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Report on
Detailed Site Investigation (Contamination)

Surface & Civil Alignment Works (SCAW) Package for
Sydney Metro - Western Sydney Airport (SMWSA)
Area of Environmental Concern (AEC) 41 & 42,
1793 Elizabeth Drive, Badgerys Creek

Prepared for
CPB Contractors Pty Limited & United Infrastructure
Pty Limited Joint Venture (CPBUI JV)

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

	Signature	Date
Author		29 June 2023
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Douglas Partners acknowledges Australia's First Peoples as the Traditional Owners of the Land and Sea on which we operate. We pay our respects to Elders past and present and to all Aboriginal and Torres Strait Islander peoples across the many communities in which we live, visit and work. We recognise and respect their ongoing cultural and spiritual connection to Country.

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Executive Summary

Douglas Partners Pty Ltd (DP) has been engaged by CPB Contractors Pty Limited & United Infrastructure Pty Limited Joint Venture (CPBUI JV) to complete this Detailed Site Investigation (Contamination) (DSI) for the Sydney Metro - Western Sydney Airport (SMWSA) Surface and Civil Alignment Works (SCAW) package at Area of Environmental Concern (AEC) 41 and 42.

Technical Paper 8: Contamination, prepared as part of Sydney Metro - Western Sydney Airport, Environmental Impact Statement (EIS), documents areas of environmental concern identified for the Sydney Metro - Western Sydney Airport project. The objective of the DSI is to assess the suitability of AEC 41 and 42 that will be disturbed for SCAW activities and to determine whether further investigation and / or management is required. It is understood that the site will be subject to a Site Audit (by Melissa Porter).

The scope of work for the DSI included the collection of soil samples from 76 test pits (AEC41TP01 to AEC41TP36 and AEC42TP01 to AEC42TP40); collection of six groundwater samples from newly installed groundwater monitoring wells ((AEC41 BH01 to BH03 and AEC42 BH01 to BH03); collection of four sediment samples (AEC42 SED01 and AEC42TP101 to AEC42TP103) and one surface water sample (AEC42 SW01) from the farm dam in AEC42, and analysis of selected soil samples and the groundwater sample for potential contaminants and soil parameters; and preparation of this report.

At all test pit locations, the soil profile was observed to comprise a surface layer of topsoil or sandy silt or silty sand, 0.1 m to 0.3 m thick, underlain by silty clay to depths of 0.4 m to 2.1 m bgl, underlain by silty clay with ironstone gravel in test pits AEC41TP09 to AEC41TP12, AEC41TP16 to AEC41TP36, AEC42TP01 to AEC42TP06, AEC42TP11, AEC42TP12, AEC42TP15, AEC42TP16, AEC42TP17, AEC42TP18, AEC42TP19, AEC42TP20, AEC42TP30, AEC42TP31, AEC42TP32, AEC42TP33, AEC42TP36, AEC42TP39, and AEC42TP40 to termination depths of between 0.6 m and 1.4 m depth. No signs of gross contamination were observed during sampling, although a slight hydrocarbon odour was identified in the topsoil at AEC42TP12 from 0 to 0.2 m depth. A sediment sample taken on the western side of the farm dam in AEC42 was logged as sandy silt, dark brown, with trace rootlets.

Groundwater monitoring wells were drilled through a surface layer of topsoil (0.15 m to 0.3 m thick), then silty clay to depths of between 3 m and 5.5 m, then siltstone to termination depths (between 5.6 m and 11.2 m). No signs of contamination were noted whilst drilling. Groundwater seepage was observed whist drilling at a depth of 4.0 m at AEC41BH01 and AEC41BH02, 2.2 m at AEC41BH03, 3.5 m at AEC42BH01, 9 m at AEC42BH02 and 2 m at AEC42BH03. It should be noted that groundwater levels are affected by climatic conditions and soil permeability and will therefore vary with time. A surface water sample was taken from the farm dam in AEC42.

For the current investigation, concentrations of chemicals for all analysed soil samples are within the site assessment criteria (SAC). Asbestos was not detected in any analysed sample.

For the previous investigation, concentrations of chemicals for all analysed soil samples are within the SAC except for:

- An elevated concentration of nickel (210 mg/kg) that was recorded for the rock sample from SMGW-BH-B350 at a depth of 2.67 m and exceeded the public open space EIL (EIL-C, 170 mg/kg) but not the commercial / industrial EIL (EIL-D 290 kg/mg); and

- Sample from SMGW-TP-B109 at a depth of 0.5-0.6 m recorded a net acidity of 0.07%S which exceeded the adopted screening level of 0.03% S and may be an indicator of slightly acidic soil environment (Golder).

The above-listed concentration of nickel is not considered to be indicative of contamination, but rather indicative of the natural soil / rock in the area given the sample depths are greater than 2.5 m below the surface topsoil layer and the topsoil samples had lower nickel concentrations (34 mg/kg and 30 mg/kg).

Analytical results for sediment samples were within the SAC. No asbestos was detected in the sediment samples.

Analytical results for the surface water sample (AEC42SW01) were within the SAC.

Analytical results for groundwater and surface water samples from the six wells were compared against the SAC. Groundwater levels varied from 0.73 to 5.55 m depth from ground surface, health screening levels (HSL) for vapour intrusion at depth 2 m to <4 m are shown as a general reference. Default guideline values (DGV) for metals have been adjusted for hardness where possible. Concentrations of metals were low and within the SAC. Concentrations of TRH, VOC (including BTEX), OCP, OPP, PCB and phenols were less than the practical quantitation limits (PQL) and within the SAC.

Although it is understood that excavated materials are planned to be used for the SCAW project, preliminary comments for waste classification are provided in the case that some of the materials are to be disposed off-site. With respect to fill, concentrations of chemical contaminants were within the CT1 criteria for General Solid Waste. With respect to natural soil samples, concentrations of chemical contaminants were within what are considered to be background levels which are considered to be consistent with the definition of virgin excavated natural material (VENM), as defined in *Protection of the Environment Operations Act 1997. Exceedances* of CT1 in nickel are considered to be indicative of the natural soil / rock in the area given the sample depths are greater than 2.5 m below the surface topsoil layer and the topsoil samples had lower nickel concentrations (34 mg/kg and 30 mg/kg).

Field observations and analysis of soil, sediment, surface water and groundwater samples has not revealed contamination that requires remediation. Based on the results reported herein, it is considered, from a contamination perspective, that the site (AEC 41 and 42) is suitable for the final intended land use.

Additional monitoring of parameters is recommended for dam water if discharge to stormwater is proposed.

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Report on Detailed Site Investigation (Contamination)

Surface & Civil Alignment Works (SCAW) Package for Sydney Metro - Western Sydney Airport (SMWSA)

Area of Environmental Concern (AEC) 41 & 42, 1793 Elizabeth Drive, Badgerys Creek

1. Introduction

Douglas Partners Pty Ltd (DP) has been engaged by CPB Contractors Pty Limited & United Infrastructure Pty Limited Joint Venture (CPBUI JV) to complete this Detailed Site Investigation (Contamination) (DSI) for the Sydney Metro - Western Sydney Airport (SMWSA) Surface and Civil Alignment Works (SCAW) package at Areas of Environmental Concern (AEC) 41 and 42.

Technical Paper 8: Contamination, prepared as part of *Sydney Metro - Western Sydney Airport, Environmental Impact Statement* (EIS), documents areas of environmental concern identified for the Sydney Metro - Western Sydney Airport project. The objective of the DSI is to assess the suitability of the parts of AEC 41 and AEC 42 that will be disturbed by SCAW activities (the site) and to determine whether further investigation and / or management is required. The DSI is not for the entire AEC 41 and AEC 42 area. The site is shown on Drawings AEC41-01 and AEC42-01, Appendix A.

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

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

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

It is understood that the site will be subject to a Site Audit by Melissa Porter, a NSW Environment Protection Authority (EPA) Site Auditor accredited under the *Contaminated Land Management Act 1997*.

2. Site Identification and Proposed Development

Table 1 provides a summary of information for site identification. The site covers an area of the SCAW package which is within AEC 41 and AEC 42 as shown in Drawings AEC41-01 and AEC42-01, Appendix A.

Table 1: Site Identification Information

Item	Details
Site Address (from SIX Maps)	Elizabeth Drive, Badgerys Creek 1793 Elizabeth Drive, Badgerys Creek
Legal Description (from SIX Maps)	(Part of) Lot 81, Deposited Plan 1277406 (Part of) Lot 16, Deposited Plan 1271571 (Part of) Lot 18, Deposited Plan 1271571 (Part of) Lot 71, Deposited Plan 1277011
Approximate area of AEC 41 and AEC 42	12.9 ha
Approximate site area (within AEC 41 and ACE 42)	7.1 ha
Zone (from ePlanning Spatial Viewer)	ENT: Enterprise Not Zoned along proposed rail line.
Local Government Area	Penrith City Council

The SCAW package relates to the proposed construction of approximately 10 km of rail alignment between Orchard Hills and the Western Sydney International (future) airport consisting of a combination of viaducts and surface rail. Areas alongside the proposed rail alignment will be used by contractors or for staging and maintenance for the Metro. A surface rail line and rail bridge is proposed to be constructed at the site.

Cardno, *Human Health and Ecological Risk Assessment, Spoil Re-use Sydney Metro and Western Sydney Airport*, 29 June 2021 (80021888 SMSWA HHERARev3-Issued.docx) (Cardno, 2021e) (HHERA) provides (simple) conceptual site models for different general future land uses for the overall SMWSA project. The two general future land uses associated with the SCAW component of the project are considered to be:

- The rail corridor which will include the rail line, embankments / noise barriers, a stabling yard and maintenance facility and Luddenham station; and
- Passive open space. These are areas immediately adjacent to the rail corridor that may be used for bike / commuter paths. It is assumed that there is an absence of buildings in areas of passive open space.

It is assumed that the site will comprise both of the above-listed land uses.

Development of the site will likely include stripping of topsoil across the site area and cut (up to a maximum of approximately 4 m depth) and fill works (up to approximately 6 m) for the rail line. Stripped and excavated soil from the site will be subject to reuse elsewhere within the greater SCAW area. Soil may be imported from off-site.

3. Scope of Work

The scope of work for the DSI, based on DP, *Sampling and Analysis Quality Plan (SAQP), Surface & Civil Alignment Works (SCAW) Package for Sydney Metro - Western Sydney Airport (SMWSA) Area of Environmental Concern (AEC) 41 & 42, 1793 Elizabeth Drive, Badgerys Creek,* August 2022, (204814.01.SAQP.006.DftA), included the following:

- Collect soil samples from 76 test pits (AEC41TP01 to AEC41TP36 and AEC42TP01 to AEC42TP40) (using an excavator) at regular depth intervals and based on observations. (It is noted NSW EPA,1995 provides a minimum recommended sample density of 11 sample points per hectare for a 5 ha site. The total of 76 sample points has been based on this density for the two AEC sites (total area 7.1 hectares);
- Using a drilling rig, six boreholes will be drilled to a (maximum) depth of 15 m or approximately 1.5 m beyond an observed groundwater table (whichever is the lesser) for installation of groundwater monitoring wells. The groundwater monitoring wells will be positioned to provide some site coverage;
- Develop each of the six groundwater monitoring wells (AEC41 BH01 to BH03 and AEC42 BH01 to BH03);
- Return to site within two weeks due to rainy conditions and access constraints to collect and sample groundwater from each of the six proposed groundwater monitoring wells;
- Collect sediment samples from the farm dam in AEC42 (AEC42 SED01 and AEC42TP101 to AEC42TP103);
- Collect a surface water sample from the farm dam in AEC42 (AEC42 SW01);
- Analyse water samples for potential contaminants and water parameters; and
- Preparation of this DSI including an assessment of analytical and field results.

4. Site Condition and Environment Information

Table 2 provides a summary of information relating to the site condition and environment.

Table 2: Site Condition and Environment Information

Item	Details
Geology	Bringelly Shale: comprising shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff. (Penrith 1:100,000 Geology Sheet).
Soil landscape	Blacktown soil landscape which comprises residual soils. (Penrith 1:100,000 Soils Landscape Sheet).
Topography	The site is at approximately 60 m AHD. Slopes at and around the site are generally down to the east and southeast.

Item	Details
Salinity	The site is at an area of moderate salinity potential and close to an area of high salinity potential to the southeast. (Department of Infrastructure Planning and Natural Resources, *Salinity Potential in Western Sydney Map*).
Acid sulfate soils	The site is not within an area or close to an area associated with a risk of acid sufate soils (NSW Acid Sulfate Soil Risk map).
Surface water bodies	There is a large farm dam at the site and four other large dams on land adjacent to the east of the site. Badgerys Creek is located approximately 550 m to the east of the site.
Groundwater flow direction and discharge	Based on topography, shallow groundwater (if any) is expected to flow to the east and discharge Badgerys Creek or potentially at dams at and close to the site.
Registered groundwater bores	There are no registered groundwater bores within 500 m of the site. A series of registered groundwater bores are located on the opposite side of Badgerys Creek (Water NSW).
Site use and features	Rural use. Land at the site appears to be used for paddocks and a dam.
Surrounding land use	Rural comprising mainly grazier land (EIS).
Information from historical aerial photographs	The land at and surrounding the site appears to have been grazier land since 1955 with sheds and residential buildings on nearby land. There was potentially a spray race approximately 100 m to the west of the site (EIS).
NSW EPA records	There were no NSW EPA regulated sites (under the *Contaminated Land Management Act 1997*) within 1 km of the site (EIS). There were no sites notified to the NSW EPA (under the *Contaminated Land Management Act 1997*) within 1 km of the site (EIS). There were no properties licensed under the *Protection of Environment Operations Act 1997* within 500 m of the site (EIS). There were no NSW EPA PFAS investigation sites within 2 km of the site (EIS). There were penalty notices issued by NSW EPA for the property at 1953-2109 Elizabeth Drive, located approximately 160 m to the west of the site. A clean-up notice (No. 1536719) was issued in January 2016 for illegal use as a waste facility. The site was storing and processing stockpiles of sand, recovered building materials (concrete, brick, glass), sandstone, gravel and soil. EPA officers sampled and confirmed the presence of ACM within stockpiles. Some of the stockpiled material may have been used for road construction across the property.

5. Existing Contamination Data

5.1 Golder-DP Investigations

Golder and Douglas Partners, *Sydney Metro Greater West*, *Factual Contamination Report - Preliminary Site Investigation*, 19 February 2021 (19122621-003-Rev3) (Golder-DP, 2021) includes the results of soil sampling from a test pit and borehole at the site. Table 3 summarises the sample points and Table 4 summarises the laboratory tests undertaken for contaminants and (relevant) soil parameters for soil samples. Sample locations are shown on SAQP extracted Drawings AEC41-01 and AEC42-01, provided in Appendix A.

Table 3: Sample Location, Profile and Groundwater Wells

Sample Location	Test Pit / Borehole	Date	Soil / Rock Profile
SMGW-BH-B117	Borehole	27/2/2020-2/3/2020	Silty clay to 2.8; underlain by gravelly clay to 4.83 m; then siltstone, interlaminated and interbedded sandstone and siltstone, and sandstone to 24.85 m.
SMGW-TP-B109	Test pit	5/3/2020	Clayey silt to 0.15 m; underlain by silty clay to 1 m; then clay to 2.5 m; and siltstone to 2.9 m depth.

Table 4: Soil Sample Testing

Sample Location	Sample Depth (m) (Replicate Identification)	Fill / Natural Soil	Laboratory Testing Suite
SMGW-BH-B117	0-0.1	Natural	Asbestos; metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc); organochlorine pesticides (OCP); organophosphorus pesticides (OPP); monocyclic aromatic hydrocarbons (MAH); oxygenated compounds; carbon disulfide; halogenated aliphatic compounds; halogenated aromatic compounds; trihalomethanes; polynuclear aromatic hydrocarbons (PAH); total recoverable hydrocarbons (TRH); benzene, toluene, ethylbenzene, xylenes, naphthalene (BTEXN); per- and poly-fluoroalkyl substances (PFAS).
	0.4-0.5	Natural	(8) metals; OCP; OPP; PAH; TRH; BTEXN; PFAS.
	0.7-0.8	Natural	pH_F & pH_{FOX} (acid sulfate soil screening).
SMGW-TP-B109	0-0.1	Natural	Asbestos; (8) metals; OCP; OPP; PAH; TRH; BTEXN; PFAS.
	0.5-0.6	Natural	pH_F & pH_{FOX}; suspension peroxide oxidation combined acidity and sulfur (SPOCAS).

It was noted in Golder-DP (2021a) that the sample from SMGW-TP-B109 at a depth of 0.5-0.6 m recorded a net acidity of 0.07% S which exceeded the adopted screening level of 0.03% S.

Previous results are summarised in Table C1, Appendix C and discussed in Section 11.

5.2 Cardno Investigations

Cardno, *Contamination Assessment Report*, *Sydney Metro Western Sydney Airport*, 1 September 2021 (80021888-CDO-CAR-RPT-004-RevE) (Cardno, 2021a) and Cardno, *Contamination Assessment Report - Phase D/E, Sydney Metro Western Sydney Airport*, 26 November 2021 (80021888_CDO-RPT-019_RevB) (Cardo, 2021b) include the results of soil sampling from test pits and boreholes at and near the site. Table 5 lists the soil and rock profile and groundwater monitoring well information. Table 6 lists the laboratory tests undertaken for contaminants and (relevant) soil parameters for soil samples. No groundwater samples were tested. Sample locations are shown on Drawings AEC41-01 and AEC42-01, provided in Appendix A.

Table 5: Sample Location, Profile and Groundwater Wells

Sample Location	Test Pit / Borehole	Date	Soil / Rock Profile
SMGW-TP-B353	Test pit	17/8/2021	Silty sandy fill with clay to 0.4 m; underlain by clayey sand to 1.5 m.
SMGW-TP-B354	Test pit	17/8/2021	Silty sandy fill to 0.2 m; underlain by silty clay to 2.5 m; and sandy gravel to 4 m.
SMGW-TP-B356	Test pit	25/3/2021	Silt clay fill to 0.2 m; underlain by silt clay to 2.1 m; then siltstone to 2.5 m.
SMGW-TP-B367	Test pit	16/8/2021	Silty sand fill to 0.3 m; underlain by sand clay to 0.6 m; then clayey sand to 1.1 m; and gravelly clayey sand to 1.5 m.
SMGW-TP-B365	Test pit	16/8/2021	Silty sand fill to 0.3 m; underlain by silt to 0.8 m; silty clay to 1.4 m; and gravelly silt to 1.5 m.
SMGW-TP-B366	Test pit	16/8/2021	Clayey sand fill to 0.2 m; underlain by silty clay to 1.3 m, then sandy gravel to 1.5 m.
SMGW-BH-B350	Borehole	16-17/8/2021	Clayey silt fill to 0.2 m; underlain by silty clay to 1.5 m; and silty clay to 2.32 m. Soil was underlain by siltstone, interlaminated and interbedded sandstone and siltstone, and sandstone to 25.56 m.
SMGW-BH-B328	Borehole	26/3/2021	Silty clay fill to 0.6 m; underlain by silty clay to 2.78 m; then sandy clay to 3.15 m. Soil was underlain by siltstone, interlaminated and interbedded sandstone and siltstone, and sandstone to 10.2 m.

Table 6: Soil Sample Testing

Sample Location	Sample Depth (m) (Replicate Identification)	Fill / Natural Soil	Laboratory Testing Suite
SMGW-TP-B353	0.1	Fill	Asbestos; TRH, BTEXN; PAH; OCP; OPP; PCB; pH; (8) metals; PFAS.
	0.5	Natural	TRH, BTEXN; PAH; pH; (8) metals; PFAS; volatile organics.
	2.0	Natural	pH; (8) metals; pH_F + $pH_{FOX.}$
SMGW-TP-B354	0.1	Fill	Asbestos; TRH, BTEXN; PAH; OCP; OPP; PCB; pH; (8) metals; PFAS.
	0.5	Natural	TRH; BTEXN; PAH; pH; (8) metals; PFAS; volatile organics.
	2.0	Natural	pH; (8) metals; pH_F + pH_{FOX}.
SMGW-TP-B356	0.1	Fill	Asbestos; TRH; BTEXN; PAH; OCP; OPP; PCB; pH; (8) metals; PFAS
	0.5	Natural	TRH; BTEXN; PAH; pH; (8) metals; PFAS; volatile organics;
	1.5	Natural	pH; (8) metals; pH_F + $pH_{FOX.}$
SMGW-TP-B367	0.1	Fill	Asbestos; TRH; BTEXN; volatile organics; PAH; OCP; OPP; PCB; halogenated phenols; non-halogenated phenols; (8) metals; PFAS.
	1	Natural	TRH; BTEXN; volatile organics; pH; PAH; halogenated phenols; non-halogenated phenols; (8) metals; PFAS.
	1.5	Natural	TRH; BTEXN; volatile organics; pH; PAH; PFAS.
SMGW-TP-B365	0.1	Fill	Asbestos; TRH; BTEXN; volatile organics; tetraethyl lead; PAH; OCP; OPP; PCB; halogenated phenols; non-halogenated phenols; (8) metals; PFAS.
	1	Natural	TRH; BTEXN; volatile organics; pH; PAH; halogenated phenols; non-halogenated phenols; (8) metals; PFAS.
	1.5	Natural	TRH; BTEXN; volatile organics; pH; PAH; (8) metals; PFAS.
SMGW-TP-B366	0.1	Fill	Asbestos; TRH; BTEXN; volatile organics; tetraethyl lead; PAH; OCP; OPP; PCB; halogenated phenols; non-halogenated phenols; (8) metals; PFAS.
	1.5	Natural	TRH; BTEXN; volatile organics; pH; PAH; (8) metals; PFAS.
SMGW-BH-B350	0.1	Fill	Asbestos; TRH; BTEXN; volatile organics; tetraethyl lead; PAH; OCP; OPP; PCB; halogenated phenols; non-halogenated phenols; TRH after silica gel clean-up; (8) metals; PFAS.
	0.1 (QA100_160821)	Fill	TRH; BTEXN; volatile organics; PAH; OCP; OPP; PCB; halogenated phenols; non-halogenated phenols; TRH after silica gel clean-up; (8) metals; PFAS.
	0.1 (QA200_160821)	Fill	Volatile organic compounds (VOC); PFAS; TRH; BTEXN; PAH; OCP; OPP; PCB; total phenolics; (8) metals.
	1	Natural	TRH; BTEXN; volatile organics; tetraethyl lead; pH; PAH; halogenated phenols; non-halogenated phenols; TRH after silica gel clean-up; (8) metals; PFAS.
	2	Natural	TRH; BTEXN; volatile organics; tetraethyl lead; pH; PAH; halogenated phenols; non-halogenated phenols; TRH after silica gel clean-up; (8) metals; PFAS.

Sample Location	Sample Depth (m) (Replicate Identification)	Fill / Natural Soil	Laboratory Testing Suite
	2.67	Natural (Rock)	TRH; BTEXN; volatile organics; pH; PAH; halogenated phenols; non-halogenated phenols; (8) metals; PFAS; nickel in toxicity characteristic leaching procedure (TCLP).
	13.15	Natural (Rock)	TRH; BTEXN; volatile organics; pH; PAH; halogenated. phenols; non-halogenated phenols; (8) metals; PFAS.
	17.15	Natural (Rock)	TRH; BTEXN; volatile organics; pH; PAH; halogenated. phenols; non-halogenated phenols; (8) metals; PFAS.
	22.15	Natural (Rock)	TRH; BTEXN; volatile organics; pH; PAH; halogenated phenols; non-halogenated phenols; (8) metals; PFAS.

It is noted that apparently no soil samples from SMGW-BH-B328 were analysed.

Results are summarised in Table C1, Appendix C and discussed in Section 11.

6. Potential Contamination Sources and Preliminary Conceptual Site Model

The potential source of contamination for AEC 41 were identified in the EIS to be: *'illegal stockpiling of waste and imported soil';* and *potential use of imported fill material with potential ACM (asbestos-containing materials) for road construction and filling in parts of the construction footprint'.*

The potential sources of contamination for AEC 42 were identified in the EIS to be: '*workshop (fuel/oil/chemical storage and use) and potential spray race (pesticides)'.*

It is noted that the area of 'illegal stockpiling' appears to have been approximately 160 m to the west of the site. Similarly, the 'workshop' and 'potential spray race' appear to have been approximately 75 m and 100 m to the west of the site, respectively. Drawing 3 in Appendix A shows the location of areas of contamination concern in the vicinity of the site.

For AEC 41 and AEC 42, contaminants of potential concern were identified in the EIS to be: heavy metals, TRH, semi-volatile organic compounds (SVOC), PCB, and asbestos. It is noted that specific heavy metals and SVOC were not provided in the EIS.

Table 7 summarises the potential source of contamination and what are considered to be the contaminants of potential concern for the DSI.

Table 7: Potential Source of Contamination and Contaminants of Potential Concern

Potential Source of Contamination	Contaminants of Potential Concern
Contaminated ground from adjacent site activities	• Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc) • Total recoverable hydrocarbons (TRH) • Benzene, toluene, ethylbenzene and xylenes (BTEX) • Polycyclic aromatic hydrocarbons (PAH)* • Organochlorine pesticides (OCP) • Organophosphorus pesticides (OPP) • Polychlorinated biphenyls (PCB) • Phenols • Asbestos
Contaminated groundwater from adjacent site activities	• Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc) • Total recoverable hydrocarbons (TRH) • Benzene, toluene, ethylbenzene and xylenes (BTEX) • Polycyclic aromatic hydrocarbons (PAH)* • Organochlorine pesticides (OCP) • Organophosphorus pesticides (OPP) • Polychlorinated biphenyls (PCB) • Phenols

Note: *Based on a review of site history, analysis for a larger suite of SVOC was not considered warranted.

A Conceptual Site Model (CSM) is a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM provides the framework for identifying how the site may have become contaminated and how potential receptors may be exposed to contamination either in the present or the future i.e., it enables an assessment of the potential source – pathway – receptor linkages (complete pathways). Table 8 provides the preliminary CSM which forms the basis of the investigation.

Table 8: Preliminary CSM

Potential Contamination Source	Potential Exposure Pathway	Potential Receptors
Contaminated ground from adjacent site activates	− Ingestion and direct contact − Inhalation of dust − Inhalation of vapours	− Construction workers (for the proposed development) − Future site workers including maintenance workers (post-development) − Pedestrians and commuters
	− Inhalation of dust − Inhalation of vapours	− Adjacent site users
	− Surface run-off − Leaching of contaminants into groundwater and lateral migration of groundwater	− Surface water bodies
	− Leaching of contaminants into groundwater	− Groundwater
	− Ingestion, inhalation and direct contact	− Terrestrial ecosystems
	− Direct contact	− In ground structures
Contaminated groundwater migrating onto the site from an off-site source	− Inhalation of vapours	− Construction workers (for the proposed development) − Future site workers including maintenance workers (post-development); − Pedestrians and commuters

Although *Table B2: Activities associated with PFAS contamination more broadly* of Appendix B of HEPA, *PFAS National Environmental Management Plan* (NEMP) (HEPA, 2020) lists '*Agriculture: Potentially used as an adjuvant or active ingredient in fertilisers and pesticides*….', it is considered that investigation for PFAS is not warranted given that crops did not appear to be established at the site, and, thus, there is a low probability that substantial fertiliser application has occurred.

In addition, site use information in the EIS, as stated in the SAQP, is summarised as follows: - *the land at and surrounding the site appears to have been grazier land since 1955 with sheds and residential buildings on nearby land. There was potentially a spray race approximately 100 m to the west of the site. 'Illegal stockpiling' appears to have been approximately 160 m to the west of the site and a 'workshop' appears to be approximately 75 m to the west of the site.*

Although detectable soil concentrations of PFAS were identified in previous investigations (as listed in the SAQPs for AEC41 & AEC42), the concentrations were very low and considered indicative of general background concentrations for soil in urban and rural areas.

On the basis of the above, investigation for PFAS is not considered to be warranted at the above-listed AEC. The auditor has agreed with this rationale in an email dated 13 September 2022.

Overall, given that potentially contaminating activities were off-site, it was considered` that the potential for contamination was low.

7. Sampling and Groundwater Well Installation

7.1 Data Quality Objectives

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

7.2 Soil Sampling

Based on the CSM and data quality objectives (DQO), a broad grid sampling strategy was adopted to provide data across the site. A sample density of 11 soil sample points per hectare was adopted and was based on the minimum recommended sample density of 11 sample points per hectare for a 5 ha site in NSW EPA, *Contaminated Sites, Sampling Design Guidelines,* 1995 (NSW EPA, 1995). It is noted that field work commenced prior to the release of NSW EPA*, Sampling Design Part 1 - application, Contaminated Land Guidelines,* August 2022 (NSW EPA, 2022) which supersedes NSW EPA (1995), however, the current guidelines recommend the same density for a 5 ha site. It is noted that AEC41 & 42 together cover 7 hectares, however the density is relevant for each site.

A total of 76 test pits (AEC41TP01 to AEC41TP36 and AEC42TP01 to AEC42TP40) were used for soil sample collection. Sampling from test pits was carried out between 12 August 2022 and 2 September 2022.

It is noted that the number of sampling points is greater than that listed in the SAQP, however, a similar sample density was adopted. This was due in part to the site boundary being extended to include a larger site area than previously proposed.

Soil sampling was carried out in accordance with DP standard operating procedures. The general sampling and sample management procedures is as follows:

- Collect soil samples from excavator bucket returns including at the surface / near surface and regular depth intervals (approximately every 0.5 m) and / or at changes of strata;
- Transfer samples in laboratory-prepared glass jars with Teflon lined lids by hand, capping immediately and minimising headspace within the sample jar;
- Collect replicate samples in zip-lock bags for screening using a photo-ionisation detector (PID);
- For fill / topsoil samples, collect ~500 ml samples in zip-lock bags (for asbestos analysis);
- Wear a new disposable nitrile glove for each sample point thereby minimising potential for cross-contamination;

- Label sample containers with individual and unique identification details, including project number, sample location and sample depth (where applicable);
- Place samples into a cooled, insulated and sealed container for transport to the laboratory; and
- Use chain of custody documentation.

It is noted that as potential ACM or copious quantities of building rubble were not observed in fill, 10 L bulk samples were not collected for sieving/screening for asbestos assessment.

7.3 Sediment Sampling

Sediment sampling of the farm dam in AEC 42 (sample ARC42SED01), prior to dewatering, and following dewatering of the farm dam (samples AEC42TP101 - TP103) was carried out on 25 August 2022 and 24 November 2022 in accordance with DP standard operating procedures.

The general sampling and sample management procedures is as follows:

- Collect sediment sample from an accessible point using stainless steel hand tools;
- Transfer samples in laboratory-prepared glass jars with Teflon lined lids by hand, capping immediately and minimising headspace within the sample jar;
- Collect replicate samples in zip-lock bags for PID screening;
- Collect ~500 ml samples for asbestos analysis;
- Wear a new disposable nitrile glove for each sample point thereby minimising potential for cross-contamination;
- Label sample containers with individual and unique identification details, including project number, sample location and sample depth (where applicable);
- Place samples into a cooled, insulated and sealed container for transport to the laboratory; and
- Use chain of custody documentation.

For soil and sediment sampling, to avoid the need for decontaminating sampling equipment, disposable nitrile gloves were changed between each sampling event and used for sample collection.

7.4 Surface Water Sampling

Surface sampling of the farm dam in AEC 42 (sample AEC42SW01) was carried out on 12 October 2022 in accordance with DP standard operating procedures. Sample collection was completed using a telescopic pole and decontaminated sample container. A new pair of disposable nitrile gloves were worn at each sample site to minimise potential for cross-contamination. The sampling method is described as follows:

- Sample location in the farm dam in AEC42 at a reasonable distance from the edge (as shown on Drawing AEC42-01 in Appendix A);

- Immerse sample container to at least 1 m below the surface (if possible), with the opening pointing directly down to maintain a volume of air in the container, thereby avoiding the collection of any surface films;
- Once under the surface of the water, point the mouth of the sample container up stream so that gloved hands, sample container and/or sample collection device are downstream of the sample being collected;
- If the water is still, move the sample container forward away from the sampler and any equipment to collect a continuous uncontaminated sample;
- Use a sample location specific laboratory-prepared glass bottle without preservatives;
- Decant the water sample into laboratory-prepared bottles, minimising headspace within the sample bottle and cap immediately. The sample location specific laboratory-prepared glass bottle can be used as the sample container for the last sample from that location;
- Place samples into a cooled, insulated and sealed container for transport to the laboratory; and
- Use chain of custody documentation.

7.5 Groundwater Well Sampling

Groundwater sampling of the existing groundwater monitoring wells (AEC41 BH01 to BH03 and AEC42 BH01 to BH03) was carried out on 11 and 12 October 2022 in accordance with DP standard operating procedures. The sampling method adopted is as follows:

- Measure the static water level using an electronic interface probe;
- Lower the well-dedicated tubing into the well at a depth that is at the screened section of the well;
- Set up the peristatic pump to draw water at a low rate that produces laminar flow;
- Measure physical parameters by continuously passing the purged water through a flow cell;
- Following stabilisation of the field parameters using a water quality meter, collect samples in laboratory-prepared bottles minimising headspace within the sample bottle and cap immediately. Samples for metals analysis are filtered in the field using a 0.45 µm filter (prior to bottling of the sample);
- Place samples into a cooled, insulated and sealed container for transport to the laboratory; and
- Use chain of custody documentation.

Field sheets for groundwater sampling are provided in Appendix H.

For groundwater sampling, the electronic interface probe, flow cell and probes were decontaminated between monitoring wells by rinsing in a diluted Liquinox solution and then rinsing in demineralised water. A rinsate (Rinsate-W080922) was collected by running demineralised water over the decontaminated sampling equipment and directing the water into sampling bottles provided by the laboratory. Rinsate test results were all less than the practical quantitation limits.

8. Laboratory Analysis

8.1 Soil Samples from Test Pits

Fill or topsoil (primary) samples from each test pit location were analysed at a NATA accredited laboratory for the COPC (see Table 7) comprising: metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), TRH, BTEX, PAH, OCP, OPP, PCB, total phenols and asbestos (in 500 ml of soil) as fill / topsoil was considered to have a greater risk of contamination compared to the observed natural soil. Natural soil samples from 12 sample locations (AEC41TP02, AEC41TP06, AEC41TP11, AEC41TP16, AEC41TP32, AEC42TP01, AEC42TP05, AEC42TP11, AEC42TP19, AEC42TP28, AEC42TP30, AEC42TP36) and various depths beneath fill/topsoil were analysed for the same suite of COPC excluding asbestos to obtain some data for the natural profile across the site.

Laboratory certificates and chain of custody are provided in Appendix E.

8.2 Sediment Samples from Dam

The sediment samples were analysed at a NATA accredited laboratory for the COPC (see Table 7) comprising: metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), TRH, BTEX, PAH, OCP, OPP, PCB, total phenols and asbestos (in 500 ml of soil).

8.3 Surface Water Samples

One surface water sample from the farm dam in AEC42 SW01 was analysed for COPC comprising metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), PAH, TRH, BTEX, VOC, OCP, OPP, PCB and phenols. Hardness was also analysed for the calculation of hardness adjusted default guideline values (DGV).

8.4 Groundwater Samples

Six groundwater samples from AEC41 BH01 to BH03 and AEC42 BH01 to BH03 were analysed for COPC comprising metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), PAH, TRH, BTEX, VOC, OCP, OPP, PCB and phenols. Hardness was also analysed for the calculation of hardness adjusted default guideline values (DGV).

9. Site Assessment Criteria

Tier 1 Site Assessment Criteria (SAC) for the assessment of soils, informed by the CSM, at the site are listed in Appendix F.

10. Field Work Results

10.1 Soil - Test Pits

The test pit logs for this assessment are included in Appendix G and should be reference for detailed soil descriptions. In summary:

- Either topsoil or fill comprising sandy silt or silty sand was encountered at all test pits, between 0.1 m and 0.3 m thick.
- Topsoil / fill was underlain by silty clay at the majority of test pits to depths ranging from 0.4 m to 2.1 m bgl.
- topsoil or silty sand fill was underlain by silty clay with ironstone gravel in test pits AEC41TP09 to AEC41TP12, AEC41TP16 to AEC41TP36, AEC42TP01 to AEC42TP06, AEC42TP11, AEC42TP12, AEC42TP15, AEC42TP16, AEC42TP17, AEC42TP18, AEC42TP19, AEC42TP20, AEC42TP30, AEC42TP31, AEC42TP32, AEC42TP33, AEC42TP36, AEC42TP39, and AEC42TP40 to termination depths of between 0.6 m and 1.4 m depth.

PID results were less than 1 ppm, indicating a low potential for the presence of volatile contaminants.

A slight hydrocarbon odour was identified in the topsoil at AEC42TP12 from 0 to 0.2 m depth. No other signs of contamination (e.g., odours, staining or potential asbestos-containing materials) were observed during sampling. No anthropogenic materials were observed to be associated with the fill.

No free groundwater was observed at the test pits. It should be noted that groundwater levels are affected by climatic conditions and soil permeability and will therefore vary with time.

10.2 Sediment Samples

The sediment sample (AEC42 SED01) was taken on 25 August 2022 and logged as sandy silt, dark brown with trace rootlets. The additional three sediments samples (AEC42TP101 to AEC42TP103) were taken on 24 November 2022 and logged as sandy silt, medium to high plasticity, dark grey-brown, fine to medium sand, trace rootlets.

Samples were also taken from natural clay below the sediment: medium to high plasticity, red-brown as follows TP101 (0.2 m - 0.3 m) TP102 (0.4 m - 0.5 m) and TP103 (0.2 m - 0.3 m).

10.3 Surface Water Sample

The surface water was sampled on 11 October 2022 and was described as clear / transparent, slightly cloudy, no odour. Some algae and vegetation covering surface, predominantly around the edges of the dam.

10.4 Groundwater Boreholes

The borehole logs for this assessment are included in Appendix G. Boreholes for groundwater monitoring wells were drilled through a surface layer of topsoil (0.1 m to 0.2 m thick), then silty clay to depths of between 3 m and 5.5 m, then siltstone to termination depths (between 5.6 m and 11.2 m). No signs of contamination were noted whilst drilling.

Groundwater seepage was observed whist drilling at a depth of 4.0 m at AEC41BH01 and AEC41BH02, 2.2 m at AEC41BH03, 3.5 m at AEC42BH01, 9 m at AEC42BH02 and 2 m at AEC42BH03. It should be noted that groundwater levels are affected by climatic conditions and soil permeability and will therefore vary with time.

10.5 Groundwater Well Development and Sampling

The groundwater levels prior to sampling were as follows:

Table 9: Potential Source of Contamination and Contaminants of Potential Concern

Borehole	Prior to Well Development		Prior to Well Sampling		
	Groundwater Depth (m bgl)	Groundwater Level (m AHD)	Groundwater Depth (m bgl)	Groundwater Level (m AHD)	Sample Appearance
AEC41 BH01	1.05 (29/9/22)	53.95	0.73 (11/10/22)	54.27	Slightly cloudy, no odour
AEC41 BH02	2.44 m (29/9/22)	61.86	2.42 (11/10/22)	61.88	Clear, no odour
AEC41 BH03	3.23 (29/9.22)	60.27	3.23 (11/10/22)	60.27	Pale grey – brown, slightly cloudy, turbid, no odour
AEC42 BH01	2.16 (29/9/22)	51.84	2.15 (11/10/22)	51.85	Clear, no odour
AEC42 BH02	5.63 (29/9/22)	54.57	5.55 (11/10/22)	54.65	Slightly cloudy, no odour
AEC42 BH03	1.17 (29/9/22)	55.63	1.94 (11/10/22)	54.86	cloudy, pale grey, no odour

The groundwater field sheet and water quality meter calibration record are provided in Appendix H.

11. Discussion of Laboratory Analytical Results

11.1 Soil Samples

Analytical results for soil samples are summarised in Table I1, Appendix I, against the most conservative (Tier 1) SAC (see Appendix F).

Asbestos was not detected in any analysed sample.

It is noted that concentrations of TRH, BTEX, PAH, OCP, OPP, PCB and total phenols were less than the practical quantitation limits.

PFAS was above PQL but below SAC in the following samples from previous testing by Golder (SMGW-BH-B117 (0-0.1) and SMGW-BH-B109 (0-0.1) and Cardno (TP-B356_0.1, TP-B365_0.1, TP-B366_0.1, TP-B367_0.1, BH-B350_0.1). As discussed in Section 6 despite detectable soil concentrations of PFAS identified in previous investigations the concentrations were very low and considered indicative of general background concentrations for soil in urban and rural areas.

Previous results from Golder and Cardno are also presented in Tables C1 and C2 in Appendix C.

Concentrations of chemicals for all analysed soil samples are within the SAC except for:

- An elevated concentration of nickel (210 mg/kg) that was recorded for the rock sample from SMGW-BH-B350 at a depth of 2.67 m and exceeded the public open space EIL (EIL-C, 170 mg/kg) but not the commercial / industrial EIL (EIL-D 290 kg/mg); and
- Sample from SMGW-TP-B109 at a depth of 0.5-0.6 m recorded a net acidity of 0.07% S which exceeded the adopted screening level of 0.03% S and may be an indicator of slightly acidic soil environment (Golder).

The above-listed concentration of nickel is not considered to be indicative of contamination, but rather indicative of the natural soil / rock in the area given the sample depths are greater than 2.5 m below the surface topsoil layer and the topsoil samples had lower nickel concentrations (34 mg/kg and 30 mg/kg).

11.2 Sediment Samples

Analytical results for sediment samples for the current investigation are summarised in Table I1, Appendix I. Results were within the SAC. No asbestos was detected in the sediment samples.

11.3 Surface Water Sample

Analytical results for the surface water sample (AEC42SW01) are summarised in Table I2, Appendix I.

Concentrations of contaminants were within the SAC.

Surface water is considered suitable to discharge to land, however if discharge to stormwater is required, DP recommends the following additional stormwater quality assessment criteria from ANZECC/ARMCANZ (2000) to be sampled at that time:

- Conductivity (µs/cm) 125-2200;
- pH 6.5-8.5;
- Dissolved Oxygen (% saturation) 85-110;
- Turbidity (NTU) 11.6-50; and

- Suspended solids (mg/L) <40.

11.4 Groundwater Water Samples

Analytical results for groundwater and surface water samples from the six wells are summarised in Table I2, Appendix I, against the SAC. Groundwater levels varied from 0.73 to 5.55 m depth from ground surface, health screening levels (HSL) for vapour intrusion at depth 2 m to <4 m are shown as a general reference. Default guideline values (DGV) for metals have been adjusted for hardness where possible.

Concentrations of metals were low and within the SAC.

Concentrations of TRH, VOC (including BTEX), OCP, OPP, PCB and phenols were less than the practical quantitation limits (PQL) and within the SAC.

11.5 Preliminary Waste Classification Comments

Although it is understood that excavated materials are planned to be used for the SCAW project, preliminary comments for waste classification are provided below in the case that some of the materials are to be disposed off-site.

Table I3, Appendix I presents the analytical results for the current investigation against criteria from NSW EPA, *Waste Classification Guidelines*, 2014 (NSW EPA, 2014) and NSW EPA, *The excavated natural material order 2014.* Tables C1 and C2, Appendix C presents the analytical results for the previous investigation against the same criteria as well as NSW EPA, *Addendum to the Waste Classification Guidelines (2014) - Part 1: classifying waste,* 2016.

With respect to topsoil and fill, concentrations of chemical contaminants were within the CT1 criteria for General Solid Waste.

With respect to natural soil samples, concentrations of chemical contaminants were within what are considered to be background levels which are considered to be consistent with the definition of virgin excavated natural material (VENM), as defined in Protection of the Environment Operations Act 1997. Exceedances of CT1 in nickel are considered to be indicative of the natural soil / rock in the area given the sample depths are greater than 2.5 m below the surface topsoil layer and the topsoil samples had lower nickel concentrations (34 mg/kg and 30 mg/kg).

11.6 Data Quality Assurance and Quality Control

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

12. Conclusion

Analysis of soil, sediment, surface and groundwater samples has not revealed the presence of contamination that requires remediation. Based on the results of sampling and site observations reported herein, it is considered, from a contamination perspective, that the site (at AEC 41 and AEC42) is suitable for the final intended land use. Tested fill and soils that are to be excavated are considered to be suitable to be used at the site.

Additional monitoring of parameters is recommended for dam water if discharge to stormwater is proposed as outlined in Section 11.3.

13. Limitations

Douglas Partners (DP) has prepared this report (or services) for the SCAW package for SMWSA. The work was carried out under a Service Contract. This report is provided for the exclusive use of CPBUI JV for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and / or their agents.

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

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

Asbestos has not been detected in laboratory analysis of soil samples. Although the sampling plan adopted for this investigation is considered appropriate to achieve the stated project objectives, there are necessarily parts of the site that have not been sampled and analysed. This is either due to undetected variations in ground conditions or to budget constraints, or to parts of the site being inaccessible and not available for inspection/sampling, or to vegetation preventing visual inspection and reasonable access. It is therefore considered possible that hazardous building materials (HBM), including asbestos, may be present in unobserved or untested parts of the site, between and beyond sampling locations, and hence no warranty can be given that asbestos is not present.

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

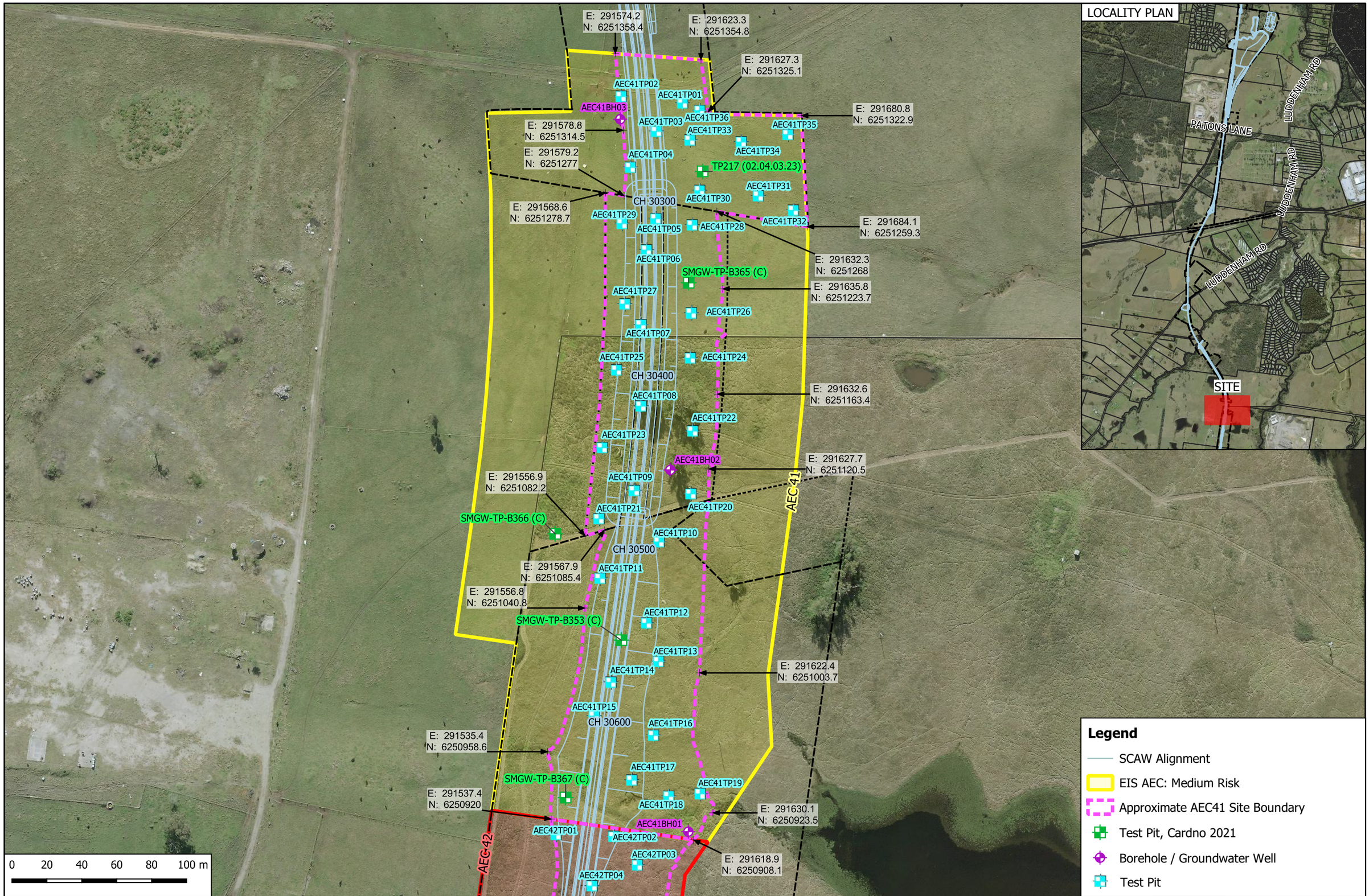
This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation,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

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

Douglas Partners Pty Ltd

Appendix A

Drawings

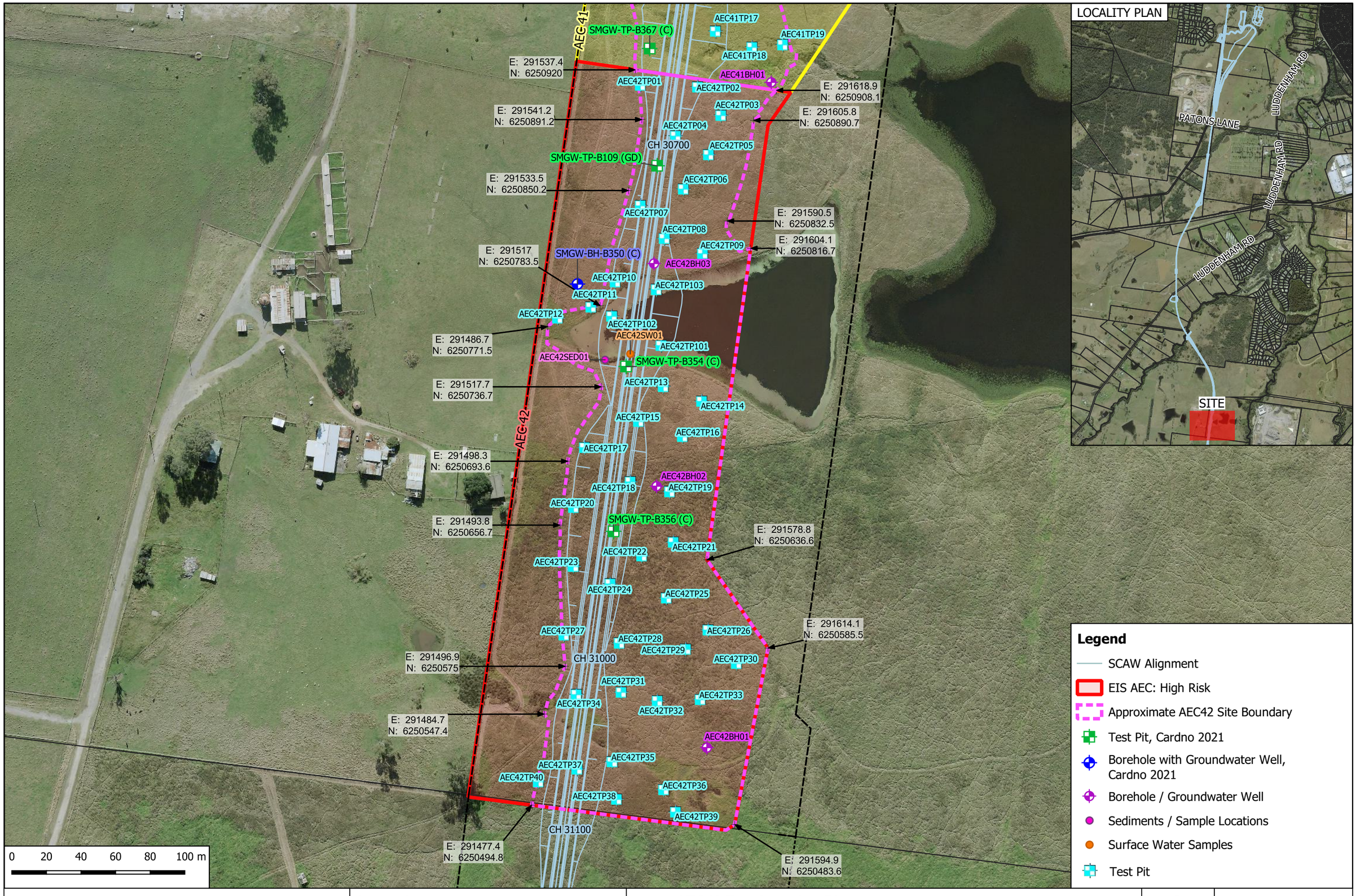


Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	CPBUI JV		
OFFICE:	Sydney	DRAWN BY:	MG
SCALE:	1:2000 @ A3	DATE:	18/01/2023

TITLE: **AEC41 Test Location Plan**
Sydney Metro Western Sydney Airport - SCAW
Elizabeth Drive, Badgerys Creek

PROJECT No:	204814.01
DRAWING No:	AEC41-01
REVISION:	Rev 1

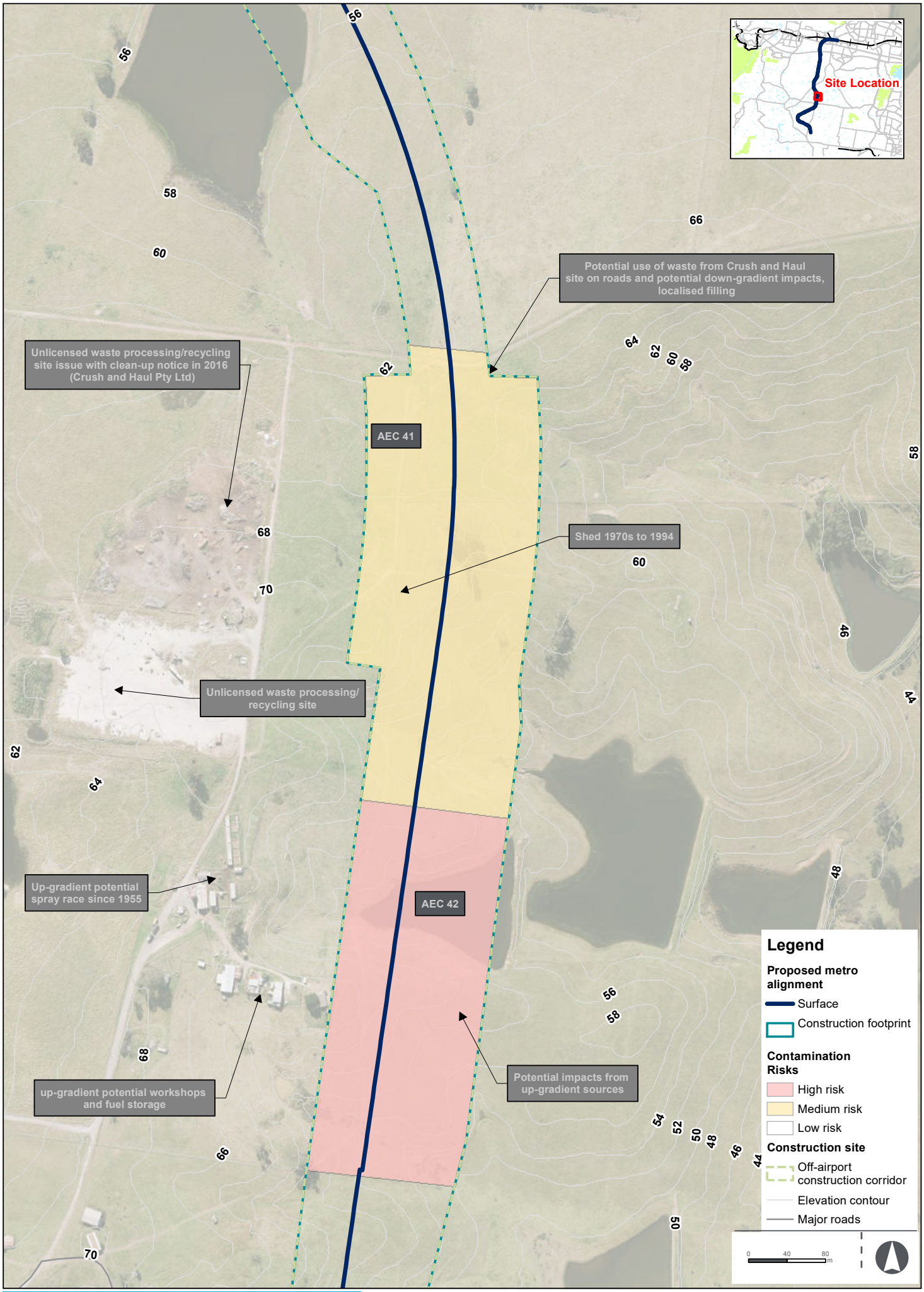


Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	CPBUI JV		
OFFICE:	Sydney	DRAWN BY:	MG
SCALE:	1:2000 @ A3	DATE:	18/01/2023

TITLE: **AEC42 Test Location Plan**
Sydney Metro Western Sydney Airport - SCAW
Elizabeth Drive, Badgerys Creek

PROJECT No:	204814.01
DRAWING No:	AEC42-01
REVISION:	Rev 2



Sydney Metro - Western Sydney Airport

Off-airport construction corridor in Badgerys Creek contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

Figure A12

Appendix B

About this Report

About this Report

Douglas Partners

Introduction

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

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

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

Borehole and Test Pit Logs

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

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

Groundwater

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

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

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

Reports

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

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

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

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

About this Report

Site Anomalies

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

Information for Contractual Purposes

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

Site Inspection

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

Appendix C

Previous Investigation Results

Table C3 - Previous Golder Results

Location_Code						B117			B109	
Field_ID						SMGW-BH-B117_0-0.1	SMGW-BH-B117_0.4-0.5	SMGW-BH-B117_0.7-0.8	SMGW-TP-B109_0-0.1	SMGW-TP-B109_0.5-0.6
Sample_Depth_Range						0-0.1	0.4-0.5	0.7-0.8	0-0.1	0.5-0.6
Sample Date						26/05/2020	26/05/2020	26/05/2020	26/05/2020	26/05/2020
Analyte	**Units**	**EQL**	**HIL C/HSL C**	**HIL D/HSL D**	**Ecological**	**Management Limits B**				
Miscellaneous Parameters										
Moisture Content (dried @ 40°C)	%	0.1					16.2	6.5	-	22.5	-
Acid Sulfate Soils Screening										
pH (F)	pH Unit	0.1					-	-	5.4	-	6.4
pH (Fox)	pH Unit	0.1					-	-	4.4	-	4.6
Reaction Rate	-	1					-	-	2	-	2
pH KCL	pH Unit	0.1					-	-	-	-	4.6
pH OX	pH Unit	0.1					-	-	-	-	4.3
Total Actual Acidity (TAA)	%S	0.02					-	-	-	-	0.054
Total Peoxide Acidity (TPA)	%S	0.02					-	-	-	-	0.133
Peroxide Oxidisable Sulfur (SPOS)	%S	0.02					-	-	-	-	0.02
Net Acidity	%S	0.02			0.03 13		-	-	-	-	0.07
Asbestos										
Asbestos	Detect	-	NAD				NAD	-	-	NAD	-
Bonded Asbestos			0.020%	0.050%							
Asbestos Fines	Fibres	0.1	0.001%	0.001%			NFD	-	-	NFD	-
TPHs										
TPH C6 - C9 Fraction F1	mg/kg	10		800			<10	<10	-	<10	
TPH C10-C36	mg/kg	50		5000			<50	<50	-	<50	
TRHs										
TRH C6 - C10 Fraction F1	mg/kg	10				800	<10	<10	-	<10	-
TRH C6 - C10 Fraction Less BTEX F1	mg/kg	10	5100 (NL)	26 000 (310)	180		<10	<10	-	<10	-
TRH >C10 - C16 Fraction F2	mg/kg	50				1000	<50	<50	-	<50	-
TRH >C10 - C16 Fraction Less Naphthalene (F2)	mg/kg	50	3,800	20 000	120		<100	<100	-	<100	-
TRH >C16 - C34 Fraction F3	mg/kg	100	5,300	27 000	1300	2500	<100	<100	-	<100	-
TRH >C34 - C40 Fraction F4	mg/kg	100	7,400	38 000	5600	10,000	<100	<100	-	<100	-
TRH+C10 - C40 (Sum of total) (Lab Reported)	mg/kg	50					<50	<50	-	<50	-
BTEXN										
Benzene	mg/kg	0.2	120	430	65		<0.2	<0.2	-	<0.2	-
Toluene	mg/kg	0.5	18 000	99 000	105		<0.5	<0.5	-	<0.5	-
Ethylbenzene	mg/kg	0.5	5 300	27 000	105		<0.5	<0.5	-	<0.5	-
Xylenes (m & p)	mg/kg	0.5					<0.5	<0.5	-	<0.5	-
Xylene (o)	mg/kg	0.5					<0.5	<0.5	-	<0.5	-
Xylenes (Sum of total) (Lab Reported)	mg/kg	0.5	15 000	81 000	45		<0.5	<0.5	-	<0.5	-
Total BTEX	mg/kg	0.2					<0.2	<0.2	-	<0.2	-
Naphthalene	mg/kg	0.1	1 900	11 000	370		<0.1	<0.1	-	<0.1	-
Heavy Metals										
Arsenic	mg/kg	4	300	3000	100		9	17	-	8	-
Cadmium	mg/kg	0.4	90	900			<1	2	-	<1	-
Chromium (III+VI)	mg/kg	1	300	3600	410		27	80	-	15	-
Copper	mg/kg	1	17 000	240 000	210		15	6	-	26	-
Lead	mg/kg	1	600	1500	1100		20	29	-	21	-
Mercury	mg/kg	0.1	80	730			<0.1	<0.1	-	<0.1	-
Nickel	mg/kg	1	1200	6000	170		11	7	-	27	-
Zinc	mg/kg	1	30 000	400 000	480		36	11	-	67	-
Organochlorine Pesticides										
a-BHC	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
Aldrin	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
Dieldrin	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
Aldrin & Dieldrin (Sum of total) (Lab Reported)	mg/kg	0.05	10	45			<0.05	<0.05	-	<0.05	-
b-BHC	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
cis-Chlordane	mg/kg	0.05	70	530			<0.05	<0.05	-	<0.05	-
gamma-Chlordane	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
trans-Chlordane	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
Chlordane (Sum of Total)	mg/kg	0.05	530	250			<0.05	<0.05	-	<0.05	-
d-BHC	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
4,4-DDD	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
4,4-DDE	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
4,4-DDT	mg/kg	0.1			180		<0.2	<0.2	-	<0.2	-
DDT+DDE+DDD (Sum of total) (Lab Reported)	mg/kg	0.05	400	3600			<0.05	<0.05	-	<0.05	-
Endosulfan	mg/kg	0.05	340	2000			<0.05	<0.05	-	<0.05	-
Endosulfan I	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
Endosulfan II	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
Endosulfan sulphate	mg/kg	0.05					<0.05	<0.05	-	<0.05	-
Endrin	mg/kg	0.05	20	100			<0.05	<0.05	-	<0.05	-

Table C3 - Previous Golder Results

						Location_Code	B117			B109		
						Field_ID	SMGW-BH-B117_0-0.1	SMGW-BH-B117_0.4-0.5	SMGW-BH-B117_0.7-0.8	SMGW-TP-B109_0-0.1	SMGW-TP-B109_0.5-0.6	
						Sample_Depth_Range	0-0.1	0.4-0.5	0.7-0.8	0-0.1	0.5-0.6	
						Sample Date	26/05/2020	26/05/2020	26/05/2020	26/05/2020	26/05/2020	
Analyte	**Units**	**EQL**	**HIL C/HSL C**	**HIL D/HSL D**	**Ecological**	**Management Limits B**						
Endrin aldehyde	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Endrin ketone	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
g-BHC (Lindane)	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Heptachlor	mg/kg	0.05	10	50			<0.05	<0.05	-	<0.05	-	
Heptachlor epoxide	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Hexachlorobenzene	mg/kg	0.05	10	80			<0.05	<0.05	-	<0.05	-	
Methoxychlor	mg/kg	0.1	400	2500			<0.2	<0.2	-	<0.2	-	
Organophosphorus Pesticides												
Azinophos methyl	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Bromophos-ethyl	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Carbophenothion	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Chlorfenvinphos	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Chlorpyrifos	mg/kg	0.05	250	2000			<0.05	<0.05	-	<0.05	-	
Chlorpyrifos-methyl	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Demeton-S-methyl	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Diazinon	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Dichlorvos	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Dimethoate	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Ethion	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Fenamiphos	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Fenthion	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Malathion	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Methyl parathion	mg/kg	0.2					<0.2	<0.2	-	<0.2	-	
Monocrotophos	mg/kg	0.2					<0.2	<0.2	-	<0.2	-	
Parathion	mg/kg	0.1					<0.2	<0.2	-	<0.2	-	
Pirimphos-ethyl	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
Prothiofos	mg/kg	0.05					<0.05	<0.05	-	<0.05	-	
PAHs												
Acenaphthene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Acenaphthylene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Anthracene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Benz(a)anthracene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Benzo(a) pyrene	mg/kg	0.05			0.7		<0.5	<0.5	-	<0.5	-	
Benzo(a)pyrene TEQ (lower bound)	mg/kg	0.5	3	40			<0.5	<0.5	-	<0.5	-	
Benzo(a)pyrene TEQ (medium bound)	mg/kg	0.5	3	40			0.6	0.6	-	0.6	-	
Benzo(a)pyrene TEQ (upper bound)	mg/kg	0.5	3	40			1.2	1.2	-	1.2	-	
Benzo(a)pyrene TEQ (Calculated)	mg/kg		3	40			<1.21	<1.21	-	<1.21	-	
Benzo[b+j]fluoranthene	mg/kg	0.5					<0.5	<0.5	-	<0.5	-	
Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Benzo(k)fluoranthene	mg/kg	0.5					<0.5	<0.5	-	<0.5	-	
Chrysene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Fluoranthene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Fluorene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Naphthalene	mg/kg	0.1			170		<0.5	<0.5	-	<0.5	-	
Phenanthrene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
Pyrene	mg/kg	0.1					<0.5	<0.5	-	<0.5	-	
PAH (Sum of Common 16 PAHs - Lab Reported)	mg/kg	0.5	300	4000			<0.5	<0.5	-	<0.5	-	
Volatile Organic Compounds												
2-chlorotoluene	mg/kg	0.5					<0.5	-	-	-	-	
4-chlorotoluene	mg/kg	0.5					<0.5	-	-	-	-	
1,2,3-trichlorobenzene	mg/kg	0.5					<0.5	-	-	-	-	
1,2,4-trichlorobenzene	mg/kg	0.5					<0.5	-	-	-	-	
1,2-dichlorobenzene	mg/kg	0.5					<0.5	-	-	-	-	
1,3-dichlorobenzene	mg/kg	0.5					<0.5	-	-	-	-	
1,4-dichlorobenzene	mg/kg	0.5					<0.5	-	-	-	-	
Bromobenzene	mg/kg	0.5					<0.5	-	-	-	-	
Chlorobenzene	mg/kg	0.5					<0.5	-	-	-	-	
1,2,4-trimethylbenzene	mg/kg	0.5					<0.5	-	-	-	-	

Table C3 - Previous Golder Results

Location_Code						B117			B109	
Field_ID						SMGW-BH-B117_0-0.1	SMGW-BH-B117_0.4-0.5	SMGW-BH-B117_0.7-0.8	SMGW-TP-B109_0-0.1	SMGW-TP-B109_0.5-0.6
Sample_Depth_Range						0-0.1	0.4-0.5	0.7-0.8	0-0.1	0.5-0.6
Sample Date						26/05/2020	26/05/2020	26/05/2020	26/05/2020	26/05/2020
Analyte	**Units**	**EQL**	**HIL C/HSL C**	**HIL D/HSL D**	**Ecological**	**Management Limits B**				
1,3,5-trimethylbenzene	mg/kg	0.5					<0.5	-	-	-	-
Isopropylbenzene	mg/kg	0.5					<0.5	-	-	-	-
n-butylbenzene	mg/kg	0.5					<0.5	-	-	-	-
n-propylbenzene	mg/kg	0.5					<0.5	-	-	-	-
p-isopropyltoluene	mg/kg	0.5					<0.5	-	-	-	-
sec-butylbenzene	mg/kg	0.5					<0.5	-	-	-	-
Styrene	mg/kg	0.5					<0.5	-	-	-	-
tert-butylbenzene	mg/kg	0.5					<0.5	-	-	-	-
Methyl Ethyl Ketone	mg/kg	5					<5	-	-	-	-
2-hexanone (MBK)	mg/kg	5					<5	-	-	-	-
4-Methyl-2-pentanone	mg/kg	5					<5	-	-	-	-
Carbon disulfide	mg/kg	0.5					<0.5	-	-	-	-
Vinyl acetate	mg/kg	5					<5	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.5					<0.5	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.5					<0.5	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.5					<0.5	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.5					<0.5	-	-	-	-
1,2,3-trichloropropane	mg/kg	0.5					<0.5	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.5					<0.5	-	-	-	-
1,2-dibromoethane	mg/kg	0.5					<0.5	-	-	-	-
1,1-dichloroethane	mg/kg	0.5					<0.5	-	-	-	-
1,2-dichloroethane	mg/kg	0.5					<0.5	-	-	-	-
1,1-dichloroethene	mg/kg	0.5					<0.5	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.5					<0.5	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.5					<0.5	-	-	-	-
1,2-dichloropropane	mg/kg	0.5					<0.5	-	-	-	-
1,3-dichloropropane	mg/kg	0.5					<0.5	-	-	-	-
2,2-dichloropropane	mg/kg	0.5					<0.5	-	-	-	-
1,1-dichloropropene	mg/kg	0.5					<0.5	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.5					<0.5	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.5					<0.5	-	-	-	-
cis-1,4-Dichloro-2-butene	mg/kg	0.5					<0.5	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	0.5					<0.5	-	-	-	-
Bromodichloromethane	mg/kg	0.5					<0.5	-	-	-	-
Bromoform	mg/kg	0.5					<0.5	-	-	-	-
Bromomethane	mg/kg	5					<5	-	-	-	-
Carbon tetrachloride	mg/kg	0.5					<0.5	-	-	-	-
Chlorodibromomethane	mg/kg	0.5					<0.5	-	-	-	-
Chloroethane	mg/kg	5					<5	-	-	-	-
Chloroform	mg/kg	0.5					<0.5	-	-	-	-
Chloromethane	mg/kg	5					<5	-	-	-	-
Dibromomethane	mg/kg	0.5					<0.5	-	-	-	-
Dichlorodifluoromethane	mg/kg	5					<5	-	-	-	-
Hexachlorobutadiene	mg/kg	0.5					<0.5	-	-	-	-
Iodomethane	mg/kg	0.5					<0.5	-	-	-	-
Pentachloroethane	mg/kg	0.5					<0.5	-	-	-	-

Table C3 - Previous Golder Results

						Location_Code	B117			B109	
						Field_ID	SMGW-BH-B117_0-0.1	SMGW-BH-B117_0.4-0.5	SMGW-BH-B117_0.7-0.8	SMGW-TP-B109_0-0.1	SMGW-TP-B109_0.5-0.6
						Sample_Depth_Range	0-0.1	0.4-0.5	0.7-0.8	0-0.1	0.5-0.6
						Sample Date	26/05/2020	26/05/2020	26/05/2020	26/05/2020	26/05/2020
Analyte	**Units**	**EQL**	**HIL C/HSL C**	**HIL D/HSL D**	**Ecological**	**Management Limits B**					
Trichloroethene	mg/kg	0.5					<0.5	-	-	-	-
Trichlorofluoromethane	mg/kg	5					<5	-	-	-	-
Tetrachloroethene	mg/kg	0.5					<0.5	-	-	-	-
Vinyl chloride	mg/kg	5					<5	-	-	-	-
Perfluorinated Compounds											
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
6:2 Fluorotelomer Sulfonate (6:2 FtS)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
N-Ethyl perfluorooctane sulfonamide (Et-FOSA)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
N-Ethyl perfluorooctane sulfonamidoethanol (Et-FOSE)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
N-Methyl perfluorooctane sulfonamide (Me-FOSA)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
N-Methyl perfluorooctane sulfonamidoethanol (Me-FOSE)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
Perfluorobutanoic acid (PFBA)	mg/kg	0.001					<0.001	-	-	<0.001	-
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorononanoic acid (PFNA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002					0.0004	-	-	0.0002	-
Perfluorooctanoate (PFOA)	mg/kg	0.0002	10	50			<0.0002	-	-	<0.0002	-
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005					<0.0005	-	-	<0.0005	-
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
N-Methyl perfluorooctane sulfonamidoacetic acid	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
N-Ethyl perfluorooctane sulfonamidoacetic acid	mg/kg	0.0002					<0.0002	-	-	<0.0002	-
Sum of PFAS	mg/kg	0.0002					0.0004	-	-	0.0002	-
Sum of PFAS (WA DER List)	mg/kg	0.0002					0.0004	-	-	0.0002	-
Sum of PFHxS and PFOS	mg/kg	0.0002	1	20			0.0004	-	-	0.0002	-

Notes

All results in mg/kg unless otherwise stated

- Not Analysed

AD - Asbestos Detected

NAD - No Asbestos Detected

NFD - No Fibres Detected, lower than reported detection limit however not per NEPM 2013 analysis requirements

Data Comments

A - Health Investigation Level, Commercial/industrial, Table 1A(1) NEPC 2013 unless otherwise stated

B - Management Limits for TPH Fractions F1-F4 in Soil, Table 1B(7) NEPC 2013, Commercial/industrial, coarse soil type

1 - Table 1A(3) NEPC 2013, 0-1m, sand soil type

2 - CRC Care Technical Report #10, Table 4, Direct Contact Criterion, Commercial/industrial

3 - No asbestos fibres detected by AS4964

4 - Table 2 - NEMP 2020, Human Health Screening Values Industrial/commercial

5 - Table 3 - NEMP 2020, Interim Soil - Ecological Indirect Exposure. Note more conservative that the direct exposure criteria

6 - Table 1B(6) ESLs, Coarse Soil Type, NEPC 2013,Commercial/industrial

7 - Table 1B(6) ESLs, Fine Soil Type, NEPC 2013, Commercial/industrial

8 - Table 1B(5) Generic EIL for fresh naphthalene in soils, NEPC 2013, Commercial/industrial

9 - Table 1B(5) Generic EIL for fresh DDT in soils, NEPC 2013, Commercial/industrial

10 - Table 1B(5) Generic EIL for aged As in soils, NEPC 2013, Commercial/industrial

11 - Table 1B(1) to 1B(3) lowest ACL for CrIII, Cu, Ni & Zn adopted as EILs, NEPC 2013, Commercial/industrial

12 - Table 1B(4) Generic ACL adopted as EIL for Pb in soil, NEPC 2013, Commercial/industrial

13 - Table 4.4 ASSMAC 1998, coarse textured soils, >1,000 t soil disturbed

Table C4 - Previous Cardno Results

	BTEX						MAH										TRH										CRC Care TPH Fractions									
	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	C6 - C9	C10 - C14	C15 - C28	C29-C36	>C10 - C36 (Sum of total)	TPH C10-C14 Fraction after Silica Cleanup	TPH C15-C28 Fraction after Silica Cleanup	TPH C29-C36 Fraction after Silica Cleanup	C10 - C36 Fraction (sum) (SG)	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum of total)	F1: C6-C10 less BTEX	F2: >C10-C16 less NAPHTHALENE	>C10 - C16 Fraction (SG)	>C16 - C34 Fraction (SG)	>C34 - C40 Fraction (SG)	>C10 - C40 Fraction (sum) (SG)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.2	0.1	0.3	0.5	0.5	0.5	0.5	1	1	1	1	0.5	1	20	20	50	50	50	20	50	50	100	20	50	100	100	100	20	50	50	100	100	100
NSW 2014 Excavated Natural Material (Absolute Max)	0.3	65	75			25															500														
NSW 2014 General Solid Waste CT1 (No Leaching)	10	288	600			1000									60		650				10000														
NSW 2014 Restricted Solid Waste CT2 (No Leaching)	40	1152	2400			4000					240	2600				40000															400	80	400		400
NSW TCLP1 Criteria																																			
NEPM 2013 HIL C open space																																			
NEPM 2013 Soil HSL C, for Vapour Intrusion, clay																																			
0-1m	NL	NL	NL			NL																								NL	NL				
NEPM 2013 Soil HSL D, for Vapour Intrusion, clay																																			
0-1m	4	NL	NL			NL																								310	NL				
HSL Direct Contact CRC Care (2011) for HSL C	120	18,000	5300			15,000																								5100	3800		5300	7400	
NEPM 2013 ESL/ESL LR/POS, Site Specific (Clay)	65	105	105			45																					120	1300	5600		180	170				
NEPM 2013 Management Limits, C/I, Coarse Soil																	700	1000								700	1000	2500	10000						
TP-B353_0.1	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	
TP-B353_0.5	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	
TP-B353_2.0	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP-B354_0.1	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	
TP-B354_0.5	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	
TP-B354_2.0	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP-B356_0.1	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	
TP-B356_0.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	
TP-B356_1.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP-B365_0.1	SMGW-TP-B365_0.1	16/08/2021	291616.156	6251227.168	0.1	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
TP-B365_1	SMGW-TP-B365_1	16/08/2021	291616.156	6251227.168	1	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
TP-B365_1.5	SMGW-TP-B365_1.5	16/08/2021	291616.156	6251227.168	1.5	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
TP-B366_0.1	SMGW-TP-B366_0.1	16/08/2021	291539.654	6251083.434	0.1	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
TP-B366_1.5	SMGW-TP-B366_1.5	16/08/2021	291539.654	6251083.434	1.5	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
TP-B367_0.1	SMGW-TP-B367_0.1	16/08/2021	291545.668	6250932.281	0.1	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
TP-B367_1	SMGW-TP-B367_1	16/08/2021	291545.668	6250932.281	1	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
TP-B367_1.5	SMGW-TP-B367_1.5	16/08/2021	291545.668	6250932.281	1.5	818675	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
BH-B350_0.1	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<50	<100	<100	<100
QA100_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	54	54	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<50	<100	<100	<100
QA200_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	276395	<0.2	<0.5	<1	<2	<1	<3	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<25	<50	<100	<100	-	<50	<100	<100	-	<25	<50	<100	100	100	<25	<50	<50	<100	<100	-
BH-B350_1	SMGW-BH-B350_1	16/08/2021	291503.936	6250796.052	1	818657	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<50	<100	<100	<100
BH-B350_2	SMGW-BH-B350_2	16/08/2021	291503.936	6250796.052	2	818657	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<50	<100	<100	<100
BH-B350_2.67	SMGW-BH-B350_2.67	16/08/2021	291503.936	6250796.052	2.67	818657	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
BH-B350-13.15	SMGW-BH-B350-13.15	17/08/2021	291503.936	6250796.052	13.15	818657	<0.1	0.5	<0.1	0.5	0.1	0.6	1.1	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
BH-B350_17.15	SMGW-BH-B350_17.15	17/08/2021	291503.936	6250796.052	17.15	818657	<0.1	<0.1	<0.1	0.3	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-
BH-B350_22.15	SMGW-BH-B350_22.15	17/08/2021	291503.936	6250796.052	22.15	818657	<0.1	0.2	<0.1	0.3	<0.1	<0.3	0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	<20	<20	<50	<50	<50	-	-	-	-	<20	<50	<100	<100	<100	<20	<50	-	-	-	-

Table C4 - Previous Cardno Results

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Table C4 - Previous Cardno Results

							Organophosphorous Pesticides																												Herbicides	Insecticides	Pesticides		PAH					
							Methoxychlor	Toxaphene	Azinophos-methyl	Bolstar (Sulprofos)	Bromophos-ethyl	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos	Dicofol	Tolubhion	Parathion	Pirimiphos-methyl	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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							0.05	0.1	0.2	0.2	0.1	0.2	0.2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	20	0.2	0.2	0.2	0.5	0.5	0.5	0.5	0.5
NSW 2014 Excavated Natural Material (Absolute Max)																																													
NSW 2014 General Solid Waste CT1 (No Leaching)													4																																
NSW 2014 Restricted Solid Waste CT2 (No Leaching)																																						3.2								1152
NSW TCLP1 Criteria																																													
NEPM 2013 HIL C open space							400	30					250																																		
NEPM 2013 Soil HSL C, for Vapour Intrusion, clay																																													
0-1m																																										NL				
NEPM 2013 Soil HSL D, for Vapour Intrusion, clay																																													
0-1m																																										NL				
HSL Direct Contact CRC Care (2011) for HSL C																																										1900				
NEPM 2013 ESL/ESL UR/POS, Site Specific (Clay)																																										170				
NEPM 2013 Management Limits, C/I, Coarse Soil																																													

TP-B353_0.1	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	<0.2	<0.1	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B353_0.5	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B353_2.0	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B354_0.1	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	<0.2	<0.1	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B354_0.5	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B354_2.0	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B356_0.1	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	<0.2	<0.1	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B356_0.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B356_1.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B365_0.1	SMGW-TP-B365_0.1	16/08/2021	291616.156	6251227.168	0.1	818675	<0.05	<0.5	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<20	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B365_1	SMGW-TP-B365_1	16/08/2021	291616.156	6251227.168	1	818675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B365_1.5	SMGW-TP-B365_1.5	16/08/2021	291616.156	6251227.168	1.5	818675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B366_0.1	SMGW-TP-B366_0.1	16/08/2021	291539.654	6251083.434	0.1	818675	<0.05	<0.5	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<20	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B366_1.5	SMGW-TP-B366_1.5	16/08/2021	291539.654	6251083.434	1.5	818675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B367_0.1	SMGW-TP-B367_0.1	16/08/2021	291545.668	6250932.281	0.1	818675	<0.05	<0.5	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<20	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B367_1	SMGW-TP-B367_1	16/08/2021	291545.668	6250932.281	1	818675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B367_1.5	SMGW-TP-B367_1.5	16/08/2021	291545.668	6250932.281	1.5	818675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
BH-B350_0.1	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.05	<0.5	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<20	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
QA100_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.05	<0.5	<0.2	<0.2	-	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<20	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
QA200_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	276395	<0.1	-	<0.1	-	<0.1	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
BH-B350_1	SMGW-BH-B350_1	16/08/2021	291503.936	6250796.052	1	818657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
BH-B350_2	SMGW-BH-B350_2	16/08/2021	291503.936	6250796.052	2	818657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
BH-B350_2.67	SMGW-BH-B350_2.67	16/08/2021	291503.936	6250796.052	2.67	818657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
BH-B350-13.15	SMGW-BH-B350-13.15	17/08/2021	291503.936	6250796.052	13.15	818657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
BH-B350_17.15	SMGW-BH-B350_17.15	17/08/2021	291503.936	6250796.052	17.15	818657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
BH-B350_22.15	SMGW-BH-B350_22.15	17/08/2021	291503.936	6250796.052	22.15	818657	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5

Table C4 - Previous Cardno Results

							PAH																				Phenols														Polychlorinated Biphenyls							
							Anthracene	Fluoranthene	Pyrene	Benz[a]anthracene	Chrysene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(e)pyrene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	Benzo(a)pyrene TEQ (Zero LOR)	Benzo(a)pyrene TEQ (Half LOR)_0	Benzo(a)pyrene TEQ (Full LOR)	PAHs (Sum of total)	Benzo(a)pyrene TEQ (LOR)	Carcinogenic PAHs (as BaP TEQ)	Phenolics Total	Phenols (non-halogenated) IWRG621	Phenols(halogenated) IWRG621	2,4-dimethylphenol	2,4-dinitrophenol	2-methylphenol	2-nitrophenol	3-&4-methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-nitrophenol	Cresol (Total)	Phenol	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	20	1	0.5	5	0.2	1	0.4	5	20	1	5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NSW 2014 Excavated Natural Material (Absolute Max)																						20																											
NSW 2014 General Solid Waste CT1 (No Leaching)														0.8								200				288			4000								4000									<50
NSW 2014 Restricted Solid Waste CT2 (No Leaching)				16000													16000									<50																			
NSW TCLP1 Criteria																																															
NEPM 2013 HIL C open space																				3		300		40														4000	40,000							1
NEPM 2013 Soil HSL C, for Vapour Intrusion, clay																																														
0-1m																																														
NEPM 2013 Soil HSL D, for Vapour Intrusion, clay																																														
0-1m																																														
HSL Direct Contact CRC Care (2011) for HSL C																																														
NEPM 2013 EIL/ESL UR/POS, Site Specific (Clay)																																													
NEPM 2013 Management Limits, C/I, Coarse Soil																																													
TP-B353_0.1	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B353_0.5	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B353_2.0	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B354_0.1	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B354_0.5	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B354_2.0	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B356_0.1	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP-B356_0.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B356_1.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B365_0.1	SMGW-TP-B365_0.1	16/08/2021	291616.156	6251227.168	0.1	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP-B365_1	SMGW-TP-B365_1	16/08/2021	291616.156	6251227.168	1	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-
TP-B365_1.5	SMGW-TP-B365_1.5	16/08/2021	291616.156	6251227.168	1.5	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B366_0.1	SMGW-TP-B366_0.1	16/08/2021	291539.654	6251083.434	0.1	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP-B366_1.5	SMGW-TP-B366_1.5	16/08/2021	291539.654	6251083.434	1.5	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B367_0.1	SMGW-TP-B367_0.1	16/08/2021	291545.668	6250932.281	0.1	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP-B367_1	SMGW-TP-B367_1	16/08/2021	291545.668	6250932.281	1	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-
TP-B367_1.5	SMGW-TP-B367_1.5	16/08/2021	291545.668	6250932.281	1.5	818675	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH-B350_0.1	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QA100_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QA200_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	276395	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.05	<0.1	<0.1	<0.1	<0.5	<0.5	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH-B350_1	SMGW-BH-B350_1	16/08/2021	291503.936	6250796.052	1	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-
BH-B350_2	SMGW-BH-B350_2	16/08/2021	291503.936	6250796.052	2	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-
BH-B350_2.67	SMGW-BH-B350_2.67	16/08/2021	291503.936	6250796.052	2.67	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-
BH-B350-13.15	SMGW-BH-B350-13.15	17/08/2021	291503.936	6250796.052	13.15	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-
BH-B350_17.15	SMGW-BH-B350_17.15	17/08/2021	291503.936	6250796.052	17.15	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-
BH-B350_22.15	SMGW-BH-B350_22.15	17/08/2021	291503.936	6250796.052	22.15	818657	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	-	<0.5	1.2	-	-	-	<20	<1	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	-	-	-	-	-	-	-	-

Table C4 - Previous Cardno Results

								Perfluorocarbons																										Organic			
								2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	8:2 Fluorotelomer sulfonate	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	10:2 fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	Perfluorobutanoic acid (PFBA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctane sulfonic acid (PFOS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Sum of PFAS	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	6:2 Fluorotelomer Sulfonate (6:2 FTS)	Perfluorooctanoate (PFOA)	Perfluorononanesulfonic acid (PFNS)	Perfluoropropanesulfonic acid (PFPrS)	Sum of US EPA PFAS (PFOS + PFOA)*
								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	UG/KG	UG/KG	UG/KG
EQL								0.0005	0.0001	0.0005	0.0005	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0005	0.0001	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.1	0.1	0.1
NSW 2014 Excavated Natural Material (Absolute Max)																																				
NSW 2014 General Solid Waste CT1 (No Leaching)																																				
NSW 2014 Restricted Solid Waste CT2 (No Leaching)																								800	2400	104	96		56		40					40			480
NSW TCLP1 Criteria																																				
NEPM 2013 HIL C open space																																	900					
NEPM 2013 Soil HSL C, for Vapour Intrusion, clay																																				
0-1m																																				
NEPM 2013 Soil HSL D, for Vapour Intrusion, clay																																				
0-1m																																				
HSL Direct Contact CRC Care (2011) for HSL C																																				
NEPM 2013 EIL/ESL UR/POS, Site Specific (Clay)																																				
NEPM 2013 Management Limits, C/I, Coarse Soil																																				
TP-B353_0.1	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	0.0001	<0.0001	<0.0001	<0.0005	<0.0001	0.0001	<0.0005	<0.0001	<0.1	<0.1	0.1
TP-B353_0.5	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516		<0.0005	0.0003	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B353_2.0	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B354_0.1	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B354_0.5	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B354_2.0	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B356_0.1	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	0.2
TP-B356_0.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516		<0.0005	0.0002	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B356_1.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B365_0.1	SMGW-TP-B365_0.1	16/08/2021	291616.156	6251227.168	0.1	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	0.0003	0.0004	<0.0001	<0.0001	0.0008	<0.0001	0.0007	<0.0005	<0.0001	<0.1	<0.1	0.4
TP-B365_1	SMGW-TP-B365_1	16/08/2021	291616.156	6251227.168	1	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B365_1.5	SMGW-TP-B365_1.5	16/08/2021	291616.156	6251227.168	1.5	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B366_0.1	SMGW-TP-B366_0.1	16/08/2021	291539.654	6251083.434	0.1	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	0.0003	<0.0001	<0.0001	<0.0005	<0.0001	0.0003	<0.0005	<0.0001	<0.1	<0.1	0.3
TP-B366_1.5	SMGW-TP-B366_1.5	16/08/2021	291539.654	6251083.434	1.5	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B367_0.1	SMGW-TP-B367_0.1	16/08/2021	291545.668	6250932.281	0.1	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	<0.0005	<0.0001	0.0001	<0.0005	<0.0001	<0.1	<0.1	0.1
TP-B367_1	SMGW-TP-B367_1	16/08/2021	291545.668	6250932.281	1	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
TP-B367_1.5	SMGW-TP-B367_1.5	16/08/2021	291545.668	6250932.281	1.5	818675		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
BH-B350_0.1	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0001	<0.0005	<0.0001	0.0002	<0.0005	<0.0001	<0.1	<0.1	0.2
QA100_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0001	<0.0005	<0.0001	0.0002	<0.0005	<0.0001	<0.1	<0.1	0.2
QA200_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	276395		<0.001	<0.0002	<0.001	<0.005	<0.001	<0.0001	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.001	<0.005	<0.0005	<0.0005	<0.0002	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0002	0.0002	<0.0002	0.0002	<0.0001	<0.0001	-	-	0.2
BH-B350_1	SMGW-BH-B350_1	16/08/2021	291503.936	6250796.052	1	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
BH-B350_2	SMGW-BH-B350_2	16/08/2021	291503.936	6250796.052	2	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
BH-B350_2.67	SMGW-BH-B350_2.67	16/08/2021	291503.936	6250796.052	2.67	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
BH-B350-13.15	SMGW-BH-B350-13.15	17/08/2021	291503.936	6250796.052	13.15	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
BH-B350_17.15	SMGW-BH-B350_17.15	17/08/2021	291503.936	6250796.052	17.15	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1
BH-B350_22.15	SMGW-BH-B350_22.15	17/08/2021	291503.936	6250796.052	22.15	818657		<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0005	<0.0001	<0.1	<0.1	<0.1

Table C4 - Previous Cardno Results

| | SVOCs | Chlorinated Hydrocarbons | | |

Table C4 - Previous Cardno Results

	Halogenated Phenols							Solvents											ES_EPA8100
	Trichlorofluoromethane	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	Tetrachlorophenols	Methyl Ethyl Ketone	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Cyclohexane	Moisture Content	VIC EPA IWRG621 OCP (Total)*	3/4-Methylphenol (m/p-cresol)	VIC EPA IWRG621 Other CHC (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
EQL	0.5	1	1	0.5	0.5	0.5	1	10	0.5	0.5	0.5	0.5	0.5	1	0.1	0.1	0.4	0.5
NSW 2014 Excavated Natural Material (Absolute Max)																		
NSW 2014 General Solid Waste CT1 (No Leaching)	8000	40						4000										
NSW 2014 Restricted Solid Waste CT2 (No Leaching)																		
NSW TCLP1 Criteria																		
NEPM 2013 HIL C open space						660												
NEPM 2013 Soil HSL C, for Vapour Intrusion, clay																		
0-1m																		
NEPM 2013 Soil HSL D, for Vapour Intrusion, clay																		
0-1m																		
HSL Direct Contact CRC Care (2011) for HSL C																		
NEPM 2013 EIL/ESL UR/POS, Site Specific (Clay)																		
NEPM 2013 Management Limits, C/I, Coarse Soil																		
TP-B353_0.1	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B353_0.5	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	<0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
TP-B353_2.0	SMGW-TP-B353	25/03/2021	291577.612	6251022.432		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B354_0.1	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B354_0.5	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	<0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
TP-B354_2.0	SMGW-TP-B354	25/03/2021	291532.033	6250748.42		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B356_0.1	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B356_0.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	<0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
TP-B356_1.5	SMGW-TP-B356	25/03/2021	291524.76	6250653.084		784516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-B365_0.1	SMGW-TP-B365_0.1	16/08/2021	291616.156	6251227.168	0.1	818675	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.1	-	-
TP-B365_1	SMGW-TP-B365_1	16/08/2021	291616.156	6251227.168	1	818675	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
TP-B365_1.5	SMGW-TP-B365_1.5	16/08/2021	291616.156	6251227.168	1.5	818675	<0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
TP-B366_0.1	SMGW-TP-B366_0.1	16/08/2021	291539.654	6251083.434	0.1	818675	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.1	-	-
TP-B366_1.5	SMGW-TP-B366_1.5	16/08/2021	291539.654	6251083.434	1.5	818675	<0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
TP-B367_0.1	SMGW-TP-B367_0.1	16/08/2021	291545.668	6250932.281	0.1	818675	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.1	-	-
TP-B367_1	SMGW-TP-B367_1	16/08/2021	291545.668	6250932.281	1	818675	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
TP-B367_1.5	SMGW-TP-B367_1.5	16/08/2021	291545.668	6250932.281	1.5	818675	<0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
BH-B350_0.1	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.1	-	-
QA100_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.1	-	-
QA200_160821	SMGW-BH-B350_0.1	16/08/2021	291503.936	6250796.052	0.1	276395	<1	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-
BH-B350_1	SMGW-BH-B350_1	16/08/2021	291503.936	6250796.052	1	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
BH-B350_2	SMGW-BH-B350_2	16/08/2021	291503.936	6250796.052	2	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
BH-B350_2.67	SMGW-BH-B350_2.67	16/08/2021	291503.936	6250796.052	2.67	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
BH-B350-13.15	SMGW-BH-B350-13.15	17/08/2021	291503.936	6250796.052	13.15	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
BH-B350_17.15	SMGW-BH-B350_17.15	17/08/2021	291503.936	6250796.052	17.15	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
BH-B350_22.15	SMGW-BH-B350_22.15	17/08/2021	291503.936	6250796.052	22.15	818657	<0.5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-

Appendix D

Data Quality Objectives

Data Quality Objectives and Quality Assurance / Quality Control
DSI for AEC 41 & 42, Elizabeth Drive, Badgerys Creek
SCAW Package for SMWSA

1.0 Data Quality Objectives

As shown in Table C1 below, the DSI has been devised broadly in accordance with the seven-step data quality objective (DQO) process which is provided in Appendix B, Schedule B2 of NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013).

Table C1: Data Quality Objectives (DQO)

Step	Summary
1: State the problem	The problem to be addressed is that the extent and nature of potential contamination at the site is unknown and it is unclear whether the site is suitable for the proposed uses. The objective of the proposed DSI is to determine the contamination status of the site with respect to the proposed land use and, if contamination is confirmed, to make recommendations for further investigations and/or remediation to render the site suitable for the proposed uses. In addition, soil from the site may potentially be reused elsewhere within SCAW and the data obtained in the DSI, therefore, may also be used for this purpose. A preliminary conceptual site model (CSM) has been prepared (Section 6 DSI) for the proposed development. The proposed project team will consist of experienced environmental engineers and scientists.
2: Identify the decisions / goal of the study	The site history has identified possible contaminating previous uses which are identified in the preliminary CSM (Section 6 DSI). The SAC for potential contaminants are detailed in Appendix E of the DSI. The decision is to establish whether or not the results fall below the SAC or whether or not the 95% upper confidence limit of the sample population falls below the SAC. On this basis, an assessment of the site's suitability from a contamination perspective and whether (or not) further assessment and / or remediation will be derived.
3: Identify the information inputs	Inputs to the investigation will be the results of analysis of samples to measure the concentrations of potential contaminants at the site using NATA accredited laboratories and methods, where possible. The SAC for each of the potential contaminants are detailed in Appendix E of the DSI. A photoionization detector (PID) will be used on-site to screen soils for volatile contaminants. PID readings will be used to inform sample selection for laboratory analysis.

Step	Summary
4: Define the study boundaries	The site is identified in Section 2 of the DSI. The lateral boundaries of the investigation area are shown on Drawings AEC41-01 and AEC42-01, Appendix A of the DSI.
5: Develop the analytical approach (or decision rule)	The decision rule is to compare all analytical results with SAC. Initial comparisons will be with individual results then, where required and if possible, summary statistics (including mean, standard deviation and 95% upper confidence limit (UCL) of the arithmetic mean (95% UCL)) to assess potential risks posed by the site contamination. Where a sample result exceeds the adopted criterion, a further site-specific assessment will be made as to the risk posed by the presence of that contaminant(s). Initial comparisons will be with individual results then, where required, summary statistics (including mean, standard deviation and 95% upper confidence limit (UCL) of the arithmetic mean (95% UCL)) to assess potential risks posed by the site contamination. Quality control results are to be assessed according to their relative percent difference (RPD) values. For field duplicates, triplicates and laboratory results, RPDs should generally be below 30%; for field blanks and rinsates, results should be at or less than the limits of reporting (NEPC, 2013).
6: Specify the performance or acceptance criteria	Baseline condition: Contaminants at the site and/or statistical analysis of data (in line with NEPC (2013)) exceed human health and environmental SAC and pose a potentially unacceptable risk to receptors (null hypothesis). Alternative condition: Contaminants at the site and statistical analysis of data (in line with NEPC (2013)) comply with human health and environmental SAC and as such, do not pose a potentially unacceptable risk to receptors (alternative hypothesis). Unless conclusive information from the collected data is sufficient to reject the null hypothesis, it is assumed that the baseline condition is true. Uncertainty that may exist due to the above potential decision errors shall be mitigated as follows: • As well as a primary screening exercise, the use of the 95% UCL as per NEPC (2013) may be applied, i.e.: 95% is the defined confidence level associated with the UCL on the geometric mean for contaminant data. The resultant 95%UCL shall subsequently be screened against the corresponding SAC. • The statistical assessment will only be able to be applied to certain data-sets, such as those obtained via systematic sampling. Identification of areas for targeted sampling will be via professional judgement and errors will not be able to have a probability assigned to them.
7: Optimise the design for obtaining data	As the purpose of the sampling program is to assess for potential contamination across the site, the sampling program is reliant on professional judgement to identify and sample the potentially affected areas. Further details regarding the proposed sampling plan are presented in Section 7 of the DSI. Adequately experienced environmental scientists / engineers will be chosen to conduct field work and sample analysis interpretation.

1.0 References

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

Douglas Partners Pty Ltd

Appendix E

Laboratory Certificates and Chain of Custody

Appendix F

Site Assessment Criteria

Site Assessment Criteria for Soil for AEC41 and 42

Surface & Civil Alignment Works (SCAW) Package for Sydney Metro - Western Sydney Airport (SMWSA)

1.0 Introduction

It is understood that the two general future land uses associated at the site will comprise:

- The rail corridor. The rail corridor will include the rail line, embankments / noise barriers, a stabling yard and maintenance facility and stations; and
- Passive open space. These are areas immediately adjacent to the rail corridor that may be used for bike / commuter paths. It is assumed that there is an absence of buildings in areas of passive open space.

The following references were consulted for deriving 'Tier 1' SAC for soil for the two above-listed land uses:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* [NEPM] (NEPC, 2013).
- CRC CARE *Health screening levels for petroleum hydrocarbons in soil and groundwater,* 2011 (CRC CARE, 2011).
- HEPA, *PFAS National Environmental Management Plan,* 2020 [NEMP] (HEPA, 2020).

2.0 Human Health-based Criteria

Human health-based SAC for soil and the associated future land uses are listed in Tables 1 to 5. Tier 1 criteria comprise:

- Health Investigation Levels (HIL) for a broad range of metals and organics (Table 1). HIL are applicable for assessing human health risk via all relevant pathways of exposure;
- Health Screening Levels (HSL) for vapour intrusion for selected petroleum hydrocarbons and fractions (Tables 2 and 3). These are applicable for assessing human health via the inhalation pathway. HSL are dependent on soil type and depth. HSL D are applicable to soil / areas to be covered by buildings (e.g., stations, offices and enclosed sheds);
- HSL for direct contact for selected petroleum hydrocarbons and fractions (Table 4). These are applicable for assessing human health via the direct contact pathway;
- Health investigation levels (HIL) for per- and poly-fluoroalkyl substances (PFAS) (Table 5). At the time of preparing this document, screening values were available only for perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS); and
- Health screening levels for asbestos (Table 6).

For HSL for vapour intrusion, HSL for clay soils are shown as these are the predominant soil types at the site.

Table 1: Health Investigation Levels (Tier 1) from NEPM

Contaminant	HIL C for Passive Open Space (mg/kg)	HIL D for Rail Corridor (mg/kg)
Metals and Inorganics		
Arsenic	300	3000
Cadmium	90	900
Chromium (VI)	300	3600
Copper	17 000	240 000
Lead	600	1500
Mercury (inorganic)	80	730
Nickel	1200	6000
Zinc	30 000	400 000
Polycyclic Aromatic Hydrocarbons (PAH)		
Benzo(a)pyrene TEQ	3	40
Total PAH	300	4000
Phenols		
Phenol	40 000	240 000
Pentachlorophenol	120	660
Cresols	4000	25 000
Organochlorine Pesticides (OCP)		
DDT+DDE+DDD	400	3600
Aldrin and dieldrin	10	45
Chlordane	70	530
Endosulfan	340	2000
Endrin	20	100
Heptachlor	10	50
HCB	10	80
Methoxychlor	400	2500
Toxaphene	30	160
Organophosphorus Pesticides (OPP)		
Chlorpyrifos	250	2000
Polychlorinated Biphenyls (PCB)		
PCB	1	7

Table 2: Health Screening Levels (Tier 1) for Vapour Intrusion for Passive Open Space from NEPM

Contaminant	HSL C (mg/kg)	HSL C (mg/kg)	HSL C (mg/kg)	HSL C (mg/kg)
CLAY	**0 m to <1 m**	**1 m to <2 m**	**2 m to <4 m**	**4 m+**
Benzene	NL	NL	NL	NL
Toluene	NL	NL	NL	NL
Ethylbenzene	NL	NL	NL	NL
Xylenes	NL	NL	NL	NL
Naphthalene	NL	NL	NL	NL
TPH C6-C10 less BTEX	NL	NL	NL	NL
TPH >C10-C16 less naphthalene	NL	NL	NL	NL

Notes: TPH is total petroleum hydrocarbons

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

Table 3: Health Screening Levels (Tier 1) for Vapour Intrusion for Rail Corridor from NEPM

Contaminant	HSL D (mg/kg)	HSL D (mg/kg)	HSL D (mg/kg)	HSL D (mg/kg)
CLAY	**0 m to <1 m**	**1 m to <2 m**	**2 m to <4 m**	**4 m+**
Benzene	4	6	9	20
Toluene	NL	NL	NL	NL
Ethylbenzene	NL	NL	NL	NL
Xylenes	NL	NL	NL	NL
Naphthalene	NL	NL	NL	NL
TPH C6-C10 less BTEX	310	480	NL	NL
TPH >C10-C16 less naphthalene	NL	NL	NL	NL

Notes: TPH is total petroleum hydrocarbons

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

Table 4: Health Screening Levels (Tier 1) for Direct Contact from CRC CARE (2011)

Contaminant	HSL C for Passive Open Space (mg/kg)	HSL D for Rail Corridor (mg/kg)
Benzene	120	430
Toluene	18 000	99 000
Ethylbenzene	5300	27 000
Xylenes	15 000	81 000
Naphthalene	1900	11 000
TPH C6-C10 less BTEX	5100	26 000
TPH >C10-C16 less naphthalene	3800	20 000
TPH >C16-C34	5300	27 000
TPH >C34-C40	7400	38 000

Notes: TPH is total petroleum hydrocarbons.

Table 5: Health Investigation Levels (Tier 1) for PFAS from NEMP

Contaminant	HIL C for Passive Open Space (mg/kg)	HIL D for Rail Corridor (mg/kg)
PFOS and PFHxS *	1	20
PFOA	10	50

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

Table 6: Health Screening Levels (Tier 1) for Asbestos from NEPM

Form of Asbestos	Health Screening Level C for Passive Open Space	Health Screening Level D for Rail Corridor
Bonded asbestos containing materials (ACM)	0.02%	0.05%
Fibrous asbestos (FA) and asbestos fines (AF) (friable asbestos)	0.001%	0.001%
All forms of asbestos	No visible asbestos for surface soil	No visible asbestos for surface soil

Notes: FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
AF includes free fibres, small fibre bundles and also small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve.
Surface soils defined as top 10 cm.

3.0 Ecological Criteria

Ecological SAC for soil and the associated future use are listed are listed in Tables 7 to 9. Tier 1 criteria comprise:

- Ecological Investigation Levels (EIL) for arsenic, copper, chromium (III), nickel, lead, zinc, DDT and naphthalene (Table 7). These are derived using the interactive (excel) calculation spreadsheet on the NEPM toolbox website and are used to assess contamination with respect to terrestrial ecosystems. Site specific inputs (including soil parameters) are required to calculate EIL. EIL typically apply to the top 2 m of soil; and
- Ecological Screening Levels (ESL) for selected petroleum hydrocarbon compounds and fractions, and benzo(a)pyrene, and are used to assess contamination with respect to terrestrial ecosystems (Table 8). ESL are dependent on soil type and typically apply to the top 2 m of soil.
- Ecological Soil Guideline Values (EGV) for PFAS (Table 9). At the time of preparing this document, screening values were available only for PFOS and PFOA.

EIL were determined using the NEPC Ecological Investigation Level Spreadsheet based on the following inputs:

- A pH of 6 which is the average pH for the 13 analysed soil samples (see laboratory certificates 303231, 303443, 915468 and 916604); and
- A Cation Exchange Capacity (CEC) of 10 meq/100g which is the average CEC for the 13 analysed soil samples (see laboratory certificates 303231, 303443, 915468 and 916604);
- Contamination is assumed to be ‘aged’ based on site history;
- A organic carbon content value of 1 % has been used as a default value;
- A clay content of 10% has been used as a relatively conservative value given the clay soil profile encountered during the investigation; and
- The state is NSW and the traffic volume is ‘low’.

Clay soils were encountered during the investigation and, so, ESL for fine soils have been adopted.

Table 7: Ecological Investigation Levels (Tier 1) from NEPM toolbox

Contaminant	Public Open Space EIL for Passive Open Space (mg/kg)	Commercial and Industrial EIL for Rail Corridor (mg/kg)
Metals		
Arsenic	100	160
Copper	210	300
Nickel	170	290
Chromium III	410	670
Lead	1100	1800
Zinc	480	700
PAH		
Naphthalene	170	370

Contaminant	Public Open Space EIL for Passive Open Space (mg/kg)	Commercial and Industrial EIL for Rail Corridor (mg/kg)
OCP		
DDT	180	640

Table 8: Ecological Screening Levels (Tier 1) from NEPM

Contaminant	Soil Type	Public Open Space ESL for Passive Open Space (mg/kg)	Commercial and Industrial ESL for Rail Corridor (mg/kg)
Benzene	Fine	65	95
Toluene	Fine	105	135
Ethylbenzene	Fine	105	135
Xylenes	Fine	45	95
TPH C6-C10 less BTEX	Coarse/ Fine	180*	215*
TPH >C10-C16	Coarse/ Fine	120*	170*
TPH >C16-C34	Fine	1300	2500
TPH >C34-C40	Fine	5600	6600
Benzo(a)pyrene	Coarse / Fine	0.7	1.4

Notes: ESL are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability
TPH is total petroleum hydrocarbons

Table 9: Ecological Soil Guideline Values (Tier 1) from NEMP for all Land Uses

Contaminant	Direct Exposure (mg/kg)	Indirect Exposure (mg/kg)
PFOS	1	0.01
PFOA	10	NC

Notes: NC no criterion
Direct exposure ecological soil guideline applies specifically to protection of organisms that live within, or in close contact with soil, such as earthworms and plants.
The indirect exposure ecological soil guideline accounts for the various pathways through which organisms can be exposed whether or not they are in direct contact with PFAS contaminated soil (i.e. exposure through the food chain). For intensively developed sites with no secondary consumers and minimal potential for indirect ecological exposure, a higher criterion of up to 0.14 mg/kg may be appropriate.

4.0 Management Limits

In addition to appropriate consideration and application of the human health and ecological criteria, there are additional considerations which reflect the nature and properties of petroleum hydrocarbons, including:

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

Management limits are shown in Table 10. Predominantly clay soils were encountered during the investigation and, so, management limits for fine soils have been adopted.

Table 10: Management Limits for TPH from NEPM (mg/kg)

Contaminant	Soil Type	Public Open Space Management Limits for Passive Open Space (mg/kg)	Commercial and Industrial Management Limit for Rail Corridor (mg/kg)
TPH C6-C10	Fine	800	800
TRH >C10-C16	Fine	1000	1000
TPH >C16-C34	Fine	3500	5000
TPH >C34-C40	Fine	10 000	10 000

Site Assessment Criteria for Soil for AEC41 and 42

Surface & Civil Alignment Works (SCAW) Package for Sydney Metro - Western Sydney Airport (SMWSA)

1.0 Introduction

It is understood that the two general future land uses associated at the site will comprise:

- The rail corridor. The rail corridor will include the rail line, embankments / noise barriers, a stabling yard and maintenance facility and stations; and
- Passive open space. These are areas immediately adjacent to the rail corridor that may be used for bike / commuter paths. It is assumed that there is an absence of buildings in areas of passive open space.

The following references were consulted for deriving 'Tier 1' SAC for soil for the two above-listed land uses:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* [NEPM] (NEPC, 2013).
- CRC CARE *Health screening levels for petroleum hydrocarbons in soil and groundwater,* 2011 (CRC CARE, 2011).
- HEPA, *PFAS National Environmental Management Plan,* 2020 [NEMP] (HEPA, 2020).

2.0 Human Health-based Criteria

Human health-based SAC for soil and the associated future land uses are listed in Tables 1 to 5. Tier 1 criteria comprise:

- Health Investigation Levels (HIL) for a broad range of metals and organics (Table 1). HIL are applicable for assessing human health risk via all relevant pathways of exposure;
- Health Screening Levels (HSL) for vapour intrusion for selected petroleum hydrocarbons and fractions (Tables 2 and 3). These are applicable for assessing human health via the inhalation pathway. HSL are dependent on soil type and depth. HSL D are applicable to soil / areas to be covered by buildings (e.g., stations, offices and enclosed sheds);
- HSL for direct contact for selected petroleum hydrocarbons and fractions (Table 4). These are applicable for assessing human health via the direct contact pathway;
- Health investigation levels (HIL) for per- and poly-fluoroalkyl substances (PFAS) (Table 5). At the time of preparing this document, screening values were available only for perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS); and
- Health screening levels for asbestos (Table 6).

For HSL for vapour intrusion, HSL for clay soils are shown as these are the predominant soil types at the site.

Table 1: Health Investigation Levels (Tier 1) from NEPM

Contaminant	HIL C for Passive Open Space (mg/kg)	HIL D for Rail Corridor (mg/kg)
Metals and Inorganics		
Arsenic	300	3000
Cadmium	90	900
Chromium (VI)	300	3600
Copper	17 000	240 000
Lead	600	1500
Mercury (inorganic)	80	730
Nickel	1200	6000
Zinc	30 000	400 000
Polycyclic Aromatic Hydrocarbons (PAH)		
Benzo(a)pyrene TEQ	3	40
Total PAH	300	4000
Phenols		
Phenol	40 000	240 000
Pentachlorophenol	120	660
Cresols	4000	25 000
Organochlorine Pesticides (OCP)		
DDT+DDE+DDD	400	3600
Aldrin and dieldrin	10	45
Chlordane	70	530
Endosulfan	340	2000
Endrin	20	100
Heptachlor	10	50
HCB	10	80
Methoxychlor	400	2500
Toxaphene	30	160
Organophosphorus Pesticides (OPP)		
Chlorpyrifos	250	2000
Polychlorinated Biphenyls (PCB)		
PCB	1	7

Table 2: Health Screening Levels (Tier 1) for Vapour Intrusion for Passive Open Space from NEPM

Contaminant	HSL C (mg/kg)	HSL C (mg/kg)	HSL C (mg/kg)	HSL C (mg/kg)
CLAY	**0 m to <1 m**	**1 m to <2 m**	**2 m to <4 m**	**4 m+**
Benzene	NL	NL	NL	NL
Toluene	NL	NL	NL	NL
Ethylbenzene	NL	NL	NL	NL
Xylenes	NL	NL	NL	NL
Naphthalene	NL	NL	NL	NL
TPH C6-C10 less BTEX	NL	NL	NL	NL
TPH >C10-C16 less naphthalene	NL	NL	NL	NL

Notes: TPH is total petroleum hydrocarbons

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

Table 3: Health Screening Levels (Tier 1) for Vapour Intrusion for Rail Corridor from NEPM

Contaminant	HSL D (mg/kg)	HSL D (mg/kg)	HSL D (mg/kg)	HSL D (mg/kg)
CLAY	**0 m to <1 m**	**1 m to <2 m**	**2 m to <4 m**	**4 m+**
Benzene	4	6	9	20
Toluene	NL	NL	NL	NL
Ethylbenzene	NL	NL	NL	NL
Xylenes	NL	NL	NL	NL
Naphthalene	NL	NL	NL	NL
TPH C6-C10 less BTEX	310	480	NL	NL
TPH >C10-C16 less naphthalene	NL	NL	NL	NL

Notes: TPH is total petroleum hydrocarbons

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

Table 4: Health Screening Levels (Tier 1) for Direct Contact from CRC CARE (2011)

Contaminant	HSL C for Passive Open Space (mg/kg)	HSL D for Rail Corridor (mg/kg)
Benzene	120	430
Toluene	18 000	99 000
Ethylbenzene	5300	27 000
Xylenes	15 000	81 000
Naphthalene	1900	11 000
TPH C6-C10 less BTEX	5100	26 000
TPH >C10-C16 less naphthalene	3800	20 000
TPH >C16-C34	5300	27 000
TPH >C34-C40	7400	38 000

Notes: TPH is total petroleum hydrocarbons.

Table 5: Health Investigation Levels (Tier 1) for PFAS from NEMP

Contaminant	HIL C for Passive Open Space (mg/kg)	HIL D for Rail Corridor (mg/kg)
PFOS and PFHxS *	1	20
PFOA	10	50

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

Table 6: Health Screening Levels (Tier 1) for Asbestos from NEPM

Form of Asbestos	Health Screening Level C for Passive Open Space	Health Screening Level D for Rail Corridor
Bonded asbestos containing materials (ACM)	0.02%	0.05%
Fibrous asbestos (FA) and asbestos fines (AF) (friable asbestos)	0.001%	0.001%
All forms of asbestos	No visible asbestos for surface soil	No visible asbestos for surface soil

Notes: FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
AF includes free fibres, small fibre bundles and also small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve.
Surface soils defined as top 10 cm.

3.0 Ecological Criteria

Ecological SAC for soil and the associated future use are listed are listed in Tables 7 to 9. Tier 1 criteria comprise:

- Ecological Investigation Levels (EIL) for arsenic, copper, chromium (III), nickel, lead, zinc, DDT and naphthalene (Table 7). These are derived using the interactive (excel) calculation spreadsheet on the NEPM toolbox website and are used to assess contamination with respect to terrestrial ecosystems. Site specific inputs (including soil parameters) are required to calculate EIL. EIL typically apply to the top 2 m of soil; and
- Ecological Screening Levels (ESL) for selected petroleum hydrocarbon compounds and fractions, and benzo(a)pyrene, and are used to assess contamination with respect to terrestrial ecosystems (Table 8). ESL are dependent on soil type and typically apply to the top 2 m of soil.
- Ecological Soil Guideline Values (EGV) for PFAS (Table 9). At the time of preparing this document, screening values were available only for PFOS and PFOA.

EIL were determined using the NEPC Ecological Investigation Level Spreadsheet based on the following inputs:

- A pH of 6 which is the average pH for the 13 analysed soil samples (see laboratory certificates 303231, 303443, 915468 and 916604); and
- A Cation Exchange Capacity (CEC) of 10 meq/100g which is the average CEC for the 13 analysed soil samples (see laboratory certificates 303231, 303443, 915468 and 916604);
- Contamination is assumed to be ‘aged’ based on site history;
- A organic carbon content value of 1 % has been used as a default value;
- A clay content of 10% has been used as a relatively conservative value given the clay soil profile encountered during the investigation; and
- The state is NSW and the traffic volume is ‘low’.

Clay soils were encountered during the investigation and, so, ESL for fine soils have been adopted.

Table 7: Ecological Investigation Levels (Tier 1) from NEPM toolbox

Contaminant	Public Open Space EIL for Passive Open Space (mg/kg)	Commercial and Industrial EIL for Rail Corridor (mg/kg)
Metals		
Arsenic	100	160
Copper	210	300
Nickel	170	290
Chromium III	410	670
Lead	1100	1800
Zinc	480	700
PAH		
Naphthalene	170	370

Contaminant	Public Open Space EIL for Passive Open Space (mg/kg)	Commercial and Industrial EIL for Rail Corridor (mg/kg)
OCP		
DDT	180	640

Table 8: Ecological Screening Levels (Tier 1) from NEPM

Contaminant	Soil Type	Public Open Space ESL for Passive Open Space (mg/kg)	Commercial and Industrial ESL for Rail Corridor (mg/kg)
Benzene	Fine	65	95
Toluene	Fine	105	135
Ethylbenzene	Fine	105	135
Xylenes	Fine	45	95
TPH C6-C10 less BTEX	Coarse/ Fine	180*	215*
TPH >C10-C16	Coarse/ Fine	120*	170*
TPH >C16-C34	Fine	1300	2500
TPH >C34-C40	Fine	5600	6600
Benzo(a)pyrene	Coarse / Fine	0.7	1.4

Notes: ESL are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability
TPH is total petroleum hydrocarbons

Table 9: Ecological Soil Guideline Values (Tier 1) from NEMP for all Land Uses

Contaminant	Direct Exposure (mg/kg)	Indirect Exposure (mg/kg)
PFOS	1	0.01
PFOA	10	NC

Notes: NC no criterion
Direct exposure ecological soil guideline applies specifically to protection of organisms that live within, or in close contact with soil, such as earthworms and plants.
The indirect exposure ecological soil guideline accounts for the various pathways through which organisms can be exposed whether or not they are in direct contact with PFAS contaminated soil (i.e. exposure through the food chain). For intensively developed sites with no secondary consumers and minimal potential for indirect ecological exposure, a higher criterion of up to 0.14 mg/kg may be appropriate.

4.0 Management Limits

In addition to appropriate consideration and application of the human health and ecological criteria, there are additional considerations which reflect the nature and properties of petroleum hydrocarbons, including:

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

Management limits are shown in Table 10. Predominantly clay soils were encountered during the investigation and, so, management limits for fine soils have been adopted.

Table 10: Management Limits for TPH from NEPM (mg/kg)

Contaminant	Soil Type	Public Open Space Management Limits for Passive Open Space (mg/kg)	Commercial and Industrial Management Limit for Rail Corridor (mg/kg)
TPH C6-C10	Fine	800	800
TRH >C10-C16	Fine	1000	1000
TPH >C16-C34	Fine	3500	5000
TPH >C34-C40	Fine	10 000	10 000

Appendix G

Test Pit and Bore Hole Logs

EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP01
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291612.2, N: 6251329.7 (56 MGA2020)	SURFACE ELEVATION : 64.20 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets	w~PL			FILL
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.30: HP =140 kPa
			0.80m ES 0.90m	0.5		CH	At 0.5m: becoming grey mottled red-brown	w~PL	St		0.80: HP =160 kPa
				1.0			EXCAVATION AEC41TP01 TERMINATED AT 1.10 m Target depth				
				1.10m							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP02
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291577.1, N: 6251333.4 (56 MGA2020)	SURFACE ELEVATION : 63.30 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace fine gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown mottled grey, trace fine to medium ironstone gravel			×	Field Replicate BD3/20220816 taken at 0-0.1m depth RESIDUAL SOIL 0.30: HP =160 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	At 0.6m: becoming grey mottled red-brown	w~PL	St to VSt	×	0.80: HP =220 kPa 0.80: PID <1
				1.00m 1.0			EXCAVATION AEC41TP02 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

Ro

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP03
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291597.3, N: 6251313.4 (56 MGA2020)	SURFACE ELEVATION : 63.80 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: high plasticity, red-brown mottled grey, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.30: HP =210 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	At 0.6m: becoming grey mottled red-brown	w~PL	St to VSt	X	0.80: HP =210 kPa 0.80: PID <1
				1.0			1.10m EXCAVATION AEC41TP03 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP04
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291582.3, N: 6251292.8 (56 MGA2020) | SURFACE ELEVATION : 63.80 (mAHD)
EQUIPMENT TYPE : 14 tonne Excavator | METHOD : 800mm bucket
DATE EXCAVATED : 16/08/22 | LOGGED BY : PJ | CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown mottled grey, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.30: HP =210 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	At 0.6m: becoming grey mottled red-brown	w~PL	St to VSt	X	0.80: HP =210 kPa 0.80: PID <1
				1.0			EXCAVATION AEC41TP04 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP05
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291596.9, N: 6251263.6 (56 MGA2020)	SURFACE ELEVATION : 64.30 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace fine grained gravel	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel			200	RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	VSt	200	0.80: HP =240 kPa 0.80: PID <1
				1.0			1.10m EXCAVATION AEC41TP05 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP06
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291591.5, N: 6251245.4 (56 MGA2020)	SURFACE ELEVATION : 64.60 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets	w~PL			FILL
			0.30m ES 0.40m				0.20m Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel			200	RESIDUAL SOIL 0.30: HP =250 kPa
			0.80m ES 0.90m	0.5		CH	At 0.6m: becoming red-brown mottled grey	w~PL	VSt	200	0.80: HP =270 kPa
				1.0			1.20m EXCAVATION AEC41TP06 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP07
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291588.5, N: 6251202.7 (56 MGA2020)	SURFACE ELEVATION : 65.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace fine gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	At 0.6m: becoming red-brown mottled grey	w~PL	VSt	×	0.80: HP =240 kPa 0.80: PID <1
				1.0							
				1.20m			EXCAVATION AEC41TP07 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP08
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291588.5, N: 6251156.1 (56 MGA2020)	SURFACE ELEVATION : 66.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

PENETRATION (VE / E / F / H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0		MH	Gravelly SILT: medium to high plasticity, red-brown, with fine to coarse sand, trace rootlets	w~PL	F	×	RESIDUAL SOIL 0.00: HP =80 kPa 0.00: PID <1
							0.20m Silty CLAY: high plasticity, red-brown, trace ironstone gravel				
			0.50m ES 0.60m	0.5		CH		w~PL	St	×	0.50: HP =110 kPa 0.50: PID <1
							0.90m EXCAVATION AEC41TP08 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP09
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291584.6, N: 6251107.6 (56 MGA2020)	SURFACE ELEVATION : 65.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m ES 0.30m			CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel 0.50m	w~PL	St		RESIDUAL SOIL 0.20: PID <1
			0.70m ES 0.80m	0.5		CH	Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel	w~PL	St to VSt		0.70: PID <1
				1.0			1.00m EXCAVATION AEC41TP09 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP10
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291598.8, N: 6251078.2 (56 MGA2020)	SURFACE ELEVATION : 62.70 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

PENETRATION (VE / E / F / H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa (100 / 200 / 300 / 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH	at 0.6m: becoming pale brown mottled red-brown and trace siltstone gravel	w~PL	St	×	0.80: HP =180 kPa 0.80: PID <1
				0.90m			EXCAVATION AEC41TP10 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP11
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291565.0, N: 6251057.3 (56 MGA2020)	SURFACE ELEVATION : 62.80 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown mottled grey, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH	at 0.5m: becoming grey mottled red-brown	w~PL	St	×	0.80: HP =180 kPa 0.80: PID <1
				1.0							
				1.10m			EXCAVATION AEC41TP11 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP12
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291591.6, N: 6251031.7 (56 MGA2020)	SURFACE ELEVATION : 59.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace fine to medium gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown mottled grey, with fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =290 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH		w~PL	VSt	×	0.80: HP =320 kPa 0.80: PID <1
				1.00m			EXCAVATION AEC41TP12 TERMINATED AT 1.00 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

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PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP13
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291598.4, N: 6251009.9 (56 MGA2020)	SURFACE ELEVATION : 58.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, pale orange-brown, trace fine to medium ironstone gravel, trace fine to coarse siltstone gravel			200	RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St to VSt	300	0.80: HP =250 kPa 0.80: PID <1
				1.0			1.10m EXCAVATION AEC41TP13 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP14
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291571.3, N: 6250997.8 (56 MGA2020)	SURFACE ELEVATION : 60.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER kPa (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, brown mottled grey, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =270 kPa
			0.80m ES 0.90m	0.5		CH	at 0.7m: becoming grey mottled red-brown	w~PL	VSt	×	0.80: HP =250 kPa
				1.0							
				1.20m			EXCAVATION AEC41TP14 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP15
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291561.6, N: 6250978.6 (56 MGA2020)	SURFACE ELEVATION : 59.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: Field Replicate BD2/20220817 taken at 0-0.1m depth
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =270 kPa
			0.80m ES 0.90m	0.5		CH	at 0.7m: becoming red-brown mottled grey	w~PL	VSt	×	0.80: HP =250 kPa
				1.0							
				1.20m			EXCAVATION AEC41TP15 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : **AEC41TP16**
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291595.7, N: 6250967.5 (56 MGA2020)	SURFACE ELEVATION : 57.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL
			0.30m ES 0.40m				0.20m Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =170 kPa
			0.80m ES 0.90m	0.5		CH	at 0.7m: becoming grey mottled orange-brown	w~PL	St to VSt	×	0.80: HP =250 kPa
				1.0			1.20m EXCAVATION AEC41TP16 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP17
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291583.3, N: 6250941.8 (56 MGA2020)	SURFACE ELEVATION : 56.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace fin gravel, trace rootlets	w~PL			FILL
			0.20m								RESIDUAL SOIL
			ES 0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine ironstone gravel			×	0.20: HP =270 kPa
			0.70m	0.5		CH		w~PL	VSt		
			ES 0.80m							×	0.70: HP =280 kPa
							0.90m				
				1.0			EXCAVATION AEC41TP17 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP18
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291604.4, N: 6250932.6 (56 MGA2020)	SURFACE ELEVATION : 54.60 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 17/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel, trace rootlets				RESIDUAL SOIL 0.00: HP =180 kPa 0.00: PID <1
			0.50m ES 0.60m	0.5		CI-CH	0.60m	w~PL	St		0.50: HP =160 kPa 0.50: PID <1
							EXCAVATION AEC41TP18 TERMINATED AT 0.60 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Rev

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP19
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291622.2, N: 6250934.0 (56 MGA2020)	SURFACE ELEVATION : 53.80 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (kPa)	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, grey, fine to coarse grained sand, trace rootlets and fine to medium grained gravel	w>PL			FILL 0.00: Field Replicate BD5/20220902 taken at 0.0-0.1m.
				0.20m							
		Not Observed	0.30m E 0.40m	0.5		CI-CH	Silty CLAY: medium to high plasticity, pale orange-brown, trace fine to medium grained ironstone and siltstone gravel	w~PL	St	200	RESIDUAL SOIL 0.30: HP =140 kPa
			0.80m E 0.90m	1.0							0.80: HP =160 kPa
				1.00m			EXCAVATION AEC41TP19 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP20
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291617.0, N: 6251105.8 (56 MGA2020)	SURFACE ELEVATION : 62.80 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa (100, 200, 300, 400)	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium grained sand, trace rootlets and fine grained gravel	w~PL			FILL
			0.20m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium grained ironstone gravel				RESIDUAL SOIL
			E 0.30m								0.20: HP =150 kPa
		Not Observed		0.5		CI-CH		w~PL	St		
			0.70m				At 0.6m: orange-brown				
			E 0.80m								0.70: HP =160 kPa
				1.0			1.00m EXCAVATION AEC41TP20 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP21
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291564.3, N: 6251091.6 (56 MGA2020)	SURFACE ELEVATION : 66.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium grained sand, trace rootlets	w~PL			FILL
			0.20m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium grained ironstone gravel				RESIDUAL SOIL
		Not Observed	E 0.30m							X	0.20: HP =270 kPa
				0.5		CI-CH	At 0.5m: grey mottled red-brown	w~PL	VSt		
			0.70m							X	0.70: HP =230 kPa
			E 0.80m				0.80m EXCAVATION AEC41TP21 TERMINATED AT 0.80 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP22
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291618.2, N: 6251141.9 (56 MGA2020)	SURFACE ELEVATION : 65.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium grained sand, trace rootlets and fine grained gravel	w~PL			FILL
							0.20m				
		Not Observed	0.30m E 0.40m	0.5		CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine grained ironstone gravel and timber	w~PL	St	0.30: HP =180 kPa	RESIDUAL SOIL
			0.80m E 0.90m				At 0.6m high plasticity			0.80: HP =160 kPa	
							0.90m				
				1.0			EXCAVATION AEC41TP22 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP23
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291566.3, N: 6251132.2 (56 MGA2020)	SURFACE ELEVATION : 66.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium grained sand, trace rootlets and fine grained gravel	w~PL			FILL 0.00: Field Replicate BD4/20220902 taken at 0-0.1m
			0.20m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium grained ironstone gravel				RESIDUAL SOIL 0.20: HP =160 kPa
		Not Observed	E 0.30m	0.5		CI-CH		w~PL	St to VSt		
			0.70m E 0.80m				At 0.7m: high plasticity				0.70: HP =200 kPa
							0.90m EXCAVATION AEC41TP23 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP24
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291616.7, N: 6251183.6 (56 MGA2020)	SURFACE ELEVATION : 65.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER kPa (100, 200, 300, 400)	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium grained sand, trace rootlets	w~PL			FILL
			0.30m				0.20m				
		Not Observed	E 0.40m	0.5		CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine to medium grained ironstone gravel	w~PL	St to VSt	×	RESIDUAL SOIL 0.30: HP =210 kPa
			0.80m							×	0.80: HP =180 kPa
			E 0.90m	1.0			1.10m				
							EXCAVATION AEC41TP24 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE, E, F, H, VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP25
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291574.5, N: 6251176.7 (56 MGA2020)	SURFACE ELEVATION : 66.30 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium grained sand, trace rootlets	w~PL			FILL
			0.20m				Silty CLAY: medium to high plasticity, red-brown, trace fine grained ironstone gravel and timber				RESIDUAL SOIL
		Not Observed	E 0.30m	0.5		CI-CH		w~PL	St	100 200 300 400	0.20: HP =150 kPa
			0.70m								0.70: HP =160 kPa
			E 0.80m	1.0			1.00m EXCAVATION AEC41TP25 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP26
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291617.2, N: 6251209.4 (56 MGA2020)	SURFACE ELEVATION : 64.20 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (kPa) 100 200 300 400	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			FILL: sandy SILT: medium or high plasticity, dark brown, fine to medium grained sand, trace rootlets and decomposed timber	w~PL			FILL
							0.20m				
			0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium grained ironstone gravel				RESIDUAL SOIL
			E 0.40m							×	0.30: HP =220 kPa
		Not Observed		0.5		CI-CH		w~PL	St to VSt		
			0.80m				At 0.7m: grey mottled red-brown			×	0.80: HP =160 kPa
			E 0.90m								
				1.0			1.00m EXCAVATION AEC41TP26 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP27
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291579.3, N: 6251214.4 (56 MGA2020)	SURFACE ELEVATION : 65.30 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		N/A	E 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium grained sand, with fine grained gravel, trace rootlets	w~PL			FILL
		Not Observed	0.20m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium grained ironstone gravel				RESIDUAL SOIL
			E 0.30m	0.5		CI-CH		w~PL	St	X 190	0.20: HP =190 kPa
			0.70m				At 0.7m: high plasticity			X 130	0.70: HP =130 kPa
			E 0.80m				0.90m EXCAVATION AEC41TP27 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP28
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291617.9, N: 6251259.7 (56 MGA2020)	SURFACE ELEVATION : 64.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: Field Replicate BD3/20220902 taken at 0-0.1m depth
			0.20m ES 0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.20: HP =180 kPa
				0.5		CI-CH		w~PL	St		
			0.70m ES 0.80m				At 0.7m: red-brown mottled grey			X	0.70: HP =170 kPa
							0.90m EXCAVATION AEC41TP28 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP29
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291577.5, N: 6251260.7 (56 MGA2020)	SURFACE ELEVATION : 64.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER (kPa) 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets, trace fine gravel	w~PL			FILL
			0.20m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.20: HP =200 kPa
			ES 0.30m	0.5		CI-CH	At 0.6: high plasticity	w~PL	St to VSt		
			0.70m ES 0.80m	1.0			1.10m			×	0.70: HP =200 kPa
							EXCAVATION AEC41TP29 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP30
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291622.0, N: 6251279.5 (56 MGA2020)	SURFACE ELEVATION : 63.80 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic; Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL
			0.20m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL
			ES 0.30m	0.5		CI-CH	At 0.5m: red-brown mottled grey	w~PL	St		0.20: HP =190 kPa
			0.70m								0.70: HP =180 kPa
			ES 0.80m				0.90m EXCAVATION AEC41TP30 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP31
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291655.6, N: 6251276.5 (56 MGA2020)	SURFACE ELEVATION : 62.20 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL
			0.30m ES 0.40m				0.20m Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.30: HP =200 kPa
			0.80m ES 0.90m	0.5		CI-CH		w~PL	St		0.80: HP =180 kPa
				1.0			1.10m EXCAVATION AEC41TP31 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE, E, F, H, VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP32
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291675.7, N: 6251268.3 (56 MGA2020)	SURFACE ELEVATION : 61.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400 kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: Field Replicate BD2/20220902 taken at 0-0.1m depth
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =210 kPa
				0.5		CI-CH	At 0.6m: orange-brown	w~PL	St to VSt		
			0.80m ES 0.90m	1.0						×	0.80: HP =200 kPa
				1.00m			EXCAVATION AEC41TP32 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

RC

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

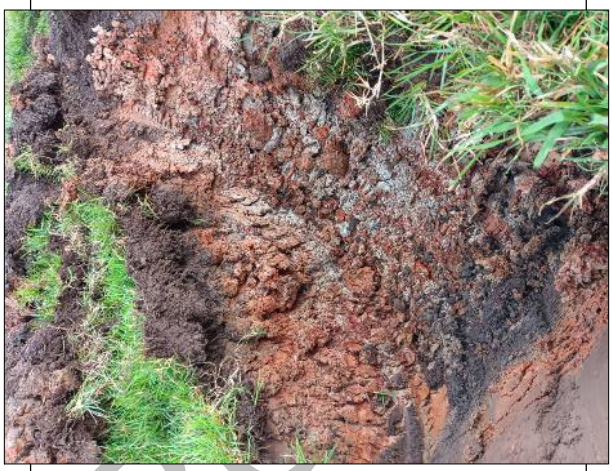
PIT NO : AEC41TP33
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291616.5, N: 6251308.3 (56 MGA2020)	SURFACE ELEVATION : 64.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL
			0.20m								RESIDUAL SOIL
			ES 0.30m			CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL	St	×	0.20: HP =190 kPa
				0.5			0.50m Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel				
			0.70m ES 0.80m			CH		w~PL	St	×	0.70: HP =190 kPa
				1.0			1.00m EXCAVATION AEC41TP33 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							



PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP34
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291645.8, N: 6251307.4 (56 MGA2020)	SURFACE ELEVATION : 63.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION / E / F / H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL
			0.20m								RESIDUAL SOIL
			ES 0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			×	0.20: HP =200 kPa
				0.5		CI-CH		w~PL	St to VSt		
			0.70m				At 0.7m: red-brown mottled grey			×	0.70: HP =190 kPa
			ES 0.80m				0.90m EXCAVATION AEC41TP34 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP35
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291672.7, N: 6251311.5 (56 MGA2020)	SURFACE ELEVATION : 63.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL
			0.20m								RESIDUAL SOIL
			ES 0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			×	0.20: HP =210 kPa
				0.5		CI-CH		w~PL	St to VSt		
			0.70m							×	0.70: HP =180 kPa
			ES 0.80m				0.90m				
				1.0			EXCAVATION AEC41TP35 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC41TP36
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291621.9, N: 6251325.4 (56 MGA2020)	SURFACE ELEVATION : 64.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 02/09/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETROMETER kPa (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: Field Replicate BD1/20220902 taken at 0-0.1m depth
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown	w~PL	VSt	×	RESIDUAL SOIL 0.30: HP =300 kPa
			0.80m ES 0.90m	0.5 0.60m		CI-CH	Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel	w~PL	St	×	0.80: HP =160 kPa
				1.0 1.10m		CH	EXCAVATION AEC41TP36 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP01
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291539.9, N: 6250910.5 (56 MGA2020)	SURFACE ELEVATION : 59.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown mottled grey, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.30: HP =190 kPa 0.30: PID <1 BD1/20220812 taken at 0.3-0.4 depth.
			0.80m ES 0.90m	0.5		CI-CH		w~PL	St to VSt		0.80: HP =290 kPa 0.80: PID <1
				1.0							
				1.10m			EXCAVATION AEC42TP01 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP02
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291572.8, N: 6250909.6 (56 MGA2020)	SURFACE ELEVATION : 58.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

DEPTH (m)	PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
0.0			Not Observed	ES 0.10m			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
				0.20m		CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL		X	RESIDUAL SOIL 0.20: HP =160 kPa 0.20: PID <1
				0.20m ES			0.30m Silty CLAY: high plasticity, orange-brown mottled grey, trace fine to medium ironstone gravel				
0.5				0.70m ES 0.80m		CH		w~PL	St	X	0.70: HP =140 kPa 0.70: PID <1
							0.90m EXCAVATION AEC42TP02 TERMINATED AT 0.90 m Target depth				
1.0											
1.5											
2.0											
2.5											
3.0											
3.5											
4.0											
4.5											
5.0											

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP03
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291586.4, N: 6250893.1 (56 MGA2020) | SURFACE ELEVATION : 58.80 (mAHD)
EQUIPMENT TYPE : 14 tonne Excavator | METHOD : 800mm bucket
DATE EXCAVATED : 12/08/22 | LOGGED BY : PJ | CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m		CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL		X	RESIDUAL SOIL 0.30: HP =150 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5 0.60m		CH	Silty CLAY: high plasticity, orange-brown mottled grey, trace fine to medium ironstone gravel	w~PL	St	X	0.80: HP =150 kPa 0.80: PID <1
				1.0 1.10m			EXCAVATION AEC42TP03 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP04
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291560.3, N: 6250881.2 (56 MGA2020)	SURFACE ELEVATION : 59.80 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING					MATERIAL						
PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			×	BD2/20220812 taken at 0-0.1m depth. RESIDUAL SOIL 0.30: HP =150 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH	At- 0.6m: grading to red-brown mottled grey	w~PL	St	×	0.80: HP =180 kPa 0.80: PID <1
				1.0			1.10m EXCAVATION AEC42TP04 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP05
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291579.4, N: 6250870.3 (56 MGA2020)	SURFACE ELEVATION : 60.60 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: low to medium plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =220 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH	At 0.6m: grading to red-brown mottled grey	w~PL	St to VSt	×	0.80: HP =190 kPa 0.80: PID <1
				1.00m 1.0			EXCAVATION AEC42TP05 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP06
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291564.7, N: 6250850.5 (56 MGA2020)	SURFACE ELEVATION : 60.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: low to medium plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			200	RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH	At 0.6m: grading to grey mottled red-brown	w~PL	St to VSt	200	0.80: HP =180 kPa 0.80: PID <1
				1.00m 1.0			EXCAVATION AEC42TP06 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP07
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291539.9, N: 6250840.9 (56 MGA2020)	SURFACE ELEVATION : 58.70 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to coarse sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =240 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	At 0.7m: grading to brown mottled pale orange	w~PL	St to VSt	×	0.80: HP =140 kPa 0.80: PID <1
				1.0							
				1.20m			EXCAVATION AEC42TP07 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP08
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291553.7, N: 6250821.9 (56 MGA2020)	SURFACE ELEVATION : 58.60 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to coarse sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel				BD3/20220812 taken at 0-0.1m depth. RESIDUAL SOIL 0.30: HP =220 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St to VSt		0.80: HP =150 kPa 0.80: PID <1
				1.0							
				1.30m			EXCAVATION AEC42TP08 TERMINATED AT 1.30 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP09
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291575.8, N: 6250813.3 (56 MGA2020)	SURFACE ELEVATION : 57.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400 kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to coarse sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.30: HP =160 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St		0.80: HP =160 kPa 0.80: PID <1
				1.0							
				1.10m			EXCAVATION AEC42TP09 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE, E, F, H, VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP10
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291525.3, N: 6250797.0 (56 MGA2020)	SURFACE ELEVATION : 56.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, pale brown-grey				RESIDUAL SOIL 0.30: HP =140 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St		0.80: HP =120 kPa 0.80: PID <1
				0.90m			trace fine to medium ironstone gravel				
				1.0			EXCAVATION AEC42TP10 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP11
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291511.3, N: 6250782.3 (56 MGA2020)	SURFACE ELEVATION : 56.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400 kPa	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.30m				
				0.5			Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel At 0.5m: becoming pale brown				RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m			CI-CH		w~PL	St to VSt		0.80: HP =200 kPa 0.80: PID <1
				1.0			1.10m				
						CH	1.20m Silty CLAY: high plasticity, grey	w~PL			1.10: HP =200 kPa
							EXCAVATION AEC42TP11 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP12
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291492.0, N: 6250776.0 (56 MGA2020)	SURFACE ELEVATION : 55.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark grey, trace rootlets, hydrocarbon odour	w>PL			FILL 0.00: PID <1
			0.40m ES 0.50m	0.30m			Silty CLAY: medium to high plasticity, red-brown				RESIDUAL SOIL 0.40: HP =140 kPa 0.40: PID <1
			0.90m ES 1.00m	0.5 1.0		CI-CH		w~PL	St		0.90: HP =200 kPa 0.90: PID <1
				1.10m			EXCAVATION AEC42TP12 TERMINATED AT 1.10 m Target depth				
				1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP13
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291553.0, N: 6250736.4 (56 MGA2020)	SURFACE ELEVATION : 57.60 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400 kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.40m ES 0.50m	0.30m			Silty CLAY: high plasticity, pale brown-red, trace fine to medium ironstone gravel	w~PL	VSt	×	RESIDUAL SOIL 0.40: HP =210 kPa 0.40: PID <1 BD4/20220812 takent at 0.4-0.5m depth.
			0.90m ES 1.00m	1.0		CH				×	0.90: HP =210 kPa 0.90: PID <1
				1.10m			EXCAVATION AEC42TP13 TERMINATED AT 1.10 m Target depth				

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE, E, F, H, VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP14
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291575.3, N: 6250727.7 (56 MGA2020)	SURFACE ELEVATION : 57.80 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.40m ES 0.50m	0.30m			Silty CLAY: high plasticity, pale brown-red, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.40: HP =140 kPa 0.40: PID <1
			0.90m ES 1.00m	0.5 1.0		CH		w~PL	St		0.90: HP =180 kPa 0.90: PID <1
				1.20m			EXCAVATION AEC42TP14 TERMINATED AT 1.20 m Target depth				
				1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP15
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291538.8, N: 6250716.2 (56 MGA2020)	SURFACE ELEVATION : 59.70 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: medium to high plasticity, red-brown mottled orange-brown, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =160 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH		w~PL	St to VSt	×	0.80: HP =200 kPa 0.80: PID <1
				1.0			0.90m EXCAVATION AEC42TP15 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP16
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291564.2, N: 6250707.4 (56 MGA2020)	SURFACE ELEVATION : 59.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

PENETRATION (VE, E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m				Silty CLAY: medium to high plasticity, red-brown mottled orange-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.20: HP =160 kPa 0.20: PID <1
			ES 0.30m	0.5		CI-CH		w~PL	St		
			0.70m								0.70: HP =180 kPa 0.70: PID <1
			ES 0.80m				0.80m EXCAVATION AEC42TP16 TERMINATED AT 0.80 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP17
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291507.6, N: 6250701.1 (56 MGA2020)	SURFACE ELEVATION : 62.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 12/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m ES 0.30m			CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL		×	RESIDUAL SOIL 0.20: HP =200 kPa 0.20: PID <1
				0.5			0.40m Silty CLAY: high plasticity, grey, with fine to medium siltstone gravel		St to VSt		
			0.70m ES 0.80m			CH		w~PL		×	0.70: HP =200 kPa 0.70: PID <1
				1.0			1.10m EXCAVATION AEC42TP17 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP18
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291534.1, N: 6250681.3 (56 MGA2020)	SURFACE ELEVATION : 60.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m ES 0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.20: HP =160 kPa 0.20: PID <1
				0.5		CI-CH		w~PL	St		BD1/20220815 taken at 0.2-0.3m depth.
			0.70m ES 0.80m				At 0.6m: grading to pale red-brown			X	0.70: HP =180 kPa 0.70: PID <1
							0.90m EXCAVATION AEC42TP18 TERMINATED AT 0.90 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP19
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291556.7, N: 6250675.6 (56 MGA2020)	SURFACE ELEVATION : 59.70 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m ES 0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.20: HP =150 kPa 0.20: PID <1
			0.70m ES 0.80m	0.5		CI-CH		w~PL	St	X	0.70: HP =170 kPa 0.70: PID <1
				1.0			At 0.8m: grading to red-brown mottled grey 1.00m EXCAVATION AEC42TP19 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP20
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291501.1, N: 6250666.5 (56 MGA2020)	SURFACE ELEVATION : 62.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m ES 0.30m				Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.20: HP =240 kPa 0.20: PID <1
				0.5		CI-CH		w~PL	VSt		
			0.70m ES 0.80m				0.90m			X	0.70: HP =220 kPa 0.70: PID <1
				1.0			EXCAVATION AEC42TP20 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP21
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291559.0, N: 6250646.2 (56 MGA2020)	SURFACE ELEVATION : 57.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown mottled pale brown			100 200 300 400	BD2/20220815 taken at 0-0.1m depth. RESIDUAL SOIL 0.30: HP =140 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St		0.80: HP =190 kPa 0.80: PID <1
				1.0							
				1.10m			EXCAVATION AEC42TP21 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP22
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291540.6, N: 6250638.4 (56 MGA2020)	SURFACE ELEVATION : 58.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER kPa (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown mottled pale brown			×	RESIDUAL SOIL 0.30: HP =160 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St		
				1.0			At 0.8m: grey mottled red-brown			×	0.80: HP =160 kPa 0.80: PID <1
				1.10m			EXCAVATION AEC42TP22 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP23
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291501.1, N: 6250632.4 (56 MGA2020)	SURFACE ELEVATION : 60.70 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m				Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.20: HP =250 kPa 0.20: PID <1
			ES 0.30m	0.5		CH	At 0.5m: grey mottled red-brown	w~PL	VSt		
			0.70m ES 0.80m								0.70: HP =300 kPa 0.70: PID <1
				1.0			1.00m EXCAVATION AEC42TP23 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP24
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291522.4, N: 6250622.3 (56 MGA2020)	SURFACE ELEVATION : 58.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			0.10m FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.20m				Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.20: HP =240 kPa 0.20: PID <1
			ES 0.30m	0.5		CH		w~PL	VSt		
			0.70m ES 0.80m								0.70: HP =230 kPa 0.70: PID <1
				1.0			1.00m EXCAVATION AEC42TP24 TERMINATED AT 1.00 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE / E / F / H / VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP25
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291554.8, N: 6250614.0 (56 MGA2020)	SURFACE ELEVATION : 57.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic; Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace fine to medium gravel, trace rootlets and wood	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.30: HP =230 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	VSt		BD3/20220815 taken at 0.3-0.4m depth.
				0.90m			EXCAVATION AEC42TP25 TERMINATED AT 0.90 m Target depth			X	0.80: HP =230 kPa 0.80: PID <1
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP26
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291579.0, N: 6250595.6 (56 MGA2020)	SURFACE ELEVATION : 55.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION / E / F / H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa (100 / 200 / 300 / 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.30: HP =210 kPa 0.30: PID <1
				0.5		CH		w~PL	St to VSt		
			0.80m ES 0.90m				At 0.7m: mottled orange-brown 0.90m				0.80: HP =200 kPa 0.80: PID <1
				1.0			EXCAVATION AEC42TP26 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

Re

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP27
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291495.5, N: 6250592.6 (56 MGA2020)	SURFACE ELEVATION : 58.20 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (kPa) 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m			CH	0.20m Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL	VSt	×	RESIDUAL SOIL 0.30: HP =250 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	0.60m Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel	w~PL	St	×	0.80: HP =170 kPa 0.80: PID <1
				1.0			1.10m EXCAVATION AEC42TP27 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP28
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291527.7, N: 6250588.0 (56 MGA2020)	SURFACE ELEVATION : 57.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m			CH	0.20m Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL	VSt	×	RESIDUAL SOIL 0.30: HP =250 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	0.60m Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel	w~PL	VSt	×	0.80: HP =220 kPa 0.80: PID <1
				1.0			1.20m EXCAVATION AEC42TP28 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP29
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291566.0, N: 6250584.4 (56 MGA2020)	SURFACE ELEVATION : 56.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER kPa (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m		CH	Silty CLAY: high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL		×	BD4/20220815 taken at 0-0.1m depth. RESIDUAL SOIL 0.30: HP =200 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5 0.60m		CH	Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel	w~PL	St to VSt	×	0.80: HP =180 kPa 0.80: PID <1
				1.0 1.10m			EXCAVATION AEC42TP29 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP30
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291595.5, N: 6250576.3 (56 MGA2020)	SURFACE ELEVATION : 54.40 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.40m ES 0.50m	0.5		CI-CH	0.30m Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel, trace rootlets	w~PL	VSt	×	RESIDUAL SOIL 0.40: HP =200 kPa 0.40: PID <1
			0.90m ES 1.00m	1.0		CH	0.60m Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel	w~PL	VSt	×	0.90: HP =210 kPa 0.90: PID <1
				1.5			1.20m EXCAVATION AEC42TP30 TERMINATED AT 1.20 m Target depth				
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP31
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291528.8, N: 6250559.5 (56 MGA2020)	SURFACE ELEVATION : 55.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400 kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1
			0.40m ES 0.50m	0.30m			Silty CLAY: high plasticity, orange-brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.40: HP =200 kPa 0.40: PID <1
			0.90m ES 1.00m	0.5 1.0		CH		w~PL	VSt		0.90: HP =240 kPa 0.90: PID <1
				1.10m			EXCAVATION AEC42TP31 TERMINATED AT 1.10 m Target depth				
				1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE, E, F, H, VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP32
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291549.6, N: 6250554.5 (56 MGA2020)	SURFACE ELEVATION : 55.50 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 15/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, trace rootlets	w~PL			FILL 0.00: PID <1 BD5/20220815 taken at 0-0.1m depth.
			0.40m ES 0.50m	0.30m			Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel	w~PL	VSt	×	RESIDUAL SOIL 0.40: HP =200 kPa 0.40: PID <1
			0.90m ES 1.00m	0.5 0.70m		CI-CH	Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium ironstone gravel	w~PL	St	×	0.90: HP =180 kPa 0.90: PID <1
				1.0 1.10m		CH	EXCAVATION AEC42TP32 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP33
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291574.5, N: 6250555.5 (56 MGA2020)	SURFACE ELEVATION : 55.60 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to medium sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m		CI-CH	Silty CLAY: medium to high plasticity, red-brown, trace fine to medium ironstone gravel, trace rootlets	w~PL	St	×	RESIDUAL SOIL 0.30: HP =160 kPa 0.30: PID <1 BD1/20220816 taken at 0.3-0.4m depth.
			0.80m ES 0.90m	0.5 0.70m		CH	Silty CLAY: high plasticity, grey mottled red-brown, trace fine to medium siltstone gravel, trace fine to medium ironstone gravel	w~PL	St	×	0.80: HP =190 kPa 0.80: PID <1
				1.0 1.20m			EXCAVATION AEC42TP33 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP34
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291502.7, N: 6250558.2 (56 MGA2020)	SURFACE ELEVATION : 55.70 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION / E / F / H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa (100 / 200 / 300 / 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, fine to mediun=m sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown, trace ironstone gravel			×	RESIDUAL SOIL 0.30: HP =180 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH	At 0.6m: grading to pale brown	w~PL	St	×	0.80: HP =160 kPa 0.80: PID <1
				1.0							
				1.20m			EXCAVATION AEC42TP34 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

RevA

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP35
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291523.6, N: 6250519.4 (56 MGA2020)	SURFACE ELEVATION : 54.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400 kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark grey, trace rootlets, trace fine gravel	w~PL			FILL 0.00: PID <1
			0.40m ES 0.50m	0.30m			Silty CLAY: high plasticity, pale orange-brown, trace fine to medium siltstone gravel				RESIDUAL SOIL 0.40: HP =220 kPa 0.40: PID <1
			0.90m ES 1.00m	0.5 1.0		CH		w~PL	VSt		0.90: HP =240 kPa 0.90: PID <1
				1.40m			EXCAVATION AEC42TP35 TERMINATED AT 1.40 m Target depth				
				1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP36
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291553.4, N: 6250503.1 (56 MGA2020)	SURFACE ELEVATION : 53.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark grey, with fine gravel, trace rootlets	w>PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: medium to high plasticity, red-brown, with fine to medium ironstone gravel			X	RESIDUAL SOIL 0.30: HP =210 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH		w~PL	VSt	X	0.80: HP =210 kPa 0.80: PID <1
				1.0			0.90m EXCAVATION AEC42TP36 TERMINATED AT 0.90 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP37
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291503.2, N: 6250515.1 (56 MGA2020)	SURFACE ELEVATION : 55.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER (100, 200, 300, 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, medium to fine sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: high plasticity, pale orange-brown mottled grey, trace fine to medium ironstone gravel			×	BD2/20220816 taken at 0-0.1m depth. RESIDUAL SOIL 0.30: HP =180 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St	×	0.80: HP =130 kPa 0.80: PID <1
				1.0			1.20m EXCAVATION AEC42TP37 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE, E, F, H, VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP38
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291526.1, N: 6250497.8 (56 MGA2020) | SURFACE ELEVATION : 54.40 (mAHD)
EQUIPMENT TYPE : 14 tonne Excavator | METHOD : 800mm bucket
DATE EXCAVATED : 16/08/22 | LOGGED BY : PJ | CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING					MATERIAL						
VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400 kPa	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, medium to fine sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: high plasticity, red-brown mottled grey, trace fine to medium ironstone gravel			×	RESIDUAL SOIL 0.30: HP =180 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St	×	0.80: HP =130 kPa 0.80: PID <1
				1.0							
				1.20m			EXCAVATION AEC42TP38 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP39
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291560.2, N: 6250490.3 (56 MGA2020)	SURFACE ELEVATION : 53.10 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, medium to fine sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m	0.20m			Silty CLAY: medium to high plasticity, red-brown mottled grey, trace fine to medium ironstone gravel			X	RESIDUAL SOIL 0.30: HP =140 kPa 0.30: PID <1
			0.80m ES 0.90m	0.5		CH		w~PL	St	X	0.80: HP =150 kPa 0.80: PID <1
				1.0							
				1.20m			EXCAVATION AEC42TP39 TERMINATED AT 1.20 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP40
FILE / JOB NO :
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291480.9, N: 6250507.9 (56 MGA2020)	SURFACE ELEVATION : 56.60 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 16/08/22	LOGGED BY : PJ	CHECKED BY : MB
EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE		

DRILLING | MATERIAL

VE / PENETRATION (E, F, H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0			FILL: sandy SILT: medium to high plasticity, dark brown, medium to fine sand, trace rootlets	w~PL			FILL 0.00: PID <1
			0.30m ES 0.40m				0.20m Silty CLAY: medium to high plasticity, orange mottled brown, trace fine to medium ironstone gravel				RESIDUAL SOIL 0.30: PID <1
			0.80m ES 0.90m	0.5		CI-CH	At 0.7m: grey mottled orange-brown	w~PL	St		0.80: PID <1
				1.0			1.10m EXCAVATION AEC42TP40 TERMINATED AT 1.10 m Target depth				
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP101
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291551.9, N: 6250760.1 (56 MGA2020)	SURFACE ELEVATION : 54.90 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 24/11/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING | MATERIAL

VE / PENETRATION E F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m 0.20m ES 0.30m	0.0		MH	Sandy SILT: medium to high plasticity, dark grey-brown, fine to medium sand, trace rootlets, dam sediment possible fill 0.20m	w~PL			FILL 0.00: Field Replicate BD1/221124 taken at 00.00-00.10m depth
						CI-CH	Silty CLAY: medium to high plasticity, red-brown 0.40m	w~PL	St		RESIDUAL SOIL
				0.5			EXCAVATION AEC42TP101 TERMINATED AT 0.40 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP102
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291523.3, N: 6250777.0 (56 MGA2020)	SURFACE ELEVATION : 55.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 24/11/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING					MATERIAL						
VE E PENETRATION F H	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER 100 200 300 400	STRUCTURE & Other Observations
		Not Observed	ES 0.10m	0.0		MH	Sandy SILT: medium to high plasticity, dark grey-brown, fine to medium sand, trace rootlets, dam sediment possible fill	w~PL			FILL
			0.40m ES 0.50m	0.5		CI-CH	0.40m Silty CLAY: medium to high plasticity, red-brown 0.60m	w~PL	St		RESIDUAL SOIL
							EXCAVATION AEC42TP102 TERMINATED AT 0.60 m Target depth				
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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EXCAVATION - GEOLOGICAL LOG

PIT NO : AEC42TP103
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291549.0, N: 6250792.5 (56 MGA2020)	SURFACE ELEVATION : 55.00 (mAHD)	
EQUIPMENT TYPE : 14 tonne Excavator	METHOD : 800mm bucket	
DATE EXCAVATED : 24/11/22	LOGGED BY : PJ	CHECKED BY : MB

EXCAVATION DIMENSIONS : 1.00 m LONG 0.80 m WIDE

DRILLING					MATERIAL						
VE / E / F / H PENETRATION	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETRO-METER kPa (100 / 200 / 300 / 400)	STRUCTURE & Other Observations
		Not Observed	ES 0.10m 0.20m ES 0.30m	0.0		MH	Sandy SILT: medium to high plasticity, dark grey-brown, fine to medium sand, trace rootlets, dam sediment possible fill	w~PL			FILL
				0.20m		CI-CH	Silty CLAY: medium to high plasticity, red-brown	w~PL	St		RESIDUAL SOIL
				0.40m			EXCAVATION AEC42TP103 TERMINATED AT 0.40 m Target depth				
				0.5							
				1.0							
				1.5							
				2.0							
				2.5							
				3.0							
				3.5							
				4.0							
				4.5							
				5.0							

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE / E / F / H / VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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RMS LIB 40.3.14 .GLB Log RTA EXCAVATION AEC_MASTER.GPJ <<DrawingFile>> 01/Dec/2022 15:19 10.02.00.04 Datgel Tools

PIEZOMETER CONSTRUCTION

HOLE NO : AEC41-BH01
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291616.0, N: 6250912.7 (56 MGA2020) SURFACE ELEVATION : 55.00 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : DB520 MOUNTING : Track CONTRACTOR : Numac

DATE STARTED : 02/09/22 DATE COMPLETED : 02/09/22 DATE LOGGED : 02/09/22 LOGGED BY : NB CHECKED BY : MB

DRILLING				MATERIAL			PIEZOMETER CONSTRUCTION DETAILS
PROGRESS: DRILLING & CASING	WATER LOSS	GROUND WATER LEVELS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL (See geotechnical log for soil/rock detail)	ID / Type / Stick Up & RL / Tip Depth & RL / Installation Date / Static Water Level
AD/T		Slow seep	0.0			0.10m TOPSOIL: silty CLAY: low to medium plasticity, dark brown, trace gravel and rootlets	1 — 5.60 m 49.40 mAHD — 02/09/2022
					CI-CH	Silty CLAY: medium to high plasticity, yellow-brown, trace fine sand	1.00m (54.00)
						1.50m	Bentonite
					CI-CH	Silty CLAY: medium to high plasticity, yellow-brown, pale grey green, trace fine sand	PN18 PVC-U Pipe
			2.0			2.00m	
					CI-CH	Silty CLAY: medium to high plasticity, brown and pale grey	
						2.90m	
					CI-CH	Silty CLAY: medium to high plasticity, pale grey	5mm sand/ gravel
			4.0			4.10m	PVC slotted screen (6m)
						SILTSTONE: dark brown and grey; highly weathered to moderately weathered, very low to medium strength	
						5.60m	5.60m (49.40) End Cap
						AEC41-BH01 TERMINATED AT 5.60 m Target depth	
			6.0				
			8.0				
			10.0				
			12.0				
			14.0				

RevA

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RMS LIB 40.3.14 .GLB Log RTA PIEZOMETER INSTALLATION LOG 1 AEC_GROUNDWATER WELLS.GPJ <<DrawingFile>> 04/Oct/2022 11:57 10.02.00.04 Datgel Tools

PIEZOMETER CONSTRUCTION

HOLE NO : AEC41-BH02
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

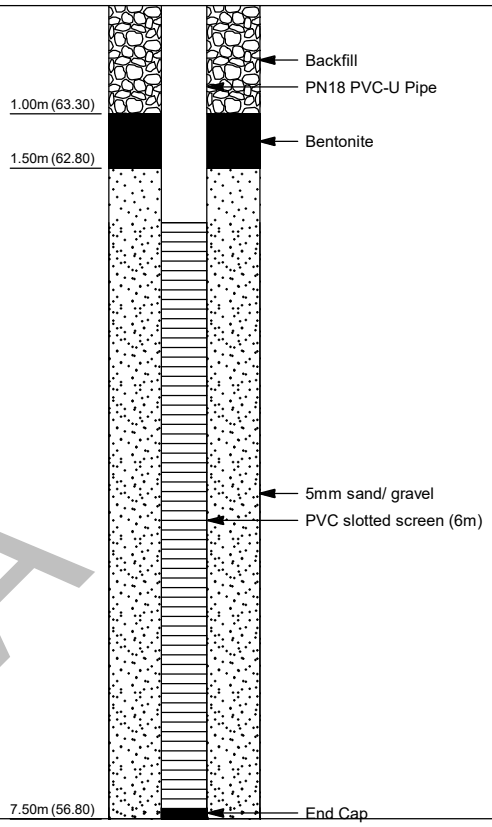
PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291605.7, N: 6251120.0 (56 MGA2020) SURFACE ELEVATION : 64.30 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : DB520 MOUNTING : Track CONTRACTOR : Numac

DATE STARTED : 02/09/22 DATE COMPLETED : 02/09/22 DATE LOGGED : 02/09/22 LOGGED BY : NB CHECKED BY : MB

DRILLING			MATERIAL			PIEZOMETER CONSTRUCTION DETAILS				
PROGRESS: DRILLING & CASING	PROGRESS: WATER LOSS	GROUND WATER LEVELS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL (See geotechnical log for soil/rock detail)	ID	Type	Stick Up & RL	Tip Depth & RL	Installation Date	Static Water Level
							1			7.50 m 56.80 mAHD	02/09/2022	
AD/T		Slow seep	0.0			0.10m TOPSOIL: silty CLAY: low to medium plasticity, dark brown, trace gravel and rootlets						
						Silty CLAY: medium to high plasticity, yellow-brown, orange brown, trace fine sand						
					CI-CH							
			2.0			3.00m						
						Silty CLAY: medium to high plasticity, pale grey						
					CI-CH							
						4.00m						
			4.0			SILTSTONE: dark brown and grey; highly weathered to fresh, very low to high strength						
						At 5m: dark grey						
			6.0									
						7.50m						
						AEC41-BH02 TERMINATED AT 7.50 m Target depth						
			8.0									
			10.0									
			12.0									
			14.0									



RevA

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RMS LIB 40.3.14 .GLB Log RTA PIEZOMETER INSTALLATION LOG 1 AEC_GROUNDWATER WELLS.GPJ <<DrawingFile>> 04/Oct/2022 11:57 10.02.00.04 Datgel Tools

PIEZOMETER CONSTRUCTION

HOLE NO : AEC41-BH03
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291577.0, N: 6251320.8 (56 MGA2020) SURFACE ELEVATION : 63.50 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : DB520 MOUNTING : Track CONTRACTOR : Numac

DATE STARTED : 02/09/22 DATE COMPLETED : 02/09/22 DATE LOGGED : 02/09/22 LOGGED BY : NB CHECKED BY : MB

DRILLING				MATERIAL			PIEZOMETER CONSTRUCTION DETAILS
PROGRESS: DRILLING & CASING	PROGRESS: WATER LOSS	GROUND WATER LEVELS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL (See geotechnical log for soil/rock detail)	
AD/T		Slow seep	0.0			0.15m TOPSOIL: silty CLAY: low to medium plasticity, dark brown, trace gravel and rootlets	ID 1 — Type — Stick Up & RL — Tip Depth & RL: 8.00 m 55.50 mAHD — Installation Date: 02/09/2022 — Static Water Level
						Silty CLAY: medium to high plasticity, red-orange with mottled grey	
			2.0		CI-CH		
			4.0			4.00m	
					CI-CH	Silty CLAY: medium to high plasticity, orange yellow pale grey, trace fine sand and ironstone gravel	
						5.50m	
			6.0			SILTSTONE: dark brown and grey; highly weathered to fresh, low to very high strength	
			8.0			8.00m	
						AEC41-BH03 TERMINATED AT 8.00 m Target depth	
			10.0				
			12.0				
			14.0				

1.00m (62.50) — Backfill; PN18 PVC-U Pipe
1.50m (62.00) — Bentonite
5mm sand/ gravel
PVC slotted screen (6m)
8.00m (55.50) — End Cap

RevA

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RMS LIB 40.3.14 .GLB Log RTA PIEZOMETER INSTALLATION LOG 1 AEC_GROUNDWATER WELLS.GPJ <<DrawingFile>> 04/Oct/2022 11:57 10.02.00.04 Datgel Tools

PIEZOMETER CONSTRUCTION

HOLE NO : AEC42-BH01
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291578.7, N: 6250528.0 (56 MGA2020) SURFACE ELEVATION : 54.00 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : DB520 MOUNTING : Track CONTRACTOR : Numac

DATE STARTED : 01/09/22 DATE COMPLETED : 01/09/22 DATE LOGGED : 01/09/22 LOGGED BY : NB CHECKED BY : MB

DRILLING				MATERIAL			PIEZOMETER CONSTRUCTION DETAILS					
PROGRESS: DRILLING & CASING	PROGRESS: WATER LOSS	GROUND WATER LEVELS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL (See geotechnical log for soil/rock detail)	ID	Type	Stick Up & RL	Tip Depth & RL	Installation Date	Static Water Level
							1			8.50 m	45.50 mAHD	01/09/2022
AD/T		Slow seep	0.0			0.20m TOPSOIL: silty CLAY: low to medium plasticity, dark brown, trace gravel and rootlets						
						Silty CLAY: medium to high plasticity, orange-yellow						
					CI-CH				1.00m (53.00)			
			2.0						1.50m (52.50)			
						2.50m						
					CI-CH	Silty CLAY: medium to high plasticity, pale grey and grey brown-orange						
						3.00m						
						SILTSTONE: dark grey and brown; highly weathered to fresh, very low to medium strength						
			4.0									
			6.0			At 6.0m: dark grey						
			8.0			8.50m			8.50m (45.50)			
						AEC42-BH01 TERMINATED AT 8.50 m Target depth						
			10.0									
			12.0									
			14.0									

Backfill
Bentonite
PN18 PVC-U Pipe
5mm sand/ gravel
PVC slotted screen (6m)
End Cap

RevA

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RMS LIB 40.3.14 .GLB Log RTA PIEZOMETER INSTALLATION LOG 1 AEC_GROUNDWATER WELLS.GPJ <<DrawingFile>> 04/Oct/2022 11:57 10.02.00.04 Datgel Tools

PIEZOMETER CONSTRUCTION

HOLE NO : AEC42-BH02
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291549.7, N: 6250679.2 (56 MGA2020) SURFACE ELEVATION : 60.20 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : DB520 MOUNTING : Track CONTRACTOR : Numac

DATE STARTED : 01/09/22 DATE COMPLETED : 01/09/22 DATE LOGGED : 01/09/22 LOGGED BY : NB CHECKED BY : MB

DRILLING				MATERIAL			PIEZOMETER CONSTRUCTION DETAILS					
PROGRESS: DRILLING & CASING	PROGRESS: WATER LOSS	GROUND WATER LEVELS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL (See geotechnical log for soil/rock detail)	ID	Type	Stick Up & RL	Tip Depth & RL	Installation Date	Static Water Level
							1			11.20 m 49.00 mAHD	01/09/2022	
AD/T		Slow seep	0.0			0.20m TOPSOIL: silty CLAY: low to medium plasticity, dark brown, trace gravel and rootlets						
						Silty CLAY: medium to high plasticity, orange-yellow						
					CI-CH				1.00m (59.20)			
			2.0						1.50m (58.70)			
						2.50m						
					CI-CH	Silty CLAY: medium to high plasticity, pale grey and grey brown-orange						
						3.00m SILTSTONE: dark grey and brown; highly weathered to fresh, very low to high strength						
			4.0									
			6.0			At 6.5m: dark grey						
			8.0									
			10.0			11.20m			11.20m (49.00)			
						AEC42-BH02 TERMINATED AT 11.20 m Target depth						
			12.0									
			14.0									

Backfill
Bentonite
PN18 PVC-U Pipe
5mm sand/ gravel
PVC slotted screen (6m)
End Cap

RevA

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RMS LIB 40.3.14 .GLB Log RTA PIEZOMETER INSTALLATION LOG 1 AEC_GROUNDWATER WELLS.GPJ <<DrawingFile>> 04/Oct/2022 11:57 10.02.00.04 Datgel Tools

PIEZOMETER CONSTRUCTION

HOLE NO : AEC42-BH03
FILE / JOB NO : 204814.01
SHEET : 1 OF 1

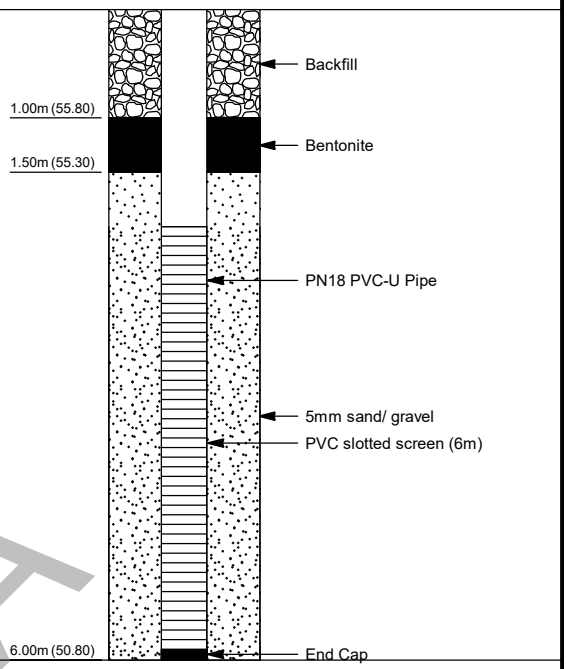
PROJECT : Western Sydney Airport - Surface and Civil Alignment Works
LOCATION : Elizabeth Drive - Badgerys Creek

POSITION : E: 291548.2, N: 6250808.0 (56 MGA2020) SURFACE ELEVATION : 56.80 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : DB520 MOUNTING : Track CONTRACTOR : Numac

DATE STARTED : 01/09/22 DATE COMPLETED : 01/09/22 DATE LOGGED : 01/09/22 LOGGED BY : NB CHECKED BY : MB

DRILLING				MATERIAL			PIEZOMETER CONSTRUCTION DETAILS
PROGRESS: DRILLING & CASING	PROGRESS: WATER LOSS	GROUND WATER LEVELS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL (See geotechnical log for soil/rock detail)	
AD/T		Slow seep	0.0			0.15m TOPSOIL: silty CLAY: low to medium plasticity, dark brown, trace gravel and rootlets	ID 1 / Type / Stick Up & RL / Tip Depth & RL: 6.00 m 50.80 mAHD / Installation Date: 01/09/2022 / Static Water Level
					CI-CH	Silty CLAY: medium to high plasticity, orange-brown and pale grey	
						1.00m	
						Silty CLAY: medium to high plasticity, pale brown, trace fine sand	
			2.0		CI-CH		
						2.50m	
						Silty CLAY: medium to high plasticity, red-brown, trace fine siltstone gravel	
					CI-CH		
			4.0				
						4.50m	
						SILTSTONE: dark brown and grey; highly weathered to moderately weathered, very low to low strength	
			6.0			6.00m	
						AEC42-BH03 TERMINATED AT 6.00 m Target depth	
			8.0				
			10.0				
			12.0				
			14.0				



RevA

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Douglas Partners
Geotechnics | Environment | Groundwater

RMS LIB 40.3.14 .GLB Log RTA PIEZOMETER INSTALLATION LOG 1 AEC_GROUNDWATER WELLS.GPJ <<DrawingFile>> 04/Oct/2022 11:57 10.02.00.04 Datgel Tools

EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B353 REV 1
FILE / JOB NO : 80021888
SHEET : 1 OF 1

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291577.134, N: 6251021.009 (56 MGA2020) | SURFACE ELEVATION : 60.565 (AHD)
EQUIPMENT TYPE : 4-6t Excavator | METHOD : 350mm Toothed Bucket
DATE EXCAVATED : 25/3/21 | LOGGED BY : AT | CHECKED BY : TH/KP
EXCAVATION DIMENSIONS : 3.00 m LONG 1.00 m WIDE

DRILLING | MATERIAL

PENETRATION (VE E F H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER kPa (100 200 300 400)	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm (5 10 15 20 25)	STRUCTURE & Other Observations
	STABLE	Not Encountered	0.20m D	0.0			FILL: SILTY CLAY: dark brown, low plasticity, with rootlets				1	TOPSOIL
			0.40m				0.20m				2	0.10: Non-calcareous
			0.50m B 0.60m D				SILTY CLAY: orange brown mottled grey, medium to high plasticity				2	POSSIBLE RESIDUAL SOIL
				0.5		CI-CH			St		2	
							0.60m				3	
			0.90m				SILTY CLAY: yellow, medium to high plasticity, trace fine to medium grained ironstone gravel	W			3	0.50: Non-calcareous
											4	
											3	
											4	
				1.0		CI-CH			VSt		11	
			1.20m D								6	1.00: Non-calcareous
			1.40m								7	
			1.50m B	1.5							15	
											6	
			1.80m D				SILTSTONE: dark grey mottled yellow, low plasticity, recovered as CLAYEY SILT, with extremely weathered bands				5	
											6	POSSIBLE WEATHERED MATERIAL
			2.00m					D	H		R 20	
				2.0			1.50m					2.00: Non-calcareous
							2.20m					
							EXCAVATION SMGW-TP-B353 REV 1 TERMINATED AT 2.20 m Refusal					
				2.5								
				3.0								
				3.5								
				4.0								
				4.5								
				5.0								

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-TP-B353 REV 1 1 OF 1

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA EXCAVATION 80021888 SMWSA GI GINT LOGS.GPJ <<DrawingFile>> 11/Aug/2021 16:30 10.0.000 Cardno M6E

EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B354 REV 1
FILE / JOB NO : 80021888
SHEET : 1 OF 1

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291531.555, N: 6250746.997 (56 MGA2020) | SURFACE ELEVATION : 56.474 (AHD)
EQUIPMENT TYPE : 4-6t Excavator | METHOD : 350mm Toothed Bucket
DATE EXCAVATED : 25/3/21 | LOGGED BY : AT | CHECKED BY : TH/KP
EXCAVATION DIMENSIONS : 3.00 m LONG 1.00 m WIDE

DRILLING | MATERIAL

DEPTH (m)	SAMPLES & FIELD TESTS	GROUNDWATER LEVELS	SUPPORT	PENETRATION (VE E F H)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETROMETER kPa (100 200 300 400)	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm (5 10 15 20 25)	STRUCTURE & Other Observations
0.0			STABLE			CL	SILTY CLAY: dark brown, low plasticity, with rootlets				2	TOPSOIL
	0.20m						0.20m				2	0.10: Non-calcareous
	D 0.40m					CI-CH	SILTY CLAY: orange-brown dark grey, medium to high plasticity, with fine to medium grained subangular to angular gravel		St		2	POSSIBLE RESIDUAL SOIL
	0.60m						0.50m				3	
0.5	B 0.70m D						SILTY CLAY: pale grey brown-yellow, medium to high plasticity, trace fine to medium grained ironstone gravel	W			2	0.50: Non-calcareous
	1.00m										3	
	1.20m D										3	
1.0	1.40m B					CI-CH			VSt		4	
	1.60m D										8	
											7	
1.5											11	1.00: Non-calcareous
											10	
											16	
											13	
											17	
							1.60m				R 20	1.50: Non-calcareous
							SILTSTONE: dark grey mottled yellow, with extremely weathered seams					POSSIBLE WEATHERED MATERIAL
	1.90m							D				
	2.00m								VD			
2.0	2.10m											2.00: Non-calcareous
	D 2.30m	25/03/21						W				
							2.30m					
							EXCAVATION SMGW-TP-B354 REV 1 TERMINATED AT 2.30 m Refusal					
2.5												
3.0												
3.5												
4.0												
4.5												
5.0												

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-TP-B354 REV 1 1 OF 1

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA EXCAVATION 80021888 SMWSA GI GINT LOGS.GPJ <<DrawingFile>> 11/Aug/2021 16:30 10.0.000 Cardno M6E

EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B356 REV 1
FILE / JOB NO : 80021888
SHEET : 1 OF 1

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291524.282, N: 6250651.661 (56 MGA2020) | SURFACE ELEVATION : 59.831 (AHD)
EQUIPMENT TYPE : 4-6t Excavator | METHOD : 350mm Toothed Bucket
DATE EXCAVATED : 25/3/21 | LOGGED BY : AT | CHECKED BY : TH/KP
EXCAVATION DIMENSIONS : 3.00 m LONG 1.00 m WIDE

DRILLING | MATERIAL

DEPTH (m)	SAMPLES & FIELD TESTS	GROUNDWATER LEVELS	SUPPORT	PENETRATION (VE E F H)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	HAND PENETRO-METER kPa	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm	STRUCTURE & Other Observations
0.0							FILL: SILTY CLAY: dark brown, low plasticity, with rootlets				2	TOPSOIL
											2	0.10: Non-calcareous
0.20m							SILTY CLAY: brown-orange, dark grey, medium to high plasticity, trace wood				2	POSSIBLE RESIDUAL SOIL
											2	
											2	
0.5	0.50m D 0.60m B 0.70m					CI-CH			F to St		2	0.50: Non-calcareous
0.80m	0.80m D										6	
											5	
							SILTY CLAY: grey, brown, yellow, medium to high plasticity				9	
1.0						CI-CH		W	VSt		5	1.00: Non-calcareous
	1.20m										6	
1.30m											11	
	1.40m D	Not Encountered					SILTY CLAY: pale grey, brown, medium to high plasticity, trace fine to medium grained ironstone gravel				R 20	
1.5	1.60m											1.50: Non-calcareous
	1.80m B D					CI-CH			H			
2.0												2.00: Non-calcareous
2.10m	2.20m						SILTSTONE: dark grey, yellow, recovered as CLAYEY SILT, with extremely weathered bands	D	H			POSSIBLE WEATHERED MATERIAL
2.50m												
2.5							EXCAVATION SMGW-TP-B356 REV 1 TERMINATED AT 2.50 m Refusal					
3.0												
3.5												
4.0												
4.5												
5.0												

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-TP-B356 REV 1 1 OF 1

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA EXCAVATION 80021888 SMWSA GI GINT LOGS.GPJ <<DrawingFile>> 11/Aug/2021 16:30 10.0.000 Cardno M6E

EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B365 REV 0
FILE / JOB NO : 80021888
SHEET : 1 OF 1

PROJECT : SMWSA GI
LOCATION : 1953 Elizabeth Drive Badgerys Creek

POSITION : E: 291616.156, N: 6251227.168 (56 MGA2020)	SURFACE ELEVATION : 63.809 (AHD)
EQUIPMENT TYPE : 8t Excavator	METHOD : 600mm Toothed Bucket
DATE EXCAVATED : 16/8/21	LOGGED BY : TH CHECKED BY : PW
EXCAVATION DIMENSIONS : 3.00 m LONG 1.00 m WIDE	

DRILLING | MATERIAL

DEPTH (m)	PENETRATION (VE / E / F / H)	SUPPORT	GROUNDWATER LEVELS	SAMPLES & FIELD TESTS	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER (kPa)	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm	STRUCTURE & Other Observations
0.0		STABLE	Not Encountered				FILL: SILTY SAND: brown, fine to medium grained sand, with fine grained gravel, with rootlets	D			4	TOPSOIL 0.00: All ES PID<10 ppm
0.30m											6	
							SILT: red-brown, silt, low to medium plasticity, with fine grained sand, with rootlets		St to VSt		6	POSSIBLE RESIDUAL SOIL
0.50m				B		CL-CI					5	
0.5											6	
0.80m											7	
							SILTY CLAY: pale grey, pale red, medium plasticity, trace fine to medium grained, ironstone gravel, trace rootlets		VSt to H		6	
1.00m												1.00: Non-calcareous
1.0						CI					12	
1.40m												
1.5						CI	1.50m GRAVELLY SILTY CLAY: pale grey, pale red, medium plasticity, inferred as highly weathered siltstone, very low strength		H			POSSIBLE WEATHERED MATERIAL 1.50: Non-calcareous
							EXCAVATION SMGW-TP-B365 REV 0 TERMINATED AT 1.50 m Target depth					
2.0												
2.5												
3.0												
3.5												
4.0												
4.5												
5.0												

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE / E / F / H / VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-TP-B365 REV 0 1 OF 1

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA EXCAVATION 80021888 SMWSA GI GINT LOGS FINAL.GPJ <<DrawingFile>> 11/Oct/2021 13:48 10.0.000 Cardno M6E

EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B366 REV 0
FILE / JOB NO : 80021888
SHEET : 1 OF 1

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291539.654, N: 6251083.434 (56 MGA2020) | SURFACE ELEVATION : 66.712 (AHD)
EQUIPMENT TYPE : 8t Excavator | METHOD : 600mm Toothed Bucket
DATE EXCAVATED : 16/8/21 | LOGGED BY : TH | CHECKED BY : PW
EXCAVATION DIMENSIONS : 3.00 m LONG 1.00 m WIDE

DRILLING | MATERIAL

DEPTH (m)	PENETRATION (VE / E / F / H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER kPa (100 200 300 400)	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm (5 10 15 20 25)	STRUCTURE & Other Observations
0.0		STABLE	Not Encountered				FILL: CLAYEY SAND: brown, fine to medium grained sand, low plasticity clay, trace fine grained, angular gravel, with rootlets				7	TOPSOIL 0.00: All ES PID<10 ppm
0.20m							SILTY CLAY: orange-brown, medium to high plasticity, trace fine to medium grained, sub-angular gravel, trace rootlets				11	POSSIBLE RESIDUAL SOIL
0.50m				0.50m B		CI-CH			VSt		8	
0.5							SILTY CLAY: pale grey, pale red, medium to high plasticity	M			7	
1.00m						CI-CH			St		5	
1.0											5	
											4	1.00: Non-calcareous
1.30m											6	
						GP	SANDY GRAVEL: brown, medium to coarse gravel, angular, fine to coarse grained sand, trace clay, inferred moderately to highly weathered siltstone, very low strength		VSt to H			POSSIBLE WEATHERED MATERIAL
1.50m												1.50: Non-calcareous
1.5							EXCAVATION SMGW-TP-B366 REV 0 TERMINATED AT 1.50 m Target depth					
2.0												
2.5												
3.0												
3.5												
4.0												
4.5												
5.0												

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
- N Natural Exposure
- E Existing Excavation
- BH Backhoe Bucket
- B Bulldozer Blade
- R Ripper

SUPPORT
- T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
- U50 - Undisturbed Sample 50 mm diameter
- D - Disturbed Sample
- B - Bulk Disturbed Sample
- MC - Moisture Content
- HP - Hand Penetrometer (UCS kPa)
- VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
- PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
- D - Dry
- M - Moist
- W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-TP-B366 REV 0 1 OF 1

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA EXCAVATION 80021888 SMWSA GI GINT LOGS FINAL.GPJ <<DrawingFile>> 11/Oct/2021 13:48 10.0.000 Cardno M6E

EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B367 REV 0
FILE / JOB NO : 80021888
SHEET : 1 OF 1

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291545.668, N: 6250932.281 (56 MGA2020) | SURFACE ELEVATION : 58.002 (AHD)
EQUIPMENT TYPE : 8t Excavator | METHOD : 600mm Toothed Bucket
DATE EXCAVATED : 16/8/21 | LOGGED BY : TH | CHECKED BY : PW
EXCAVATION DIMENSIONS : 3.00 m LONG 1.00 m WIDE

DRILLING | MATERIAL

DEPTH (m)	PENETRATION (VE E F H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER kPa (100 200 300 400)	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm (5 10 15 20 25)	STRUCTURE & Other Observations
0.0		STABLE	Not Encountered				FILL: SILTY SAND: brown, fine to medium grained sand, with rootlets	M			7	TOPSOIL 0.00: All ES PID<10 ppm
0.30m											9	
				0.50m B		CI	SANDY CLAY: yellow-brown, medium plasticity, fine to medium grained sand, with fine grained, sub-angular, ironstone gravel		St to VSt		7	POSSIBLE ALLUVIUM
0.5											5	
0.60m												
						SC	CLAYEY SAND: red-brown, fine to coarse grained sand, low plasticity clay, with fine to medium grained, ironstone gravel				5	POSSIBLE RESIDUAL SOIL
0.90m											6	
				1.00m		SC	CLAYEY SAND: yellow-brown, fine to medium grained sand, low plasticity clay, with fine to medium grained gravel				6	1.00: Non-calcareous
1.0												
1.10m											14	POSSIBLE WEATHERED MATERIAL
						SC	GRAVELLY CLAYEY SAND: grey, yellow-brown, medium to coarse grained sand, medium plasticity clay, fine to coarse grained gravel, inferred as highly weathered sandstone/siltstone, very low strength		H			
1.50m												
1.5							EXCAVATION SMGW-TP-B367 REV 0 TERMINATED AT 1.50 m Target depth					1.50: Non-calcareous
2.0												
2.5												
3.0												
3.5												
4.0												
4.5												
5.0												

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

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D - Dry
M - Moist
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CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-TP-B367 REV 0 1 OF 1

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA EXCAVATION 80021888 SMWSA GI GINT LOGS FINAL.GPJ <<DrawingFile>> 11/Oct/2021 13:48 10.0.000 Cardno M6E

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : **SMGW-BH-B328 REV 1**
FILE / JOB NO : 80021888
SHEET : 1 OF 3

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291470.395, N: 6250524.527 (56 MGA2020) SURFACE ELEVATION : 57.626 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 300 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : Aiden

DATE STARTED : 26/3/21 DATE COMPLETED : 26/3/21 DATE LOGGED : 26/3/21 LOGGED BY : NL CHECKED BY : TH/KP

DRILLING						MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m) RL (m AHD)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/V HW Casing	N/A	E-F	Not Encountered	0.40m D 0.80m 1.00m SPT 3, 9, 13 N=22 1.45m 1.50m U 1.70m 2.50m	0.0 57.6			FILL: SILTY CLAY: brown, dark brown, low to medium plasticity, trace fine grained gravel, with rootlets			FILL
								0.60m SILTY CLAY: yellow brown, medium plasticity, trace fine grained sand			POSSIBLE RESIDUAL SOIL
					1.0 56.6		CI	1.20m SILTY CLAY: pale brown to dark brown, medium plasticity, with ironstone 1.40m: with brown, red-brown, fine to medium grained, siltstone gravel	M	VSt to H	1.00: Non-calcareous
		F-H		SPT 14, 25/50mm N=R 2.70m	2.0 55.6		CI	2.78m			
								Continued as Cored Drill Hole			
					3.0 54.6						
					4.0 53.6						
					5.0 52.6						
					6.0 51.6						
					7.0 50.6						
					8.0 49.6						

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA NON-CORE DRILL HOLE 2 80021888 SMWSA GI GINT LOGS.GPJ <<DrawingFile>> 11/Aug/2021 14:55 10.0.000 Cardno M6E

CORED DRILL HOLE LOG

HOLE NO : SMGW-BH-B328 REV 1
FILE / JOB NO : 80021888
SHEET : 2 OF 3

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291470.395, N: 6250524.527 (56 MGA2020) SURFACE ELEVATION : 57.626 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 300 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : Aiden

DATE STARTED : 26/3/21 DATE COMPLETED : 26/3/21 DATE LOGGED : 26/3/21 LOGGED BY : NL CHECKED BY : TH/KP

CASING DIAMETER : HW BARREL (Length) : 3.00 m BIT : Impreg BIT CONDITION : Good

DRILLING					MATERIAL				FRACTURES	
PROGRESS: DRILLING & CASING	PROGRESS: WATER	(CORE LOSS RUN %) / DRILL DEPTH	RQD (%)	SAMPLES & FIELD TESTS	DEPTH (m) / RL (m AHD)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	NATURAL FRACTURE (mm)	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
					0.0 57.6					
					1.0 56.6					
					2.0 55.6					
							2.78m START CORING AT 2.78m			
HW Casing		0% LOSS 4.70	26		3.0 54.6		SANDY CLAY (CH): brown to yellow brown, high plasticity, fine to medium grained sand, with fine grained gravel	RS		2.90: Calcareous
	10% Water LOSS						3.15m SANDSTONE: pale grey, medium to coarse grained, iron stained	HW		3.25: Calcareous 3.34: BP 0° Clay VNR PR RF
				Is(50) d=0.09 a=0.03 MPa			3.34m SILTSTONE: brown mottled grey, slightly fractured, iron stained, bedded at 5° with sandstone laminations, 5-10mm spacing	EW HW EW		3.45: JT 45° UN RF 3.55-3.63: CS 80 mm 3.67: BP 0° PR RF 3.70-3.72: EWS 10 mm 3.76-3.79: CS 30 mm 3.80: Non-calcareous 3.79-3.95: EWS Sandy Clay 160 mm
					4.0 53.6		4.00m INTERLAMINATED SANDSTONE (70%) AND SILTSTONE (30%): grey, medium grained sandstone, dark grey, brown siltstone, bedded at 0-5°, 3-5mm spacing	MW		4.21: BP 5° CN PR RF
							4.38m SILTSTONE: grey to dark grey, slightly fractured	EW HW EW MW		4.30: Non-calcareous 4.32: BP 5° Clay VNR PR RF 4.33-4.38: EWS Sandy Clay 50 mm 4.45: JT 40° Silty Clay VNR IR RF 4.53-4.58: SM Silty Clay FILLED 50 mm Pale grey 4.60: Non-calcareous
					5.0 52.6			HW		4.90: Non-calcareous
HQ		0% LOSS 7.78	75	Is(50) d=0.01 a=0.04 MPa				EW HW EW MW		5.10: Non-calcareous 5.16-5.22: EWS 0° 60 mm 5.43-5.55: SM 0° Silty Clay 120 mm 5.50: Non-calcareous
	10% Water LOSS			Is(50) d=0.15 a=0.42 MPa Is(50) d=0.25 a=0.34 MPa	6.0 51.6		5.81m SILTSTONE: pale grey, with sandstone laminations			5.81: BP 0° Clay VNR PR RF 5.90: Non-calcareous 6.20: Non-calcareous
							6.34m SANDSTONE: pale grey, fine grained 6.38-6.45m: dark grey siltstone band with sandstone laminations, undulating	F		6.34-6.37: BP 0° X VNR PR RF 6.50: Calcareous 6.46-6.56: JT 60° CN ST RF 6.61: BP 20° CN PR RF 6.69: BP 0° CU RF
				Is(50) d=0.18 a=0.15 MPa Is(50) d=0.04 a=0.03 MPa	7.0 50.6		6.65m SILTSTONE: dark grey, bedded with sandstone laminations at 0-5°, 1-2mm spacing	MW		6.90: Non-calcareous
							7.05m SILTSTONE: grey to dark grey, slightly fractured, bedded with siltstone and sandstone laminations at 5°, 1-3mm spacing, trace carbonaceous laminations	HW		7.20: Non-calcareous 7.21: BP 5° Clay VNR UN RF 7.32: BP 5° Clay VNR PR RF
							7.70m SILTSTONE: grey to dark grey, with sandstone laminations, irregular (disturbed)	MW		7.60: Non-calcareous 7.90: Non-calcareous
		7% LOSS	93		8.0 49.6					

ESTIMATED STRENGTH Is(50) — ● - Axial ○ - Diametral
VL (-0.1) L (-0.4) M (-1.3) H (-3.8) VH (-12.5) EH
NATURAL FRACTURE (mm): 20 40 100 300 1000

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA CORED DRILL HOLE 5 80021888 SMWSA GI GINT LOGS.GPJ <<DrawingFile>> 11/Aug/2021 16:22 10.0.000 Cardno M6E

CORED DRILL HOLE LOG

HOLE NO : SMGW-BH-B328 REV 1
FILE / JOB NO : 80021888
SHEET : 3 OF 3

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291470.395, N: 6250524.527 (56 MGA2020) SURFACE ELEVATION : 57.626 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 300 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : Aiden

DATE STARTED : 26/3/21 DATE COMPLETED : 26/3/21 DATE LOGGED : 26/3/21 LOGGED BY : NL CHECKED BY : TH/KP

CASING DIAMETER : HW BARREL (Length) : 3.00 m BIT : Impreg BIT CONDITION : Good

DRILLING					MATERIAL				FRACTURES	
PROGRESS: DRILLING & CASING	PROGRESS: WATER	(CORE LOSS RUN %) DRILL DEPTH	RQD (%)	SAMPLES & FIELD TESTS	DEPTH (m) RL (m AHD)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ● - Axial ○ - Diametral VL -0.1 L -0.4 M -1.3 H -3.8 VH -12.5 EH	NATURAL FRACTURE (mm) 20 40 100 300 1000	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
HQ	10% Water LOSS	7% LOSS	93	Is(50) d=0.24 a=0.29 MPa Is(50) d=0.34 a=0.21 MPa	8.0 49.6		SILTSTONE: grey to dark grey, with sandstone laminations, irregular (disturbed) *(continued)*	MW			8.10: Non-calcareous 8.50: Non-calcareous 8.69: BP 5° Clay VNR UN RF
				Is(50) d=0.21 a=0.16 MPa Is(50) d=0.2 a=0.2 MPa	9.0 48.6						9.02: BP 0° Clay VNR PR RF 9.20: Non-calcareous 9.50: Non-calcareous
				Is(50) d=0.2 a=0.37 MPa	9.67m 10.0 47.6		INTERLAMINATED SANDSTONE (60%) AND SILTSTONE (40%): pale grey, medium grained sandstone, grey, siltstone, irregular laminations (disturbed)				9.90: Non-calcareous
		10.20			10.20m		BOREHOLE SMGW-BH-B328 REV 1 TERMINATED AT 10.20 m Target depth				10.10: Non-calcareous
					11.0 46.6						
					12.0 45.6						
					13.0 44.6						
					14.0 43.6						
					15.0 42.6						
					16.0 41.6						

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-BH-B328 REV 1 3 OF 3

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA CORED DRILL HOLE 5 80021888 SMWSA GI GINT LOGS.GPJ <<DrawingFile>> 11/Aug/2021 16:22 10.0.000 Cardno M6E

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : SMGW-BH-B350 REV 1
FILE / JOB NO : 80021888
SHEET : 1 OF 5

PROJECT : SMWSA GI
LOCATION : USYD Badgerys Creek Campus

POSITION : E: 291503.936, N: 6250796.052 (56 MGA2020) SURFACE ELEVATION : 57.564 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 305 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : DM

DATE STARTED : 8/16/21 DATE COMPLETED : 8/17/21 DATE LOGGED : 8/16/21 LOGGED BY : SL CHECKED BY : TH

DRILLING						MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m) RL (m AHD)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
AD/T	N/A	E-F	Not Encountered	0.20m D 0.50m U 0.80m 1.00m SPT 4, 15, 26 N=41 1.45m 1.50m	0.0 57.6			FILL: CLAYEY SILT: brown, low plasticity 0.20m SILTY CLAY: brown-yellow, brown-grey, high plasticity	D to M		TOPSOIL POSSIBLE RESIDUAL SOIL
					1.0 56.6		CH		M	VSt to H	0.80: SV failed, unable to penetrate
		F-H		D 2.00m			CL	1.50m SILTY CLAY: grey, low plasticity, with fine grained sand 2.00m		H	
					2.0 55.6			Continued as Cored Drill Hole			
					3.0 54.6						
					4.0 53.6						
					5.0 52.6						
					6.0 51.6						
					7.0 50.6						
					8.0 49.6						

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA NON-CORE DRILL HOLE 2 80021888 SMWSA GI GINT LOGS FINAL.GPJ <<DrawingFile>> 18/Nov/2021 10:01 10.0.000 Cardno M6E

CORED DRILL HOLE LOG

HOLE NO : SMGW-BH-B350 REV 1
FILE / JOB NO : 80021888
SHEET : 2 OF 5

PROJECT : SMWSA GI
LOCATION : USYD Badgerys Creek Campus

POSITION : E: 291503.936, N: 6250796.052 (56 MGA2020) SURFACE ELEVATION : 57.564 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 305 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : DM

DATE STARTED : 8/16/21 DATE COMPLETED : 8/17/21 DATE LOGGED : 8/16/21 LOGGED BY : SL CHECKED BY : TH

CASING DIAMETER : BARREL (Length) : 3.00 m BIT : Impreg BIT CONDITION : Good

DRILLING					MATERIAL			FRACTURES	
PROGRESS: DRILLING & CASING	PROGRESS: WATER	(CORE LOSS RUN %) / DRILL DEPTH	RQD (%)	SAMPLES & FIELD TESTS	DEPTH (m) / RL (m AHD)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ● Axial ○ Diametral VL -0.1 L -0.4 M -1.3 H -3.8 VH -12.5 EH	NATURAL FRACTURE (mm) 20 40 100 300 1000	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
HQ					0.0 / 57.6						
					1.0 / 56.6						
					2.00m		START CORING AT 2.00m				
	0% Water LOSS	0% LOSS	0		2.0 / 55.6		SILTY CLAY (CL-CI): grey, yellow-brown, low to medium plasticity, trace ironstone gravel	RS			
					2.32m		SILTSTONE: grey, indistinctly bedded	HW			2.40: Non-calcareous
								EW			2.56-2.68: EWS 10° 120 mm
								HW			2.68-2.85: JT 80° Clay CU S
				Is(50) d=0.05 a=0.03 MPa							2.90: Non-calcareous
		3.13			3.0 / 54.6						
	50-70% Water LOSS	25% LOSS	0		3.08m		2.96-3.07m: 10-30mm rounded siltstone clasts				
							SILTSTONE: brown-orange, brown-yellow, grey, indistinctly bedded, iron stained	EW			3.18-3.29: SZ 0° 110 mm
								HW			3.40: Non-calcareous 3.41: JT 25° Fe PR S
								EW			3.47-3.60: SZ 10° 130 mm
								HW			
								EW			3.69-3.80: SZ 10° 110 mm
					3.93m						3.80-3.93: EWS 0° 130 mm 3.90: Non-calcareous
		4.50			4.0 / 53.6		SILTSTONE: grey, indistinctly bedded	HW			4.00-4.10: SZ 0° 100 mm
					4.16m			EW			
							CORE LOSS 0.34m (4.16-4.50)	HW			4.40: Non-calcareous
					4.50m						
	5% Water LOSS	0% LOSS	14				SILTSTONE: grey, grey-brown, indistinctly bedded, iron stained	HW			4.50-4.58: SZ 0° 80 mm
				Is(50) d=0.02 a=0.42 MPa				MW			4.74-4.76: SZ 0° 20 mm
											4.90: Non-calcareous
					5.0 / 52.6			HW			
											5.33-5.43: JT 50 - 90° CN CU S 5.40: Non-calcareous
					5.84m						5.67-5.79: JT 60° CN PR S
		6.10					SILTSTONE: grey, indistinctly bedded	MW			5.88: BP 10° Fe PR S 5.90: Non-calcareous
				Is(50) d=0.24 a=0.3 MPa	6.0 / 51.6						
		4% LOSS	76		6.10m						
					6.20m		CORE LOSS 0.10m (6.10-6.20)				
							SILTSTONE: grey to dark grey, indistinctly bedded, slightly iron stained	EW			6.20-6.29: SZ 0° 90 mm
								MW			6.40: Non-calcareous
							6.45-6.50m: grey, fine grained sandstone				6.52-6.53: SZ 5° 10 mm
				Is(50) d=0.6 a=0.21 MPa							6.75: BP 10° CN UN S
											6.90: Non-calcareous
				Is(50) d=0.21 a=0.28 MPa	7.0 / 50.6						7.07: JT 10° Clay CU S 7.15: JT 15° Clay IR S
	5-10% Water LOSS			Is(50) d=0.28 a=0.34 MPa				SW			7.40: Non-calcareous
					7.79m						7.57-7.78: JT 80° CN PR S 7.79: BP 0° Fe PR S 7.90: Non-calcareous
				Is(50) d=0.52 a=0.99 MPa	8.0 / 49.6						

See Explanatory Notes for details of abbreviations & basis of descriptions.

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RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA CORED DRILL HOLE 5 80021888 SMWSA GI GINT LOGS FINALGPJ <<DrawingFile>> 18/Nov/2021 10:22 10.0.000 Cardno M6E

CORED DRILL HOLE LOG

HOLE NO : SMGW-BH-B350 REV 1
FILE / JOB NO : 80021888
SHEET : 3 OF 5

PROJECT : SMWSA GI
LOCATION : USYD Badgerys Creek Campus

POSITION : E: 291503.936, N: 6250796.052 (56 MGA2020) SURFACE ELEVATION : 57.564 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 305 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : DM

DATE STARTED : 8/16/21 DATE COMPLETED : 8/17/21 DATE LOGGED : 8/16/21 LOGGED BY : SL CHECKED BY : TH

CASING DIAMETER : BARREL (Length) : 3.00 m BIT : Impreg BIT CONDITION : Good

DRILLING | MATERIAL | FRACTURES

PROGRESS: DRILLING & CASING	PROGRESS: WATER	(CORE LOSS RUN %) / DRILL DEPTH	RQD (%)	SAMPLES & FIELD TESTS	DEPTH (m) / RL (m AHD)	GRAPHIC LOG	DESCRIPTION: ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ● Axial ○ Diametral	NATURAL FRACTURE (mm)	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
HQ	5-10% Water LOSS	4% LOSS	76	Is(50) d=0.35 a=0.66 MPa	8.0 / 49.6		SANDSTONE: pale grey to grey, fine grained, 5-10% siltstone and carbonaceous laminations at 0-10°, slightly iron stained *(continued)*	SW			7.97: BP 5° Fe CU S 7.98: BP 5° Fe CU S 8.17: BP 10° Fe UN S 8.20: BP 10° Fe UN S
					8.43m		8.40-8.43m: 60mm rounded siltstone clast	MW			8.40: Non-calcareous
							INTERLAMINATED SANDSTONE (50%) AND SILTSTONE (50%): at 0-10°, grey, fine grained sandstone, grey to dark grey, brown-yellow siltstone	EW			8.56-8.72: SZ 45° 160 mm 8.72: BP 0° Coal PR S
		8.93		Is(50) d=0.21 a=0.21 MPa	8.84m			MW			8.79: BP 0° Fe PR S
		0% LOSS	97		8.97m		SILTSTONE: dark grey	EW			8.84-8.93: SZ 0° 90 mm 8.90: Non-calcareous 8.97: BP 10° CN PR S
				Is(50) d=0.45 a=0.55 MPa	9.0 / 48.6		SANDSTONE: grey, fine grained, 15% carbonaceous and grey to dark grey, pale brown siltstone laminations at 0-10°	SW			9.40: Non-calcareous
				Is(50) d=0.21 MPa							9.66: BP 10° CN PR S 9.66-9.76: JT 80° CN UN RF
				Is(50) a=0.4 MPa	10.0 / 47.6						9.90: Non-calcareous
	5% Water LOSS			Is(50) d=0.49 a=1.18 MPa Is(50) d=0.17 MPa							10.27: BP 5° CN PR S 10.37: JT 10° CN UN S 10.40: Non-calcareous 10.42: BP 5° CN PR S 10.53: BP 0° CN PR S
				Is(50) a=1.29 MPa	11.0 / 46.6						10.90: Non-calcareous
					11.30m		SILTSTONE: grey to dark grey, indistinctly bedded, 5-10% grey, fine grained sandstone laminations at 0-10°				11.40: Non-calcareous
		11.86		Is(50) d=0.2 a=0.68 MPa							11.72: JT 10° CN UN RF
		0% LOSS	100								11.90: Non-calcareous
				Is(50) d=0.4 a=0.65 MPa	12.0 / 45.6						
					12.18m						
					12.31m		SANDSTONE: grey, fine grained, carbonaceous laminations at 0°	F			
				Is(50) d=0.39 a=1.18 MPa			INTERLAMINATED SANDSTONE (50%) AND SILTSTONE (50%): at 0-10°, grey, fine grained sandstone, grey to dark grey siltstone	SW			12.40: Non-calcareous
											12.90: Non-calcareous
				Is(50) d=0.2 a=0 MPa	13.0 / 44.6						13.02: BP 0° CN PR RF
					13.05m		SILTSTONE: grey, indistinctly bedded				
				Is(50) d=0 a=0.15 MPa			13.40-13.62m: 3-10mm sub-rounded to sub-angular siltstone clasts	MW			13.40: Non-calcareous
					13.62m		SILTSTONE: grey to dark grey, 5-10% grey, fine grained sandstone laminations at 0-10°, 5% pale brown siltstone laminations at 0-5°	SW			13.62: BP 0° CN PR S
				Is(50) d=0.3 a=0.31 MPa Is(50) d=0.82 a=0.99 MPa	14.0 / 43.6						13.90: Non-calcareous
				Is(50) d=0.28 a=1.02 MPa							14.40: Non-calcareous 14.54: BP 0° CN PR S
							14.73m: 5-10mm rounded siltstone clasts				14.71: BP 0° CN PR S
		15.00		Is(50) d=0.18 a=0.53 MPa	15.0 / 42.6						14.88: BP 0° CN PR S 14.90: Non-calcareous
		0% LOSS	100				15.07-15.23m: 10-15mm rounded to sub-rounded siltstone clasts				
	0% Water LOSS			Is(50) d=0.49 a=0.62 MPa							15.40: Non-calcareous
							15.55-15.76m: 10-25mm rounded siltstone clasts				
					16.0 / 41.6						15.90: Non-calcareous

See Explanatory Notes for details of abbreviations & basis of descriptions.

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RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA CORED DRILL HOLE 5 80021888 SMWSA GI GINT LOGS FINAL.GPJ <<DrawingFile>> 18/Nov/2021 10:22 10.0.000 Cardno M6E

CORED DRILL HOLE LOG

HOLE NO : SMGW-BH-B350 REV 1
FILE / JOB NO : 80021888
SHEET : 4 OF 5

PROJECT : SMWSA GI
LOCATION : USYD Badgerys Creek Campus

POSITION : E: 291503.936, N: 6250796.052 (56 MGA2020) SURFACE ELEVATION : 57.564 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 305 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : DM

DATE STARTED : 8/16/21 DATE COMPLETED : 8/17/21 DATE LOGGED : 8/16/21 LOGGED BY : SL CHECKED BY : TH

CASING DIAMETER : BARREL (Length) : 3.00 m BIT : Impreg BIT CONDITION : Good

DRILLING					MATERIAL				FRACTURES	
PROGRESS: DRILLING & CASING	PROGRESS: WATER	(CORE LOSS RUN %) / DRILL DEPTH	RQD (%)	SAMPLES & FIELD TESTS	DEPTH (m) / RL (m AHD)	GRAPHIC LOG	DESCRIPTION: ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ● Axial ○ Diametral VL -0.1 L -0.4 M -1.3 H -3.8 VH -12.5 EH	NATURAL FRACTURE (mm) 20 40 100 300 1000	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
HQ	0% Water LOSS	0% LOSS	100	Is(50) d=1.36 a=2.99 MPa	16.0 41.6		16.03m INTERBEDDED AND INTERLAMINATED SANDSTONE (75%) AND SILTSTONE (25%): at 0-5°, grey, fine grained sandstone, pale brown, grey to dark grey siltstone	F			16.37: BP 0° CN PR S 16.40: Non-calcareous
							16.84m SILTSTONE: grey to dark grey, indistinctly bedded	SW			16.90: Non-calcareous
				Is(50) d=0.36 a=0.32 MPa	17.0 40.6						17.23: BP 0° CN PR S
				Is(50) d=0.65 a=0.57 MPa			17.36-17.46m: pale brown				17.36: BP 0° CN PR S 17.40: Non-calcareous
							17.60m 17.48-17.59m: grey, fine grained sandstone laminations at 0-5°				
							SILTSTONE: dark grey, indistinctly bedded, 5% pale brown siltstone laminations at 0-10°				17.76: BP 0° Coal PR S
		17.95		Is(50) d=0.42 a=0.54 MPa			17.95m				17.90: Non-calcareous
	0% Water LOSS	0% LOSS	98		18.0 39.6		SILTSTONE: grey, grey to dark grey, indistinctly bedded				
							18.30-18.43m: dark grey				18.34: BP 0° CN PR S 18.36: BP 0° CN PR S 18.40: Non-calcareous
				Is(50) d=0.14 a=0.43 MPa			18.78m				
							SILTSTONE: grey to dark grey, pale brown, indistinctly bedded				18.90: Non-calcareous
					19.0 38.6						
				Is(50) d=0.77 a=0.96 MPa			19.51m 19.40m: calcareous lamination 19.43-19.51m: coal laminations				19.33: BP 0° CN UN S 19.40: Calcareous 19.43: BP 0° CN CU S
							SILTSTONE: grey to dark grey, indistinctly bedded				
							19.74-19.80m: 5-10mm rounded siltstone clasts				
							19.90m				19.90: Non-calcareous
				Is(50) d=0.21 a=0.94 MPa	20.0 37.6		SILTSTONE: dark grey, indistinctly bedded, 5-10% pale brown siltstone laminations at 0-5°, trace coal laminations	F			19.98: BP 0° Coal UN S 19.99: BP 0° Coal UN S 20.02: BP 0° Coal PR S
				Is(50) d=0.48 a=1.93 MPa			20.27-20.47m: 3-10mm rounded siltstone clasts				20.40: Non-calcareous
		20.80						SW			
		14% LOSS	72	Is(50) d=0.09 a=0.47 MPa	21.0 36.6						20.90: JT 0° CN ST S 20.90: Non-calcareous 20.94: BP 0° CN PR S 21.01: BP 5° CN PR S 21.13: BP 0° Coal PR S 21.16: BP 0° PR S 21.21: BP 10° Coal PR S 21.29: BP 5° Coal PR S 21.36: BP 0° Coal PR S 21.40: Non-calcareous
							21.36m				
				Is(50) d=0.05 a=0.37 MPa			CORE LOSS 0.40m (21.36-21.76)				
							21.76m				
							21.84m SILTSTONE: dark grey, indistinctly bedded, 5-10% pale brown siltstone laminations at 0-5°, trace coal laminations	MW SW			21.79: BP 0° Coal CU S 21.80: Calcareous 21.81: BP 0° CN PR S 21.84: BP 0° Clay PR S
				Is(50) d=0.57 a=0.78 MPa	22.0 35.6		SILTSTONE: grey to dark grey, indistinctly bedded				
							22.27m				22.27: BP 0° CN PR S
							SILTSTONE: grey to dark grey, indistinctly bedded, 5% grey, fine grained sandstone laminations at 0-5°, 15% pale brown siltstone laminations at 0-5°				22.40: Non-calcareous 22.47: BP 5° CN PR S
				Is(50) d=1.31 a=1.45 MPa							
					23.0 34.6						22.90: Non-calcareous
											23.40: Non-calcareous
		23.75									
		0% LOSS	100	Is(50) d=0.15 a=1.34 MPa	24.0 33.6						23.90: Non-calcareous

See Explanatory Notes for details of abbreviations & basis of descriptions.

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RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA CORED DRILL HOLE 5 80021888 SMWSA GI GINT LOGS FINAL.GPJ <<DrawingFile>> 18/Nov/2021 10:22 10.0.000 Cardno M6E

CORED DRILL HOLE LOG

HOLE NO : SMGW-BH-B350 REV 1
FILE / JOB NO : 80021888
SHEET : 5 OF 5

PROJECT : SMWSA GI
LOCATION : USYD Badgerys Creek Campus

POSITION : E: 291503.936, N: 6250796.052 (56 MGA2020) SURFACE ELEVATION : 57.564 (AHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Geo 305 MOUNTING : Track CONTRACTOR : Stratacore DRILLER : DM

DATE STARTED : 8/16/21 DATE COMPLETED : 8/17/21 DATE LOGGED : 8/16/21 LOGGED BY : SL CHECKED BY : TH

CASING DIAMETER : BARREL (Length) : 3.00 m BIT : Impreg BIT CONDITION : Good

DRILLING						MATERIAL				FRACTURES	
PROGRESS: DRILLING & CASING	PROGRESS: WATER	(CORE LOSS RUN %) / DRILL DEPTH	RQD (%)	SAMPLES & FIELD TESTS	DEPTH (m) / RL (m AHD)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ● Axial ○ Diametral VL -0.1 L -0.4 M -1.3 H -3.8 VH -12.5 EH	NATURAL FRACTURE (mm) 20 40 100 300 1000	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
HQ	0% Water LOSS	0% LOSS 25.56	100	Is(50) d=0.51 a=1.14 MPa Is(50) d=1.15 a=2.72 MPa	24.0 33.6 25.0 32.6 26.0 31.6 27.0 30.6 28.0 29.6 29.0 28.6 30.0 27.6 31.0 26.6 32.0 25.6		SILTSTONE: grey to dark grey, indistinctly bedded, 5% grey, fine grained sandstone laminations at 0-5°, 15% pale brown siltstone laminations at 0-5° *(continued)* 24.13-24.59m: dark grey 24.28-24.52m: 5-15mm rounded to sub-rounded 24.59m siltstone clasts SILTSTONE: grey to dark grey, 10% pale grey to grey, fine grained sandstone laminationsat 0-10° 24.63-24.66m: 15-20mm rounded siltstone clasts 25.56m 25.50-25.56m: 5-10mm rounded to sub-rounded siltstone clasts BOREHOLE SMGW-BH-B350 REV 1 TERMINATED AT 25.56 m Target depth	SW F			24.13: BP 0° CN PR S 24.24: BP 5° CN PR S 24.40: Non-calcareous 24.45: BP 0° CN PR S 24.73: BP 0° CN CU S 24.90: Non-calcareous 24.97: BP 0° CN PR S 25.28: BP 0 - 10° CN CU S 25.40: Non-calcareous

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

RMS LIB 40.3 EXTERNAL M6E REV1.3.GLB Log RTA CORED DRILL HOLE 5 80021888 SMWSA GI GINT LOGS FINALGPJ <<DrawingFile>> 18/Nov/2021 10:22 10.0.000 Cardno M6E

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EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B109
FILE / JOB NO : 00013/11180
SHEET : 1 OF 1

PROJECT : Sydney Metro Greater West
LOCATION : Badgery's Creek - Elizabeth Drive

POSITION : E: 291549.5, N: 6250863.1 (56 MGA94)	SURFACE ELEVATION : 60.31 (mAHD)	
EQUIPMENT TYPE : Kobelco SK-75 SR	METHOD : 600mm toothed bucket	
DATE EXCAVATED : 5/3/20	LOGGED BY : SL	CHECKED BY : DEM
EXCAVATION DIMENSIONS : 3.00 m LONG 0.60 m WIDE		

DRILLING | MATERIAL

DEPTH (m)	SAMPLES & FIELD TESTS	GROUNDWATER LEVELS	SUPPORT	PENETRATION (VE E F H)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER kPa	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm	STRUCTURE & Other Observations
0.0			None			ML	0.15m Clayey SILT: dark brown, low to medium plasticity clay, with rootlets, trace fine to medium grained, sub-angular gravel		F	100 200 300 400	1 4 3 3	TOPSOIL 0.10: HP =80 - 110 kPa RESIDUAL SOIL 0.20: HP =210 - 310 kPa
	0.25m B 0.50m					CI	Silty CLAY: medium plasticity, orange-brown, trace fine to medium grained, sub-angular gravel From 0.4m: orange-brown, mottled grey	w<PL	VSt		2 3 3 4	0.40: HP =310 - 350 kPa
	0.75m B 1.00m						1.00m				15 12	
1.0	1.25m B 1.50m	Not Encountered					CLAY: grey and orange brown, extremely weathered and very low strength (siltstone)				6 25	WEATHERED MATERIAL
2.0	2.50m B 2.70m						2.50m SILTSTONE: grey, low strength					
							2.90m EXCAVATION SMGW-TP-B109 TERMINATED AT 2.90 m Refusal					
3.0												
4.0												
5.0												
6.0												

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

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Tomas.Sinclair@pacificp.com.au
2021-12-29 10:31 GMT
IP: 203.213.5.5

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04.02.10.02.01 CAR > 04.02.10.02.01.01 19122621-003-R-Rev3-SMGW-CAR_Unsecured.pdf

NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : SMGW-BH-B117
FILE / JOB NO : 00013/11180
SHEET : 1 OF 5

PROJECT : Sydney Metro Greater West
LOCATION : Badgery's Creek - Elizabeth Drive

POSITION : E: 291592.8, N: 6251137.4 (56 MGA94) SURFACE ELEVATION : 66.06 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Delta Base 520 MOUNTING : Track CONTRACTOR : Hagstrom DRILLER : DK

DATE STARTED : 27/2/20 DATE COMPLETED : 2/3/20 DATE LOGGED : 27/2/20 LOGGED BY : SL CHECKED BY : DEM

DRILLING						MATERIAL					
PROGRESS: DRILLING & CASING	PROGRESS: WATER LOSS	DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m) RL (m AHD)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY RELATIVE DENSITY	STRUCTURE & Other Observations
NDD — HW Casing — AD/T		F		D 0.10m 0.25m D 0.35m 0.50m D 0.60m 0.75m D 0.85m 1.00m D 1.10m 1.40m 1.50m 1.55m 10, 17, 31 N*=48 1.95m	0.0 66.1 1.0 65.1 2.0 64.1 3.0 63.1 4.0 62.1 5.0 61.1 6.0 60.1 7.0 59.1 8.0 58.1		CI CL	Silty CLAY: medium plasticity, red-brown, with rootlets From 0.75m: with fine to medium grained, sub-angular ironstone gravels and increase in plasticity From 1.00m: grey mottled brown 1.20m Silty CLAY: low plasticity, grey mottled red-brown, trace fine to medium grained, sub-angular gravel, trace fine to medium grained sand 2.00m Continued as Cored Drill Hole	w~PL	VSt - H	RESIDUAL SOIL 1.50: SPT Recovery: 0.22 m 1.95: HP >600 kPa

See Explanatory Notes for details of abbreviations & basis of descriptions.

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RMS LIB 40.3.14.GLB Log RTA NON-CORE DRILL HOLE 2 SMGW BH.GPJ <<DrawingFile>> 18/Jun/2020 21:33 10.01.00.01 Datgel Tools

EXCAVATION - GEOLOGICAL LOG

PIT NO : SMGW-TP-B367 REV 0
FILE / JOB NO : 80021888
SHEET : 1 OF 1

PROJECT : SMWSA GI
LOCATION : USYD

POSITION : E: 291545.668, N: 6250932.281 (56 MGA2020) | SURFACE ELEVATION : 58.002 (AHD)
EQUIPMENT TYPE : 8t Excavator | METHOD : 600mm Toothed Bucket
DATE EXCAVATED : 16/8/21 | LOGGED BY : TH | CHECKED BY : PW
EXCAVATION DIMENSIONS : 3.00 m LONG 1.00 m WIDE

DRILLING | MATERIAL

DEPTH (m)	PENETRATION (VE E F H)	SUPPORT	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION (Soil Type, Colour, Plasticity or Particle Characteristic, Secondary and Minor Components)	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	HAND PENETROMETER kPa (100 200 300 400)	DCP TEST (AS 1289.6.3.2-1997) Blows/100 mm (5 10 15 20 25)	STRUCTURE & Other Observations
0.0		STABLE	Not Encountered				FILL: SILTY SAND: brown, fine to medium grained sand, with rootlets	M			7	TOPSOIL 0.00: All ES PID<10 ppm
0.30m											9	
				0.50m B		CI	SANDY CLAY: yellow-brown, medium plasticity, fine to medium grained sand, with fine grained, sub-angular, ironstone gravel		St to VSt		7	POSSIBLE ALLUVIUM
0.5											5	
0.60m												
						SC	CLAYEY SAND: red-brown, fine to coarse grained sand, low plasticity clay, with fine to medium grained, ironstone gravel				5	POSSIBLE RESIDUAL SOIL
0.90m											6	
				1.00m		SC	CLAYEY SAND: yellow-brown, fine to medium grained sand, low plasticity clay, with fine to medium grained gravel				6	1.00: Non-calcareous
1.0												
1.10m											14	POSSIBLE WEATHERED MATERIAL
						SC	GRAVELLY CLAYEY SAND: grey, yellow-brown, medium to coarse grained sand, medium plasticity clay, fine to coarse grained gravel, inferred as highly weathered sandstone/siltstone, very low strength		H			
1.50m												
1.5							EXCAVATION SMGW-TP-B367 REV 0 TERMINATED AT 1.50 m Target depth					1.50: Non-calcareous
2.0												
2.5												
3.0												
3.5												
4.0												
4.5												
5.0												

PHOTOGRAPHS NOTES ☒ YES ☐ NO

METHOD
N Natural Exposure
E Existing Excavation
BH Backhoe Bucket
B Bulldozer Blade
R Ripper

SUPPORT
T Timbering

PENETRATION
VE E F H VH — No Resistance

WATER
10 Oct., 73 Water Level on Date shown
water inflow
water outflow

SAMPLES & FIELD TESTS
U50 - Undisturbed Sample 50 mm diameter
D - Disturbed Sample
B - Bulk Disturbed Sample
MC - Moisture Content
HP - Hand Penetrometer (UCS kPa)
VS - Vane Shear; P-Peak, R-Remouded (uncorrected kPa)
PBT - Plate Bearing Test

CLASSIFICATION SYMBOLS & SOIL DESCRIPTION
Based on Unified Classification System

MOISTURE
D - Dry
M - Moist
W - Wet

CONSISTENCY/ RELATIVE DENSITY

VS	- Very Soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very Stiff
H	- Hard
VL	- Very Loose
L	- Loose
MD	- Medium Dense
D	- Dense
VD	- Very Dense

See Explanatory Notes for details of abbreviations & basis of descriptions.

CARDNO NSW/ACT PTY LTD

Cardno

File: 80021888 SMGW-TP-B367 REV 0 1 OF 1

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Sampling Methods

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Sampling

Sampling is carried out during drilling or test pitting to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing it to obtain a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Test Pits

Test pits are usually excavated with a backhoe or an excavator, allowing close examination of the in-situ soil if it is safe to enter into the pit. The depth of excavation is limited to about 3 m for a backhoe and up to 6 m for a large excavator. A potential disadvantage of this investigation method is the larger area of disturbance to the site.

Large Diameter Augers

Boreholes can be drilled using a rotating plate or short spiral auger, generally 300 mm or larger in diameter commonly mounted on a standard piling rig. The cuttings are returned to the surface at intervals (generally not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube samples.

Continuous Spiral Flight Augers

The borehole is advanced using 90-115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow sampling or in-situ testing. This is a relatively economical means of drilling in clays and sands above the water table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are disturbed and may be mixed with soils from the sides of the hole. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively low reliability, due to the remoulding, possible mixing or softening of samples by groundwater.

Non-core Rotary Drilling

The borehole is advanced using a rotary bit, with water or drilling mud being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from the rate of penetration. Where drilling mud is used this can mask the cuttings and reliable identification is only possible from separate sampling such as SPTs.

Continuous Core Drilling

A continuous core sample can be obtained using a diamond tipped core barrel, usually with a 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in weak rocks and granular soils), this technique provides a very reliable method of investigation.

Standard Penetration Tests

Standard penetration tests (SPT) are used as a means of estimating the density or strength of soils and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, Methods of Testing Soils for Engineering Purposes - Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

- In the case where full penetration is obtained with successive blow counts for each 150 mm of, say, 4, 6 and 7 as:

  4,6,7
  N=13

- In the case where the test is discontinued before the full penetration depth, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm as:

  15, 30/40 mm

The results of the SPT tests can be related empirically to the engineering properties of the soils.

Dynamic Cone Penetrometer Tests / Perth Sand Penetrometer Tests

Dynamic penetrometer tests (DCP or PSP) are carried out by driving a steel rod into the ground using a standard weight of hammer falling a specified distance. As the rod penetrates the soil the number of blows required to penetrate each successive 150 mm depth are recorded. Normally there is a depth limitation of 1.2 m, but this may be extended in certain conditions by the use of extension rods. Two types of penetrometer are commonly used.

- Perth sand penetrometer - a 16 mm diameter flat ended rod is driven using a 9 kg hammer dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.
- Cone penetrometer - a 16 mm diameter rod with a 20 mm diameter cone end is driven using a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). This test was developed initially for pavement subgrade investigations, and correlations of the test results with California Bearing Ratio have been published by various road authorities.

Description and Classification Methods

The methods of description and classification of soils and rocks used in this report are generally based on Australian Standard AS1726:2017, Geotechnical Site Investigations. In general, the descriptions include strength or density, colour, structure, soil or rock type and inclusions.

Soil Types

Soil types are described according to the predominant particle size, qualified by the grading of other particles present:

Type	Particle size (mm)
Boulder	>200
Cobble	63 - 200
Gravel	2.36 - 63
Sand	0.075 - 2.36
Silt	0.002 - 0.075
Clay	<0.002

The sand and gravel sizes can be further subdivided as follows:

Type	Particle size (mm)
Coarse gravel	19 - 63
Medium gravel	6.7 - 19
Fine gravel	2.36 – 6.7
Coarse sand	0.6 - 2.36
Medium sand	0.21 - 0.6
Fine sand	0.075 - 0.21

Definitions of grading terms used are:

- Well graded - a good representation of all particle sizes
- Poorly graded - an excess or deficiency of particular sizes within the specified range
- Uniformly graded - an excess of a particular particle size
- Gap graded - a deficiency of a particular particle size with the range

The proportions of secondary constituents of soils are described as follows:

In fine grained soils (>35% fines)

Term	Proportion of sand or gravel	Example
And	Specify	Clay (60%) and Sand (40%)
Adjective	>30%	Sandy Clay
With	15 – 30%	Clay with sand
Trace	0 - 15%	Clay with trace sand

In coarse grained soils (>65% coarse)
- with clays or silts

Term	Proportion of fines	Example
And	Specify	Sand (70%) and Clay (30%)
Adjective	>12%	Clayey Sand
With	5 - 12%	Sand with clay
Trace	0 - 5%	Sand with trace clay

In coarse grained soils (>65% coarse)
- with coarser fraction

Term	Proportion of coarser fraction	Example
And	Specify	Sand (60%) and Gravel (40%)
Adjective	>30%	Gravelly Sand
With	15 - 30%	Sand with gravel
Trace	0 - 15%	Sand with trace gravel

The presence of cobbles and boulders shall be specifically noted by beginning the description with 'Mix of Soil and Cobbles/Boulders' with the word order indicating the dominant first and the proportion of cobbles and boulders described together.

Soil Descriptions

Cohesive Soils

Cohesive soils, such as clays, are classified on the basis of undrained shear strength. The strength may be measured by laboratory testing, or estimated by field tests or engineering examination. The strength terms are defined as follows:

Description	Abbreviation	Undrained shear strength (kPa)
Very soft	VS	<12
Soft	S	12 - 25
Firm	F	25 - 50
Stiff	St	50 - 100
Very stiff	VSt	100 - 200
Hard	H	>200
Friable	Fr	-

Cohesionless Soils

Cohesionless soils, such as clean sands, are classified on the basis of relative density, generally from the results of standard penetration tests (SPT), cone penetration tests (CPT) or dynamic penetrometers (PSP). The relative density terms are given below:

Relative Density	Abbreviation	Density Index (%)
Very loose	VL	<15
Loose	L	15-35
Medium dense	MD	35-65
Dense	D	65-85
Very dense	VD	>85

Soil Origin

It is often difficult to accurately determine the origin of a soil. Soils can generally be classified as:

- Residual soil - derived from in-situ weathering of the underlying rock;
- Extremely weathered material – formed from in-situ weathering of geological formations. Has soil strength but retains the structure or fabric of the parent rock;
- Alluvial soil – deposited by streams and rivers;
- Estuarine soil – deposited in coastal estuaries;
- Marine soil – deposited in a marine environment;
- Lacustrine soil – deposited in freshwater lakes;
- Aeolian soil – carried and deposited by wind;
- Colluvial soil – soil and rock debris transported down slopes by gravity;
- Topsoil – mantle of surface soil, often with high levels of organic material.
- Fill – any material which has been moved by man.

Moisture Condition – Coarse Grained Soils

For coarse grained soils the moisture condition should be described by appearance and feel using the following terms:

- Dry (D) Non-cohesive and free-running.
- Moist (M) Soil feels cool, darkened in colour.
  Soil tends to stick together.
  Sand forms weak ball but breaks easily.
- Wet (W) Soil feels cool, darkened in colour.
  Soil tends to stick together, free water forms when handling.

Moisture Condition – Fine Grained Soils

For fine grained soils the assessment of moisture content is relative to their plastic limit or liquid limit, as follows:

- 'Moist, dry of plastic limit' or 'w <PL' (i.e. hard and friable or powdery).
- 'Moist, near plastic limit' or 'w ≈ PL (i.e. soil can be moulded at moisture content approximately equal to the plastic limit).
- 'Moist, wet of plastic limit' or 'w >PL' (i.e. soils usually weakened and free water forms on the hands when handling).
- 'Wet' or 'w ≈LL' (i.e. near the liquid limit).
- 'Wet' or 'w >LL' (i.e. wet of the liquid limit).

Rock Strength

Rock strength is defined by the Unconfined Compressive Strength and it refers to the strength of the rock substance and not the strength of the overall rock mass, which may be considerably weaker due to defects.

The Point Load Strength Index $Is_{(50)}$ is commonly used to provide an estimate of the rock strength and site specific correlations should be developed to allow UCS values to be determined. The point load strength test procedure is described by Australian Standard AS4133.4.1-2007. The terms used to describe rock strength are as follows:

Strength Term	Abbreviation	Unconfined Compressive Strength MPa	Point Load Index * $Is_{(50)}$ MPa
Very low	VL	0.6 - 2	0.03 - 0.1
Low	L	2 - 6	0.1 - 0.3
Medium	M	6 - 20	0.3 - 1.0
High	H	20 - 60	1 - 3
Very high	VH	60 - 200	3 - 10
Extremely high	EH	>200	>10

* Assumes a ratio of 20:1 for UCS to $Is_{(50)}$. It should be noted that the UCS to $Is_{(50)}$ ratio varies significantly for different rock types and specific ratios should be determined for each site.

Degree of Weathering

The degree of weathering of rock is classified as follows:

Term	Abbreviation	Description
Residual Soil	RS	Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely weathered	XW	Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible
Highly weathered	HW	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately weathered	MW	The whole of the rock material is discoloured , usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly weathered	SW	Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh	FR	No signs of decomposition or staining.
Note: If HW and MW cannot be differentiated use DW (see below)		
Distinctly weathered	DW	Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching or may be decreased due to deposition of weathered products in pores.

Rock Descriptions

Degree of Fracturing

The following classification applies to the spacing of natural fractures in diamond drill cores. It includes bedding plane partings, joints and other defects, but excludes drilling breaks.

Term	Description
Fragmented	Fragments of <20 mm
Highly Fractured	Core lengths of 20-40 mm with occasional fragments
Fractured	Core lengths of 30-100 mm with occasional shorter and longer sections
Slightly Fractured	Core lengths of 300 mm or longer with occasional sections of 100-300 mm
Unbroken	Core contains very few fractures

Rock Quality Designation

The quality of the cored rock can be measured using the Rock Quality Designation (RQD) index, defined as:

$$\text{RQD \%} = \frac{\text{cumulative length of 'sound' core sections} \geq \text{100 mm long}}{\text{total drilled length of section being assessed}}$$

where 'sound' rock is assessed to be rock of low strength or stronger. The RQD applies only to natural fractures. If the core is broken by drilling or handling (i.e. drilling breaks) then the broken pieces are fitted back together and are not included in the calculation of RQD.

Stratification Spacing

For sedimentary rocks the following terms may be used to describe the spacing of bedding partings:

Term	Separation of Stratification Planes
Thinly laminated	< 6 mm
Laminated	6 mm to 20 mm
Very thinly bedded	20 mm to 60 mm
Thinly bedded	60 mm to 0.2 m
Medium bedded	0.2 m to 0.6 m
Thickly bedded	0.6 m to 2 m
Very thickly bedded	> 2 m

Symbols & Abbreviations

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Introduction

These notes summarise abbreviations commonly used on borehole logs and test pit reports.

Drilling or Excavation Methods

C	Core drilling
R	Rotary drilling
SFA	Spiral flight augers
NMLC	Diamond core - 52 mm dia
NQ	Diamond core - 47 mm dia
HQ	Diamond core - 63 mm dia
PQ	Diamond core - 81 mm dia

Water

▷	Water seep
▽	Water level

Sampling and Testing

A	Auger sample
B	Bulk sample
D	Disturbed sample
E	Environmental sample
U_{50}	Undisturbed tube sample (50mm)
W	Water sample
pp	Pocket penetrometer (kPa)
PID	Photo ionisation detector
PL	Point load strength Is(50) MPa
S	Standard Penetration Test
V	Shear vane (kPa)

Description of Defects in Rock

The abbreviated descriptions of the defects should be in the following order: Depth, Type, Orientation, Coating, Shape, Roughness and Other. Drilling and handling breaks are not usually included on the logs.

Defect Type

B	Bedding plane
Cs	Clay seam
Cv	Cleavage
Cz	Crushed zone
Ds	Decomposed seam
F	Fault
J	Joint
Lam	Lamination
Pt	Parting
Sz	Sheared Zone
V	Vein

Orientation

The inclination of defects is always measured from the perpendicular to the core axis.

h	horizontal
v	vertical
sh	sub-horizontal
sv	sub-vertical

Coating or Infilling Term

cln	clean
co	coating
he	healed
inf	infilled
stn	stained
ti	tight
vn	veneer

Coating Descriptor

ca	calcite
cbs	carbonaceous
cly	clay
fe	iron oxide
mn	manganese
slt	silty

Shape

cu	curved
ir	irregular
pl	planar
st	stepped
un	undulating

Roughness

po	polished
ro	rough
sl	slickensided
sm	smooth
vr	very rough

Other

fg	fragmented
bnd	band
qtz	quartz

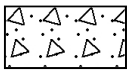
Symbols & Abbreviations

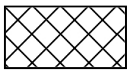
Graphic Symbols for Soil and Rock

General

Asphalt

Road base

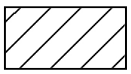

Concrete

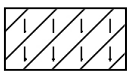

Filling

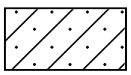
Soils

Topsoil

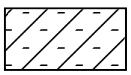
Peat

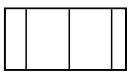

Clay

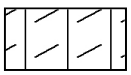

Silty clay

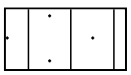

Sandy clay

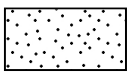
Gravelly clay

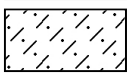

Shaly clay

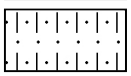

Silt


Clayey silt


Sandy silt

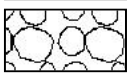

Sand

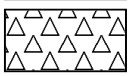

Clayey sand


Silty sand

Gravel

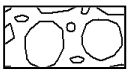
Sandy gravel


Cobbles, boulders

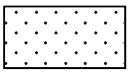

Talus

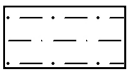
Sedimentary Rocks

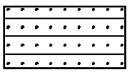
Boulder conglomerate

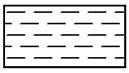

Conglomerate

Conglomeratic sandstone

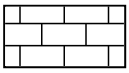

Sandstone


Siltstone

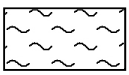

Laminite

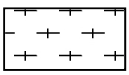

Mudstone, claystone, shale

Coal


Limestone

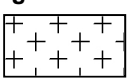
Metamorphic Rocks

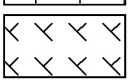

Slate, phyllite, schist

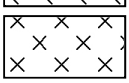

Gneiss

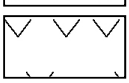
Quartzite

Igneous Rocks


Granite


Dolerite, basalt, andesite


Dacite, epidote


Tuff, breccia

Porphyry

Appendix H

Field Sheets and Calibration Certificates

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GROUNDWATER SAMPLING FORM

Project: WSA SCAW Tender Design	**Project No:** 204814.01
Client: CPB Contractors Pty Limited & United Infrastructure Pty Limited (CPBUIJV)	
Location: Elizabeth Drive, Luddenham	
Sampling Method: Twister Pump	

Bore No.	AELAHBH01				
Purging Date	29/9/22				
Bore Casing Diameter (mm)	50mm				
SWL (m below top of casing)	1.67				
Height of Casing (m above GL*)	0.62				
SWL (m below GL*)	@1.05				
Total Bore Depth (m below GL*)	5.61				
Well Volume (L) **[which for 50mm casing is 2L approx. per metre depth]	9.120 L				
Purged Volume (L) (≈ well vol x 3)	26L / DRY				
Sampling Date					
Sampling Time					
Temperature (°C)					
pH (record to one decimal place)					
EC (µS/cm)					
Dissolved Oxygen (% Sat)					
Dissolved Oxygen (mg/L)					
Turbidity (NTU)					
Redox (mV)					
TDS (mg/L)					
Odour					
Colour					
Recharge Rate					
Observations					

Notes: Clear / transparent, slightly cloudy, no odour.

6.23
456

Supervisor:	**Date:**

Water quality meter calibration details (please tick calibration liquids used):

Meter ID							
Buffer (pH 4)	☐	Use-by Date		Conductivity Standard (2.76 mS/cm)	☐	Use-by Date	
Buffer (pH 6.88)	☐	Use-by Date		Total Dissolved Solids Standard (2 parts per thousand)	☐	Use-by Date	
Buffer (pH 9)	☐	Use-by Date		Rapid Cal Solution	☐	Use-by Date	

*GL – denotes ground level **Well Volume = πr^2 x depth of water, where r is internal casing radius

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GROUNDWATER SAMPLING FORM

Project: WSA SCAW Tender Design	**Project No:** 204814.01
Client: CPB Contractors Pty Limited & United Infrastructure Pty Limited (CPBUIJV)	
Location: Elizabeth Drive, Luddenham	
Sampling Method: Geo Twister Pump	

Bore No.	AEL41BH02				
Purging Date	29/9/22				
Bore Casing Diameter (mm)	50mm				
SWL (m below top of casing)	3.00				
Height of Casing (m above GL*)	0.56				
SWL (m below GL*)	2.44				
Total Bore Depth (m below GL*)	6.84				
Well Volume (L) **[which for 50mm casing is 2L approx. per metre depth]	8.800L				
Purged Volume (L) (≈ well vol x 3)	16L / DRY				
Sampling Date					
Sampling Time					
Temperature (°C)					
pH (record to one decimal place)					
EC (µS/cm)					
Dissolved Oxygen (% Sat)					
Dissolved Oxygen (mg/L)					
Turbidity (NTU)					
Redox (mV)					
TDS (mg/L)					
Odour					
Colour					
Recharge Rate					
Observations					

7.40
4.40

Notes: Dark brown, turbid, cloudy, no odour

Supervisor:	**Date:**

Water quality meter calibration details (please tick calibration liquids used):

Meter ID							
Buffer (pH 4)	☐	Use-by Date		Conductivity Standard (2.76 mS/cm)	☐	Use-by Date	
Buffer (pH 6.88)	☐	Use-by Date		Total Dissolved Solids Standard (2 parts per thousand)	☐	Use-by Date	
Buffer (pH 9)	☐	Use-by Date		Rapid Cal Solution	☐	Use-by Date	

*GL – denotes ground level **Well Volume = πr^2 x depth of water, where r is internal casing radius

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GROUNDWATER SAMPLING FORM

Project: WSA SCAW Tender Design	**Project No:** 204814.01
Client: CPB Contractors Pty Limited & United Infrastructure Pty Limited (CPBUIJV)	
Location: Elizabeth Drive, Luddenham	
Sampling Method: Twister Pump	

Bore No.	AEL41BH03				
Purging Date	29/9/22				
Bore Casing Diameter (mm)	50mm				
SWL (m below top of casing)	4.06				
Height of Casing (m above GL*)	0.83				
SWL (m below GL*)	3.23				
Total Bore Depth (m below GL*)	9.24				
Well Volume (L) **[which for 50mm casing is 2L approx. per metre depth]	12.020L				
Purged Volume (L) (≈ well vol x 3)	26L/DRY				
Sampling Date					
Sampling Time					
Temperature (°C)					
pH (record to one decimal place)					
EC (µS/cm)					
Dissolved Oxygen (% Sat)					
Dissolved Oxygen (mg/L)					
Turbidity (NTU)					
Redox (mV)					
TDS (mg/L)					
Odour					
Colour					
Recharge Rate					
Observations					

Notes: Brown cloudy no odour

10.07
6.01

Supervisor: **Date:**

Water quality meter calibration details (please tick calibration liquids used):

Meter ID							
Buffer (pH 4)	☐	Use-by Date		Conductivity Standard (2.76 mS/cm)	☐	Use-by Date	
Buffer (pH 6.88)	☐	Use-by Date		Total Dissolved Solids Standard (2 parts per thousand)	☐	Use-by Date	
Buffer (pH 9)	☐	Use-by Date		Rapid Cal Solution	☐	Use-by Date	

*GL – denotes ground level **Well Volume = πr^2 x depth of water, where r is internal casing radius

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GROUNDWATER SAMPLING FORM

Project: WSA SCAW Tender Design	**Project No:** 204814.01
Client: CPB Contractors Pty Limited & United Infrastructure Pty Limited (CPBUIJV)	
Location: Elizabeth Drive, Luddenham	
Sampling Method: Twister Pump	

Bore No.	AEC42BH01				
Purging Date	29/9/22				
Bore Casing Diameter (mm)	50mm				
SWL (m below top of casing)	2.56				
Height of Casing (m above GL*)	0.40				
SWL (m below GL*)	6.60				
Total Bore Depth (m below GL*)	2.16				
Well Volume (L) **[which for 50mm casing is 2L approx. per metre depth]	13.680L				
Purged Volume (L) (≈ well vol x 3)	32L (DRY)				
Sampling Date					
Sampling Time					
Temperature (°C)					
pH (record to one decimal place)					
EC (µS/cm)					
Dissolved Oxygen (% Sat)					
Dissolved Oxygen (mg/L)					
Turbidity (NTU)					
Redox (mV)					
TDS (mg/L)					
Odour					
Colour					
Recharge Rate					
Observations					

Notes: Light brown, turbid, cloudy, no odour

Supervisor: **Date:**

9.00
689

Water quality meter calibration details (please tick calibration liquids used):

Meter ID							
Buffer (pH 4)	☐	Use-by Date		Conductivity Standard (2.76 mS/cm)	☐	Use-by Date	
Buffer (pH 6.88)	☐	Use-by Date		Total Dissolved Solids Standard (2 parts per thousand)	☐	Use-by Date	
Buffer (pH 9)	☐	Use-by Date		Rapid Cal Solution	☐	Use-by Date	

*GL – denotes ground level **Well Volume = πr^2 x depth of water, where r is internal casing radius

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GROUNDWATER SAMPLING FORM

Project: WSA SCAW Tender Design	**Project No:** 204814.01
Client: CPB Contractors Pty Limited & United Infrastructure Pty Limited (CPBUIJV)	
Location: Elizabeth Drive, Luddenham	
Sampling Method: Twister Pump	

Bore No.	AEC42BH02			
Purging Date	29/9/22			
Bore Casing Diameter (mm)	50mm			
SWL (m below top of casing)	6.15			
Height of Casing (m above GL*)	0.52			
SWL (m below GL*)	5.63			
Total Bore Depth (m below GL*)	11.08			
Well Volume (L) **[which for 50mm casing is 2L approx. per metre depth]	10.900L			
Purged Volume (L) (≈ well vol x 3)	14L / DRY			
Sampling Date				
Sampling Time				
Temperature (°C)				
pH (record to one decimal place)				
EC (µS/cm)				
Dissolved Oxygen (% Sat)				
Dissolved Oxygen (mg/L)				
Turbidity (NTU)				
Redox (mV)				
TDS (mg/L)				
Odour				
Colour				
Recharge Rate				
Observations				

Notes: Very silty at base of well, dark grey-brown cloudy, turbid, no odour

11:60
5:45

Supervisor: **Date:**

Water quality meter calibration details (please tick calibration liquids used):

Meter ID							
Buffer (pH 4)	☐	Use-by Date		Conductivity Standard (2.76 mS/cm)	☐	Use-by Date	
Buffer (pH 6.88)	☐	Use-by Date		Total Dissolved Solids Standard (2 parts per thousand)	☐	Use-by Date	
Buffer (pH 9)	☐	Use-by Date		Rapid Cal Solution	☐	Use-by Date	

*GL – denotes ground level **Well Volume = πr^2 x depth of water, where r is internal casing radius

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GROUNDWATER SAMPLING FORM

Project: WSA SCAW Tender Design	**Project No:** 204814.01
Client: CPB Contractors Pty Limited & United Infrastructure Pty Limited (CPBUIJV)	
Location: Elizabeth Drive, Luddenham	
Sampling Method: Twister Pump	

Bore No.	AEC42BH03			
Purging Date	29/9/22			
Bore Casing Diameter (mm)	50mm			
SWL (m below top of casing)	1.84			
Height of Casing (m above GL*)	0.67			
SWL (m below GL*)	1.17			
Total Bore Depth (m below GL*)	6.23			
Well Volume (L) **[which for 50mm casing is 2L approx. per metre depth]	10.120L			
Purged Volume (L) (≈ well vol x 3)	17L / DRY			
Sampling Date				
Sampling Time				
Temperature (°C)				
pH (record to one decimal place)				
EC (µS/cm)				
Dissolved Oxygen (% Sat)				
Dissolved Oxygen (mg/L)				
Turbidity (NTU)				
Redox (mV)				
TDS (mg/L)				
Odour				
Colour				
Recharge Rate				
Observations				

Notes: Light Brown, cloudy no odour, turbid

6.90
5.06

Supervisor: **Date:**

Water quality meter calibration details (please tick calibration liquids used):

Meter ID							
Buffer (pH 4)	☐	Use-by Date		Conductivity Standard (2.76 mS/cm)	☐	Use-by Date	
Buffer (pH 6.88)	☐	Use-by Date		Total Dissolved Solids Standard (2 parts per thousand)	☐	Use-by Date	
Buffer (pH 9)	☐	Use-by Date		Rapid Cal Solution	☐	Use-by Date	

*GL – denotes ground level **Well Volume = πr^2 x depth of water, where r is internal casing radius

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AEC41BH01

Groundwater Field Sheet

Project and Bore Installation Details	
Bore / Standpipe ID:	
Project Name:	
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	

Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
Observed Well Depth:	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
GW Level (post-purge):	m bgl
Equipment:	

Micropurge and Sampling Details	
Date/Time:	10:30 11/10/22
Sampled By:	RT
Weather Conditions:	Cloudy
GW Level (pre-purge):	0.73 m bgl
Observed Well Depth:	5.60 m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	35 L
GW Level (post sample):	3.65 m bgl
Total Volume Purged:	8 L
Equipment:	Peri Pump

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1 °C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
15 0.5	17.7	9.45	35.5	5.22		278.8
30 1.0	17.7	9.12	34.2	5.23		278.8
45 1.5	17.6	9.03	32.7	5.24		283.2
60 2.0	17.6	9.00	32.5	5.23		278.9

Additional Readings Following stabilisation:	DO % Sat	SPC	TDS
	91.4	35.0	22.75

Sample Details

Sampling Depth (rationale):	3.5	m bgl,	Mid screen
Sample Appearance (e.g. colour, siltiness, odour):	Clear/transparent, no odour,		
Sample ID:	AEC41BH01		
QA/QC Samples:			
Sampling Containers and filtration:	2x Glass	2x Plastic	2x Vials
Comments / Observations:			

63 136 623

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AEL41BH02

Groundwater Field Sheet

Project and Bore Installation Details	
Bore / Standpipe ID:	
Project Name:	
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	
Bore Development Details	
Date/Time:	~~9:30am 11/10/22~~
Purged By:	~~PJ~~
GW Level (pre-purge):	m bgl
Observed Well Depth:	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
GW Level (post-purge):	m bgl
Equipment:	
Micropurge and Sampling Details	
Date/Time:	9:30 am 11/10/22
Sampled By:	PJ
Weather Conditions:	cloudy
GW Level (pre-purge):	2.42 m bgl
Observed Well Depth:	6.74 m bgl
PSH observed:	Yes / (No) ((interface) / visual). Thickness if observed:
Estimated Bore Volume:	30 L
GW Level (post sample):	4.26 m bgl
Total Volume Purged:	8 L
Equipment:	Peri Pump

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1° C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
15 0.5	17.3	9.08	30.8	4.26		246.2
30 1.0	17.2	8.87	30.2	4.26		245.8
45 1.5	17.2	8.60	28.5	4.26		245.7
60 2.0	17.2	8.55	28.3	4.26		245.8
Additional Readings Following stabilisation:	DO % Sat	SPC	TDS			
	85.3	31.6	20.80			

Sample Details

Sampling Depth (rationale):	m bgl,	
Sample Appearance (e.g. colour, siltiness, odour):	Clear/transparent, slightly cloudy, no odour	
Sample ID:	AEL41BH02	
QA/QC Samples:	BD2/20221011	
Sampling Containers and filtration:	4x Glass	4x Plastic 4x Vials
Comments / Observations:		

S4 300 T32

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AEC418103

Groundwater Field Sheet

Project and Bore Installation Details	
Bore / Standpipe ID:	
Project Name:	
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	

Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
Observed Well Depth:	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
GW Level (post-purge):	m bgl
Equipment:	

Micropurge and Sampling Details	
Date/Time:	8:30am 11/10/22
Sampled By:	DJ
Weather Conditions:	Cloudy
GW Level (pre-purge):	3.23 m bgl
Observed Well Depth:	9.19 m bgl
PSH observed:	Yes / (No) (interface / visual). Thickness if observed:
Estimated Bore Volume:	42 L
GW Level (post sample):	6.2 m bgl
Total Volume Purged:	10 L
Equipment:	Peri Pump

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1 °C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
15 0.5	15.4	7.96	27.0	4.31		221.0
30 1.0	15.6	7.90	26.8	4.31		220.6
45 1.5	15.7	7.85	26.5	4.32		220.1
	15.8	7.77	26.4	4.33		220.4
	15.8	7.76	26.5	4.33		220.6

Additional Readings Following stabilisation:	DO % Sat	SPC	TDS
	79.2	28.2	19.90

Sample Details

Sampling Depth (rationale):	7m	m bgl,	mid screen
Sample Appearance (e.g. colour, siltiness, odour):	Cloudy, pale grey, no odour		
Sample ID:	AEC418103		
QA/QC Samples:	BD1/20221011, Rins2 - W111022		
Sampling Containers and filtration:	4x Plastic	4x Glass	4x Vials
Comments / Observations:			

89 4L 1008

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AEL42BH01

Groundwater Field Sheet

Project and Bore Installation Details	
Bore / Standpipe ID:	
Project Name:	
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	

Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
Observed Well Depth:	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
GW Level (post-purge):	m bgl
Equipment:	

Micropurge and Sampling Details	
Date/Time:	12:45 11/10/22
Sampled By:	PJ
Weather Conditions:	Cloudy
GW Level (pre-purge):	2.15 m bgl
Observed Well Depth:	8.52 m bgl
PSH observed:	Yes / (No) (interface / visual). Thickness if observed:
Estimated Bore Volume:	45 L
GW Level (post sample):	5.00 m bgl
Total Volume Purged:	10 L
Equipment:	Peri Pump

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1 °C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
15 0.5	19.9	8.64	23.6	4.24		234.9
30 1.0	19.8	8.67	23.3	4.21		233.9
45 1.5	19.6	8.63	23.2	4.21		233.7
60 2.0	19.6	8.61	23.1	4.21		232.9

Additional Readings Following stabilisation:	DO % Sat	SPC	TDS
	90.2	25.9	16.90

Sample Details

Sampling Depth (rationale):	6	m bgl,	Mid Screen
Sample Appearance (e.g. colour, siltiness, odour):	Clear/transparent, slightly, no colour		
Sample ID:	AEL42BH01		
QA/QC Samples:	BD3/20221011		
Sampling Containers and filtration:	4x Plastic	4x Glass	4x Vials
Comments / Observations:			

40 892

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AFL42BH02

Groundwater Field Sheet

Project and Bore Installation Details	
Bore / Standpipe ID:	
Project Name:	
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	

Bore Development Details	
Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
Observed Well Depth:	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
GW Level (post-purge):	m bgl
Equipment:	

Micropurge and Sampling Details	
Date/Time:	12:00 11/10/22
Sampled By:	RT
Weather Conditions:	Cloudy
GW Level (pre-purge):	5.55 m bgl
Observed Well Depth:	10.70 m bgl
PSH observed:	Yes / (No) ((interface) / visual). Thickness if observed:
Estimated Bore Volume:	36 L
GW Level (post sample):	10 m bgl
Total Volume Purged:	15 DRY L
Equipment:	Peri Pump

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	***0.1° C***	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
15 0.5	19.7	5.19	23.3	4.29		233.8
30 1.0	19.6	4.53	23.2	4.29		233.3
45 1.5	19.6	4.40	23.0	4.29		232.6
60 2.0	19.6	4.39	22.9	4.29		231.9
Additional Readings Following stabilisation:	DO % Sat	SPC	TDS			
	42.5	25.4	16.25			

Sample Details

Sampling Depth (rationale):	8	m bgl,	Mid Screen
Sample Appearance (e.g. colour, siltiness, odour):	Pale brown, cloudy, slightly turbid, no odour		
Sample ID:	AFL42BH02		
QA/QC Samples:			
Sampling Containers and filtration:	2x Plastic	2x Glass	2x Vials
Comments / Observations:			

50 605 V20

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AEC42BH03

Groundwater Field Sheet

Project and Bore Installation Details

Bore / Standpipe ID:	
Project Name:	
Project Number:	
Site Location:	
Bore GPS Co-ord:	
Installation Date:	
GW Level (during drilling):	m bgl
Well Depth:	m bgl
Screened Interval:	m bgl
Contaminants/Comments:	

Bore Development Details

Date/Time:	
Purged By:	
GW Level (pre-purge):	m bgl
Observed Well Depth:	m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	L
Total Volume Purged:	(target: no drill mud, min 3 well vol. or dry)
GW Level (post-purge):	m bgl
Equipment:	

Micropurge and Sampling Details

Date/Time:	11:20 11/10/22
Sampled By:	PJ
Weather Conditions:	Cloudy
GW Level (pre-purge):	1.94 m bgl
Observed Well Depth:	5.22 m bgl
PSH observed:	Yes / No (interface / visual). Thickness if observed:
Estimated Bore Volume:	23 L
GW Level (post sample):	4.02 m bgl
Total Volume Purged:	10 L
Equipment:	Peri Pump

Water Quality Parameters

Time / Volume	Temp (°C)	DO (mg/L)	EC (µS or mS/cm)	pH	Turbidity	Redox (mV)
Stabilisation Criteria (3 readings)	**0.1 °C**	**+/- 0.3 mg/L**	**+/- 3%**	**+/- 0.1**	**+/- 10%**	**+/- 10 mV**
15 0.5	16.6	7.10	~~160~~ 1260	7.33		150.0
30 1.0	17.0	9.47	116.4	7.30		148.9
45 1.5	17.0	9.36	114.9	7.25		148.3
60 2.0	17.0	9.29	110.1	7.20		147.9
75 2.5	17.0	9.20	106.4	7.13		147.3
90 3.0	17.0	9.19	106.2	7.13		147.2

Additional Readings Following stabilisation:	DO % Sat	SPC	TDS
	92.7	115.0	74.75

Sample Details

Sampling Depth (rationale):	3.5 m bgl, Mid Screen
Sample Appearance (e.g. colour, siltiness, odour):	Clear / transparent, no odour
Sample ID:	AEC42BH03
QA/QC Samples:	Rins 2-W111022
Sampling Containers and filtration:	2x 2x 2x Plastic Glass Vials
Comments / Observations:	

08 262 590

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Photoionisation Detector Calibration Record

Project No:	204814.01

PID Unit:	Tiger - Photocheck
Lamp:	10.6 eV

Calibration Details: Zero Air and Span Calibration (ISO-BUTYLENE 100 PPM)	
Zero Air:	Ambient
Response Factor:	1.0
Span Gas Type:	Isobutylene
Span Gas Concentration:	100 ppm
Calibration Bottle Details:	PTG-4032, UN 1956, **Serial:** Y94443, Y94545 Certified to +/- 2% 100ppm Iso-Butylene Expires July 2022
Reading after calibration (Ambient):	0.0
Reading after calibration (bump test):	100.1

Operator Name:	Jimmy H	**Signed:**		**Date:**	21/8/22

Multi Parameter Water Meter

Instrument YSI Quatro Pro Plus
Serial No. 18J104319

airmet
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	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
2. pH 7.00		pH 7.00		381241	pH 7.02
3. pH 4.00		pH 4.00		389384	pH 4.03
4. mV		237.58mV		390802/393728	236.9mV
5. EC		2.76mS		385041	2.757mS
6. D.O		0ppm		379624	0 ppm
7. Temp		20.8°C		MultiTherm	20.1°C

Calibrated by: Lebelle Chee

Calibration date: 30/09/2022

Next calibration due: 30/10/2022

Appendix I

Summary of Analytical Results

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Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

				Metals								TRH					BTEX				PAH				Phenol	OCP							
				Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene [b]	Benzo(a)pyrene (BaP)	Benzo(a)pyrene TEQ	Total PAHs	Phenol	DDD	DDT+DDE+DDD [c]	DDE	DDT	Aldrin & Dieldrin	Total Chlordane	Endrin	Total Endosulfan
			PQL	4	0.4	1	1	1	0.1	1	1	25	50	25	50	100	100	0.2	0.5	1	1	0.1	0.05	0.5	0.05	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC41TP01	0 - 0.1 m	Fill	16/08/22	10	<0.4	20	12	18	<0.1	5	25	<25	<50	<25	<50	140	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP02	0 - 0.1 m	Fill	16/08/22	9	<0.4	24	6	14	<0.1	4	10	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP02	0.3 - 0.4 m	Natural	16/08/22	<4	<0.4	5	4	4	<0.1	<1	2	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP03	0 - 0.1 m	Fill	16/08/22	10	<0.4	21	9	15	<0.1	6	16	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP04	0 - 0.1 m	Fill	16/08/22	8	<0.4	27	7	21	<0.1	5	13	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP05	0 - 0.1 m	Fill	16/08/22	7	<0.4	28	4	15	<0.1	4	15	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP06	0 - 0.1 m	Fill	16/08/22	8	<0.4	31	7	17	<0.1	4	17	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP06	0.3 - 0.4 m	Natural	16/08/22	7	<0.4	34	12	16	<0.1	9	14	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP07	0 - 0.1 m	Fill	16/08/22	7	<0.4	34	7	16	<0.1	5	17	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP08	0 - 0.1 m	Fill	16/08/22	11	<0.4	39	5	17	<0.1	7	11	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP09	0 - 0.1 m	Fill	16/08/22	7	<0.4	24	10	17	<0.1	6	22	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP10	0 - 0.1 m	Fill	16/08/22	<4	<0.4	13	30	19	<0.1	16	54	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP11	0 - 0.1 m	Fill	17/08/22	6	<0.4	10	17	15	<0.1	10	36	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP11	0.3 - 0.4 m	Natural	17/08/22	7	<0.4	13	28	16	<0.1	12	42	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP12	0 - 0.1 m	Fill	17/08/22	12	<0.4	16	15	25	<0.1	10	26	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP13	0 - 0.1 m	Fill	17/08/22	10	<0.4	15	24	19	<0.1	11	34	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP14	0 - 0.1 m	Fill	17/08/22	11	<0.4	16	16	19	<0.1	7	23	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP15	0 - 0.1 m	Fill	17/08/22	9	<0.4	12	17	20	<0.1	11	31	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
BD2/20220817	0 m	Fill	17/08/22	8	<0.4	13	21	20	<0.1	13	41	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP16	0 - 0.1 m	Fill	17/08/22	10	<0.4	18	17	21	<0.1	7	23	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP16	0.3 - 0.4 m	Natural	17/08/22	6	<0.4	13	18	20	<0.1	8	28	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP17	0 - 0.1 m	Fill	17/08/22	9	<0.4	16	23	17	<0.1	10	36	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP18	0 - 0.1 m	Fill	17/08/22	12	<0.4	20	37	24	<0.1	16	57	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP19	0 - 0.1 m	Fill	02/09/22	8	<0.4	22	19	11	<0.1	6	37	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
BD5/20220902	0 m	Fill	02/09/22	10	<0.4	9	27	22	<0.1	13	46	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP20	0 - 0.1 m	Fill	02/09/22	<4	<0.4	10	21	16	<0.1	13	36	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP21	0 - 0.1 m	Fill	02/09/22	5	<0.4	12	10	13	<0.1	4	22	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP22	0 - 0.1 m	Fill	02/09/22	7	<0.4	15	12	16	<0.1	6	15	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP23	0 - 0.1 m	Fill	02/09/22	5	<0.4	15	8	13	<0.1	3	18	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP24	0 - 0.1 m	Fill	02/09/22	8	<0.4	19	11	18	<0.1	6	21	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP25	0 - 0.1 m	Fill	02/09/22	7	<0.4	34	4	15	<0.1	5	10	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP26	0 - 0.1 m	Fill	02/09/22	7	<0.4	19	12	19	<0.1	7	22	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP27	0 - 0.1 m	Fill	02/09/22	8	<0.4	32	3	18	<0.1	6	10	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP28	0 - 0.1 m	Fill	02/09/22	<4	<0.4	9	19	16	<0.1	8	63	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP29	0 - 0.1 m		02/09/22	8	<0.4	27	4	16	<0.1	4	12	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP30	0 - 0.1 m	Fill	02/09/22	<4	<0.4	11	11	17	<0.1	9	34	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP31	0 - 0.1 m	Fill	02/09/22	4	<0.4	11	16	18	<0.1	12	41	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP32	0 - 0.1 m	Fill	02/09/22	9	<0.4	12	12	17	<0.1	12	34	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP32	0.3 - 0.4 m	Natural	02/09/22	10	<0.4	8	24	10	<0.1	10	37	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP33	0 - 0.1 m	Fill	02/09/22	12	<0.4	25	8	21	<0.1	6	16	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP34	0 - 0.1 m	Fill	02/09/22	8	<0.4	18	12	17	<0.1	10	35	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180	- -	- 180	10 -	70 -	20 -	340 -
AEC41TP35	0 - 0.1 m	Fill	02/09/22	8	<0.4	16	13	<0.1	11	48

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Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

				Metals								TRH					BTEX				PAH				Phenol	OCP							
				Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene [b]	Benzo(a)pyrene (BaP)	Benzo(a)pyrene TEQ	Total PAHs	Phenol	DDD	DDT+DDE+DDD [c]	DDE	DDT	Aldrin & Dieldrin	Total Chlordane	Endrin	Total Endosulfan
			PQL	4	0.4	1	1	1	0.1	1	1	25	50	25	50	100	100	0.2	0.5	1	1	0.1	0.05	0.5	0.05	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC41TP36	0 - 0.1 m	Fill	02/09/22	8	<0.4	11	8	15	<0.1	4	16	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42SED01	0 m	Fill	25/08/22	8	<0.4	16	29	20	<0.1	18	57	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP01	0 - 0.1 m	Fill	12/08/22	7	<0.4	14	31	20	<0.1	15	43	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP01	0.3 - 0.4 m	Natural	12/08/22	7	<0.4	13	30	17	<0.1	10	38	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
BD1/20220812	0 m	Fill	12/08/22	11	<0.4	22	35	19	<0.1	15	65	<20	<50	<20	<50	<100	<100	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	NT	NT	<0.05	<0.05	<0.05	<0.05	<0.05	NT	<0.05	<0.05
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP02	0 - 0.1 m	Fill	12/08/22	8	<0.4	15	19	20	<0.1	13	38	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP03	0 - 0.1 m	Fill	12/08/22	7	<0.4	16	23	22	<0.1	15	60	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP04	0 - 0.1 m	Fill	12/08/22	13	<0.4	16	38	21	<0.1	20	56	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
BD2/20220812	0 m	Fill	12/08/22	15	<0.4	17	39	22	<0.1	22	60	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP05	0 - 0.1 m	Fill	12/08/22	<4	<0.4	15	24	15	<0.1	14	47	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP05	0.3 - 0.4 m	Natural	12/08/22	<4	<0.4	13	21	12	<0.1	11	42	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP06	0 - 0.1 m	Fill	12/08/22	<4	<0.4	14	16	16	<0.1	15	47	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP07	0 - 0.1 m	Fill	12/08/22	7	<0.4	16	23	19	<0.1	12	39	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP08	0 - 0.1 m	Fill	12/08/22	5	<0.4	14	21	16	<0.1	15	38	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP09	0 - 0.1 m	Fill	12/08/22	7	<0.4	12	17	18	<0.1	9	30	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP10	0 - 0.1 m	Fill	12/08/22	8	<0.4	10	22	16	<0.1	12	33	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP11	0 - 0.1 m	Fill	12/08/22	7	<0.4	11	22	17	<0.1	14	31	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP11	0.3 - 0.4 m	Natural	12/08/22	13	<0.4	13	29	17	<0.1	16	47	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP12	0 - 0.1 m	Fill	12/08/22	9	<0.4	13	22	27	<0.1	12	100	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP13	0 - 0.1 m	Fill	12/08/22	6	<0.4	14	26	15	<0.1	13	38	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP14	0 - 0.1 m	Fill	12/08/22	7	<0.4	13	24	15	<0.1	11	37	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP15	0 - 0.1 m	Fill	12/08/22	8	<0.4	14	35	16	<0.1	14	48	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP16	0 - 0.1 m	Fill	12/08/22	7	<0.4	15	29	16	<0.1	11	37	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP17	0 - 0.1 m	Fill	12/08/22	15	<0.4	12	29	19	<0.1	17	58	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP18	0 - 0.1 m	Fill	15/08/22	10	<0.4	17	27	23	<0.1	15	56	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP19	0 - 0.1 m	Fill	15/08/22	13	<0.4	14	28	19	<0.1	12	47	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP19	0.2 - 0.3 m	Natural	15/08/22	10	<0.4	13	29	17	<0.1	11	41	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP20	0 - 0.1 m	Fill	15/08/22	9	<0.4	11	23	17	<0.1	13	53	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP21	0 - 0.1 m	Fill	15/08/22	10	<0.4	18	23	26	<0.1	15	41	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
BD2/20220815	0 m	Fill	15/08/22	15	<0.4	24	29	32	<0.1	20	62	<20	<50	<20	<50	<100	<100	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	NT	NT	<0.05	<0.05	<0.05	<0.05	<0.05	NT	<0.05	<0.05
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP22	0 - 0.1 m	Fill	15/08/22	8	<0.4	18	35	22	<0.1	12	45	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP23	0 - 0.1 m	Fill	15/08/22	6	<0.4	15	30	20	<0.1	14	47	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP24	0 - 0.1 m	Fill	15/08/22	6	<0.4	15	30	20	<0.1	16	48	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP25	0 - 0.1 m	Fill	15/08/22	7	<0.4	18	23	19	<0.1	15	41	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP26	0 - 0.1 m	Fill	15/08/22	8	<0.4	19	19	21	<0.1	14	44	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP27	0 - 0.1 m	Fill	15/08/22	9	<0.4	15	31	23	<0.1	15	48	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP28	0 - 0.1 m	Fill	15/08/22	10	<0.4	19	29	24	<0.1	18	61	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP28	0.3 - 0.4 m	Natural	15/08/22	7	<0.4	16	36	16	<0.1	17	61	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP29	0 - 0.1 m	Fill	15/08/22	8	<0.4	15	17	19	<0.1	12	39	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
BD4/20220815	0 m	Fill	15/08/22	9	<0.4	16	19	20	<0.1	12	41	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP30	0 - 0.1 m	Fill	15/08/22	10	<0.4	22	16	24	<0.1	13	40	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300 100	90 -	300 410	17000 210	600 1100	80 -	1200 170	30000 480	- -	- 120	NL 180	NL -	- 300	- 2800	NL 50	NL 85	NL 70	NL 105	NL 170	- 0.7	3 -	300 -	120 -	- -	- 400	180 -	- -	- 180	10 -	70 -	20 -	340 -
AEC42TP30	0.4 - 0.5 m	Natural	15/08/22	7	<0.4	21

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Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

				Metals								TRH						BTEX				PAH				Phenol	OCP							
				Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene [a]	Benzo(a)pyrene (BaP)	Benzo(a)pyrene TEQ	Total PAHs	Phenol	DDD	DDT+DDE+DDD [c]	DDE	DDT	Aldrin & Dieldrin	Total Chlordane	Endrin	Total Endosulfan
			PQL	4	0.4	1	1	1	0.1	1	1	25	50	25	50	100	100	0.2	0.5	1	1	0.1	0.05	0.5	0.05	5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC42TP39	0 - 0.1 m	Fill	16/08/22	6	<0.4	14	10	17	<0.1	6	15	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	2800	NL	50	NL	85	NL	70	NL	105	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42TP40	0 - 0.1 m	Fill	16/08/22	6	<0.4	11	21	16	<0.1	15	58	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	2800	NL	50	NL	85	NL	70	NL	105	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42SED01		sediment	25/08/22	8	<0.4	16	29	20	<0.1	18	57	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	2800	NL	50	NL	85	NL	70	NL	105	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42TP101	0 - 0.1 m	sediment	24/11/2022	10	<0.4	17	33	18	<0.1	14	48	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	1300	4	65	NL	105	NL	125	NL	45	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
BD1/20221124	0 - 0.1 m	sediment	24/11/2022	7	<0.4	12	20	14	<0.1	10	39	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	5600	4	65	NL	105	NL	125	NL	45	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42TP101	0.2 - 0.3 m	clay	24/11/2022	7	<0.4	14	27	15	<0.1	10	31	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	1300	4	65	NL	105	NL	125	NL	45	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42TP102	0 - 0.1 m	sediment	24/11/2022	5	<0.4	12	43	32	0.1	11	99	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	5600	4	65	NL	105	NL	125	NL	45	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42TP102	0.4 - 0.5 m	clay	24/11/2022	6	<0.4	11	25	16	<0.1	9	26	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	5600	4	65	NL	105	NL	125	NL	45	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42TP103	0 - 0.1 m	sediment	24/11/2022	8	<0.4	12	23	15	<0.1	9	36	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	5600	4	65	NL	105	NL	125	NL	45	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-
AEC42TP103	0.2 - 0.3 m	clay	24/11/2022	8	<0.4	12	24	20	<0.1	8	25	<25	<50	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.1	<0.05	<0.5	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
				300	100	90	-	300	410	17000	210	600	1100	80	-	1200	170	30000	480	-	-	-	120	NL	180	NL	-	-	300	5600	4	65	NL	105	NL	125	NL	45	NL	170	-	0.7	3	-	300	-	120	-	-	-	400	180	-	-	-	180	10	-	70	-	20	-	340	-

HIL/HSL value EIL/ESL value

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

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

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

Notes:

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

b Reported naphthalene laboratory result obtained from BTEXN suite

c Criteria applies to DDT only

Site Assessment Criteria (SAC):

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

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

HIL C	Recreational / Open Space (NEPC, 2013)
HSL C	Recreational / Open Space (vapour intrusion) (NEPC, 2013)
DC HSL C	Direct contact HSL C Recreational /Open space (direct contact) (CRC CARE, 2011)
EIL/ESL UR/POS	Urban Residential and Public Open Space (NEPC, 2013)
ML R/P/POS	Residential, Parkland and Public Open Space (NEPC, 2013)

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Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

							OPP	PCB								Complete PAH suite														TRH				
				Heptachlor	Hexachlorobenzene	Methoxychlor	Chlorpyrifos	Aroclor 1016	Total PCB	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	TRH C6 - C9	TRH C10 - C14	TRH C15 - C28	TRH C29 - C36	C10-C36 recoverable hydrocarbons
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC41TP01	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP02	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP02	0.3 - 0.4 m	Natural	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP03	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP04	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP05	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP06	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP06	0.3 - 0.4 m	Natural	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP07	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP08	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP09	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP10	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP11	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP11	0.3 - 0.4 m	Natural	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP12	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP13	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP14	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP15	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
BD2/20220817	0 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP16	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP16	0.3 - 0.4 m	Natural	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP17	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP18	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP19	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
BD5/20220902	0 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP20	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP21	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP22	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP23	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP24	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP25	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP26	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP27	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP28	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP29	0 - 0.1 m		02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP30	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP31	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP32	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP32	0.3 - 0.4 m	Natural	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP33	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP34	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										
AEC41TP35	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250	1																										

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Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

							OPP	PCB								Complete PAH suite													TRH				
				Heptachlor	Hexachlorobenzene	Methoxychlor	Chlorpyrifos	Aroclor 1016	Total PCB	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b&j)fluoranthene	Benzo(ghi)perylene	Chrysene	Dibenz(ah)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	TRH C6 - C9	TRH C10 - C14	TRH C15 - C28	TRH C29 - C36	C10-C36 recoverable hydrocarbons
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC41TP36	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42SED01	0 m	Fill	25/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP01	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP01	0.3 - 0.4 m	Natural	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
BD1/20220812	0 m	Fill	12/08/22	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50
				10	10	400	250		1																								
AEC42TP02	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP03	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP04	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
BD2/20220812	0 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP05	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP05	0.3 - 0.4 m	Natural	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP06	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP07	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP08	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP09	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP10	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP11	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP11	0.3 - 0.4 m	Natural	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP12	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP13	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP14	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP15	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP16	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP17	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP18	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP19	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP19	0.2 - 0.3 m	Natural	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP20	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP21	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
BD2/20220815	0 m	Fill	15/08/22	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50
				10	10	400	250		1																								
AEC42TP22	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP23	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP24	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP25	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP26	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP27	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP28	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP28	0.3 - 0.4 m	Natural	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP29	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
BD4/20220815	0 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP30	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP30	0.4 - 0.5 m	Natural	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP31	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP32	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP33	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP34	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP35	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP36	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP36	0.3 - 0.4 m	Natural	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP37	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
BD2/20220816	0 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								
AEC42TP38	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	10	400	250		1																								

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Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

							OPP	PCB								Complete PAH suite													TRH				
				Heptachlor	Hexachlorobenzene	Methoxychlor	Chlorpyrifos	Aroclor 1016	Total PCB	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	TRH C6 - C9	TRH C10 - C14	TRH C15 - C28	TRH C29 - C36	C10-C36 recoverable hydrocarbons
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC42TP39	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP40	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42SED01		sediment	25/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP101	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD1/20221124	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP101	0.2 - 0.3 m	clay	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP102	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP102	0.4 - 0.5 m	clay	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP103	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP103	0.2 - 0.3 m	clay	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50
				10	-	10	-	400	-	250	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

HIL/HSL value EIL/ESL value

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

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

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

Notes:

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

b Reported naphthalene laboratory result obtained from BTEXN suite

c Criteria applies to DDT only

Site Assessment Criteria (SAC):

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

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

HIL C	Recreational / Open Space (NEPC, 2013)
HSL C	Recreational / Open Space (vapour intrusion) (NEPC, 2013)
DC HSL C	Direct contact HSL C Recreational /Open space (direct contact) (CRC CARE, 2011)
EIL/ESL UR/POS	Urban Residential and Public Open Space (NEPC, 2013)
ML R/P/POS	Residential, Parkland and Public Open Space (NEPC, 2013)

Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

				Complete OCP suite										Complete OPP suite				Asbestos					
				alpha-BHC	beta-BHC	Bromophos-ethyl	Chlorpyrifos-methyl	delta-BHC	Diazinon	Dimethoate	Endrin Aldehyde	Lindane	Heptachlor Epoxide	Azinphos-methyl (Guthion)	Ethion	Fenitrothion	Ronnel (fenchlorphos)	Asbestos ID in soil >0.1g/kg	Trace Analysis	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1						<0.001
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	g	g	%(w/w)
AEC41TP01	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP02	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP02	0.3 - 0.4 m	Natural	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP03	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP04	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP05	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP06	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP06	0.3 - 0.4 m	Natural	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP07	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP08	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP09	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP10	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP11	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP11	0.3 - 0.4 m	Natural	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP12	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP13	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP14	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP15	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
BD2/20220817	0 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP16	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP16	0.3 - 0.4 m	Natural	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP17	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP18	0 - 0.1 m	Fill	17/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP19	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
BD5/20220902	0 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP20	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP21	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP22	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP23	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP24	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP25	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP26	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP27	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP28	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP29	0 - 0.1 m		02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP30	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP31	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP32	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP32	0.3 - 0.4 m	Natural	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC41TP33	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP34	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC41TP35	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-

Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

				Complete OCP suite										Complete OPP suite				Asbestos					
				alpha-BHC	beta-BHC	Bromophos-ethyl	Chlorpyrifos-methyl	delta-BHC	Diazinon	Dimethoate	Endrin Aldehyde	Lindane	Heptachlor Epoxide	Azinphos-methyl (Guthion)	Ethion	Fenitrothion	Ronnel (fenchlorphos)	Asbestos ID in soil >0.1g/kg	Trace Analysis	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1						<0.001
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	g	g	%(w/w)
AEC41TP36	0 - 0.1 m	Fill	02/09/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42SED01	0 m	Fill	25/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP01	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP01	0.3 - 0.4 m	Natural	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
BD1/20220812	0 m	Fill	12/08/22	<0.05	<0.05	NT	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-
AEC42TP02	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP03	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP04	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
BD2/20220812	0 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP05	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP05	0.3 - 0.4 m	Natural	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP06	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP07	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP08	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP09	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP10	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP11	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP11	0.3 - 0.4 m	Natural	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP12	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP13	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP14	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP15	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP16	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP17	0 - 0.1 m	Fill	12/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP18	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP19	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP19	0.2 - 0.3 m	Natural	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP20	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP21	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
BD2/20220815	0 m	Fill	15/08/22	<0.05	<0.05	NT	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-
AEC42TP22	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP23	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP24	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP25	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP26	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP27	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP28	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP28	0.3 - 0.4 m	Natural	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP29	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
BD4/20220815	0 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP30	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP30	0.4 - 0.5 m	Natural	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP31	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP32	0 - 0.1 m	Fill	15/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP33	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP34	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP35	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP36	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP36	0.3 - 0.4 m	Natural	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP37	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
BD2/20220816	0 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP38	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-

Table I1: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Complete PAH suite, TRH, Complete OCP suite, Complete OPP suite and Asbestos

				Complete OCP suite										Complete OPP suite				Asbestos					
				alpha-BHC	beta-BHC	Bromophos-ethyl	Chlorpyrifos-methyl	delta-BHC	Diazinon	Dimethoate	Endrin Aldehyde	Lindane	Heptachlor Epoxide	Azinphos methyl (Guthion)	Ethion	Fenitrothion	Ronnel (fenchlorphos)	Asbestos ID in soil >0.1g/kg	Trace Analysis	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation	FA and AF Estimation	FA and AF Estimation
			PQL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1						<0.001
Sample ID	Depth		Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	g	g	%(w/w)
AEC42TP39	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP40	0 - 0.1 m	Fill	16/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42SED01		sediment	25/08/22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP101	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
BD1/20221124	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP101	0.2 - 0.3 m	clay	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP102	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP102	0.4 - 0.5 m	clay	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-
AEC42TP103	0 - 0.1 m	sediment	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NAD	NAD	NAD	-	<0.001	-
AEC42TP103	0.2 - 0.3 m	clay	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-

HIL/HSL value EIL/ESL value

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

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

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

Notes:

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

b Reported naphthalene laboratory result obtained from BTEXN suite

c Criteria applies to DDT only

Site Assessment Criteria (SAC):

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

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

HIL C	Recreational / Open Space (NEPC, 2013)
HSL C	Recreational / Open Space (vapour intrusion) (NEPC, 2013)
DC HSL C	Direct contact HSL C Recreational /Open space (direct contact) (CRC CARE, 2011)
EIL/ESL UR/POS	Urban Residential and Public Open Space (NEPC, 2013)
ML R/P/POS	Residential, Parkland and Public Open Space (NEPC, 2013)

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Table I2: Summary of Results of Groundwater Analysis (All results in µg/L)

| Sample Location / Identification (Borehole or Replicate) | Sample Date | Metals (dissolved) | | | | | | | | Polycylic Aromatic Hydrocarbons | | | | | | | Total Recoverable Hydrocarbons, BTEX and Volatile Organic Compounds | | | | | | | |

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Table I2 (continued): Summary of Results of Groundwater Analysis (All results in µg/L)

Sample Location / Identification (Borehole or Replicate)	Sample Date	Organochlorine Pesticides													Organophosphorus Pesticides																									Polychlorinated Biphenyls			Phenols											
		Aldrin	Dieldrin	gamma-Chlordane	alpha-Chlordane	Total Chlordanes	pp-DDT	Endosulfan I	Endosulfan II	Endrin	Heptachlor	Methoxychlor	Lindane	Other OCP	Azinphos-methyl	Bromophos-ethyl	Chlorpyrifos	Chlorfenvinphos	Diazinon	Dichlorovos	Dimethoate	Disulfoton	Ethion	Ethoprophos (Ethoprop)	Fenitrothion	Fensulfothion	Fenthion	Malathion	Mevinphos (Phosdrin)	Monocrotophos	Omethoate	Parathion	Methyl Parathion	Pyrazophos	Terbufos	Tetrachlorvinphos	Pirimiphos-methyl	Other OPP	Aroclor 1242	Aroclor 1254	Other PCB	Phenol	2,4,6-Trichlorophenol	2,4-Dinitrophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Total Tetrachlorophenols	Pentachlorophenol	2-Chlorophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	Other Phenols
AEC41BH01	11/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
AEC41BH02	11/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
AEC41BH03	11/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
BD1/20221011	11/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
AEC42BH01	11/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
AEC42BH02	11/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
AEC42BH03	11/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
AEC42SW01	12/10/2022	<0.01	<0.01	<0.01	<0.01	-	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.2	<0.01	-	-	<0.2	<0.15	-	<0.2	-	<0.2	-	-	<0.05	-	-	-	<0.01	<0.2	-	-	-	-	<PQL	<0.1	<0.1	<0.1	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL
Assessment Criteria																																																					
Freshwater DGV		0.001	0.01	0.03			0.006	0.03		0.01	0.01	0.005	-	-	0.01	-	0.01	-	0.01	-	0.15	-	-	-	0.2	-	-	0.05	-	-	-	0.004	-	-	-	-	-	-	0.3	0.01	-	320	3	45	58	10	0.2	3.6	340	2	120	34	-
Guidelines for Recreational Water	**Health**	3		20			90	200		-	3	3000	100	-	300	100	100	20	40	50	70	40	40	10	70	100	70	700	50	20	10	200	7	200	9	1000	900	-	-	-	-	-	200	-	-	-	-	100	3000	-	2000	-	-
	Aesthetic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	2	-	-	-	-	-	0.1	-	0.3	-	-
HSL D for Vapour Intrusion, Clay (depth 2 m to <4 m)		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

PQL Practical Quantitation Limit

\- not defined/ not analysed/ not applicable

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Table I3: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Asbestos (updated December 2022)

			Metals								TRH					BTEX						PAH												
			Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C9	TRH C10 - C14	TRH C15 - C28	TRH C29 - C36	C10-C36 (total) petroleum hydrocarbons	Benzene	Toluene	Ethylbenzene	m+p-Xylene	o-Xylene	Xylenes (total)	Benzo(a)pyrene (BaP)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(b,j+k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene
		PQL	4	0.4	1	1	1	0.1	1	1	25	50	100	100	50	0.2	0.5	1	2	1	1	0.05	0.1	0.1	0.1	0.1	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC41TP01	0 - 0.1 m	16/08/22	10	<0.4	20	12	18	<0.1	5	25	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP01	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP01	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP02	0 - 0.1 m	16/08/22	9	<0.4	24	6	14	<0.1	4	10	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP02	0.3 - 0.4 m	16/08/22	<4	<0.4	5	4	4	<0.1	<1	2	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP02	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP03	0 - 0.1 m	16/08/22	10	<0.4	21	9	15	<0.1	6	16	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP03	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP03	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP04	0 - 0.1 m	16/08/22	8	<0.4	27	7	21	<0.1	5	13	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP04	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP04	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP05	0 - 0.1 m	16/08/22	7	<0.4	28	4	15	<0.1	4	15	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP05	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP05	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP06	0 - 0.1 m	16/08/22	8	<0.4	31	7	17	<0.1	4	17	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP06	0.3 - 0.4 m	16/08/22	7	<0.4	34	12	16	<0.1	9	14	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP06	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP07	0 - 0.1 m	16/08/22	7	<0.4	34	7	16	<0.1	5	17	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP07	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP08	0 - 0.1 m	16/08/22	11	<0.4	39	5	17	<0.1	4	11	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP08	0.5 - 0.6 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP09	0 - 0.1 m	16/08/22	7	<0.4	24	10	17	<0.1	6	22	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP09	0.2 - 0.3 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP09	0.7 - 0.8 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP10	0 - 0.1 m	16/08/22	<4	<0.4	13	30	19	<0.1	16	54	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP10	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP10	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP11	0 - 0.1 m	17/08/22	6	<0.4	10	17	15	<0.1	10	36	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP11	0.3 - 0.4 m	17/08/22	7	<0.4	13	28	16	<0.1	12	42	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP11	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP12	0 - 0.1 m	17/08/22	12	<0.4	16	15	25	<0.1	10	26	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP12	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP12	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP13	0 - 0.1 m	17/08/22	10	<0.4	15	24	19	<0.1	11	34	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP13	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP13	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP14	0 - 0.1 m	17/08/22	11	<0.4	16	16	19	<0.1	7	23	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP14	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP14	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP15	0 - 0.1 m	17/08/22	9	<0.4	12	17	20	<0.1	11	31	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP14	0 - 0.1 m	17/08/22	11	<0.4	16	16	19	<0.1	7	23	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP15	0 - 0.1 m	17/08/22	9	<0.4	12	17	20	<0.1	11	31	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD2/20220817	0 m	17/08/22	8	<0.4	13	21	20	<0.1	13	41	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP15	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP15	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP16	0 - 0.1 m	17/08/22	10	<0.4	18	17	21	<0.1	7	23	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP16	0.3 - 0.4 m	17/08/22	6	<0.4	13	18	20	<0.1	8	28	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP16	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP17	0 - 0.1 m	17/08/22	9	<0.4	16	23	17	<0.1	10	36	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP17	0.2 - 0.3 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP17	0.7 - 0.8 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP18	0 - 0.1 m	17/08/22	12	<0.4	20	37	24	<0.1	16	57	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP18	0.5 - 0.6 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP19	0 - 0.1 m	02/09/22	8	<0.4	8	22	19	<0.1	10	37	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD5/20220902	0 m	02/09/22	10	<0.4	9	27	22	<0.1	13	46	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP19	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP19	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP20	0 - 0.1 m	02/09/22	<4	<0.4	10	21	16	<0.1	13	36	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP20	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP20	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP21	0 - 0.1 m	02/09/22	5	<0.4	12	10	13	<0.1	4	22	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP21	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP21	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP22	0 - 0.1 m	02/09/22	7	<0.4	15	12	16	<0.1	6	15	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP22	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP22	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP23	0 - 0.1 m	02/09/22	5	<0.4	15	8	13	<0.1	3	18	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP23	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP23	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP24	0 - 0.1 m	02/09/22	8	<0.4	19	11	18	<0.1	6	21	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP24	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP24	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP25	0 - 0.1 m	02/09/22	7	<0.4	34	4	15	<0.1	5	10	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP25	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP25	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP26	0 - 0.1 m	02/09/22	7	<0.4	19	12	19	<0.1	7	22	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP26	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP26	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP27	0 - 0.1 m	02/09/22	8	<0.4	32	3	18	<0.1	6	10	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP27	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP27	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP28	0 - 0.1 m	02/09/22	<4	<0.4	9	19	16	<0.1	8	63	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP28	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP28	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP29	0 - 0.1 m	02/09/22	8	<0.4	27	4	16	<0.1	4	12	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP29	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP29	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP30	0 - 0.1 m	02/09/22	<4	<0.4	11	11	17	<0.1	9	34	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP30	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Table I3: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Asbestos (updated December 2022)

			Metals								TRH					BTEX						PAH													
			Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C9	TRH C10 - C14	TRH C15 - C28	TRH C29 - C36	C10-C36 (sum of total hydrocarbons	Benzene	Toluene	Ethylbenzene	m+p-Xylene	o-Xylene	Xylenes (total)	Benzo(a)pyrene (BaP)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(b,j+k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene
		PQL	4	0.4	1	1	1	0.1	1	1	25	50	100	100	50	0.2	0.5	1	2	1	1	0.05	0.1	0.1	0.1	0.1	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC41TP30	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP31	0 - 0.1 m	02/09/22	4	<0.4	11	16	18	<0.1	12	41	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP31	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP31	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP32	0 - 0.1 m	02/09/22	9	<0.4	6	12	17	<0.1	12	34	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP32	0.3 - 0.4 m	02/09/22	10	<0.4	8	24	10	<0.1	10	37	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP32	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP33	0 - 0.1 m	02/09/22	12	<0.4	25	8	21	<0.1	6	16	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP33	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP33	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP34	0 - 0.1 m	02/09/22	8	<0.4	18	12	17	<0.1	10	35	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP34	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP34	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP35	0 - 0.1 m	02/09/22	8	<0.4	7	16	13	<0.1	11	48	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP35	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP35	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP36	0 - 0.1 m	02/09/22	8	<0.4	11	8	15	<0.1	4	16	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP36	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP36	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42SED01	0 m	25/08/22	8	<0.4	16	29	20	<0.1	18	57	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP01	0 - 0.1 m	12/08/22	7	<0.4	14	31	20	<0.1	15	43	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP01	0.3 - 0.4 m	12/08/22	7	<0.4	13	30	17	<0.1	10	38	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD1/20220812	0 m	12/08/22	11	<0.4	22	35	19	<0.1	15	65	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AEC42TP01	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP02	0 - 0.1 m	12/08/22	8	<0.4	15	19	20	<0.1	13	38	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP02	0.2 - 0.3 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP02	0.7 - 0.8 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP03	0 - 0.1 m	12/08/22	7	<0.4	16	23	22	<0.1	15	60	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP03	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP03	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP04	0 - 0.1 m	12/08/22	13	<0.4	16	38	21	<0.1	20	56	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD2/20220812	0 m	12/08/22	15	<0.4	17	39	22	<0.1	22	60	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP04	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP04	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP05	0 - 0.1 m	12/08/22	<4	<0.4	15	24	15	<0.1	14	47	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP05	0.3 - 0.4 m	12/08/22	<4	<0.4	13	21	12	<0.1	11	42	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP05	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP06	0 - 0.1 m	12/08/22	<4	<0.4	14	16	16	<0.1	15	47	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP06	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP06	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP07	0 - 0.1 m	12/08/22	7	<0.4	16	23	19	<0.1	12	39	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP07	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP07	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP08	0 - 0.1 m	12/08/22	5	<0.4	14	21	16	<0.1	15	38	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP08	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP08	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP09	0 - 0.1 m	12/08/22	7	<0.4	12	17	18	<0.1	9	30	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP09	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP09	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP10	0 - 0.1 m	12/08/22	8	<0.4	10	22	16	<0.1	12	33	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP10	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP10	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP11	0 - 0.1 m	12/08/22	7	<0.4	11	22	17	<0.1	14	31	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP11	0.3 - 0.4 m	12/08/22	13	<0.4	13	29	17	<0.1	16	47	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP11	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP12	0 - 0.1 m	12/08/22	9	<0.4	13	22	27	<0.1	12	100	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP12	0.4 - 0.5 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP12	0.9 - 1 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP13	0 - 0.1 m	12/08/22	6	<0.4	14	26	15	<0.1	13	38	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP13	0.9 - 1 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP14	0 - 0.1 m	12/08/22	7	<0.4	13	24	15	<0.1	11	37	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP14	0.4 - 0.5 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP14	0.9 - 1 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP15	0 - 0.1 m	12/08/22	8	<0.4	14	35	16	<0.1	14	48	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP15	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP15	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP16	0 - 0.1 m	12/08/22	7	<0.4	15	29	16	<0.1	11	37	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP16	0.2 - 0.5 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP16	0.7 - 0.8 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP17	0 - 0.1 m	12/08/22	15	<0.4	12	29	19	<0.1	14	58	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP17	0.2 - 0.3 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP17	0.7 - 0.8 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP18	0 - 0.1 m	15/08/22	10	<0.4	17	27	23	<0.1	15	56	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP18	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP19	0 - 0.1 m	15/08/22	13	<0.4	14	28	19	<0.1	12	47	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP19	0.2 - 0.3 m	15/08/22	10	<0.4	13	29	17	<0.1	11	41	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP19	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP20	0 - 0.1 m	15/08/22	9	<0.4	11	23	17	<0.1	13	53	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP20	0.2 - 0.3 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP20	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP21	0 - 0.1 m	15/08/22	10	<0.4	18	23	26	<0.1	15	41	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD2/20220815	0 m	15/08/22	15	<0.4	24	29	32	<0.1	20	62	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AEC42TP21	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP21	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP22	0 - 0.1 m	15/08/22	8	<0.4	18	35	22	<0.1	12	45	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP22	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP22	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP23	0 - 0.1 m	15/08/22	6	<0.4	15	30	20	<0.1	14	47	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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Table I3: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Asbestos (updated December 2022)

			Metals								TRH					BTEX						PAH													
			Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C9	TRH C10 - C14	TRH C15 - C28	TRH C29 - C36	C10-C36 (sum of total hydrocarbons	Benzene	Toluene	Ethylbenzene	m+p-Xylene	o-Xylene	Xylenes (total)	Benzo(a)pyrene (BaP)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(b,j+k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene
		PQL	4	0.4	1	1	1	0.1	1	1	25	50	100	100	50	0.2	0.5	1	2	1	1	0.05	0.1	0.1	0.1	0.1	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
AEC42TP23	0.2 - 0.3 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP23	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP24	0 - 0.1 m	15/08/22	6	<0.4	15	30	20	<0.1	16	48	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP24	0.2 - 0.3 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP24	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP25	0 - 0.1 m	15/08/22	7	<0.4	18	23	19	<0.1	15	41	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP25	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP26	0 - 0.1 m	15/08/22	8	<0.4	19	19	21	<0.1	14	44	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP26	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP26	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP27	0 - 0.1 m	15/08/22	9	<0.4	15	31	23	<0.1	15	48	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP27	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP27	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP28	0 - 0.1 m	15/08/22	10	<0.4	19	29	24	<0.1	18	61	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP28	0.3 - 0.4 m	15/08/22	7	<0.4	16	36	16	<0.1	17	61	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP28	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP29	0 - 0.1 m	15/08/22	8	<0.4	15	17	19	<0.1	12	39	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD4/20220815	0 m	15/08/22	9	<0.4	16	19	20	<0.1	12	41	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP29	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP29	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP30	0 - 0.1 m	15/08/22	10	<0.4	22	16	24	<0.1	13	40	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP30	0.4 - 0.5 m	15/08/22	7	<0.4	21	24	18	<0.1	13	41	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP30	0.9 - 1 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP31	0 - 0.1 m	15/08/22	9	<0.4	18	17	25	<0.1	15	42	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP31	0.4 - 0.5 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP31	0.9 - 1 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP32	0 - 0.1 m	15/08/22	7	<0.4	16	19	18	<0.1	18	58	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP32	0.4 - 0.5 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP32	0.9 - 1 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP33	0 - 0.1 m	16/08/22	5	<0.4	14	20	15	<0.1	12	43	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP33	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP34	0 - 0.1 m	16/08/22	10	<0.4	18	19	23	<0.1	11	37	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP34	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP34	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP35	0 - 0.1 m	16/08/22	11	<0.4	15	25	25	<0.1	15	39	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP35	0.4 - 0.5 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP35	0.9 - 1 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP36	0 - 0.1 m	16/08/22	8	<0.4	18	12	19	<0.1	7	20	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP36	0.3 - 0.4 m	16/08/22	8	<0.4	17	23	15	<0.1	9	28	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP36	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP37	0 - 0.1 m	16/08/22	6	<0.4	14	16	16	<0.1	8	27	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD2/20220816	0 m	16/08/22	7	<0.4	15	18	17	<0.1	9	30	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	NT	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP37	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP37	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP38	0 - 0.1 m	16/08/22	9	<0.4	18	14	22	<0.1	10	64	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP38	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP38	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP39	0 - 0.1 m	16/08/22	6	<0.4	14	10	17	<0.1	6	15	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP39	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP39	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP40	0 - 0.1 m	16/08/22	6	<0.4	11	21	16	<0.1	15	58	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP40	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP40	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42SED01		25/08/22	8	<0.4	16	29	20	<0.1	18	57	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP101	0 - 0.1 m	24/11/2022	10	<0.4	17	33	18	<0.1	14	48	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BD1/202211124	0 - 0.1 m	24/11/2022	7	<0.4	12	20	14	<0.1	10	39	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP101	0.2 - 0.3 m	24/11/2022	7	<0.4	14	27	15	<0.1	10	31	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP102	0 - 0.1 m	24/11/2022	5	<0.4	12	43	32	0.1	11	99	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP102	0.4 - 0.5 m	24/11/2022	6	<0.4	11	25	16	<0.1	9	26	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP103	0 - 0.1 m	24/11/2022	8	<0.4	12	23	15	<0.1	9	36	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP103	0.2 - 0.3 m	24/11/2022	8	<0.4	12	24	20	<0.1	8	25	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
																												Waste Classification Criteria [1]							
CT1			100	20	100	NC	100	4	40	NC	650	NC	NC	NC	10000	10	288	600	NC	NC	1000	0.8	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
SCC1			500	100	1900	NC	1500	50	1050	NC	650	NC	NC	NC	10000	18	518	1080	NC	NC	1800	10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
TCLP1			N/A	N/A	N/A	NC	N/A	N/A	N/A	NC	N/A	NC	NC	NC	N/A	N/A	N/A	N/A	NC	NC	N/A	N/A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
CT2			400	80	400	NC	400	16	160	NC	2600	NC	NC	NC	40000	40	1152	2400	NC	NC	4000	3.2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
SCC2			2000	400	7600	NC	6000	200	4200	NC	2600	NC	NC	NC	40000	72	2073	4320	NC	NC	7200	23	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
TCLP2			N/A	N/A	N/A	NC	N/A	N/A	N/A	NC	N/A	NC	NC	NC	N/A	N/A	N/A	N/A	NC	NC	N/A	N/A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Maximum average concentration			20	0.5	75	100	50	0.5	30	150	NC	250	N/A	N/A	N/A	N/A	0.5	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Absolute maximum concentration			40	1	150	200	100	1	60	300	NC	500	0.5	65	25	15	1	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Table I3: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Asbestos (updated December 2022)

						Phenol						OCP		OPP	PCB								Asbestos	
			Phenanthrene	Pyrene	Total PAHs	2-Methylphenol (o-Cresol)	Cresol (total)	Phenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	Phenol (non-halogenated)	Total Endosulfan	Total Analysed OCP	Total Analysed OPP	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCB	Asbestos ID in materials	Total Asbestos
		PQL	0.1	0.1	0.05	0.2	0.5	5	1	1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-
AEC41TP01	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP01	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP01	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP02	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP02	0.3 - 0.4 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC41TP02	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP03	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP03	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP03	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP04	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP04	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP04	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP05	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP05	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP05	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP06	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP06	0.3 - 0.4 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC41TP06	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP07	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP07	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP08	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP08	0.5 - 0.6 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP09	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP09	0.2 - 0.3 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP09	0.7 - 0.8 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP10	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP10	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP10	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP11	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP11	0.3 - 0.4 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC41TP11	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP12	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP12	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP12	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP13	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP13	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP13	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP14	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP14	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP14	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP15	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	NAD
BD2/20220817	0 m	17/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC41TP15	0.3 - 0.4 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP15	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP16	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP16	0.3 - 0.4 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC41TP16	0.8 - 0.9 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP17	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP17	0.2 - 0.3 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP17	0.7 - 0.8 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP18	0 - 0.1 m	17/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP18	0.5 - 0.6 m	17/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP19	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	NAD
BD5/20220902	0 m	02/09/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC41TP19	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP19	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP20	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP20	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP20	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP21	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP21	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP21	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP22	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP22	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP22	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP23	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	NAD
AEC41TP23	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP23	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP24	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP24	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP24	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP25	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP25	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP25	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP26	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP26	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP26	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP27	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP27	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP27	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP28	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	NAD
AEC41TP28	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP28	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP29	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP29	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP29	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP30	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP30	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Table I3: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Asbestos (updated December 2022)

						Phenol						OCP		OPP	PCB							Asbestos	
			Phenanthrene	Pyrene	Total PAHs	2-Methylphenol (o-Cresol)	Cresol (total)	Phenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	Phenol (non-halogenated)	Total Endosulfan	Total Analysed OCP	Total Analysed OPP	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCB	Asbestos ID in materials	Total Asbestos
		PQL	0.1	0.1	0.05	0.2	0.5	5	1	1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-
AEC41TP30	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP31	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP31	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP31	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP32	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	NAD
AEC41TP32	0.3 - 0.4 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC41TP32	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP33	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP33	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP33	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP34	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP34	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP34	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP35	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP35	0.2 - 0.3 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP35	0.7 - 0.8 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP36	0 - 0.1 m	02/09/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC41TP36	0.3 - 0.4 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC41TP36	0.8 - 0.9 m	2/09/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42SED01	0 m	25/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP01	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP01	0.3 - 0.4 m	12/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
BD1/20220812	0 m	12/08/22	<0.5	<0.5	NT	<0.2	<0.5	NT	<1	<1	<0.5	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP01	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP02	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP02	0.2 - 0.3 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP02	0.7 - 0.8 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP03	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP03	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP03	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP04	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	NAD
BD2/20220812	0 m	12/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP04	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP04	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP05	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP05	0.3 - 0.4 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP05	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP06	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP06	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP06	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP07	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP07	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP07	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP08	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	NAD
AEC42TP08	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP08	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP09	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP09	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP09	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP10	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP10	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP10	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP11	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP11	0.3 - 0.4 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP11	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP12	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP12	0.4 - 0.5 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP12	0.9 - 1 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP13	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP13	0.9 - 1 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP14	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP14	0.4 - 0.5 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP14	0.9 - 1 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP15	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP15	0.3 - 0.4 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP15	0.8 - 0.9 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP16	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP16	0.2 - 0.5 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP16	0.7 - 0.8 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP17	0 - 0.1 m	12/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP17	0.2 - 0.3 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP17	0.7 - 0.8 m	12/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP18	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP18	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP19	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP19	0.2 - 0.3 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP19	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP20	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP20	0.2 - 0.3 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP20	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP21	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
BD2/20220815	0 m	15/08/22	<0.5	<0.5	NT	<0.2	<0.5	NT	<1	<1	<0.5	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP21	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP21	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP22	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP22	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP22	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP23	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD

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Table I3: Summary of Laboratory Results – Metals, TRH, BTEX, PAH, Phenol, OCP, OPP, PCB, Asbestos (updated December 2022)

						Phenol						OCP		OPP	PCB								Asbestos	
			Phenanthrene	Pyrene	Total PAHs	2-Methylphenol (o-Cresol)	Cresol (total)	Phenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	Phenol (non-halogenated)	Total Endosulfan	Total Analysed OCP	Total Analysed OPP	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCB	Asbestos ID in materials	Total Asbestos
		PQL	0.1	0.1	0.05	0.2	0.5	5	1	1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-
AEC42TP23	0.2 - 0.3 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP23	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP24	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP24	0.2 - 0.3 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP24	0.7 - 0.8 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP25	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP25	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP26	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP26	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP26	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP27	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP27	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP27	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP28	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP28	0.3 - 0.4 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP28	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP29	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
BD4/20220815	0 m	15/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP29	0.3 - 0.4 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP29	0.8 - 0.9 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP30	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP30	0.4 - 0.5 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP30	0.9 - 1 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP31	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP31	0.4 - 0.5 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP31	0.9 - 1 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP32	0 - 0.1 m	15/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP32	0.4 - 0.5 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP32	0.9 - 1 m	15/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP33	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP33	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP34	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP34	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP34	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP35	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP35	0.4 - 0.5 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP35	0.9 - 1 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP36	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP36	0.3 - 0.4 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP36	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP37	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
BD2/20220816	0 m	16/08/22	<0.1	<0.1	<0.05	NT	NT	<5	NT	NT	NT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP37	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP37	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP38	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP38	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP38	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP39	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP39	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP39	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP40	0 - 0.1 m	16/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP40	0.3 - 0.4 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42TP40	0.8 - 0.9 m	16/08/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEC42SED01		25/08/22	<0.1	<0.1	<0.05	-	-	<5	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP101	0 - 0.1 m	24/11/2022	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
BD1/20221124	0 - 0.1 m	24/11/2022	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP101	0.2 - 0.3 m	24/11/2022	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP102	0 - 0.1 m	24/11/2022	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP102	0.4 - 0.5 m	24/11/2022	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
AEC42TP103	0 - 0.1 m	24/11/2022	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	NAD
AEC42TP103	0.2 - 0.3 m	24/11/2022	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
CT1			NC	NC	200	4000	4000	288	8000	40	288	60	<50	4	NC	NC	NC	NC	NC	NC	NC	<50	NC	NC
SCC1			NC	NC	200	7200	200	518	14400	72	518	108	<50	7.5	NC	NC	NC	NC	NC	NC	NC	<50	NC	NC
TCLP1			NC	NC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NC	NC	NC	NC	NC	NC	NC	N/A	NC	NC
CT2			NC	NC	800	16000	16000	1152	32000	160	1152	240	<50	16	NC	NC	NC	NC	NC	NC	NC	<50	NC	NC
SCC2			NC	NC	800	28800	28800	2073	57600	288	2073	432	<50	30	NC	NC	NC	NC	NC	NC	NC	<50	NC	NC
TCLP2			NC	NC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NC	NC	NC	NC	NC	NC	NC	N/A	NC	NC

Maximum average concentration			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Absolute maximum concentration			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix J

Data Quality Assurance and Quality Control

Appendix J

Data Quality Assurance and Quality Control Report for DSI for AEC 41 & 42

Surface & Civil Alignment Works (SCAW) Package for Sydney Metro - Western Sydney Airport (SMWSA)

J1.0 Field and Laboratory Data Quality Assurance and Quality Control

The soil field and laboratory data quality assurance and quality control (QA / QC) procedures and results are summarised in the following Table . Reference should be made to the field work methodology and the laboratory results / certificates of analysis for further details. The relative percentage difference (RPD) results, along with the other field QC samples are included in the summary results tables at the end of this appendix.

Table J2: Field and Laboratory Quality Control

Item	Evaluation / Acceptance Criteria	Compliance
Analytical laboratories used	NATA accreditation	C
Holding times	Various based on type of analysis.	C
Intra-laboratory replicates	5% of primary samples; <30% RPD	C soil C water PC
Inter-laboratory replicates	5% of primary samples; <30% RPD	PC soil C water PC
Trip Spikes	1 per sampling event; 60-140% recovery see Tables QA4 and QA6	C
Trip Blanks	1 per sampling event; <PQL see Tables QA3 and QA5	C
Laboratory / Reagent Blanks	1 per batch; <PQL	C
Laboratory Duplicate	1 per lab batch; As laboratory certificate	C
Matrix Spikes	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	C
Surrogate Spikes	All organics analysis; 70-130% recovery (inorganics); 60-140% recovery (organics)	C
Control Samples	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	C
Standard Operating Procedures (SOP)	Adopting SOP for all aspects of the sampling field work	C

Notes:
C = compliance; PC = partial compliance; NC = non-compliance

Soil Sampling

The soil and sediment sampling procedure is described in Appendix D of the report. The field QA / QC samples collected during the course of soil sampling comprised the following:

- Eight blind replicate sample primary laboratory (i.e., intra-laboratory analysis);
- Three blind replicate samples analysed at a secondary laboratory (i.e., intra-laboratory analysis); and
- Analysis of six trip spikes and six trip blanks.

The total number of primary soil samples analysed was 89 samples.

DP notes the trip blank sample taken on 17th August is incorrectly labelled TS-170822.

Groundwater Sampling

The groundwater sampling procedure is described in the report. The field QA / QC samples collected during the course of groundwater sampling comprised the following:

- Two duplicate samples including one inter-laboratory replicate and one intra-laboratory replicate; and
- Analysis of two rinsate samples; and
- Analysis of two trip spikes and two trip blanks.

The total number of primary groundwater and surface water samples analysed was seven samples.

Although replicate samples for sediment samples were not analysed, given that the tests undertaken are the same for soil samples, and the purpose of replicate analysis is to check for consistency of results for each laboratory method, the overall replicate analysis of 10% of primary soil and sediment samples is considered sufficient. The rate of replicate analysis was over 10% for groundwater and surface water samples (14% inter and intra-laboratory samples).

For groundwater sampling, the electronic interface probe, flow cell and probes were decontaminated between monitoring wells by rinsing in a diluted Liquinox solution and then rinsing in demineralised water. A rinsate (Rinsate-W080922) was collected by running demineralised water over the decontaminated sampling equipment and directing the water into sampling bottles provided by the laboratory. Rinsate test results were all less than the practical quantitation limits. For soil and sediment sampling, to avoid the need for decontaminating sampling equipment, disposable nitrile gloves were changed between each sampling event and used for sample collection.

In summary, the QC data is determined to be of sufficient quality to be considered acceptable for the assessment.

The RPD results were all within the acceptable range, with the exception of those indicated in Tables QA1 and QA4. The exceedances are not, however, considered to be of concern given that:

- The typically low actual differences in the concentrations of the replicate pairs where some RPD exceedances occurred;
- The number of replicate pairs being collected from fill soils which by its nature is heterogeneous;
- Replicates, rather than homogenised duplicates, were used to minimise risk of volatile loss, hence greater variability can be expected;
- Most of the recorded concentrations being relatively close to the PQL;
- The majority of RPDs within a replicate pair being within the acceptable limits; and
- All other QA / QC parameters met the DQIs.

Rinsate samples were taken on 11 and 12 October 2022 during groundwater sampling. Rinsate samples were not taken during soil sampling as single use disposable sampling equipment was employed for all soil sampling.

For the inter-laboratory sample in laboratory report 931563-W-V3, BD3/20221011, the sample was incorrectly labelled by the laboratory and a new certificate of analysis provided. In addition, the VOC analysis was undertaken within of holding time of 7 days (extracted 18 October following sampling date if 11 October 2022). The duplicate RPD result for cadmium failed (RPD 200). It is noted that all the cadmium concentrations were generally low for this sample and it is considered that the high RPD does not affect the assessment of results.

For laboratory report 303443, percent recovery is not possible to report due to the inhomogeneous nature of the element/s in some of the samples. However, an acceptable recovery was obtained for the LCS.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to ASB-001 asbestos subsampling procedure. Envirolab cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab/MPL recommends supplying 40-60g or 500ml of sample in its own container. Note: Samples 303443-46, 75 were sub-sampled from bags provided by the client. This was also noted in Lab Report 311544.

As noted in laboratory certificate 915468-S, the laboratory RPD were all within the acceptance criterion.

As noted in laboratory certificate 921027-S, the duplicate RPD result for nickel and zinc failed (RPD 46 and 34). It is noted that all the metal concentrations were generally low for this sample and it is considered that the high RPD does not affect the assessment of results. Also Eurofins stated - The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this Eurofins report.

In laboratory report 307878, Envirolab reported no vials were supplied for analysis of samples 307878-12,13, therefore a sample was subsampled from amber / plastic bottles provided for analysis of TRH & BTEXN in Water. Ion Balance - # Percent recovery is not applicable due to the high concentration of the element/s in the sample/s. However, an acceptable recovery was obtained for the LCS. Total metals: no unfiltered, preserved sample was received for samples #12-13, therefore analysis was conducted from the unpreserved sample bottle. Envirolab noted that there is a possibility some elements may be underestimated. The PQLs for phenols in sample 307878-1-9 have been raised due to the low spike recovery/recoveries. This may reflect other samples where similar in matrix and similar analytical interferences occur.

J2.0 Data Quality Indicators

The reliability of field procedures and analytical results was assessed against the following data quality indicators (DQIs) as outlined in NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]* (NEPC, 2013):

- Completeness: a measure of the amount of usable data from a data collection activity;
- Comparability: the confidence (qualitative) that data may be considered to be equivalent for each sampling and analytical event;
- Representativeness: the confidence (qualitative) of data representativeness of media present on-site;
- Precision: a measure of variability or reproducibility of data; and
- Accuracy: a measure of closeness of the data to the 'true' value.

Table J3: Data Quality Indicators

Data Quality Indicator	Method(s) of Achievement
Completeness	Systematic and selected target locations sampled, as outlined in the SAQP.
	Preparation of logs, sample location plan and chain of custody records.
	Preparation of field groundwater and soil vapour sampling sheets.
	Laboratory sample receipt information received confirming receipt of samples intact and appropriateness of the chain of custody.
	Samples analysed for contaminants of potential concern (COPC) identified in the Conceptual Site Model (CSM).
	Completion of chain of custody (COC) documentation.
	NATA accredited laboratory results certificates provided by the laboratory.
	Satisfactory frequency and results for field and laboratory quality control (QC) samples as discussed in Section 1.
Comparability	Using appropriate techniques for sample recovery, storage and transportation, which were the same for the duration of the project.
	Experienced sampler(s) used.
	Use of NATA registered laboratories, with test methods the same or similar between laboratories.
	Satisfactory results for field and laboratory QC samples.
Representativeness	Target media sampled at test locations, in accordance with the SAQP.
	Sample numbers recovered and analysed are considered to be representative of the target media in the accessible locations sampled and complying with DQOs.
	Samples were extracted and analysed within holding times.
	Samples were analysed in accordance with the COC.
Precision	Field staff followed standard operating procedures.
	Acceptable RPD generally between original samples and replicates.
	Satisfactory results for all other field and laboratory QC samples.
Accuracy	Field staff followed standard operating procedures.
	Satisfactory results for all field and laboratory QC samples.

Based on the above, it is considered that the DQIs have been generally complied with.

J3.0 Conclusion

Based on the results of the field QA and field and laboratory QC, and evaluation against the DQIs it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.

J4.0 References

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

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Table QA1: Relative Percentage Difference Results – Inter and Intra-laboratory Replicates

			Metals								TRH						BTEX							PAH					Phenol
			Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C10	TRH >C10-C16	F1 ((C6-C10)-BTEX)	F2 (>C10-C16 less Naphthalene)	F3 (>C16-C34)	F4 (>C34-C40)	Benzene	Benzene	Toluene	Toluene	Ethylbenzene	Ethylbenzene	Total Xylenes	Naphthalene [b]	Benzo(a)pyrene (BaP)	Benzo(a)pyrene TEQ	Total PAHs	Phenol
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	%	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Inter-laboratory Samples																												
BD2/20220817	0 m	17 Aug 2022	8	<0.4	13	21	20	<0.1	13	41	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC41TP15	0 - 0.1 m	17 Aug 2022	9	<0.4	12	17	20	<0.1	11	31	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	1	0	1	4	0	0	2	10	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	12%	0%	8%	21%	0%	0%	17%	28%	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%
BD5/20220902	0 m	02 Sep 2022	10	<0.4	9	27	22	<0.1	13	46	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC41TP19	0 - 0.1 m	02 Sep 2022	8	<0.4	8	22	19	<0.1	10	37	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	2	0	1	5	3	0	3	9	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	22%	0%	12%	20%	15%	0%	26%	22%	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%
BD1/20220812	0 m	12 Aug 2022	11	<0.4	22	35	19	<0.1	15	65	<20	<50	<20	<50	<100	<100	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.5	<0.5	<0.5	NT	NT
AEC42TP01	0.3 - 0.4 m	12 Aug 2022	7	<0.4	13	30	17	<0.1	10	38	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	4	0	9	5	2	0	5	27	5	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	-	-
		RPD	**44%**	0%	**51%**	15%	11%	0%	**40%**	**52%**	22%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	-	-
BD2/20220812	0 m	12 Aug 2022	15	<0.4	17	39	22	<0.1	22	60	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC42TP04	0 - 0.1 m	12 Aug 2022	13	<0.4	16	38	21	<0.1	20	56	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	2	0	1	1	1	0	2	4	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	14%	0%	6%	3%	5%	0%	10%	7%	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%
BD2/20220815	0 m	15 Aug 2022	15	<0.4	24	29	32	<0.1	20	62	<20	<50	<20	<50	<100	<100	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.5	<0.5	<0.5	NT	NT
AEC42TP21	0 - 0.1 m	15 Aug 2022	10	<0.4	18	23	26	<0.1	15	41	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	5	0	6	6	6	0	5	21	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	-	-
		RPD	**40%**	0%	29%	23%	21%	0%	29%	**41%**	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	-	-
BD4/20220815	0 m	15 Aug 2022	9	<0.4	16	19	20	<0.1	12	41	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC42TP29	0 - 0.1 m	15 Aug 2022	8	<0.4	15	17	19	<0.1	12	39	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	1	0	1	2	1	0	0	2	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	12%	0%	6%	11%	5%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%
BD2/20220816	0 m	16 Aug 2022	7	<0.4	15	18	17	<0.1	9	30	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC42TP37	0 - 0.1 m	16 Aug 2022	6	<0.4	14	16	16	<0.1	8	27	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	1	0	1	2	1	0	1	3	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	15%	0%	7%	12%	6%	0%	12%	11%	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%
BD1/20221124	0 - 0.1 m	24/11/2022	7	<0.4	12	20	14	<0.1	10	39	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1
AEC42TP101	0 - 0.1 m	24/11/2022	10	<0.4	17	33	18	<0.1	14	48	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<2	<1	<1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1
		Difference	3	0	5	13	4	0	4	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	**34%**	**49%**	25%	0%	**33%**	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Intra-laboratory Samples																												
BD2/20220815	0 m	8-Jul-22	15	<0.4	24	29	32	<0.1	20	62	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC42TP21	0 - 0.1 m	8-Jul-22	10	<0.4	18	23	26	<0.1	15	41	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	5	0	6	6	6	0	5	21	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	**40%**	0%	29%	22%	21%	0%	8%	**41%**	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%
BD2/20220812	0 m	12-Aug-22	11	<0.4	22	35	19	<0.1	15	65	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC42TP01	0.2-0.3	12-Aug-22	7	<0.4	13	30	17	<0.1	10	38	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	4	0	9	5	2	0	5	27	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	**44%**	0%	**51%**	15%	11%	0%	8%	**52%**	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%
BD2/20220902	0 m	2-Sep-22	28	<0.4	46	15	32	<0.1	13	51	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
AEC41TP32	0 - 0.1 m	2-Sep-22	9	<0.4	6	12	17	<0.1	12	34	<25	<50	<25	<50	<100	<100	<0.2	NT	<0.5	NT	<1	NT	<1	<0.1	<0.05	<0.5	<0.05	<5
		Difference	19	0	40	3	15	0	1	17	0	0	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
		RPD	**103%**	0%	**154%**	22%	**61%**	0%	8%	**40%**	0%	0%	0%	0%	0%	0%	0%	-	0%	-	0%	-	0%	0%	0%	0%	0%	0%

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Table QA1: Relative Percentage Difference Results – Inter and Intra-laboratory Replicates

			Complete PAH suite							TRH					Complete OCP suite										Complete OPP suite			
			Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	TRH C6 - C9	TRH C10 - C14	TRH C15 - C28	TRH C29 - C36	C10-C36 recoverable hydrocarbons	alpha-BHC	beta-BHC	Bromophos-ethyl	Chlorpyriphos-methyl	delta-BHC	Diazinon	Dimethoate	Endrin Aldehyde	Lindane	Heptachlor Epoxide	Azinphos methyl (Guthion)	Ethion	Fenitrothion	Rumel (fenchlorphos)
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Inter-laboratory Samples																												
BD2/20220817	0 m	17 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP15	0 - 0.1 m	17 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD5/20220902	0 m	02 Sep 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP19	0 - 0.1 m	02 Sep 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD1/20220812	0 m	12 Aug 2022	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<0.05	<0.05	NT	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2
AEC42TP01	0.3 - 0.4 m	12 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD2/20220812	0 m	12 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP04	0 - 0.1 m	12 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD2/20220815	0 m	15 Aug 2022	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<0.05	<0.05	NT	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2
AEC42TP21	0 - 0.1 m	15 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD4/20220815	0 m	15 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP29	0 - 0.1 m	15 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD2/20220816	0 m	16 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP37	0 - 0.1 m	16 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD1/20221124	0 - 0.1 m	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP101	0 - 0.1 m	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Intra-laboratory Samples																												
BD2/20220815	0 m	8-Jul-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP21	0 - 0.1 m	8-Jul-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD2/20220812	0 m	12-Aug-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC42TP01	0.2-0.3	12-Aug-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BD2/20220902	0 m	2-Sep-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
AEC41TP32	0 - 0.1 m	2-Sep-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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Table QA1: Relative Percentage Difference Results – Inter and Intra-laboratory Replicates

			OCP											OPP	PCB									PAH					
			DDD	DDT+DDE+DDD [c]	DDE	DDT	Aldrin & Dieldrin	Total Chlordane	Endrin	Total Endosulfan	Heptachlor	Hexachlorobenzene	Methoxychlor	Chlorpyriphos	Arochlor 1016	Total PCB	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	Aroclor 1260	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene
Sample ID	Depth	Sample Date	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Inter-laboratory Samples																													
BD2/20220817	0 m	17 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC41TP15	0 - 0.1 m	17 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD5/20220902	0 m	02 Sep 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC41TP19	0 - 0.1 m	02 Sep 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD1/20220812	0 m	12 Aug 2022	<0.05	<0.05	<0.05	<0.05	<0.05	NT	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AEC42TP01	0.3 - 0.4 m	12 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD2/20220812	0 m	12 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC42TP04	0 - 0.1 m	12 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD2/20220815	0 m	15 Aug 2022	<0.05	<0.05	<0.05	<0.05	<0.05	NT	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
AEC42TP21	0 - 0.1 m	15 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD4/20220815	0 m	15 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC42TP29	0 - 0.1 m	15 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD2/20220816	0 m	16 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC42TP37	0 - 0.1 m	16 Aug 2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD1/20221124	0 - 0.1 m	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC42TP101	0 - 0.1 m	24/11/2022	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
Intra-laboratory Samples																													
BD2/20220815	0 m	8-Jul-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC42TP21	0 - 0.1 m	8-Jul-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD2/20220812	0 m	12-Aug-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC42TP01	0.2-0.3	12-Aug-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%
BD2/20220902	0 m	2-Sep-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
AEC41TP32	0 - 0.1 m	2-Sep-22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1
		Difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
		RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	0%

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Table QA2: Trip Blank Results - Soils (mg/kg)

Sample ID	Benzene	Benzene	Toluene	Toluene	Ethylbenzene	Ethylbenzene	o-Xylene	o-Xylene	m+p-Xylene	m+p-Xylene
TB-020922	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TB-120822	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TB-150822	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TB-160822	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TS-170822*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TB-260822	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

* incorrectly labelled as TS but should be TB

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Table QA3: Trip Spike Results – Soils (% Recovery)

Sample ID	Benzene	Benzene	Toluene	Toluene	Ethylbenzene	Ethylbenzene	o-Xylene	o-Xylene	m+p-Xylene	m+p-Xylene
TS-020922	104	104	106	106	104	104	105	105	102	102
TS-120822	112	112	115	115	118	118	119	119	120	120
TS-150822	103	103	103	103	92	92	93	93	92	92
TS-160822	117	117	105	105	107	107	107	107	107	107
TS-170822	99	99	98	98	96	96	97	97	96	96
TS-260822	103	103	103	103	104	104	104	104	104	104

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Table QA4: Relative Percentage Difference Results for Groundwater

	Metals								TRH				BTEX					PAH						Phenols											OCP								
	Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	o-xylene	m+p-xylene	Naphthalene	Anthracene	Fluoranthene	Benzo(a)pyrene	Phenanthrene	Other PAH	Phenol	2,4,6-Trichlorophenol	2,4-Dinitrophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Total Tetrachlorophenols	Pentachlorophenol	2-Chlorophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	Other Phenols	Aldrin	Dieldrin	gamma-Chlordane	alpha-Chlordane	pp-DDT	Endosulfan I	Endosulfan II	Endrin
Sample ID	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AEC41BH03	<1	0.3	<1	2	<1	<0.05	38	50	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<PQL	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL	<0.01	<0.01	<0.01	<0.01	<0.006	<0.01	<0.01	<0.01
BD1/20221011	<1	0.3	<1	5	<1	<0.05	40	54	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<PQL	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL	<0.01	<0.01	<0.01	<0.01	<0.006	<0.01	<0.01	<0.01
Difference	0	0	0	3	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
RPD%	0%	0%	0%	**86%**	0%	0%	5%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AEC42BH01	1	0.1	<1	2	<1	<0.05	14	21	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<PQL	<2	<1	<20	<40	<1	-	<5	<1	<1	<1	<1	<PQL	<0.01	<0.01	<0.01	<0.01	<0.006	<0.01	<0.01	<0.01
BD3 / 20221007	1	<2	<1	<1	3	<0.1	14	18	<20	<50	<100	<100	<1	<1	<1	<2	<1	<0.01	<0.01	<0.01	<0.01	<0.01	<PQL	<3	<10	<30	<30	-	<30	<10	<3	<3	<3	<3	<PQL	<0.2	<0.2	<2		<0.2	<0.2	<0.2	<0.2
Difference	0	1.9	0	1	2	0	0	3	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
RPD%	0%	**180%**	0%	67%	**100%**	0%	0%	15%	0%	0%	**100%**	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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Table QA4: Relative Percentage Difference Results for Groundwater

| | | | | OPP | | | | | | | | | | PCB | | | VOC | | | | | | | | | |

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Table QA5: Trip Blank Results - Water (µg/L)

Sample ID	Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene
TB-111022	<1	<1	<1	<2	<1
TB-121022	<1	<1	<1	<2	<1

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Table QA6: Trip Spike Results – Water (% Recovery)

Sample ID	Benzene	Toluene	Ethylbenzene	o-Xylene	m+p-Xylene
TS-111022	96%	108%	112%	110%	112%
TS-121022	109%	107%	119%	117%	116%

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Table QA7: Rinsate Results for Water Sampling

		Metals								TRH				BTEX					PAH						Phenols											OCP											
		Arsenic	Cadmium	Total Chromium	Copper	Lead	Mercury (inorganic)	Nickel	Zinc	TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	o-xylene	m+p-xylene	Naphthalene	Anthracene	Fluoranthene	Benzo(a)pyrene	Phenanthrene	Other PAH	Phenol	2,4,6-Trichlorophenol	2,4-Dinitrophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	2-Chlorophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	Other Phenols	Aldrin	Dieldrin	gamma-Chlordane	alpha-Chlordane	pp-DDT	Endosulfan I	Endosulfan II	Endrin	Heptachlor	Methoxychlor	Other OCP
Sample ID	Sampling Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
RINS1-W111022	11/10/2022	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<PQL	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
RINS2-W121022	12/10/2022	-	-	-	-	-	-	-	-	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.2	<0.1	<0.1	<0.1	<0.1	<PQL	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.006	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01