinc	mg/kg	2	56	2	90	3

Acid Extractable metals in soil

Our Reference		284886-23	284886-25	284886-26	284886-27	284886-28
Your Reference	UNITS	Epic-FD-BH08	Epic-FD-BH08	Epic-FD-BH10	Epic-FD-BH10	Epic-FD-BH10
Depth		0.2-0.3	1.0-1.1	0.2-0.3	0.5-0.6	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	9	6	4	8	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	17	13	20	11
Copper	mg/kg	18	8	24	11	7
Lead	mg/kg	87	19	1,200	37	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	1	10	3	<1
Zinc	mg/kg	820	130	620	28	2

Acid Extractable metals in soil

Our Reference		284886-30	284886-31	284886-33	284886-34	284886-38
Your Reference	UNITS	Epic-FD-BH11	Epic-FD-BH02	Epic-FD-BH02	Epic-FD-QC01	Epic-FD-TB01
Depth		0.5-0.6	1.0-1.1	0.5-0.6	1.0-1.1	-
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	6	11	7	8	<4
Cadmium	mg/kg	<0.4	0.5	<0.4	<0.4	<0.4
Chromium	mg/kg	17	21	16	18	3
Copper	mg/kg	6	51	17	16	2
Lead	mg/kg	19	490	57	150	4
Mercury	mg/kg	<0.1	0.2	<0.1	0.1	<0.1
Nickel	mg/kg	2	5	2	2	<1
Zinc	mg/kg	12	730	91	260	4
Iron	mg/kg	51,000	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil

Our Reference		284886-40	284886-44	284886-45	284886-49	284886-51
Your Reference	UNITS	Epic-FD-BH14	Epic-FD-BH13	Epic-FD-BH13	Epic-FD-BH15	Epic-FD-BH19
Depth		0.2-0.3	0.5-0.7	1.0-1.2	1.2-1.4	0.15-0.3
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	5	6	6	<4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	14	17	8	11
Copper	mg/kg	10	11	8	7	17
Lead	mg/kg	18	46	17	17	32
Mercury	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	2	2	<1	6
Zinc	mg/kg	11	35	3	3	59

Acid Extractable metals in soil

Our Reference		284886-53	284886-55	284886-56	284886-58	284886-60
Your Reference	UNITS	Epic-FD-BH19	Epic-FD-BH16	Epic-FD-BH16	Epic-FD-QC03	Epic-FD-BH16
Depth		1.2-1.4	0.45-0.6	1.2-1.4	-	3.0-3.2
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	6	8	4	6	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	18	22	13	16	5
Copper	mg/kg	7	15	8	10	14
Lead	mg/kg	15	39	15	41	19
Mercury	mg/kg	<0.1	0.1	<0.1	0.2	<0.1
Nickel	mg/kg	1	3	<1	2	<1
Zinc	mg/kg	3	120	3	11	15

Acid Extractable metals in soil

Our Reference		284886-63	284886-65	284886-66	284886-67	284886-69
Your Reference	UNITS	Epic-FD-BH16	Epic-FD-BH18	Epic-FD-BH25	Epic-FD-BH25	Epic-FD-BH23
Depth		6.0-6.2	0.3-0.5	0.15-0.25	0.8-0.9	0.4-0.5
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	10	<4	6	8	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	10	4	18	13	11
Copper	mg/kg	42	2	6	15	9
Lead	mg/kg	21	4	18	14	41
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	33	<1	1	3	2
Zinc	mg/kg	170	3	2	8	24

Acid Extractable metals in soil

Our Reference		284886-71	284886-73	284886-74	284886-75	284886-77
Your Reference	UNITS	Epic-FD-BH12	Epic-FD-BH17	Epic-FD-BH17	Epic-FD-QC05	Epic-FD-BH20
Depth		0.2-0.3	0.2-0.4	0.9-1.0	-	0.11-0.2
Date Sampled		3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	11	<4	<4	<4	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	25	3	24	6
Copper	mg/kg	15	6	6	4	7
Lead	mg/kg	16	4	15	3	74
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	3	<1	2	6
Zinc	mg/kg	4	16	2	4	68
Iron	mg/kg	56,000	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil

Our Reference		284886-79	284886-80	284886-89	284886-90	284886-91
Your Reference	UNITS	Epic-FD-BH21	Epic-FD-BH22	Epic-FD-BH15	Epic-FD-BH01 - [TRIPLICATE]	Epic-FD-BH07 - [TRIPLICATE]
Depth		0.25-0.35	0.1-0.2	0.2-0.4	0.0-0.2	0.1-0.3
Date Sampled		3/12/2021	3/12/2021	3/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Arsenic	mg/kg	<4	<4	6	9	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	<1	18	20	13
Copper	mg/kg	7	2	11	23	23
Lead	mg/kg	14	7	60	110	120
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	0.1
Nickel	mg/kg	<1	1	5	3	5
Zinc	mg/kg	1	9	26	76	190

Acid Extractable metals in soil			
Our Reference		284886-92	284886-93
Your Reference	UNITS	Epic-FD-BH10 - [TRIPLICATE]	Epic-FD-QC05 - [TRIPLICATE]
Depth		0.2-0.3	-
Date Sampled		1/12/2021	3/12/2021
Type of sample		Soil	Soil
Date prepared	-	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021
Arsenic	mg/kg	4	<4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	15	21
Copper	mg/kg	24	5
Lead	mg/kg	1,100	4
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	6	5
Zinc	mg/kg	740	7

Moisture						
Our Reference	UNITS	284886-1	284886-3	284886-5	284886-6	284886-7
Your Reference		Epic-FD-BH01	Epic-FD-BH01	Epic-FD-BH05	Epic-FD-BH05	Epic-FD-BH05
Depth		0.0-0.2	1.1-1.3	0.5-0.6	0.3-0.4	1.0-1.2
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	25	22	22	17	19

Moisture						
Our Reference	UNITS	284886-9	284886-10	284886-11	284886-13	284886-15
Your Reference		Epic-FD-BH03	Epic-FD-BH03	Epic-FD-BH04	Epic-FD-BH04	Epic-FD-BH06
Depth		0.2-0.4	0.6-0.7	0.1-0.2	1.0-1.1	0.4-0.6
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	17	20	20	22	23

Moisture						
Our Reference	UNITS	284886-16	284886-17	284886-19	284886-20	284886-22
Your Reference		Epic-FD-BH06	Epic-FD-BH09	Epic-FD-BH09	Epic-FD-BH07	Epic-FD-BH07
Depth		1.0-1.2	0.15-0.3	1.0-1.1	0.1-0.3	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	23	13	21	21	26

Moisture						
Our Reference	UNITS	284886-23	284886-25	284886-26	284886-27	284886-28
Your Reference		Epic-FD-BH08	Epic-FD-BH08	Epic-FD-BH10	Epic-FD-BH10	Epic-FD-BH10
Depth		0.2-0.3	1.0-1.1	0.2-0.3	0.5-0.6	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	19	27	13	22	23

Moisture						
Our Reference	UNITS	284886-29	284886-30	284886-31	284886-33	284886-34
Your Reference		Epic-FD-BH11	Epic-FD-BH11	Epic-FD-BH02	Epic-FD-BH02	Epic-FD-QC01
Depth		0.0-0.2	0.5-0.6	1.0-1.1	0.5-0.6	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	19	22	18	27	20

Moisture						
Our Reference	UNITS	284886-38	284886-40	284886-44	284886-45	284886-49
Your Reference		Epic-FD-TB01	Epic-FD-BH14	Epic-FD-BH13	Epic-FD-BH13	Epic-FD-BH15
Depth		-	0.2-0.3	0.5-0.7	1.0-1.2	1.2-1.4
Date Sampled		1/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	<0.1	17	18	26	21

Moisture						
Our Reference	UNITS	284886-51	284886-53	284886-55	284886-56	284886-58
Your Reference		Epic-FD-BH19	Epic-FD-BH19	Epic-FD-BH16	Epic-FD-BH16	Epic-FD-QC03
Depth		0.15-0.3	1.2-1.4	0.45-0.6	1.2-1.4	-
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	17	20	18	14	20

Moisture						
Our Reference	UNITS	284886-60	284886-63	284886-65	284886-66	284886-67
Your Reference		Epic-FD-BH16	Epic-FD-BH16	Epic-FD-BH18	Epic-FD-BH25	Epic-FD-BH25
Depth		3.0-3.2	6.0-6.2	0.3-0.5	0.15-0.25	0.8-0.9
Date Sampled		2/12/2021	2/12/2021	2/12/2021	2/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	14	7.3	12	26	22

Moisture						
Our Reference		284886-69	284886-71	284886-73	284886-74	284886-75
Your Reference	UNITS	Epic-FD-BH23	Epic-FD-BH12	Epic-FD-BH17	Epic-FD-BH17	Epic-FD-QC05
Depth		0.4-0.5	0.2-0.3	0.2-0.4	0.9-1.0	-
Date Sampled		2/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	10	22	10	20	13

Moisture					
Our Reference		284886-77	284886-79	284886-80	284886-89
Your Reference	UNITS	Epic-FD-BH20	Epic-FD-BH21	Epic-FD-BH22	Epic-FD-BH15
Depth		0.11-0.2	0.25-0.35	0.1-0.2	0.2-0.4
Date Sampled		3/12/2021	3/12/2021	3/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Moisture	%	15	17	14	17

Asbestos ID - soils						
Our Reference	UNITS	284886-6	284886-11	284886-15	284886-23	284886-26
Your Reference		Epic-FD-BH05	Epic-FD-BH04	Epic-FD-BH06	Epic-FD-BH08	Epic-FD-BH10
Depth		0.3-0.4	0.1-0.2	0.4-0.6	0.2-0.3	0.2-0.3
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Sample mass tested	g	Approx. 45g	Approx. 50g	Approx. 75g	Approx. 70g	Approx. 60g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	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

Asbestos ID - soils						
Our Reference	UNITS	284886-31	284886-40	284886-51	284886-69	284886-80
Your Reference		Epic-FD-BH02	Epic-FD-BH14	Epic-FD-BH19	Epic-FD-BH23	Epic-FD-BH22
Depth		1.0-1.1	0.2-0.3	0.15-0.3	0.4-0.5	0.1-0.2
Date Sampled		1/12/2021	2/12/2021	2/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Sample mass tested	g	Approx. 45g	Approx. 35g	Approx. 65g	Approx. 40g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	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

Misc Inorg - Soil						
Our Reference		284886-9	284886-20	284886-30	284886-65	284886-71
Your Reference	UNITS	Epic-FD-BH03	Epic-FD-BH07	Epic-FD-BH11	Epic-FD-BH18	Epic-FD-BH12
Depth		0.2-0.4	0.1-0.3	0.5-0.6	0.3-0.5	0.2-0.3
Date Sampled		1/12/2021	1/12/2021	1/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
Date analysed	-	10/12/2021	10/12/2021	10/12/2021	10/12/2021	10/12/2021
pH 1:5 soil:water	pH Units	8.0	8.5	5.5	9.5	5.6
Electrical Conductivity 1:5 soil:water	µS/cm	120	85	[NA]	150	[NA]

Misc Inorg - Soil		
Our Reference		284886-89
Your Reference	UNITS	Epic-FD-BH15
Depth		0.2-0.4
Date Sampled		3/12/2021
Type of sample		Soil
Date prepared	-	10/12/2021
Date analysed	-	10/12/2021
pH 1:5 soil:water	pH Units	7.5
Electrical Conductivity 1:5 soil:water	µS/cm	230

Excavated natural material order					
Our Reference		284886-9	284886-20	284886-65	284886-89
Your Reference	UNITS	Epic-FD-BH03	Epic-FD-BH07	Epic-FD-BH18	Epic-FD-BH15
Depth		0.2-0.4	0.1-0.3	0.3-0.5	0.2-0.4
Date Sampled		1/12/2021	1/12/2021	2/12/2021	3/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	13/12/2021	13/12/2021	13/12/2021	13/12/2021
Date analysed	-	13/12/2021	13/12/2021	13/12/2021	13/12/2021
Sample Mass Tested	g	6,000	3,600	3,500	3,600
Rubber, plastic, bitumen	%	<0.05	<0.05	<0.05	<0.05
paper, cloth, paint and wood	%	<0.05	<0.05	<0.05	<0.05

CEC			
Our Reference		284886-30	284886-71
Your Reference	UNITS	Epic-FD-BH11	Epic-FD-BH12
Depth		0.5-0.6	0.2-0.3
Date Sampled		1/12/2021	3/12/2021
Type of sample		Soil	Soil
Date prepared	-	13/12/2021	13/12/2021
Date analysed	-	13/12/2021	13/12/2021
Exchangeable Ca	meq/100g	6.2	6.1
Exchangeable K	meq/100g	0.2	0.2
Exchangeable Mg	meq/100g	0.9	2.2
Exchangeable Na	meq/100g	<0.1	0.3
Cation Exchange Capacity	meq/100g	7.2	8.7

Metals in Waters - Acid extractable				
Our Reference		284886-36	284886-39	284886-70
Your Reference	UNITS	Epic-FD-RB01	Epic-FD-RB02	Epic-FD-RB03
Depth		-	-	-
Date Sampled		1/12/2021	2/12/2021	3/12/2021
Type of sample		Water	Water	Water
Date prepared	-	10/12/2021	10/12/2021	10/12/2021
Date analysed	-	14/12/2021	14/12/2021	14/12/2021
Arsenic - Total	mg/L	<0.05	<0.05	<0.05
Cadmium - Total	mg/L	<0.01	<0.01	<0.01
Chromium - Total	mg/L	<0.01	<0.01	<0.01
Copper - Total	mg/L	<0.01	<0.01	<0.01
Lead - Total	mg/L	<0.03	<0.03	<0.03
Mercury - Total	mg/L	<0.0005	<0.0005	<0.0005
Nickel - Total	mg/L	<0.02	<0.02	<0.02
Zinc - Total	mg/L	<0.02	<0.02	<0.02

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.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25°C in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-080	This method is based on RTA T276 and as per NSW DECC Resource Recovery Exemption Guidelines. RTA T276 requires at least 6kg of sample for this test. Where foreign materials are found, more details may be available on the types and/or quantities in the Comments section of the report.
Metals-020	Determination of various metals by ICP-AES.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTX 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)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	284886-11
Date extracted	-			09/12/2021	26	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			10/12/2021	26	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	26	<1	<1	0	78	80
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	26	<1	<1	0	80	83
2,2-dichloropropane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	26	<1	<1	0	96	101
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	26	<1	<1	0	81	83
1,1-dichloropropene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	26	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	26	<1	<1	0	76	60
bromodichloromethane	mg/kg	1	Org-023	<1	26	<1	<1	0	82	85
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	26	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	26	<1	<1	0	110	114
1,2-dibromoethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	26	<1	<1	0	90	95
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	26	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	284886-11
o-Xylene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	26	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	106	26	103	103	0	104	102
Surrogate aaa-Trifluorotoluene	%		Org-023	77	26	111	97	13	98	104
Surrogate Toluene-d ₈	%		Org-023	106	26	104	105	1	107	105
Surrogate 4-Bromofluorobenzene	%		Org-023	95	26	94	95	1	97	97

QUALITY CONTROL: PFAS in Soils Extended					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date prepared	-			10/12/2021	26	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Date analysed	-			10/12/2021	26	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Perfluorobutanesulfonic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	112	106
Perfluoropentanesulfonic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	102	102
Perfluorohexanesulfonic acid - PFHxS	µg/kg	5	Org-029	<5	26	<5	<5	0	99	102
Perfluoroheptanesulfonic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	107	114
Perfluorooctanesulfonic acid PFOS	µg/kg	5	Org-029	<5	26	<5	<5	0	99	98
Perfluorodecanesulfonic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	93	100
Perfluorobutanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	103	106
Perfluoropentanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	104	100
Perfluorohexanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	112	114
Perfluoroheptanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	115	116
Perfluorooctanoic acid PFOA	µg/kg	5	Org-029	<5	26	<5	<5	0	99	106
Perfluorononanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	118	109
Perfluorodecanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	98	105
Perfluoroundecanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	108	108
Perfluorododecanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	105	114
Perfluorotridecanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	94	95
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	103	104
4:2 FTS	µg/kg	5	Org-029	<5	26	<5	<5	0	97	99
6:2 FTS	µg/kg	5	Org-029	<5	26	<5	<5	0	96	106
8:2 FTS	µg/kg	5	Org-029	<5	26	<5	<5	0	105	103
10:2 FTS	µg/kg	5	Org-029	<5	26	<5	<5	0	97	118
Perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	26	<5	<5	0	105	110
N-Methyl perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	26	<5	<5	0	105	106
N-Ethyl perfluorooctanesulfonamide	µg/kg	5	Org-029	<5	26	<5	<5	0	105	107
N-Me perfluorooctanesulfonamidethanol	µg/kg	5	Org-029	<5	26	<5	<5	0	97	106
N-Et perfluorooctanesulfonamidethanol	µg/kg	5	Org-029	<5	26	<5	<5	0	100	100
MePerfluorooctanesulfonamidacetic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	99	102
EtPerfluorooctanesulfonamidacetic acid	µg/kg	5	Org-029	<5	26	<5	<5	0	96	99
Surrogate ¹³ C ₈ PFOS	%		Org-029	104	26	104	103	1	103	104
Surrogate ¹³ C ₂ PFOA	%		Org-029	102	26	107	109	2	104	103

QUALITY CONTROL: PFAS in Soils Extended						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Extracted ISTD ¹³ C ₃ PFBS	%		Org-029	99	26	89	89	0	95	87
Extracted ISTD ¹⁸ O ₂ PFHxS	%		Org-029	105	26	91	89	2	102	83
Extracted ISTD ¹³ C ₄ PFOS	%		Org-029	103	26	92	91	1	99	84
Extracted ISTD ¹³ C ₄ PFBA	%		Org-029	98	26	85	85	0	96	81
Extracted ISTD ¹³ C ₃ PFPeA	%		Org-029	108	26	88	91	3	97	87
Extracted ISTD ¹³ C ₂ PFHxA	%		Org-029	100	26	91	85	7	98	80
Extracted ISTD ¹³ C ₄ PFHpA	%		Org-029	103	26	94	91	3	99	82
Extracted ISTD ¹³ C ₄ PFOA	%		Org-029	104	26	98	95	3	102	85
Extracted ISTD ¹³ C ₅ PFNA	%		Org-029	100	26	94	87	8	99	85
Extracted ISTD ¹³ C ₂ PFDA	%		Org-029	102	26	96	89	8	105	84
Extracted ISTD ¹³ C ₂ PFUnDA	%		Org-029	106	26	100	105	5	103	86
Extracted ISTD ¹³ C ₂ PFDoDA	%		Org-029	105	26	98	95	3	105	91
Extracted ISTD ¹³ C ₂ PFTeDA	%		Org-029	84	26	94	90	4	88	87
Extracted ISTD ¹³ C ₂ 4:2FTS	%		Org-029	103	26	93	87	7	94	81
Extracted ISTD ¹³ C ₂ 6:2FTS	%		Org-029	115	26	124	115	8	107	90
Extracted ISTD ¹³ C ₂ 8:2FTS	%		Org-029	104	26	151	130	15	103	101
Extracted ISTD ¹³ C ₈ FOSA	%		Org-029	112	26	95	92	3	106	86
Extracted ISTD d ₃ N MeFOSA	%		Org-029	107	26	89	93	4	106	88
Extracted ISTD d ₅ N EtFOSA	%		Org-029	105	26	88	88	0	104	83
Extracted ISTD d ₇ N MeFOSE	%		Org-029	106	26	87	85	2	102	79

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Extracted ISTD d ₉ N EtFOSE	%		Org-029	106	26	75	80	6	103	80
Extracted ISTD d ₃ N MeFOSAA	%		Org-029	106	26	116	112	4	105	93
Extracted ISTD d ₅ N EtFOSAA	%		Org-029	110	26	123	119	3	106	97

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date extracted	-			09/12/2021	1	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			10/12/2021	1	10/12/2021	10/12/2021		10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	25	Org-023	<25	1	<25	<25	0	78	90
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	<25	1	<25	<25	0	78	90
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	88	85
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	90	88
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	74	96
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	70	90
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	69	89
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	77	1	106	102	4	76	108

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	284886-45
Date extracted	-			[NT]	20	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	20	10/12/2021	10/12/2021		10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	25	Org-023	[NT]	20	<25	<25	0	83	83
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	[NT]	20	<25	<25	0	83	83
Benzene	mg/kg	0.2	Org-023	[NT]	20	<0.2	<0.2	0	80	80
Toluene	mg/kg	0.5	Org-023	[NT]	20	<0.5	<0.5	0	82	83
Ethylbenzene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	88	88
m+p-xylene	mg/kg	2	Org-023	[NT]	20	<2	<2	0	82	82
o-Xylene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	82	82
Naphthalene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	20	106	102	4	98	98

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	284886-77
Date extracted	-			[NT]	26	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	26	10/12/2021	10/12/2021		10/12/2021	10/12/2021
TRH C ₆ - C ₉	mg/kg	25	Org-023	[NT]	26	<25	<25	0	88	83
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	[NT]	26	<25	<25	0	88	83
Benzene	mg/kg	0.2	Org-023	[NT]	26	<0.2	<0.2	0	82	80
Toluene	mg/kg	0.5	Org-023	[NT]	26	<0.5	<0.5	0	86	83
Ethylbenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	96	88
m+p-xylene	mg/kg	2	Org-023	[NT]	26	<2	<2	0	89	82
o-Xylene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	89	82
Naphthalene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	26	111	97	13	104	98

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]	44	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	44	10/12/2021	10/12/2021		[NT]	[NT]
TRH C ₆ - C ₉	mg/kg	25	Org-023	[NT]	44	<25	<25	0	[NT]	[NT]
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	[NT]	44	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	44	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	44	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	44	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	44	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	44	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	44	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	44	101	108	7	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	66	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	66	10/12/2021	10/12/2021		[NT]	[NT]
TRH C ₆ - C ₉	mg/kg	25	Org-023	[NT]	66	<25	<25	0	[NT]	[NT]
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	[NT]	66	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	66	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	66	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	66	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	66	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	66	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	66	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	66	113	113	0	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	75	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	75	10/12/2021	10/12/2021		[NT]	[NT]
TRH C ₆ - C ₉	mg/kg	25	Org-023	[NT]	75	<25	<25	0	[NT]	[NT]
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	[NT]	75	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	75	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	75	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	75	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	75	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	75	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	75	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	75	70	82	16	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date extracted	-			09/12/2021	1	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			11/12/2021	1	11/12/2021	11/12/2021		11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	<50	1	<50	<50	0	79	88
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	<100	1	<100	<100	0	71	79
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	<100	1	<100	<100	0	91	97
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	<50	1	<50	<50	0	79	88
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	<100	1	<100	110	10	71	79
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	<100	1	<100	<100	0	91	97
Surrogate o-Terphenyl	%		Org-020	87	1	76	79	4	72	83

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	284886-45
Date extracted	-			[NT]	20	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	20	11/12/2021	11/12/2021		11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	[NT]	20	<50	<50	0	78	75
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	[NT]	20	2400	2100	13	68	83
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	[NT]	20	2100	2000	5	91	82
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	[NT]	20	95	84	12	78	75
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	[NT]	20	4100	3600	13	68	83
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	[NT]	20	1100	940	16	91	82
Surrogate o-Terphenyl	%		Org-020	[NT]	20	#	#		71	82

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	284886-77
Date extracted	-			[NT]	26	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	26	11/12/2021	11/12/2021		11/12/2021	11/12/2021
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	[NT]	26	<50	<50	0	76	66
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	[NT]	26	110	200	58	81	80
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	[NT]	26	<100	120	18	109	126
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	[NT]	26	<50	<50	0	76	66
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	[NT]	26	160	300	61	81	80
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	[NT]	26	<100	<100	0	109	126
Surrogate o-Terphenyl	%		Org-020	[NT]	26	76	79	4	86	79

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	44	13/12/2021	13/12/2021		[NT]	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	[NT]	44	<50	<50	0	[NT]	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	[NT]	44	<50	<50	0	[NT]	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	[NT]	44	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	44	69	68	1	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	66	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	66	11/12/2021	11/12/2021		[NT]	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	[NT]	66	<50	<50	0	[NT]	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	[NT]	66	<100	<100	0	[NT]	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	[NT]	66	<100	<100	0	[NT]	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	[NT]	66	<50	<50	0	[NT]	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	[NT]	66	<100	<100	0	[NT]	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	[NT]	66	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	66	73	84	14	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	75	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	75	11/12/2021	11/12/2021		[NT]	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	[NT]	75	<50	<50	0	[NT]	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	[NT]	75	<100	<100	0	[NT]	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	[NT]	75	<100	<100	0	[NT]	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	[NT]	75	<50	<50	0	[NT]	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	[NT]	75	<100	<100	0	[NT]	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	[NT]	75	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	75	81	82	1	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date extracted	-			09/12/2021	1	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			10/12/2021	1	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	111	84
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	89
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	107	97
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	0.6	0.6	0	118	114
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	0.2	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	1.9	2.0	5	100	82
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	2.1	2.3	9	99	88
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	1.1	1.4	24	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	1.1	1.0	10	89	73
Benzo(b,j,k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	2	2.4	18	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	1.6	1.9	17	104	108
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	1.4	1.7	19	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.1	0.2	67	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	1.2	1.4	15	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	103	1	82	81	1	80	68

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	284886-45
Date extracted	-			[NT]	20	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	20	10/12/2021	10/12/2021		13/12/2021	13/12/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	93	113
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	115	112
Fluorene	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	109	107
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	20	4.2	4.3	2	116	114
Anthracene	mg/kg	0.1	Org-022/025	[NT]	20	3.2	3.3	3	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	20	28	30	7	102	98
Pyrene	mg/kg	0.1	Org-022/025	[NT]	20	44	46	4	107	105
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	20	46	46	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	20	37	39	5	117	109
Benzo(b,j,k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	20	100	100	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	20	89	87	2	96	98
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	20	36	35	3	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	20	12	12	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	20	61	57	7	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	20	80	75	6	98	97

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	284886-77
Date extracted	-			[NT]	26	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	26	13/12/2021	13/12/2021		13/12/2021	13/12/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	114	105
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	0.2	67	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	115	109
Fluorene	mg/kg	0.1	Org-022/025	[NT]	26	<0.1	<0.1	0	107	105
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	26	1.3	1.5	14	114	95
Anthracene	mg/kg	0.1	Org-022/025	[NT]	26	0.6	0.7	15	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	26	3.3	7.5	78	96	122
Pyrene	mg/kg	0.1	Org-022/025	[NT]	26	3.4	8.6	87	105	127
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	26	2.0	5.1	87	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	26	2.0	4.4	75	117	138
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	26	3.4	7.8	79	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	26	2.7	5.9	74	94	116
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	26	2.1	4.0	62	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	26	0.4	0.8	67	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	26	1.8	3.3	59	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	26	62	70	12	94	92

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	44	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	44	13/12/2021	13/12/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	44	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	44	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	44	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	44	102	102	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	66	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	66	10/12/2021	10/12/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	66	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	66	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	66	64	85	28	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	75	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	75	13/12/2021	13/12/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	75	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	75	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	75	105	105	0	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date extracted	-			09/12/2021	1	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			10/12/2021	1	10/12/2021	10/12/2021		10/12/2021	10/12/2021
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	82
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	103
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	89	81
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	99	87
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	86
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	88
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	112	99
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	80
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	78
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	88	76
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	91	1	80	80	0	83	71

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	20	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	20	10/12/2021	10/12/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	20	71	72	1	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	66	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	66	10/12/2021	10/12/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	66	63	77	20	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date extracted	-			09/12/2021	1	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			10/12/2021	1	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	101	68
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]
Chlorpyrifos-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	114	87
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	73	67
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	69
Chlorpyrifos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	89
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	74	67
Bromophos-ethyl	mg/kg	0.1	Org-022	<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	80	70
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	87	1	80	80	0	83	71

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	20	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	20	10/12/2021	10/12/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	20	<1	<1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	20	<1	<1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	20	71	72	1	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	66	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	66	10/12/2021	10/12/2021		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	66	63	77	20	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: PCBs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date extracted	-			09/12/2021	1	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			10/12/2021	1	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	102	94
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	91	1	80	80	0	83	71

QUALITY CONTROL: PCBs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	20	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	20	10/12/2021	10/12/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	20	<1	<1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	20	<1	<1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	20	<1	<1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	20	<1	<1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	20	<1	<1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	20	<1	<1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	20	<1	<1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	20	71	72	1	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	26	10/12/2021	10/12/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	26	69	73	6	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	66	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	66	10/12/2021	10/12/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	66	63	77	20	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	284886-11
Date prepared	-			09/12/2021	1	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			10/12/2021	1	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Arsenic	mg/kg	4	Metals-020	<4	1	9	8	12	96	93
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	97	87
Chromium	mg/kg	1	Metals-020	<1	1	23	18	24	95	90
Copper	mg/kg	1	Metals-020	<1	1	34	26	27	90	75
Lead	mg/kg	1	Metals-020	<1	1	160	98	48	97	#
Mercury	mg/kg	0.1	Metals-021	<0.1	1	0.1	0.1	0	106	119
Nickel	mg/kg	1	Metals-020	<1	1	3	3	0	95	101
Zinc	mg/kg	1	Metals-020	<1	1	130	87	40	112	##
Iron	mg/kg	10	Metals-020	<10	[NT]	[NT]	[NT]	[NT]	109	##

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	284886-45
Date prepared	-			[NT]	20	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	20	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Arsenic	mg/kg	4	Metals-020	[NT]	20	5	7	33	93	73
Cadmium	mg/kg	0.4	Metals-020	[NT]	20	<0.4	<0.4	0	94	78
Chromium	mg/kg	1	Metals-020	[NT]	20	12	13	8	92	84
Copper	mg/kg	1	Metals-020	[NT]	20	16	14	13	88	92
Lead	mg/kg	1	Metals-020	[NT]	20	47	71	41	95	81
Mercury	mg/kg	0.1	Metals-021	[NT]	20	<0.1	<0.1	0	99	103
Nickel	mg/kg	1	Metals-020	[NT]	20	2	3	40	92	78
Zinc	mg/kg	1	Metals-020	[NT]	20	90	110	20	104	84
Iron	mg/kg	10	Metals-020	[NT]	[NT]	[NT]	[NT]	[NT]	105	##

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	284886-77
Date prepared	-			[NT]	26	09/12/2021	09/12/2021		09/12/2021	09/12/2021
Date analysed	-			[NT]	26	10/12/2021	10/12/2021		10/12/2021	10/12/2021
Arsenic	mg/kg	4	Metals-020	[NT]	26	4	<4	0	100	104
Cadmium	mg/kg	0.4	Metals-020	[NT]	26	<0.4	<0.4	0	105	96
Chromium	mg/kg	1	Metals-020	[NT]	26	13	10	26	102	99
Copper	mg/kg	1	Metals-020	[NT]	26	24	19	23	94	101
Lead	mg/kg	1	Metals-020	[NT]	26	1200	720	50	106	87
Mercury	mg/kg	0.1	Metals-021	[NT]	26	<0.1	<0.1	0	101	107
Nickel	mg/kg	1	Metals-020	[NT]	26	10	5	67	103	98
Zinc	mg/kg	1	Metals-020	[NT]	26	620	450	32	93	111
Iron	mg/kg	10	Metals-020	[NT]	[NT]	[NT]	[NT]	[NT]	118	##

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	44	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	44	10/12/2021	10/12/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	44	6	6	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	44	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	44	14	15	7	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	44	11	12	9	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	44	46	54	16	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	44	0.1	0.5	133	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	44	2	3	40	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	44	35	45	25	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	66	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	66	10/12/2021	10/12/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	66	6	6	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	66	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	66	18	18	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	66	6	5	18	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	66	18	17	6	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	66	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	66	1	1	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	66	2	3	40	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	75	09/12/2021	09/12/2021		[NT]	[NT]
Date analysed	-			[NT]	75	10/12/2021	10/12/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	75	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	75	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	75	24	22	9	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	75	4	5	22	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	75	3	4	29	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	75	2	4	67	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	75	4	7	55	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Misc Inorg - Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	[NT]
Date prepared	-			10/12/2021	9	10/12/2021	10/12/2021		10/12/2021	[NT]
Date analysed	-			10/12/2021	9	10/12/2021	10/12/2021		10/12/2021	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	9	8.0	8.0	0	99	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	9	120	120	0	98	[NT]

QUALITY CONTROL: CEC				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	[NT]
Date prepared	-			13/12/2021	71	13/12/2021	13/12/2021		13/12/2021	[NT]
Date analysed	-			13/12/2021	71	13/12/2021	13/12/2021		13/12/2021	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	71	6.1	5.8	5	124	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	71	0.2	0.2	0	126	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	71	2.2	2.0	10	126	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	71	0.3	0.2	40	115	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Metals in Waters - Acid extractable					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			10/12/2021	36	10/12/2021	10/12/2021		10/12/2021	[NT]
Date analysed	-			14/12/2021	36	14/12/2021	14/12/2021		14/12/2021	[NT]
Arsenic - Total	mg/L	0.05	Metals-020	<0.05	36	<0.05	<0.05	0	120	[NT]
Cadmium - Total	mg/L	0.01	Metals-020	<0.01	36	<0.01	<0.01	0	115	[NT]
Chromium - Total	mg/L	0.01	Metals-020	<0.01	36	<0.01	<0.01	0	114	[NT]
Copper - Total	mg/L	0.01	Metals-020	<0.01	36	<0.01	<0.01	0	115	[NT]
Lead - Total	mg/L	0.03	Metals-020	<0.03	36	<0.03	<0.03	0	114	[NT]
Mercury - Total	mg/L	0.0005	Metals-021	<0.0005	36	<0.0005	[NT]		99	[NT]
Nickel - Total	mg/L	0.02	Metals-020	<0.02	36	<0.02	<0.02	0	115	[NT]
Zinc - Total	mg/L	0.02	Metals-020	<0.02	36	<0.02	<0.02	0	119	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

Report Comments

pH

Samples were out of the recommended holding time for this analysis.

TRH Soil C10-C40 NEPM - # Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in samples #20 and 20d have caused interference.

PAHs in Soil - The PQL for sample/s 284886-20,20d has been raised due to the high concentration of analytes in the sample/s, resulting in the sample/s requiring a dilution.

The laboratory RPD acceptance criteria has been exceeded for 284886-26,26d. Therefore a triplicate result has been issued as laboratory sample number 284886-94.

OC's in Soil - The PQL for 284886-20,20d has been raised due to the sample matrix thereby requiring a dilution.

PCB_S: The PQL for 284886-20,20d has been raised due to the sample matrix thereby requiring a dilution.

OP_S_MSMS: The PQL for 284886-20,20d has been raised due to the sample matrix thereby requiring a dilution.

RTA_ENM: A 6kg mass of sample should be supplied to comply with the RTA method.

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 284886-1 for Pb and Zn. Therefore a triplicate result has been issued as laboratory sample number 284886-90.
- The laboratory RPD acceptance criteria has been exceeded for 284886-20 for Pb. Therefore a triplicate result has been issued as laboratory sample number 284886-91.
- The laboratory RPD acceptance criteria has been exceeded for 284886-26 for Pb and Ni. Therefore a triplicate result has been issued as laboratory sample number 284886-92.
- The laboratory RPD acceptance criteria has been exceeded for 284886-75 for Zn. Therefore a triplicate result has been issued as laboratory sample number 284886-93.
- # Percent recovery is not possible to report due to the inhomogeneous nature of the element in the sample. However an acceptable recovery was obtained for the LCS.
- ## Percent recovery is not applicable due to the high concentration of the elements in the samples. However an acceptable recovery was obtained for the LCS.

Asbestos: Excessive sample volume was provided for asbestos analysis. A portion of the supplied sample was sub-sampled according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g (50mL) of sample in its own container as per AS4964-2004.

Note: Samples 284886-6, 11, 15, 23, 26, 51 were sub-sampled from bags provided by the client.

COC 8/12/2021 @ 1245



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

Job No: 284886

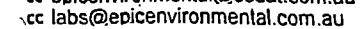
Date Received: 03/12/2021

Time Received: 15:00

Chain of Custody Record

Project No: SC210092.01				Lab: EnviroLab				Received By: [Signature]				ANALYSIS REQUIRED													
Project/Site: SMW - CTP - Five Dock				Lab Quote No:				Temp: Cool/Ambient				Cooling: Ice/icepack													
Project Manager: Morgan Singleton-Fookes (m.singleton-fookes@epicenviro.com.au)				Lab Batch No:				Security: Intact/Broken/None																	
Sampled By: MGF				Turnaround time: Std.				Sample Disposal After:																	
Phone: 0417 217 179																									
Page: 1 of 5																									
Number of Eskies: 5																									
LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE										Other	Combo 3	Combo 3A	OC/OP	PCBs	VOC	PFAS	ENM suite	VTRH, BTEX	Metals (8)	Metals (8) - (8)	HOLD
				Soil / Solid			Water / Liquid																		
				150-250ml	200ml		2x 40ml	100-500ml	60ml	60ml	250-500ml	60-250ml													
				Glass Jar	Plastic Jar	Plastic bag	Amber Vial	Amber Bottle	Metals	Nutrients	Plastic / (Unpreserved)	Plastic (PFAS)													
1	Epic-FD-BH01-0.0-0.2	1/12/21	S	X																					
2	"	"	S	X																					
3	"	"		X																					
4	BH01-1.1-1.3			X																					
5	BH05-0.1-0.3			X																					
6	BH05-0.3-0.4			X	X	X																			
7	BH05-1.0-1.2			X																					
8	BH03-0.15-0.3			X		X																			
9	BH03-0.2-0.4			X	X	X5kg																			
10	BH03-0.6-0.7			X	X																				
11	BH04-0.1-0.2			X	X																				
12	BH04-0.5-0.6			X																					
13	BH04-1.0-1.1			X																					
14	BH06-0.1-0.3			X																					
15	BH06-0.4-0.6			X	X	X																			
16	BH06-1.0-1.2			X																					
17	BH09-0.15-0.3			X																					
18	BH09-0.5-0.7			X																					
19	BH09-1.0-1.1			X																					
20	BH07-0.1-0.3			X	X	X5kg																			
TOTALS																									
Relinquished By:				Received By:				Custody Seals Intact				Y				N									
SIGNATURE				SIGNATURE				Samples Received Chilled				Y				N									
DATE				DATE				Method of Shipment																	
NOTES:				Email m.singleton-fookes@epicenvironmental.com.au																					

Notes: Please send QC02, QC04 and QC06 to Eurofins.
Please use 5kg/kg for PFAS in soil LOR.
All samples should be labelled w/ the prefix 'Epic-FD'





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

Job No: 284886

Date Received:

Time Received:

Chain of Custody Record

Project No: SC210099.01 SC210092.01				Lab: EDCO/MS		Received By: T. M. Goff/Ambient		ANALYSIS REQUIRED									
Project/Site: Goodman Silverwater CMW-CTP-Five Lakes				Lab Quote No: 210922EPIN-1		Temp: Cool/Ambient											
Project Manager: Morgan Singleton-Fookes (msingleton-fookes@epicenviro.com.au)				Lab Batch No:		Cooling: Icepack											
Sampled By: Briya Nair (bnair@epicenvironmental.com.au)				Turnaround time: Standard TAT		Security: Intact/Broken: None											
Phone: 0417 217 179				Sample Disposal After:													
Page: 3 of 5																	
Number of Eskies: 5				CONTAINER TYPE & PRESERVATIVE													
				Soil / Solid			Water / Liquid						Other				
				150-250ml	200ml		2x 40ml	100-300ml	60ml	60ml	250-500ml	60-250ml					
				Glass Jar	Plastic Jar	Plastic bag	Amber Vial	Amber Bottle	Metals	Nutrients	Plastic (Unpreserved)	Plastic (PFAS)					
1	LAB ID	SAMPLE ID	DATE	MATRIX													
2	40	EPIC-FD-BH14-0.2-0.3	2/12/21	S	X												
3	41	BH14-0.5-0.6			X												
4	42	BH14-0.9-1.0			X												
5	43	BH13-0.15-0.35			X												
6	44	BH13-0.5-0.7			X												
7	45	BH13-1.0-1.2			X												
8	46	BH13-1.7-1.9			X												
9	47	BH15-0.15-0.3			X												
10	48	BH15-0.4-0.6			X	X											
11	49	BH15-1.2-1.4			X												
12	50	BH15-1.5-1.7			X												
13	51	BH19-0.15-0.3			X		X										
14	52	BH19-0.5-0.7			X	MX											
15	53	BH19-1.2-1.4			X	X											
16	54	BH16-0.15-0.3			X												
17	55	BH16-0.45-0.6			X	X											
18	56	BH16-1.2-1.4			X												
19	57	BH16-2.0-2.2			X												
20	58	QC03			X												
	59	QC04			X												
	TOTALS																

Relinquished By: _____

NAME: _____ SIGNATURE: _____ DATE: _____

Received By: _____

NAME: *K. Nair* SIGNATURE: *[Signature]* DATE: *03/12/21*

Custody Seals Intact _____ Y N

Samples Received Chilled _____ Y N

Method of Shipment _____

NOTES:

Epic Environmental Pty Ltd ABN 54 169 579 275
Level 6, 193 North Quay, Brisbane, 4000/ Suite 4.01, 55 Miller Street, Pyrmont, NSW, 2009

Email msingleton-fookes@epicenvironmental.com.au

cc pnair@epicenvironmental.com.au

cc: epicenvironmental@esdat.com.au

cc labs@epicenvironmental.com.au



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

Job No: 20240886

Date Received:

Time Received:

Received By: /

~~Temp: Confidential~~

Cooling load (co)

Secure/Intact/

ANALYSIS REQUIRED

Chain of Custody Record

Project No: SC210092.01				Lab: Eurofins EnviroLab		Cooling: Ice/Seal		Security: Intact		ANALYSIS REQUIRED									
Project/Site: Goodman Silverwater				Lab Quote No: Z10922EPIN-1		Secure		Intact											
Project Manager: Morgan Singleton-Fookes (msingleton-fookes@epicenviro.com.au)				Lab Batch No:															
Sampled By: Priya Nair (pnair@epicenvironmental.com.au)				Turnaround time: Standard TAT															
Phone: 0417 217 179				Sample Disposal After:															
Page: 4 of 5																			
Number of Eskies: 5																			
				CONTAINER TYPE & PRESERVATIVE															
				Soil / Solid			Water / Liquid												
				150-250ml	250ml		2x 40ml	100-500ml	60ml	60ml	250-500ml	60-750ml							
				Glass Jar	Plastic Jar	Plastic bag	Amber Vial	Amber Bottle	Metals	Nutrients	Plastic (Unpreserved)	Plastic (PFAS)							
1	60	Epic-FD-BH16-3.0-3.2	2/12/21	S	X														
2	61	BH16-4.0-4.2			X														
3	62	BH16-5.0-5.2			X														
4	63	BH16-6.0-6.2			X	X													
5	64	BH16-8.0-8.2			X														
6	89	BH15-0.2-0.4	0.2-0.4		X		X5kg												
7	65	BH18-0.3-0.5			X		X5kg												
8	66	BH25-15-0.35			X														
9	67	BH25-0.8-0.9			X														
10	68	BH23-0.25-0.35			X														
11	69	BH23-0.4-0.5			X														
12	70	BH12-0.2-0.3	3/12/21	S	X				X										
13	71	BH12-0.6-0.7			X														
14	72	BH17-0.2-0.4			X	X													
15	73	BH17-0.9-1.0			X														
16	74	QC05			X														
17	75	QC06			X														
18	76	BH20-0.11-0.2			X	X													
19	77	BH21-0.15-0.25			X	X													
20	78																		
TOTALS																			

Relinquished By: _____

SIGNATURE _____ DATE _____

Received By: _____

NAME N. Nair SIGNATURE _____ DATE 23/12/21

Custody Seals Intact _____ Y N

Samples Received Chilled _____ Y N

Method of Shipment _____

Email msingleton-fookes@epicenvironmental.com.au

Email msingleton-fookes@epicenvironmental.com.au
cc pnair@epicenvironmental.com.au
cc epicenvironmental@esdat.com.au
cc labs@epicenvironmental.com.au



Chain of Custody Record

Project No: SC210092.01				Lab: EnviroLab										ANALYSIS REQUIRED											
Project/Site: CMW-CTP-Five Dock				Lab Quote No:																					
Project Manager: Morgan Singleton-Fookes (msingleton-fookes@epicenviro.com.au)				Lab Batch No:																					
Sampled By:				Turnaround time: Std.																					
Phone: 0417 217 179				Sample Disposal After:																					
Page: 5 of 5																									
Number of Eskies: 5																									
LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE										COMBO 3	COMBO 3A	OC/OP	PCBs	VOC	PFAS	ENM order suite	VTRH, BTEX	Metals (8)	Asbestos	HOLD	
				Soil / Solid				Water / Liquid																	Other
				150-250ml Glass Jar	2000ml Plastic Jar	Plastic bag	2x 40ml Amber Vial	100-500ml Amber Bottle	60ml Metalab	60ml Halaromb	250-500ml Plastic (Unpreserved)	60-250ml Plastic (PFAS)													
79	Epic FD BH21-0.25-0.35	3/12/21	S	X																					
80	BH22-0.1-0.2		I	X	X																				
81	BH22-0.1-0.5		↓			X																			
	BH22-0.1-0.5		MA																				X		
	BH22-0.1-0.5																								
	BH22-0.1-0.5																								
82	BA16 0.3 D.S																								
83	BA18 0.3-0.6																								
84	nothing written on jar																								
85	T3 W																								
86	T3 W																								
87	T3 S																								
88	T3 S																								
89	please page 4																								
TOTALS																									
Relinquished By:				Received By:										Custody Seals Intact											
NAME				NAME Nanay										Samples Received Chilled											
SIGNATURE				SIGNATURE										Method of Shipment											
DATE				DATE 03/12/21																					
NOTES:														Email msingleton-fookes@epicenvironmental.com.au											

CERTIFICATE OF ANALYSIS 284886-A

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	<u>SC210092.01, SMW - CTP - Five Dock</u>
Number of Samples	additional analysis
Date samples received	03/12/2021
Date completed instructions received	17/12/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
 Samples were analysed as received from the client. Results relate specifically to the samples as received.
 Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	24/12/2021
Date of Issue	23/12/2021
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Hannah Nguyen, Metals Supervisor
 Liam Timmins, Chemist
 Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

TCLP Preparation - Acid

Our Reference		284886-A-1	284886-A-9	284886-A-23	284886-A-26	284886-A-31
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH03	Epic-FD-BH08	Epic-FD-BH10	Epic-FD-BH02
Depth		0.0-0.2	0.2-0.4	0.2-0.3	0.2-0.3	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
pH of soil for fluid# determ.	pH units	8.6	8.3	8.3	10.0	9.5
pH of soil TCLP (after HCl)	pH units	1.6	1.7	1.7	1.7	1.7
Extraction fluid used	-	1	1	1	1	1
pH of final Leachate	pH units	4.9	5.2	5.2	6.3	5.0

TCLP Preparation - Acid

Our Reference		284886-A-69
Your Reference	UNITS	Epic-FD-BH23
Depth		0.4-0.5
Date Sampled		2/12/2021
Type of sample		Soil
pH of soil for fluid# determ.	pH units	9.6
pH of soil TCLP (after HCl)	pH units	1.7
Extraction fluid used	-	1
pH of final Leachate	pH units	6.3

Metals from Leaching Fluid pH 2.9 or 5				
Our Reference		284886-A-9	284886-A-26	284886-A-31
Your Reference	UNITS	Epic-FD-BH03	Epic-FD-BH10	Epic-FD-BH02
Depth		0.2-0.4	0.2-0.3	1.0-1.1
Date Sampled		1/12/2021	1/12/2021	1/12/2021
Type of sample		Soil	Soil	Soil
Date extracted	-	23/12/2021	23/12/2021	23/12/2021
Date analysed	-	23/12/2021	23/12/2021	23/12/2021
Lead	mg/L	0.1	0.1	0.1

PAHs in TCLP (USEPA 1311)					
Our Reference		284886-A-1	284886-A-23	284886-A-26	284886-A-69
Your Reference	UNITS	Epic-FD-BH01	Epic-FD-BH08	Epic-FD-BH10	Epic-FD-BH23
Depth		0.0-0.2	0.2-0.3	0.2-0.3	0.4-0.5
Date Sampled		1/12/2021	1/12/2021	1/12/2021	2/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Date analysed	-	22/12/2021	22/12/2021	22/12/2021	22/12/2021
Naphthalene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Acenaphthylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Fluoranthene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Benzo(b)fluoranthene in TCLP	mg/L	<0.002	<0.002	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	108	104	104	105

Method ID	Methodology Summary
INORG-004	Toxicity Characteristic Leaching Procedure (TCLP) using Zero Headspace Extraction (zHE) using AS4439 and USEPA 1311.
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439 and USEPA 1311. 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.
Org-022/025	Leachates are extracted with Dichloromethane and analysed by GC-MS/GC-MSMS.

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Metals from Leaching Fluid pH 2.9 or 5						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			23/12/2021	[NT]	[NT]	[NT]	[NT]	23/12/2021	[NT]
Date analysed	-			23/12/2021	[NT]	[NT]	[NT]	[NT]	23/12/2021	[NT]
Lead	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			21/12/2021	[NT]	[NT]	[NT]	[NT]	21/12/2021	[NT]
Date analysed	-			22/12/2021	[NT]	[NT]	[NT]	[NT]	22/12/2021	[NT]
Naphthalene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	114	[NT]
Acenaphthylene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	105	[NT]
Fluorene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	113	[NT]
Phenanthrene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	114	[NT]
Anthracene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	108	[NT]
Pyrene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	117	[NT]
Benzo(a)anthracene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	113	[NT]
Benzo(bjk)fluoranthene in TCLP	mg/L	0.002	Org-022/025	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	128	[NT]
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	111	[NT]	[NT]	[NT]	[NT]	99	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

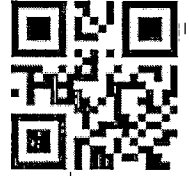
Report Comments

Samples received in good order: Holding time exceedance

Ming To

Subject: FW: Additional analysis - Report 284886

Ref: 284886-A
7A7 Standard
Due: 24/12/2021
M7



284886-A

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Friday, 17 December 2021 5:44 PM
To: Aileen Hie <AHie@envirolab.com.au>
Cc: labs <labs@epicenvironmental.com.au>; Gary Bagwell <gbagwell@epicenvironmental.com.au>
Subject: Additional analysis - Report 284886

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 Aileen,

Could you please schedule the following samples for analysis from Report 284886:

Lead TCLP

31 - BH02_1.0-1.1
9 - BH03_0.2-0.4
26 - BH10_0.2-0.3

Benzo(a)pyrene TCLP

1 - BH01_0.0-0.2
23 - BH08_0.2-0.3
26 - BH10_0.2-0.3
69 - BH23_0.4-0.5

Thanks very much and hope you have a lovely weekend!

Cheers,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

Phone: 1800 779 363
Mobile: 0417 217 179
Email: msingleton-fookes@epicenvironmental.com.au
Suite 4.01, 55 Miller Street, Sydney, NSW, 2009

Epic Environmental acknowledges the Australian Aboriginal and Torres Strait Islander peoples as the first inhabitants of the nation and the traditional custodians of the lands where we live, learn and work.



SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210092.01, SMW - CTP - Five Dock
Envirolab Reference	284886-A
Date Sample Received	03/12/2021
Date Instructions Received	17/12/2021
Date Results Expected to be Reported	24/12/2021

Sample Condition

Samples received in appropriate condition for analysis	Holding time exceedance
No. of Samples Provided	additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Holding time exceedance-PAH

Please contact the laboratory within 24 hours if you wish to cancel the aforementioned testing. Otherwise testing will proceed as per the COC and hence invoice accordingly.

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:



Sample ID	TCLP Preparation - Acid	Lead	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(b)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
Epic-FD-BH01-0.0-0.2	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Epic-FD-BH01-0.5-0.7																				✓
Epic-FD-BH01-1.1-1.3																				✓
Epic-FD-BH05-0.1-0.3																				✓
Epic-FD-BH05-0.5-0.6																				✓
Epic-FD-BH05-0.3-0.4																				✓
Epic-FD-BH05-1.0-1.2																				✓
Epic-FD-BH03-0.15-0.3																				✓
Epic-FD-BH03-0.2-0.4	✓	✓																		
Epic-FD-BH03-0.6-0.7																				✓
Epic-FD-BH04-0.1-0.2																				✓
Epic-FD-BH04-0.5-0.6																				✓
Epic-FD-BH04-1.0-1.1																				✓
Epic-FD-BH06-0.1-0.3																				✓
Epic-FD-BH06-0.4-0.6																				✓
Epic-FD-BH06-1.0-1.2																				✓
Epic-FD-BH09-0.15-0.3																				✓
Epic-FD-BH09-0.5-0.7																				✓
Epic-FD-BH09-1.0-1.1																				✓
Epic-FD-BH07-0.1-0.3																				✓



Sample ID	TCLP Preparation - Acid	Lead	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(b)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
Epic-FD-BH07-0.4-0.5																				✓
Epic-FD-BH07-1.0-1.1																				✓
Epic-FD-BH08-0.2-0.3	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Epic-FD-BH08-0.4-0.5																				✓
Epic-FD-BH08-1.0-1.1																				✓
Epic-FD-BH10-0.2-0.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Epic-FD-BH10-0.5-0.6																				✓
Epic-FD-BH10-1.0-1.1																				✓
Epic-FD-BH11-0.0-0.2																				✓
Epic-FD-BH11-0.5-0.6																				✓
Epic-FD-BH02-1.0-1.1	✓	✓																		
Epic-FD-BH02-0.0-0.2																				✓
Epic-FD-BH02-0.5-0.6																				✓
Epic-FD-QC01-1.0-1.1																				✓
Epic-FD-QC02																				✓
Epic-FD-RB01																				✓
Epic-FD-TS01																				✓
Epic-FD-TB01																				✓
Epic-FD-RB02																				✓
Epic-FD-BH14-0.2-0.3																				✓



Sample ID	TCLP Preparation - Acid	Lead	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(b)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
Epic-FD-BH14-0.5-0.6																				✓
Epic-FD-BH14-0.9-1.0																				✓
Epic-FD-BH13-0.15-0.35																				✓
Epic-FD-BH13-0.5-0.7																				✓
Epic-FD-BH13-1.0-1.2																				✓
Epic-FD-BH13-1.7-1.9																				✓
Epic-FD-BH15-0.15-0.3																				✓
Epic-FD-BH15-0.4-0.5																				✓
Epic-FD-BH15-1.2-1.4																				✓
Epic-FD-BH15-1.5-1.7																				✓
Epic-FD-BH19-0.15-0.3																				✓
Epic-FD-BH19-0.5-0.7																				✓
Epic-FD-BH19-1.2-1.4																				✓
Epic-FD-BH16-0.15-0.3																				✓
Epic-FD-BH16-0.45-0.6																				✓
Epic-FD-BH16-1.2-1.4																				✓
Epic-FD-BH16-2.0-2.2																				✓
Epic-FD-QC03																				✓
Epic-FD-QC04																				✓
Epic-FD-BH16-3.0-3.2																				✓



Sample ID	TCLP Preparation - Acid	Lead	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(b)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
Epic-FD-BH16-4.0-4.2																				✓
Epic-FD-BH16-5.0-5.2																				✓
Epic-FD-BH16-6.0-6.2																				✓
Epic-FD-BH16-6.8-7.0																				✓
Epic-FD-BH18-0.3-0.5																				✓
Epic-FD-BH25-0.15-0.25																				✓
Epic-FD-BH25-0.8-0.9																				✓
Epic-FD-BH23-0.25-0.35																				✓
Epic-FD-BH23-0.4-0.5	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Epic-FD-RB03																				✓
Epic-FD-BH12-0.2-0.3																				✓
Epic-FD-BH12-0.6-0.7																				✓
Epic-FD-BH17-0.2-0.4																				✓
Epic-FD-BH17-0.9-1.0																				✓
Epic-FD-QC05																				✓
Epic-FD-QC06																				✓
Epic-FD-BH20-0.11-0.2																				✓
Epic-FD-BH21-0.15-0.25																				✓
Epic-FD-BH21-0.25-0.35																				✓
Epic-FD-BH22-0.1-0.2																				✓



Sample ID	TCLP Preparation - Acid	Lead	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(b)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
Epic-FD-BH22-0.1-0.3																				✓
Epic-FD-BH16-0.3-0.5																				✓
Epic-FD-BH18-0.5-0.6																				✓
Epic-FD-UNLABELLED																				✓
Epic-FD-TSW																				✓
Epic-FD-TBW																				✓
Epic-FD-TSS																				✓
Epic-FD-TBS																				✓
Epic-FD-BH15-0.2-0.4																				✓
Epic-FD-BH01 - [TRIPLICATE]-0.0-0.2																				✓
Epic-FD-BH07 - [TRIPLICATE]-0.1-0.3																				✓
Epic-FD-BH10 - [TRIPLICATE]-0.2-0.3																				✓
Epic-FD-QC05 - [TRIPLICATE]																				✓
Epic-FD-BH10 - [TRIPLICATE]-0.2-0.3																				✓

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 286772

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	<u>SC210092.01, SMW - CTP - Five Dock</u>
Number of Samples	21 Soil, 1 Water
Date samples received	17/01/2022
Date completed instructions received	17/01/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
 Samples were analysed as received from the client. Results relate specifically to the samples as received.
 Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/01/2022
Date of Issue	19/01/2022
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Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Asbestos Approved By

Analysed by Asbestos Approved Analyst: Nyovan Moonean
 Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By

Kyle Gavril, Chemist
 Liam Timmins, Chemist
 Loren Bardwell, Development Chemist
 Lucy Zhu, Asbestos Supervisor
 Manju Dewendrage, Prep Team Leader

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		286772-20
Your Reference	UNITS	EPIC-FD-BH27_ 0.4-0.5
Type of sample		Soil
Date Sampled		17/01/2022
Date extracted	-	18/01/2022
Date analysed	-	18/01/2022
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1

VOCs in soil		
Our Reference		286772-20
Your Reference	UNITS	EPIC-FD-BH27_ 0.4-0.5
Type of sample		Soil
Date Sampled		17/01/2022
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	88
Surrogate aaa-Trifluorotoluene	%	97
Surrogate Toluene-d ₈	%	99
Surrogate 4-Bromofluorobenzene	%	107

vTRH(C6-C10)/BTEXN in Soil

Our Reference		286772-1	286772-2	286772-7	286772-10	286772-13
Your Reference	UNITS	EPIC-FD-TB03	EPIC-FD-TS03	EPIC-FD-BH05_ 4.0-4.2	EPIC-FD-BH05_ 7.0-7.2	EPIC-FD-BH05_ 9.8-10.0
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Sampled		.	.	17/01/2022	17/01/2022	17/01/2022
Date extracted	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
TRH C ₆ - C ₉	mg/kg	<25	[NA]	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	[NA]	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	[NA]	<25	<25	<25
Benzene	mg/kg	<0.2	83%	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	76%	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	76%	<1	<1	<1
m+p-xylene	mg/kg	<2	76%	<2	<2	3
o-Xylene	mg/kg	<1	74%	<1	<1	<1
Naphthalene	mg/kg	<1	[NA]	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	[NA]	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	91	85	94	102	90

vTRH(C6-C10)/BTEXN in Soil

Our Reference		286772-14	286772-16	286772-17	286772-20	286772-22
Your Reference	UNITS	EPIC-FD-QC07	EPIC-FD-BH26_0.3-0.4	EPIC-FD-BH26_0.8-0.9	EPIC-FD-BH27_ 0.4-0.5	EPIC-FD-BH27_ 1.4-1.5
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022	17/01/2022	17/01/2022
Date extracted	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTPH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	91	89	102	97	92

svTRH (C10-C40) in Soil						
Our Reference		286772-7	286772-10	286772-13	286772-14	286772-16
Your Reference	UNITS	EPIC-FD-BH05_4.0-4.2	EPIC-FD-BH05_7.0-7.2	EPIC-FD-BH05_9.8-10.0	EPIC-FD-QC07	EPIC-FD-BH26_0.3-0.4
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022	17/01/2022	17/01/2022
Date extracted	-	17/01/2022	17/01/2022	17/01/2022	17/01/2022	17/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	87	109	79	77	77

svTRH (C10-C40) in Soil				
Our Reference		286772-17	286772-20	286772-22
Your Reference	UNITS	EPIC-FD-BH26_0.8-0.9	EPIC-FD-BH27_0.4-0.5	EPIC-FD-BH27_1.4-1.5
Type of sample		Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022
Date extracted	-	17/01/2022	17/01/2022	17/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	<100	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	84	75	86

PAHs in Soil						
Our Reference		286772-7	286772-10	286772-13	286772-14	286772-16
Your Reference	UNITS	EPIC-FD-BH05_ 4.0-4.2	EPIC-FD-BH05_ 7.0-7.2	EPIC-FD-BH05_ 9.8-10.0	EPIC-FD-QC07	EPIC-FD- BH26_0.3-0.4
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022	17/01/2022	17/01/2022
Date extracted	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Naphthalene	mg/kg	<0.1	<0.1	0.5	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.1	0.3	<0.1	0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.2	0.5
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	0.5
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.1	0.1	0.3
Chrysene	mg/kg	<0.1	<0.1	0.1	0.2	0.3
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.4	0.5
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.2	0.4
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.1	0.2
Total +ve PAH's	mg/kg	<0.05	0.1	1.1	1.5	3.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.6
Surrogate <i>p</i> -Terphenyl-d14	%	87	96	90	95	94

PAHs in Soil				
Our Reference		286772-17	286772-20	286772-22
Your Reference	UNITS	EPIC-FD-BH26_0.8-0.9	EPIC-FD-BH27_0.4-0.5	EPIC-FD-BH27_1.4-1.5
Type of sample		Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022
Date extracted	-	18/01/2022	18/01/2022	18/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.7	<0.1
Anthracene	mg/kg	<0.1	0.3	<0.1
Fluoranthene	mg/kg	<0.1	1.5	<0.1
Pyrene	mg/kg	<0.1	1.6	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.7	<0.1
Chrysene	mg/kg	<0.1	0.8	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	1.2	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.5	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.7	<0.1
Total +ve PAH's	mg/kg	<0.05	9.6	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	1.7	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	1.7	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	1.7	<0.5
Surrogate p-Terphenyl-d14	%	87	95	94

Organochlorine Pesticides in soil		
Our Reference		286772-20
Your Reference	UNITS	EPIC-FD-BH27_ 0.4-0.5
Type of sample		Soil
Date Sampled		17/01/2022
Date extracted	-	18/01/2022
Date analysed	-	18/01/2022
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	87

Organophosphorus Pesticides in Soil		
Our Reference		286772-20
Your Reference	UNITS	EPIC-FD-BH27_0.4-0.5
Type of sample		Soil
Date Sampled		17/01/2022
Date extracted	-	18/01/2022
Date analysed	-	18/01/2022
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyrifos	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Surrogate TCMX	%	87

PCBs in Soil		
Our Reference		286772-20
Your Reference	UNITS	EPIC-FD-BH27_ 0.4-0.5
Type of sample		Soil
Date Sampled		17/01/2022
Date extracted	-	18/01/2022
Date analysed	-	18/01/2022
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	87

Acid Extractable metals in soil

Our Reference		286772-7	286772-10	286772-13	286772-14	286772-16
Your Reference	UNITS	EPIC-FD-BH05_ 4.0-4.2	EPIC-FD-BH05_ 7.0-7.2	EPIC-FD-BH05_ 9.8-10.0	EPIC-FD-QC07	EPIC-FD- BH26_0.3-0.4
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022	17/01/2022	17/01/2022
Date prepared	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Arsenic	mg/kg	6	9	9	8	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	12	10	36	25
Copper	mg/kg	30	21	20	15	16
Lead	mg/kg	11	17	17	35	49
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	1	32	21	17	4
Zinc	mg/kg	10	130	72	110	87

Acid Extractable metals in soil

Our Reference		286772-17	286772-20	286772-22
Your Reference	UNITS	EPIC-FD- BH26_0.8-0.9	EPIC-FD-BH27_ 0.4-0.5	EPIC-FD-BH27_ 1.4-1.5
Type of sample		Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022
Date prepared	-	18/01/2022	18/01/2022	18/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022
Arsenic	mg/kg	<4	9	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	4	17	2
Copper	mg/kg	6	30	5
Lead	mg/kg	16	62	12
Mercury	mg/kg	<0.1	0.1	<0.1
Nickel	mg/kg	<1	2	<1
Zinc	mg/kg	2	140	1

Moisture						
Our Reference		286772-7	286772-10	286772-13	286772-14	286772-16
Your Reference	UNITS	EPIC-FD-BH05_4.0-4.2	EPIC-FD-BH05_7.0-7.2	EPIC-FD-BH05_9.8-10.0	EPIC-FD-QC07	EPIC-FD-BH26_0.3-0.4
Type of sample		Soil	Soil	Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022	17/01/2022	17/01/2022
Date prepared	-	17/01/2022	17/01/2022	17/01/2022	17/01/2022	17/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Moisture	%	13	7.0	4.0	16	16

Moisture				
Our Reference		286772-17	286772-20	286772-22
Your Reference	UNITS	EPIC-FD-BH26_0.8-0.9	EPIC-FD-BH27_0.4-0.5	EPIC-FD-BH27_1.4-1.5
Type of sample		Soil	Soil	Soil
Date Sampled		17/01/2022	17/01/2022	17/01/2022
Date prepared	-	17/01/2022	17/01/2022	17/01/2022
Date analysed	-	18/01/2022	18/01/2022	18/01/2022
Moisture	%	17	19	17

Asbestos ID - soils		
Our Reference	UNITS	286772-16
Your Reference		EPIC-FD-BH26_0.3-0.4
Type of sample		Soil
Date Sampled		17/01/2022
Date analysed	-	18/01/2022
Sample mass tested	g	Approx. 50g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected

Metals in Waters - Acid extractable		
Our Reference		286772-3
Your Reference	UNITS	EPIC-FD-RB05
Type of sample		Water
Date Sampled		17/01/2022
Date prepared	-	18/01/2022
Date analysed	-	18/01/2022
Arsenic - Total	mg/L	<0.05
Cadmium - Total	mg/L	<0.01
Chromium - Total	mg/L	<0.01
Copper - Total	mg/L	<0.01
Lead - Total	mg/L	<0.03
Mercury - Total	mg/L	<0.0005
Nickel - Total	mg/L	<0.02
Zinc - Total	mg/L	<0.02

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

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
Date analysed	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	20	<1	<1	0	77	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	20	<1	<1	0	77	[NT]
2,2-dichloropropane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	20	<1	<1	0	88	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	20	<1	<1	0	79	[NT]
1,1-dichloropropene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	20	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	20	<1	<1	0	83	[NT]
bromodichloromethane	mg/kg	1	Org-023	<1	20	<1	<1	0	72	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	20	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	20	<1	<1	0	94	[NT]
1,2-dibromoethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	20	<1	<1	0	85	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	20	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
o-Xylene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	20	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	80	20	88	82	7	72	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	100	20	97	90	7	96	[NT]
Surrogate Toluene-d ₈	%		Org-023	99	20	99	99	0	103	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	106	20	107	106	1	104	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	286772-10
Date extracted	-			18/01/2022	7	18/01/2022	18/01/2022		18/01/2022	18/01/2022
Date analysed	-			18/01/2022	7	18/01/2022	18/01/2022		18/01/2022	18/01/2022
TRH C ₆ - C ₉	mg/kg	25	Org-023	<25	7	<25	<25	0	89	86
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	<25	7	<25	<25	0	89	86
Benzene	mg/kg	0.2	Org-023	<0.2	7	<0.2	<0.2	0	94	90
Toluene	mg/kg	0.5	Org-023	<0.5	7	<0.5	<0.5	0	84	81
Ethylbenzene	mg/kg	1	Org-023	<1	7	<1	<1	0	95	91
m+p-xylene	mg/kg	2	Org-023	<2	7	<2	<2	0	87	84
o-Xylene	mg/kg	1	Org-023	<1	7	<1	<1	0	86	84
Naphthalene	mg/kg	1	Org-023	<1	7	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	100	7	94	95	1	96	91

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]	20	18/01/2022	18/01/2022		[NT]	[NT]
Date analysed	-			[NT]	20	18/01/2022	18/01/2022		[NT]	[NT]
TRH C ₆ - C ₉	mg/kg	25	Org-023	[NT]	20	<25	<25	0	[NT]	[NT]
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	[NT]	20	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	20	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	20	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	20	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	20	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	20	97	90	7	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	286772-10
Date extracted	-			17/01/2022	7	17/01/2022	17/01/2022		17/01/2022	17/01/2022
Date analysed	-			18/01/2022	7	18/01/2022	18/01/2022		18/01/2022	18/01/2022
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	<50	7	<50	<50	0	78	70
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	<100	7	<100	<100	0	87	81
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	<100	7	<100	<100	0	109	93
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	<50	7	<50	<50	0	78	70
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	<100	7	<100	<100	0	87	81
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	<100	7	<100	<100	0	109	93
Surrogate o-Terphenyl	%		Org-020	91	7	87	93	7	84	109

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	20	17/01/2022	17/01/2022		[NT]	[NT]
Date analysed	-			[NT]	20	18/01/2022	18/01/2022		[NT]	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	[NT]	20	<50	<50	0	[NT]	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	[NT]	20	<100	<100	0	[NT]	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	[NT]	20	<100	<100	0	[NT]	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	[NT]	20	<50	<50	0	[NT]	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	[NT]	20	<100	<100	0	[NT]	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	[NT]	20	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	20	75	84	11	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	286772-10
Date extracted	-			18/01/2022	7	18/01/2022	18/01/2022		18/01/2022	18/01/2022
Date analysed	-			18/01/2022	7	18/01/2022	18/01/2022		18/01/2022	18/01/2022
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	99	94
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	91	87
Fluorene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	93	90
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	96	93
Anthracene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	100	94
Pyrene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	99	93
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	87	89
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	7	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	7	<0.05	<0.05	0	114	104
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	7	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	103	7	87	97	11	99	95

QUALITY CONTROL: PAHs in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	20	18/01/2022	18/01/2022		[NT]	[NT]
Date analysed	-			[NT]	20	18/01/2022	18/01/2022		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	20	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	20	0.7	<0.1	150	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	20	0.3	<0.1	100	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	20	1.5	0.3	133	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	20	1.6	0.3	137	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	20	0.7	0.1	150	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	20	0.8	0.2	120	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	20	2	0.4	133	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	20	1.2	0.3	120	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	20	0.5	0.1	133	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	20	0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	20	0.7	0.2	111	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	20	95	91	4	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
Date analysed	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	80	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	82	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	79	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	87	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	94	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	94	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	98	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	82	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	94	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	88	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	91	20	87	89	2	88	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
Date analysed	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	86	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	91	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	81	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	81	[NT]
Chlorpyrifos	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	92	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	78	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	78	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	91	20	87	89	2	88	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: PCBs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
Date analysed	-			18/01/2022	20	18/01/2022	18/01/2022		18/01/2022	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	20	<0.1	<0.1	0	98	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	20	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	91	20	87	89	2	88	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	286772-10
Date prepared	-			18/01/2022	7	18/01/2022	18/01/2022		18/01/2022	18/01/2022
Date analysed	-			18/01/2022	7	18/01/2022	18/01/2022		18/01/2022	18/01/2022
Arsenic	mg/kg	4	Metals-020	<4	7	6	5	18	85	84
Cadmium	mg/kg	0.4	Metals-020	<0.4	7	<0.4	<0.4	0	87	78
Chromium	mg/kg	1	Metals-020	<1	7	2	2	0	88	82
Copper	mg/kg	1	Metals-020	<1	7	30	28	7	83	92
Lead	mg/kg	1	Metals-020	<1	7	11	11	0	88	82
Mercury	mg/kg	0.1	Metals-021	<0.1	7	<0.1	<0.1	0	101	115
Nickel	mg/kg	1	Metals-020	<1	7	1	1	0	87	79
Zinc	mg/kg	1	Metals-020	<1	7	10	10	0	87	76

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	20	18/01/2022	18/01/2022		[NT]	[NT]
Date analysed	-			[NT]	20	18/01/2022	18/01/2022		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	20	9	10	11	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	20	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	20	17	20	16	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	20	30	35	15	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	20	62	84	30	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	20	0.1	0.2	67	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	20	2	4	67	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	20	140	150	7	[NT]	[NT]

Client Reference: SC210092.01, SMW - CTP - Five Dock

QUALITY CONTROL: Metals in Waters - Acid extractable					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			18/01/2022	[NT]	[NT]	[NT]	[NT]	18/01/2022	[NT]
Date analysed	-			18/01/2022	[NT]	[NT]	[NT]	[NT]	18/01/2022	[NT]
Arsenic - Total	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	99	[NT]
Cadmium - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Chromium - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Copper - Total	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Lead - Total	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	97	[NT]
Mercury - Total	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	100	[NT]
Nickel - Total	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	97	[NT]
Zinc - Total	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	96	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

Report Comments

Asbestos: Excessive sample volume was provided for asbestos analysis. A portion of the supplied sample was sub-sampled according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g (50mL) of sample in its own container as per AS4964-2004.

Note: Sample 286772-16 was sub-sampled from a bag provided by the client.

PAHs in Soil - The RPD for duplicate results is accepted due to the non homogenous nature of sample 286772-20.





NOTES: _____ Email: msingleton-fookes@epicenvironmental.com

Email msingleton-fookes@epicenvironmental.com.au

cc
cc epicenvironmental@esdat.com.au
cc labs@epicenvironmental.com.au

786772

SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210092.01, SMW - CTP - Five Dock
Envirolab Reference	286772
Date Sample Received	17/01/2022
Date Instructions Received	17/01/2022
Date Results Expected to be Reported	19/01/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	21 Soil, 1 Water
Turnaround Time Requested	2 days
Temperature on Receipt (°C)	7.5
Cooling Method	Ice, 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:

Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metals in soil	Asbestos ID - soils	Metals in Waters - Acid extractable	On Hold
TB03		✓									
TS03		✓									
RB05										✓	
BH05_1.5-1.7											✓
BH05_2.0-2.2											✓
BH05_3.0-3.2											✓
BH05_4.0-4.2		✓	✓	✓				✓			
BH05_5.0-5.2											✓
BH05_6.0-6.2											✓
BH05_7.0-7.2		✓	✓	✓				✓			
BH05_8.0-8.2											✓
BH05_9.0-9.2											✓
BH05_9.8-10.0		✓	✓	✓				✓			
QC07		✓	✓	✓				✓			
BH26_0.1-0.2											✓
BH26_0.3-0.4		✓	✓	✓				✓	✓		
BH26_0.8-0.9		✓	✓	✓				✓			
BH26_1.4-1.5											✓
BH27_0.1-0.2											✓
BH27_0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓			
BH27_0.8-0.9											✓
BH27_1.4-1.5		✓	✓	✓				✓			

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.

Epic Environmental Pty Ltd (NSW)
Level 17, 95 North Quay
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Morgan Singleton-Fookes**

Report **849920-S**
Project name **SMW-CTP-FIVE DOCK**
Project ID **SC210092.01**
Received Date **Dec 09, 2021**

Client Sample ID			QC02	QC04	QC06
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S21-De31774	S21-De31775	S21-De31776
Date Sampled			Dec 01, 2021	Dec 01, 2021	Dec 01, 2021
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	133	101	88
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5

Client Sample ID			QC02	QC04	QC06
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S21-De31774	S21-De31775	S21-De31776
Date Sampled			Dec 01, 2021	Dec 01, 2021	Dec 01, 2021
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	91	93	88
p-Terphenyl-d14 (surr.)	1	%	99	105	101
Heavy Metals					
Arsenic	2	mg/kg	7.4	15	2.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	33	36
Copper	5	mg/kg	36	16	11
Lead	5	mg/kg	18	57	5.4
Mercury	0.1	mg/kg	< 0.1	0.1	< 0.1
Nickel	5	mg/kg	20	5.6	9.3
Zinc	5	mg/kg	85	20	8.7
% Moisture	1	%	16	20	18

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 14, 2021	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 14, 2021	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 14, 2021	14 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 14, 2021	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Dec 14, 2021	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Dec 14, 2021	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Dec 14, 2021	14 Days

Company Name: Epic Environmental Pty Ltd (NSW)
Address: Level 17, 95 North Quay
Brisbane
QLD 4000
Project Name: SMW-CTP-FIVE DOCK
Project ID: SC210092.01

Order No.:
Report #: 849920
Phone:
Fax:

Received: Dec 9, 2021 3:39 PM
Due: Dec 16, 2021
Priority: 5 Day
Contact Name: Morgan Singleton-Fookes

Eurofins Analytical Services Manager : John Nguyen

Sample Detail						Metals M8	Moisture Set	Eurofins Suite B4
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID			
1	QC02	Dec 01, 2021		Soil	S21-De31774	X	X	X
2	QC04	Dec 01, 2021		Soil	S21-De31775	X	X	X
3	QC06	Dec 01, 2021		Soil	S21-De31776	X	X	X
Test Counts						3	3	3

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR : No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs..

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	99			70-130	Pass	
TRH C10-C14	%	97			70-130	Pass	
Naphthalene	%	117			70-130	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C10				%	96			70-130	Pass	
TRH >C10-C16				%	93			70-130	Pass	
LCS - % Recovery										
BTEX										
Benzene				%	110			70-130	Pass	
Toluene				%	102			70-130	Pass	
Ethylbenzene				%	94			70-130	Pass	
m&p-Xylenes				%	99			70-130	Pass	
o-Xylene				%	95			70-130	Pass	
Xylenes - Total*				%	98			70-130	Pass	
LCS - % Recovery										
Polycyclic Aromatic Hydrocarbons										
Acenaphthene				%	80			70-130	Pass	
Acenaphthylene				%	76			70-130	Pass	
Anthracene				%	74			70-130	Pass	
Benz(a)anthracene				%	73			70-130	Pass	
Benzo(a)pyrene				%	74			70-130	Pass	
Benzo(b&j)fluoranthene				%	72			70-130	Pass	
Benzo(g,h,i)perylene				%	100			70-130	Pass	
Benzo(k)fluoranthene				%	91			70-130	Pass	
Chrysene				%	85			70-130	Pass	
Dibenz(a,h)anthracene				%	81			70-130	Pass	
Fluoranthene				%	79			70-130	Pass	
Fluorene				%	82			70-130	Pass	
Indeno(1.2.3-cd)pyrene				%	81			70-130	Pass	
Naphthalene				%	84			70-130	Pass	
Phenanthrene				%	77			70-130	Pass	
Pyrene				%	80			70-130	Pass	
LCS - % Recovery										
Heavy Metals										
Arsenic				%	93			80-120	Pass	
Cadmium				%	88			80-120	Pass	
Chromium				%	91			80-120	Pass	
Copper				%	90			80-120	Pass	
Lead				%	95			80-120	Pass	
Mercury				%	96			80-120	Pass	
Nickel				%	90			80-120	Pass	
Zinc				%	86			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Total Recoverable Hydrocarbons					Result 1					
TRH C6-C9	S21-De22797	NCP	%	73				70-130	Pass	
TRH C10-C14	S21-De29453	NCP	%	94				70-130	Pass	
Naphthalene	S21-De22797	NCP	%	85				70-130	Pass	
TRH C6-C10	S21-De22797	NCP	%	70				70-130	Pass	
TRH >C10-C16	S21-De29453	NCP	%	90				70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene	S21-De22797	NCP	%	81				70-130	Pass	
Toluene	S21-De22797	NCP	%	76				70-130	Pass	
Ethylbenzene	S21-De22797	NCP	%	71				70-130	Pass	
m&p-Xylenes	S21-De22797	NCP	%	77				70-130	Pass	
o-Xylene	S21-De22797	NCP	%	74				70-130	Pass	
Xylenes - Total*	S21-De22797	NCP	%	76				70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-De27986	NCP	%	90			75-125	Pass	
Cadmium	S21-De27986	NCP	%	87			75-125	Pass	
Chromium	S21-De27986	NCP	%	90			75-125	Pass	
Copper	S21-De27986	NCP	%	89			75-125	Pass	
Lead	S21-De27986	NCP	%	94			75-125	Pass	
Mercury	S21-De27986	NCP	%	89			75-125	Pass	
Nickel	S21-De27986	NCP	%	88			75-125	Pass	
Zinc	S21-De27986	NCP	%	89			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-De22795	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S21-De28685	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-De28685	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-De28685	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S21-De22795	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-De22795	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S21-De28685	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-De28685	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S21-De28685	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-De22795	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-De22795	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-De22795	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-De22795	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-De22795	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-De22795	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-De27158	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-De27985	NCP	mg/kg	7.6	9.3	19	30%	Pass	
Cadmium	S21-De27985	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-De27985	NCP	mg/kg	16	19	18	30%	Pass	
Copper	S21-De27985	NCP	mg/kg	28	33	14	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Lead	S21-De27985	NCP	mg/kg	23	25	8.0	30%	Pass
Mercury	S21-De27985	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S21-De27985	NCP	mg/kg	10	13	23	30%	Pass
Zinc	S21-De27985	NCP	mg/kg	60	72	19	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	S21-De31774	CP	%	16	15	11	30%	Pass

Comments

Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

John Nguyen	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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Sample Receipt Advice

Company name: Epic Environmental Pty Ltd (NSW)
Contact name: Morgan Singleton-Fookes
Project name: SMW-CTP-FIVE DOCK
Project ID: SC210092.01
Turnaround time: 5 Day
Date/Time received: Dec 9, 2021 3:39 PM
Eurofins reference: 849920

Sample Information

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

Notes

Contact

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

John Nguyen on phone : or by email: JohnNguyen@eurofins.com

Results will be delivered electronically via email to Morgan Singleton-Fookes - msingleton-fookes@epicenvironmental.com.au.

Note: A copy of these results will also be delivered to the general Epic Environmental Pty Ltd (NSW) email address.

COC 8/12/2021 @ 1245



EnviroLab Services
12 Ashley St
Chatswood NSW 2057
Ph: (02) 9910 6200

Job No: 284886

Date Received: 03/12/2021
Time Received: 15:00

Chain of Custody Record



Project No: SC210092.01				Lab: EnviroLab		Location: 15:00		ANALYSIS REQUIRED																
Project/Site: SMW - CTP - Five Dock				Lab Quote No:		Temp: Cool/Ambient																		
Project Manager: Morgan Singleton-Fookes (m.singleton-fookes@epicenviro.com.au)				Lab Batch No:		Cooling: Ice/icepack																		
Sampled By: MEF				Turnaround time: Std.		Security: Intact/Broken/None																		
Phone: 0417 217 179				Sample Disposal After:																				
Page: 1 of 5																								
Number of Eskies: 5																								
LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE										Other	Combo 3	Combo 3A	OC/OP	PCBs	VOC	PFAS	ENM suite	VTRH, BTEX	Metals (8)	HOLD
				Soil / Solid			Water / Liquid																	
				150-250ml	200ml		2x 40ml	100-500ml	60ml	60ml	250-500ml	60-250ml												
				Glass Jar	Plastic Jar	Plastic bag	Amber Vial	Amber Bottle	Metals	Nutrients	Plastic / (Unpreserved)	Plastic (PFAS)												
1	Ep-FD-BH01-0.0-0.2	1/12/21	S	X																				
2	" BH01-0.5-0.7	1/12/21	S	X																				
3	" BH01-1.1-1.3			X																				
4	BH05-0.1-0.3			X																				
5	BH05-0.15-0.5			X																				
6	BH05-0.3-0.4			X	X	X																		
7	BH05-1.0-1.2			X																				
8	BH03-0.15-0.3			X		X																		
9	BH03-0.2-0.4			X	X	X	5kg																	
10	BH03-0.6-0.7			X	X																			
11	BH04-0.1-0.2			X	X																			
12	BH04-0.5-0.6			X																				
13	BH04-1.0-1.1			X																				
14	BH06-0.1-0.3			X																				
15	BH06-0.4-0.6			X	X	X																		
16	BH06-1.0-1.2			X																				
17	BH09-0.15-0.3			X																				
18	BH09-0.5-0.7			X																				
19	BH09-1.0-1.1			X																				
20	BH07-0.1-0.3			X	X	X	5kg																	
TOTALS																								

Relinquished By:

NAME: A-BM, ELJ MD

SIGNATURE: [Signature]

DATE: 9/12/21

Received By:

NAME: Nancy

SIGNATURE: [Signature]

DATE: 03/12/21

Custody Seals Intact

Samples Received Chilled

Method of Shipment

Y N

Y N

NOTES:

Email: msingleton-fookes@epicenvironmental.com.au

Epic Environmental Pty Ltd ABN 54 169 579 275

Level 6, 193 North Quay, Brisbane, 4000/ Suite 4.01, 55 Miller Street, Pyrmont, NSW, 2009

cc: epicenvironmental@epicenvironmental.com.au
cc: labs@epicenvironmental.com.au

Notes: Please send QCO2, QCO4, and QCO6 to Eurofins.
Please use 5kg/kg for PFAS in soil LOR.
All samples should be labelled w/ the prefix 'Epic-FD'

849920



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

Job No: 284886
Date Received: 03/12/21
Time Received: 15:00
Received By: [Signature]

Chain of Custody Record

[illegible]

NOTES:



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

Job No: 284886

Date Received: 03/12/21

Time Received: 15:00

Chain of Custody Record

Project No: SC210099.01 SC210099.01				Lab: EnviroLab				ANALYSIS REQUIRED																	
Project/Site: Goodman Silverwater GMLV-CTP-Five Rills				Lab Quote No: 210922EPH-1				By: [Signature] Date: 03/12/21																	
Project Manager: Morgan Singleton-Fookes (msingleton-fookes@epicenviromental.com.au)				Lab Batch No:				Cooling: [Signature] Remark: melt																	
Sampled By: Briya Nair (bnair@epicenviromental.com.au)				Turnaround time: Standard TAT				Sample Disposal After:																	
Phone: 0417 217 179																									
Page: 3 of 5																									
Number of Eskies: 5																									
LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE												Combo 3	Combo 3A	OC/OP	PCBs	VOC	PFAS	ENM order suite	VTRH, BTEX	Metals (8)	HOLD
				Soil / Solid			Water / Liquid						Other												
				150-250ml	200ml		2x 40ml	100-500ml	60ml	60ml	250-500ml	60-250ml													
				Glass Jar	Plastic Jar	Plastic bag	Amber Vial	Amber Bottle	Metals	Nutrients	Plastic (Unpreserved)	Plastic (PFAS)													
1	40 EPIC-FD	BH14-0.2-0.3	2/12/21	S	X											X		X					X		
2	41	BH14-0.5-0.6			X																	X			
3	42	BH14-0.9-1.0			X																	X			
4	43	BH13-0.15-0.35			X											X						X			
5	44	BH13-0.5-0.7			X											X						X			
6	45	BH13-1.0-1.2			X																	X			
7	46	BH13-1.7-1.9			X																	X			
8	47	BH15-0.15-0.3			X																	X			
9	48	BH15-0.4-0.6			X	X																X			
10	49	BH15-1.2-1.4			X											X						X			
11	50	BH15-1.5-1.7			X																	X			
12	51	BH19-0.15-0.3			X		X										X	X	X			X			
13	52	BH19-0.5-0.7			X	X																X			
14	53	BH19-1.2-1.4			X	X										X						X			
15	54	BH16-0.15-0.3			X											X						X			
16	55	BH16-0.45-0.6			X	X										X	X	X				X			
17	56	BH16-1.2-1.4			X																	X			
18	57	BH16-2.0-2.2			X																	X			
19	58	QC03			X											X									
20	59	QC04			X											X									
TOTALS																									
Relinquished By:				Received By:				Custody Seals Intact Y N																	
NAME				NAME				Samples Received Chilled Y N																	
SIGNATURE				SIGNATURE				Method of Shipment																	
DATE				DATE																					

NOTES:

Epic Environmental Pty Ltd ABN 54 169 579 275
Level 6, 193 North Quay, Brisbane, 4000/ Suite 4.01, 55 Miller Street, Pyrmont, NSW, 2009

Email msingleton-fookes@epicenviromental.com.au

cc bnair@epicenviromental.com.au
cc epicenviromental@esdat.com.au
cc labs@epicenviromental.com.au



EnviroLab Services
12 Ashway St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 284886

Date Received: 03/12/21

Time Received: 15:00

Received By: [Signature]

Transit Container

Cooling In Transit

Secure Integrity

Chain of Custody Record

Project No: SC210092.01 SC210092.01				Lab: Eurofins EnviroLab																				
Project/Site: Goodman Silverwater				Lab Quote No: 210922EPIN-1																				
Project Manager: Morgan Singleton-Fookes (msingleton-fookes@epicenviromental.com.au)				Lab Batch No:																				
Sampled By: Priya Nair (pnair@epicenviromental.com.au)				Turnaround time: Standard TAT																				
Phone: 0417 217 179				Sample Disposal After:																				
Page: 4 of 5																								
Number of Eskies: 5																								
				CONTAINER TYPE & PRESERVATIVE																				
				Soil / Solid			Water / Liquid																	
				150-250ml	250ml		2x 40ml	100-500ml	60ml	60ml	250-500ml	60-250ml	CEC, pH, iron	Combo 3	Combo 3A	OC/OP	PCBs	VOC	PFAS	ENM Order suite	VTRH, BTEX	Metals (8)	Asbestos	HOLD
				Glass Jar	Plastic Jar	Plastic bag	Amber Vial	Amber Bottle	Metals	Nutrients	Plastic (Unpreserved)	Plastic (PFAS)												
1	60	Epic-FD-BH16-3.0-3.2	2/12/21	S	X									X										X
2	61	BH16-4.0-4.2			X	X																		X
3	62	BH16-5.0-5.2			X																			X
4	63	BH16-6.0-6.2			X	X																		X
5	64	BH16-8.8-7.0			X																			X
6	89	BH15-0.2-0.4	0.2-0.4		X		X5kg							X		X	X			X				
7	65	BH18-0.2-0.5			X		X5kg							X						X				
8	66	BH25-15-0.25			X									X		X	X							
9	67	BH25-0.8-0.9			X									X										X
10	68	BH23-0.25-0.35			X																			
11	69	BH23-0.4-0.5		V	X																			
12	70	BH23-0.4-0.5	3/12/21	W	X									X	X									
13	71	BH12-0.2-0.3		S	X																			X
14	72	BH12-0.6-0.7			X																			
15	73	BH17-0.2-0.4			X	X								X			X	-X						
16	74	BH17-0.9-1.0			X									X										
17	75	QC05			X									X										
18	76	QC06			X									X										
19	77	BH20-0.11-0.2			X	X																		X
20	78	BH21-0.15-0.25		V	X	X																		
TOTALS																								
Relinquished By:				Received By:				Custody Seals Intact				Y N												
NAME				NAME Nancy				Samples Received Chilled				Y N												
SIGNATURE				SIGNATURE [Signature]				Method of Shipment																
DATE				DATE 23/12/21																				
NOTES:				Zheng																				

Epic Environmental Pty Ltd (NSW)
Level 17, 95 North Quay
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Morgan Singleton-Fookes**

Report **855765-S**
Project name **SMW-CTP-FIVE DOCK**
Project ID **SC210092.01**
Received Date **Jan 17, 2022**

Client Sample ID			QC08
Sample Matrix			Soil
Eurofins Sample No.			S22-Ja13063
Date Sampled			Jan 17, 2022
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	116
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5

Client Sample ID			QC08
Sample Matrix			Soil
Eurofins Sample No.			S22-Ja13063
Date Sampled			Jan 17, 2022
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	106
p-Terphenyl-d14 (surr.)	1	%	88
Heavy Metals			
Arsenic	2	mg/kg	21
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	65
Copper	5	mg/kg	19
Lead	5	mg/kg	68
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	8.5
Zinc	5	mg/kg	160
% Moisture	1	%	15

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Jan 18, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Jan 18, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Jan 18, 2022	14 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Jan 18, 2022	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Jan 18, 2022	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Jan 18, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Jan 17, 2022	14 Days

Company Name:	Epic Environmental Pty Ltd (NSW)	Order No.:	SC210092.01	Received:	Jan 17, 2022 1:46 PM
Address:	Level 17, 95 North Quay Brisbane QLD 4000	Report #:	855765	Due:	Jan 19, 2022
Project Name:	SMW-CTP-FIVE DOCK	Phone:		Priority:	2 Day
Project ID:	SC210092.01	Fax:		Contact Name:	Morgan Singleton-Fookes

Eurofins Analytical Services Manager : John Nguyen

Sample Detail						Moisture Set	Eurofins Suite B7
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	QC08	Jan 17, 2022		Soil	S22-Ja13063	X	X
Test Counts						1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	102			70-130	Pass	
TRH C10-C14	%	106			70-130	Pass	
Naphthalene	%	110			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C10			%	99			70-130	Pass	
TRH >C10-C16			%	104			70-130	Pass	
LCS - % Recovery									
BTEX									
Benzene			%	98			70-130	Pass	
Toluene			%	105			70-130	Pass	
Ethylbenzene			%	108			70-130	Pass	
m&p-Xylenes			%	110			70-130	Pass	
o-Xylene			%	109			70-130	Pass	
Xylenes - Total*			%	110			70-130	Pass	
LCS - % Recovery									
Polycyclic Aromatic Hydrocarbons									
Acenaphthene			%	99			70-130	Pass	
Acenaphthylene			%	98			70-130	Pass	
Anthracene			%	96			70-130	Pass	
Benz(a)anthracene			%	94			70-130	Pass	
Benzo(a)pyrene			%	99			70-130	Pass	
Benzo(b&j)fluoranthene			%	99			70-130	Pass	
Benzo(g.h.i)perylene			%	105			70-130	Pass	
Benzo(k)fluoranthene			%	100			70-130	Pass	
Chrysene			%	95			70-130	Pass	
Dibenz(a.h)anthracene			%	91			70-130	Pass	
Fluoranthene			%	92			70-130	Pass	
Fluorene			%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	95			70-130	Pass	
Naphthalene			%	101			70-130	Pass	
Phenanthrene			%	75			70-130	Pass	
Pyrene			%	93			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	95			80-120	Pass	
Cadmium			%	102			80-120	Pass	
Chromium			%	100			80-120	Pass	
Copper			%	104			80-120	Pass	
Lead			%	102			80-120	Pass	
Mercury			%	106			80-120	Pass	
Nickel			%	103			80-120	Pass	
Zinc			%	106			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S22-Ja12400	NCP	%	79			70-130	Pass	
TRH >C10-C16	S22-Ja12400	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Ja12404	NCP	%	99			70-130	Pass	
Acenaphthylene	S22-Ja12404	NCP	%	90			70-130	Pass	
Anthracene	S22-Ja12404	NCP	%	86			70-130	Pass	
Benz(a)anthracene	S22-Ja12404	NCP	%	75			70-130	Pass	
Benzo(a)pyrene	S22-Ja12404	NCP	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Ja12404	NCP	%	75			70-130	Pass	
Benzo(g.h.i)perylene	S22-Ja12404	NCP	%	87			70-130	Pass	
Benzo(k)fluoranthene	S22-Ja12404	NCP	%	97			70-130	Pass	
Chrysene	S22-Ja12404	NCP	%	91			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibenz(a,h)anthracene	S22-Ja12404	NCP	%	73			70-130	Pass	
Fluoranthene	S22-Ja12404	NCP	%	77			70-130	Pass	
Fluorene	S22-Ja12404	NCP	%	96			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Ja12404	NCP	%	80			70-130	Pass	
Naphthalene	S22-Ja12404	NCP	%	104			70-130	Pass	
Phenanthrene	S22-Ja12404	NCP	%	99			70-130	Pass	
Pyrene	S22-Ja12404	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	N22-Ja12002	NCP	%	121			75-125	Pass	
Cadmium	S22-Ja14726	NCP	%	103			75-125	Pass	
Chromium	N22-Ja12002	NCP	%	123			75-125	Pass	
Copper	N22-Ja12002	NCP	%	113			75-125	Pass	
Lead	N22-Ja12002	NCP	%	75			75-125	Pass	
Mercury	S22-Ja14726	NCP	%	105			75-125	Pass	
Nickel	N22-Ja12002	NCP	%	126			75-125	Fail	Q08
Zinc	S22-Ja13789	NCP	%	115			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S22-Ja12398	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Ja12398	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Ja12398	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S22-Ja12398	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Ja12398	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Ja12398	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Ja13870	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Ja14741	NCP	mg/kg	3.2	2.5	24	30%	Pass	
Cadmium	S22-Ja14740	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Ja14740	NCP	mg/kg	19	32	53	30%	Fail	Q15
Copper	S22-Ja14740	NCP	mg/kg	41	72	54	30%	Fail	Q15
Lead	S22-Ja14740	NCP	mg/kg	< 5	7.8	66	30%	Fail	Q15
Mercury	S22-Ja14740	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Ja14741	NCP	mg/kg	99	84	16	30%	Pass	
Zinc	S22-Ja14741	NCP	mg/kg	51	54	5.0	30%	Pass	

Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Ja13005	NCP	%	18	18	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

John Nguyen	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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IANZ # 1290

Sample Receipt Advice

Company name: Epic Environmental Pty Ltd (NSW)
Contact name: Morgan Singleton-Fookes
Project name: SMW-CTP-FIVE DOCK
Project ID: SC210092.01
Turnaround time: 2 Day
Date/Time received: Jan 17, 2022 1:46 PM
Eurofins reference: 855765

Sample Information

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

Notes

Contact

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

John Nguyen on phone : or by email: JohnNguyen@eurofins.com

Results will be delivered electronically via email to Morgan Singleton-Fookes - msingleton-fookes@epicenvironmental.com.au.

Note: A copy of these results will also be delivered to the general Epic Environmental Pty Ltd (NSW) email address.

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521



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

☐ Brisbane Laboratory

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07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory

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

Melbourne Laboratory

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

Company		Epic		Project No		SC210092.01		Project Manager		MSF		Sampler(s)		MSF																									
Address		55 Miller St Pyrmont		EDD Format		ESdat		Handed over by		MSF		Email for Invoice		msingleton-fookes@																									
Contact Name		Morgan Singleton		Email for Results		epicenvironmental.com		Containers		Required Turnaround Time (TAT)		Default will be 5 days if not ticked.																											
Phone No		0417 217 179		Where results are required, please specify 'Total' or 'Filtered'		SURTE code must be used to select SURTE pricing		500mL Plastic		250mL Plastic		125mL Plastic		200mL Amber Glass																									
Special Directions		TRH, BTEX, PAH, metals		40mL VOA vial		500mL PFAS Bottle		Jar (Glass or HDPE)		Other (Asbestos AS4884, WA Guidelines)		☐ Overnight (reporting by 9am) ♦ ☐ Same day ♦ ☒ 2 day ♦ ☐ 5 days (Standard) ☐ Other()		☐ 1 day ♦ ☐ 3 days ♦																									
Purchase Order		SC210092.01		Sample Comments / Dangerous Goods Hazard Warning																																			
Quote ID No																																							
No	Client Sample ID	Sampled Date/Time	Matrix																																				
		dd/mm/yy hh:mm	Solid (S) Water (W)																																				
1	QC08	17/01/22	S	X																																			
2																																							
3																																							
4																																							
5																																							
6																																							
7																																							
8																																							
9																																							
10																																							
Total Counts																																							
Method of Shipment				☐ Courier (#) ☒ Hand Delivered ☐ Postal				Name				M. Singleton				Signature				17/01/22				Date				17/01/22				Time				13:45			
Laboratory Use Only				Received By				SYD BNE MEL PER ADL NTL DRW				Signature				Date				Time				Temperature				13.7											
				S. DALLI				SYD BNE MEL PER ADL NTL DRW				Signature				Date				Time				Report No				85576											

CERTIFICATE OF ANALYSIS 285563

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	<u>SMW - CTP - Five Dock</u>
Number of Samples	6 Water
Date samples received	16/12/2021
Date completed instructions received	16/12/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
 Samples were analysed as received from the client. Results relate specifically to the samples as received.
 Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/12/2021
Date of Issue	23/12/2021
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Diego Bigolin, Inorganics Supervisor
 Dragana Tomas, Senior Chemist
 Hannah Nguyen, Metals Supervisor
 Nick Sarlamis, Assistant Operation Manager
 Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in water			
Our Reference		285563-1	285563-2
Your Reference	UNITS	SMW-BH082	BH713
Date Sampled		16/12/2021	16/12/2021
Type of sample		Water	Water
Date extracted	-	17/12/2021	17/12/2021
Date analysed	-	20/12/2021	20/12/2021
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	<1
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	<1	<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	<1
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		285563-1	285563-2
Your Reference	UNITS	SMW-BH082	BH713
Date Sampled		16/12/2021	16/12/2021
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	%	106	109
Surrogate toluene-d8	%	100	99
Surrogate 4-BFB	%	104	106

Client Reference: SMW - CTP - Five Dock

vTRH(C6-C10)/BTEXN in Water						
Our Reference		285563-1	285563-2	285563-3	285563-5	285563-6
Your Reference	UNITS	SMW-BH082	BH713	QC01	TB02	TS02
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	17/12/2021	17/12/2021	17/12/2021	17/12/2021	17/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C ₆ - C ₉	µg/L	<10	<10	<10	<10	[NA]
TRH C ₆ - C ₁₀	µg/L	<10	<10	<10	<10	[NA]
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10	<10	<10	<10	[NA]
Benzene	µg/L	<1	<1	<1	<1	114%
Toluene	µg/L	<1	<1	<1	<1	106%
Ethylbenzene	µg/L	<1	<1	<1	<1	97%
m+p-xylene	µg/L	<2	<2	<2	<2	90%
o-xylene	µg/L	<1	<1	<1	<1	100%
Naphthalene	µg/L	<1	<1	<1	<1	[NA]
Surrogate Dibromofluoromethane	%	106	109	110	107	110
Surrogate toluene-d8	%	100	99	100	99	104
Surrogate 4-BFB	%	104	106	104	105	103

svTRH (C10-C40) in Water				
Our Reference		285563-1	285563-2	285563-3
Your Reference	UNITS	SMW-BH082	BH713	QC01
Date Sampled		16/12/2021	16/12/2021	16/12/2021
Type of sample		Water	Water	Water
Date extracted	-	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021
TRH C ₁₀ - C ₁₄	µg/L	<50	<50	<50
TRH C ₁₅ - C ₂₈	µg/L	<100	<100	<100
TRH C ₂₉ - C ₃₆	µg/L	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50
TRH >C ₁₀ - C ₁₆	µg/L	<50	<50	<50
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	µg/L	<50	<50	<50
TRH >C ₁₆ - C ₃₄	µg/L	<100	<100	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50
Surrogate o-Terphenyl	%	86	83	83

PCBs in Water			
Our Reference		285563-1	285563-2
Your Reference	UNITS	SMW-BH082	BH713
Date Sampled		16/12/2021	16/12/2021
Type of sample		Water	Water
Date extracted	-	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021
Aroclor 1016	µg/L	<2	<2
Aroclor 1221	µg/L	<2	<2
Aroclor 1232	µg/L	<2	<2
Aroclor 1242	µg/L	<2	<2
Aroclor 1248	µg/L	<2	<2
Aroclor 1254	µg/L	<2	<2
Aroclor 1260	µg/L	<2	<2
Surrogate TCMX	%	93	80

Client Reference: SMW - CTP - Five Dock

HM in water - dissolved					
Our Reference		285563-1	285563-2	285563-3	285563-4
Your Reference	UNITS	SMW-BH082	BH713	QC01	RB04
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Water	Water	Water	Water
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Arsenic-Dissolved	µg/L	2	<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	<1	<1	<1	<1
Lead-Dissolved	µg/L	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	27	3	26	<1
Zinc-Dissolved	µg/L	26	4	25	<1

Ion Balance			
Our Reference		285563-1	285563-2
Your Reference	UNITS	SMW-BH082	BH713
Date Sampled		16/12/2021	16/12/2021
Type of sample		Water	Water
Date prepared	-	16/12/2021	16/12/2021
Date analysed	-	16/12/2021	16/12/2021
Calcium - Dissolved	mg/L	120	26
Potassium - Dissolved	mg/L	27	14
Sodium - Dissolved	mg/L	1,500	24
Magnesium - Dissolved	mg/L	190	4
Hardness	mgCaCO ₃ /L	1,100	83
Hydroxide Alkalinity (OH ⁻) as CaCO ₃	mg/L	<5	<5
Bicarbonate Alkalinity as CaCO ₃	mg/L	500	90
Carbonate Alkalinity as CaCO ₃	mg/L	<5	<5
Total Alkalinity as CaCO ₃	mg/L	500	90
Sulphate, SO ₄	mg/L	470	11
Chloride, Cl	mg/L	2,400	49
Ionic Balance	%	1.0	-6.0

Miscellaneous Inorganics			
Our Reference		285563-1	285563-2
Your Reference	UNITS	SMW-BH082	BH713
Date Sampled		16/12/2021	16/12/2021
Type of sample		Water	Water
Date prepared	-	16/12/2021	16/12/2021
Date analysed	-	16/12/2021	16/12/2021
pH	pH Units	6.6	7.0
Electrical Conductivity	µS/cm	8,600	350
Fluoride, F	mg/L	2.3	0.1
Total Dissolved Solids (grav)	mg/L	6,000	220

Client Reference: SMW - CTP - Five Dock

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25°C in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-018	Total Dissolved Solids - determined gravimetrically. The solids are dried at 180+/-10°C.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 15% ie total anions = total cations +/-15%.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
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	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
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)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

Client Reference: SMW - CTP - Five Dock

QUALITY CONTROL: VOCs in water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			17/12/2021	1	17/12/2021	20/12/2021		17/12/2021	[NT]
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[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	103	[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	101	[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	100	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	106	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	1	<1	<1	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	[NT]	[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	102	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	101	[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	[NT]	[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	103	[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	101	[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	[NT]	[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	[NT]	[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]

Client Reference: SMW - CTP - Five Dock

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	[NT]	[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	110	1	106	107	1	99	[NT]
Surrogate toluene-d8	%		Org-023	100	1	100	98	2	100	[NT]
Surrogate 4-BFB	%		Org-023	105	1	104	100	4	101	[NT]

Client Reference: SMW - CTP - Five Dock

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	-			17/12/2021	1	17/12/2021	20/12/2021		17/12/2021	[NT]
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-023	<10	1	<10	<10	0	101	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-023	<10	1	<10	<10	0	101	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	102	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	102	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	101	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	100	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	99	[NT]
Naphthalene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	110	1	106	107	1	99	[NT]
Surrogate toluene-d8	%		Org-023	100	1	100	98	2	100	[NT]
Surrogate 4-BFB	%		Org-023	105	1	104	100	4	101	[NT]

Client Reference: SMW - CTP - Five Dock

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	<50	1	<50	<50	0	121	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	<100	1	<100	<100	0	118	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	<100	1	<100	<100	0	109	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	<50	1	<50	<50	0	121	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	<100	1	<100	<100	0	118	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	<100	1	<100	<100	0	109	[NT]
Surrogate o-Terphenyl	%		Org-020	91	1	86	85	1	99	[NT]

Client Reference: SMW - CTP - Five Dock

QUALITY CONTROL: PCBs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			21/12/2021	1	21/12/2021	21/12/2021		21/12/2021	[NT]
Aroclor 1016	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-021	<2	1	<2	<2	0	113	[NT]
Aroclor 1260	µg/L	2	Org-021	<2	1	<2	<2	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	76	1	93	87	7	84	[NT]

Client Reference: SMW - CTP - Five Dock

QUALITY CONTROL: HM in water - dissolved					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	2	2	0	100	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	103	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	98	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	100	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	99	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	114	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	27	27	0	100	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	26	25	4	99	[NT]

Client Reference: SMW - CTP - Five Dock

QUALITY CONTROL: Ion Balance					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	285563-2
Date prepared	-			16/12/2021	[NT]	[NT]	[NT]	[NT]	16/12/2021	16/12/2021
Date analysed	-			16/12/2021	[NT]	[NT]	[NT]	[NT]	16/12/2021	16/12/2021
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	111	96
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	105	89
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	116	79
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	115	108
Hydroxide Alkalinity (OH ⁻) as CaCO ₃	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bicarbonate Alkalinity as CaCO ₃	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbonate Alkalinity as CaCO ₃	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Total Alkalinity as CaCO ₃	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]

Client Reference: SMW - CTP - Five Dock

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			16/12/2021	1	16/12/2021	16/12/2021		16/12/2021	[NT]
Date analysed	-			16/12/2021	1	16/12/2021	16/12/2021		16/12/2021	[NT]
pH	pH Units		Inorg-001	[NT]	1	6.6	[NT]		100	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	<1	1	8600	[NT]		100	[NT]
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	1	2.3	[NT]		98	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	<5	1	6000	5700	5	106	[NT]

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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



CHAIN OF CUSTODY FORM - Client

[Copyright and Confidential]

Company:	Epic Environmental		Client Project Name/Number/Site etc (ie report title):	SMW - CTP - Five Dock.
Contact Person:	Morgan Singleton-Fookes		PO No. (if applicable):	SC210092.01
Project Mgr:			Envirolab Quote No.:	
Sampler:			Date results required:	
Address:			Or choose:	☒ Standard ☐ Same Day ☐ 1 day ☐ 2 day ☐ 3 day
Phone:	0417 217 179	Mob:	Note: Inform lab in advance if urgent turnaround is required - surcharges apply	
Email Results to:	msingleton-fookes@epicenvironmental.com.au		Additional report format:	☒ Esdat ☐ Equis
Email Invoice to:			Lab Comments:	

ENVIROLAB GROUP

National phone number 1300 424 344

Sydney Lab - Envirolab Services
 12 Ashley St, Chatswood, NSW 2067
 ☎ 02 9910 6200 | ✉ sydney@envirolab.com.au

Perth Lab - MPL Laboratories
 16-18 Hayden Crt, Myaree, WA 6154
 ☎ 08 9317 2505 | ✉ lab@mpl.com.au

Melbourne Lab - Envirolab Services
 25 Research Drive, Croydon South, VIC 3136
 ☎ 03 9763 2500 | ✉ melbourne@envirolab.com.au

Adelaide Office - Envirolab Services
 7a The Parade, Norwood, SA 5067
 ☎ 08 7087 6800 | ✉ adelaide@envirolab.com.au

Brisbane Office - Envirolab Services
 20a, 10-20 Depot St, Banyo, QLD 4014
 ☎ 07 3266 9532 | ✉ brisbane@envirolab.com.au

Darwin Office - Envirolab Services
 Unit 20/119 Reichardt Road, Winnellie, NT 0820
 ☎ 08 8967 1201 | ✉ darwin@envirolab.com.au

Sample information					Tests Required												Comments
Envirolab Sample ID (Lab use only)	Client Sample ID or Information	Depth	Date Sampled	Type of Sample	TRH/BTEX	Metals	PCB	VOC	Ca, Mg, Na, K, Cl	SO4, alkalinity	pH, EC	Fluoride, hardness	TDS				Provide as much information about the sample as you can
1	SMW-BH082		16/12/21	W	X	X	X	X			X						
2	IBH713		↓	↓	X	X	X	X			X						
3	QCO1				X	X											
4	QCO2				X	X											
5	RB04		↓	↓		X											
6	TB02				X												
	TS02				X												

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

Relinquished by (Company): Epic	Received by (Company): EUS - SYD	Lab Use Only	
Print Name: M. Singleton	Print Name: VINA	Job number: 285563	Cooling: Ice / Ice pack / None
Date & Time: 16/12/21	Date & Time: 16/12/21 C 1330.	Temperature: 11°C	Security seal: Intact / Broken / None
Signature: [Signature]	Signature: [Signature]	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

Please send QCO2 to Eurofins.
 All samples to be labelled w/ the prefix 'Epic-FD'

SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SMW - CTP - Five Dock
Envirolab Reference	285563
Date Sample Received	16/12/2021
Date Instructions Received	16/12/2021
Date Results Expected to be Reported	23/12/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	6 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	11
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:



Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PCBs in Water	HM in water - dissolved	Calcium - Dissolved	Potassium - Dissolved	Sodium - Dissolved	Magnesium - Dissolved	Hardness	Hydroxide Alkalinity (OH-) as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Total Alkalinity as CaCO3	Sulphate, SO4	Chloride, Cl	pH	Electrical Conductivity	Fluoride, F	Total Dissolved Solids(grav)
SMW-BH082	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BH713	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
QC01		✓	✓		✓															
RB04					✓															
TB02		✓																		
TS02		✓																		

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.

Epic Environmental Pty Ltd (NSW)
Level 17, 95 North Quay
Brisbane
QLD 4000



NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Morgan Singleton-Fookes**

Report **852333-W**
Project name **SMW-CTP-FIVE DOCK**
Received Date **Dec 17, 2021**

Client Sample ID			QC02
Sample Matrix			Water
Eurofins Sample No.			S21-De51613
Date Sampled			Dec 16, 2021
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1
Naphthalene ^{N02}	0.01	mg/L	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{N01}	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	99
Heavy Metals			
Arsenic	0.001	mg/L	< 0.001
Cadmium	0.0002	mg/L	< 0.0002
Chromium	0.001	mg/L	< 0.001
Copper	0.001	mg/L	< 0.001
Lead	0.001	mg/L	< 0.001
Mercury	0.0001	mg/L	< 0.0001
Nickel	0.001	mg/L	0.024
Zinc	0.005	mg/L	0.020

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B1			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 23, 2021	7 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 21, 2021	7 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 23, 2021	7 Days
BTEX - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Dec 21, 2021	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Dec 23, 2021	28 Days

Company Name: Epic Environmental Pty Ltd (NSW)
Address: Level 17, 95 North Quay
Brisbane
QLD 4000
Project Name: SMW-CTP-FIVE DOCK

Order No.: SC210092.01
Report #: 852333
Phone:
Fax:

Received: Dec 17, 2021 1:19 PM
Due: Dec 24, 2021
Priority: 5 Day
Contact Name: Morgan Singleton-Fookes

Eurofins Analytical Services Manager : John Nguyen

Sample Detail						Metals M8	Eurofins Suite B1
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	QC02	Dec 16, 2021		Water	S21-De51613	X	X
Test Counts						1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	94			70-130	Pass	
TRH C10-C14	%	75			70-130	Pass	
Naphthalene	%	95			70-130	Pass	
TRH C6-C10	%	100			70-130	Pass	
TRH >C10-C16	%	97			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	91			70-130	Pass	
Toluene	%	96			70-130	Pass	
Ethylbenzene	%	103			70-130	Pass	
m&p-Xylenes	%	106			70-130	Pass	
o-Xylene	%	106			70-130	Pass	
Xylenes - Total*	%	106			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	93			80-120	Pass	
Cadmium	%	87			80-120	Pass	
Chromium	%	94			80-120	Pass	
Copper	%	91			80-120	Pass	
Lead	%	94			80-120	Pass	
Mercury	%	85			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel			%	90			80-120	Pass	
Zinc			%	89			80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-De54056	NCP	%	71			70-130	Pass	
TRH C10-C14	S21-De48954	NCP	%	102			70-130	Pass	
Naphthalene	S21-De54056	NCP	%	73			70-130	Pass	
TRH C6-C10	S21-De54056	NCP	%	72			70-130	Pass	
TRH >C10-C16	S21-De48954	NCP	%	83			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-De54056	NCP	%	71			70-130	Pass	
Toluene	S21-De54056	NCP	%	74			70-130	Pass	
Ethylbenzene	S21-De54056	NCP	%	79			70-130	Pass	
m&p-Xylenes	S21-De54056	NCP	%	83			70-130	Pass	
o-Xylene	S21-De54056	NCP	%	83			70-130	Pass	
Xylenes - Total*	S21-De54056	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-De53678	NCP	%	115			75-125	Pass	
Cadmium	S21-De53678	NCP	%	86			75-125	Pass	
Chromium	S21-De53678	NCP	%	108			75-125	Pass	
Copper	S21-De53678	NCP	%	106			75-125	Pass	
Lead	S21-De53678	NCP	%	109			75-125	Pass	
Mercury	S21-De53678	NCP	%	98			75-125	Pass	
Nickel	S21-De53678	NCP	%	103			75-125	Pass	
Zinc	S21-De53678	NCP	%	101			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-De54055	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S21-De54058	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S21-De54058	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S21-De54058	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Naphthalene	S21-De54055	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S21-De54055	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S21-De54058	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S21-De54058	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S21-De54058	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-De54055	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S21-De54055	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S21-De54055	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S21-De54055	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S21-De54055	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S21-De54055	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S21-De51853	NCP	mg/L	0.001	0.001	7.0	30%	Pass
Cadmium	S21-De51853	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass
Chromium	S21-De51853	NCP	mg/L	0.001	0.001	5.0	30%	Pass
Copper	S21-De51853	NCP	mg/L	0.003	0.003	3.0	30%	Pass
Lead	S21-De51853	NCP	mg/L	0.001	0.001	1.0	30%	Pass
Mercury	S21-De51853	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Nickel	S21-De51853	NCP	mg/L	0.003	0.003	4.0	30%	Pass
Zinc	S21-De51853	NCP	mg/L	0.025	0.025	1.0	30%	Pass

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)



Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name: Epic Environmental Pty Ltd (NSW)
Contact name: Morgan Singleton-Fookes
Project name: SMW-CTP-FIVE DOCK
Project ID: Not provided
Turnaround time: 5 Day
Date/Time received: Dec 17, 2021 1:19 PM
Eurofins reference: 852333

Sample Information

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

Notes

Contact

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

John Nguyen on phone : or by email: JohnNguyen@eurofins.com

Results will be delivered electronically via email to Morgan Singleton-Fookes - msingleton-fookes@epicenvironmental.com.au.

Note: A copy of these results will also be delivered to the general Epic Environmental Pty Ltd (NSW) email address.





The Epic team provides a wide range of skills and experience on numerous environmental management issues, across a wide range of public, commercial and industrial projects. At Epic, we focus on the practical aspects of environmental planning, engineering and science, offering comprehensive services in:

- Strategic advice and project support;
- Contaminated site assessment, management and remediation;
- Asbestos assessment and advisory;
- Naturally Occurring Radiological Material assessment and management;
- Contaminated land auditing services (QLD –Contaminated Land Auditor; NSW – Contaminated Site Auditor);
- Statutory planning and impact assessment covering QLD, NSW and Commonwealth legislation;
- Environmental approvals and permitting – full array;
- Ecological (fauna, flora and habitat) site assessments;
- Site suitability assessments;
- Environmental offset assessments and development of management strategies;
- Waste auditing and management;
- Landfill design and management;
- Compliance and auditing;
- Erosion sediment control; and
- Hydrogeology.

CONTACT

Sydney / Brisbane / Melbourne / Hobart

1800 779 363

enquiries@epicenvironmental.com.au

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