



# Mamre Road Data Centre Campus 706-752 Mamre Rd Kemp's Creek, NSW

Plan Project Management

Remedial Action Plan

70548 | 170,775 (Revision 0)

1 December 2025





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

We pay our respect to Elders past, present and emerging and in the spirit of reconciliation we commit to working together for our shared future where every person is respected, valued and has strong sense of belonging.

Caring for Country The Journey of JBS&G  
Artist: Patrick Caruso, Eastern Arrernte



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## Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
FA/AF	Fibrous Asbestos/Asbestos Fines
AHD	Australian Height Datum
AMP	Asbestos Management Plan
ASS	Acid Sulfate Soils
AQ	Asbestos Quantification
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CLM Act	Contaminated Land Management Act
COPCs	Contaminants of Potential Concern
CSM	Conceptual Site Model
DA	Development Application
DP	Deposited Plan
DPI	Department of Primary Industry
DPIE	Department of Planning, Industry and the Environment
DQIs	Data Quality Indicators
DQOs	Data Quality Objectives
EIL/ESL	Ecological Investigation Level/Ecological Screening Level
EMP	Environmental Management Plan
EPA	Environment Protection Authority
ESA	Environmental Site Assessment
ESD	Ecologically Sustainable Development
ESL	Ecological Screening Level
ha	Hectare
HIL/HSL	Health Investigation Level/Health Screening Level
JBS&G	JBS&G Australia Pty Ltd
LEP	Local Environmental Plan
LOR	Limit of Reporting
LPI	Land and Property Information
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NSW	New South Wales
OCPs	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PARCCs	Precision, Accuracy, Representativeness, Comparability, Completeness and Sensitivity
PCBs	Polychlorinated Biphenyls

PSM	Pells Sullivan Meynink Pty Ltd
QA/QC	Quality Assurance/Quality Control
RAP	Remedial Action Plan
REMP	Remediation Environmental Management Plan
RPD	Relative Percent Difference
RRO/RRE	Resource Recovery Order/Resource Recovery Exemption
SEPP	State Environmental Planning Policy
SSDA	State Significant Development Application
sVOC	Semi Volatile Organic Compounds
TRH	Total Recoverable Hydrocarbons
UCL	Upper Confidence Limit
VOC	Volatile Organic Compounds
WHS	Work Health and Safety
WHSP	Work Health and Safety Plan

# 1. Introduction

## 1.1 Background

JBS&G Australia Pty Ltd (JBS&G) has been engaged by Plan Project Management Pty Ltd (the client) to prepare a remedial action plan (RAP) for a property located at 706-752 Mamre Road, Kemps Creek, New South Wales (NSW) (the site). The site covers an area of approximately 52 hectares (ha) and is legally identified as Lot 10 Deposited Plan (DP) 1280592. The site location and layout are shown on **Figure 1** and **Figure 2**, respectively.

The project area for the proposed development, 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), constitutes the main development site with areas across the shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the East known as 1-22 Bakers Lane, Kemps Creek (Lot 40 in DP 709347); and
- GPT Group site to the South known as 754 Mamre Road, Kemps Creek (Lot 180 in DP 1290397).

Additionally, power supply lead-in from Sydney-West Substation is proposed as part of the development, which traverses through multiple landholdings.

The site has historically been used for agricultural/pastoral purposes and contains a series of man-made surface water dams with a former residential area in the central north (**Figure 3a**).

The site has been the subject of previous environmental investigations (PSM 2010<sup>1</sup>, JBS&G 2020<sup>2</sup> and JBS&G 2025a<sup>3</sup>) which reported localised areas of fill/soil impacted with bonded (non-friable) and friable asbestos, considered to pose a potential health risk requiring remediation and/or management. Household refuse and anthropogenic waste were noted co-mingled with asbestos impacted soil and impacting the site surface (in localised portions of the site), and stained/odorous soils at one location underlying a disused petroleum drum, were considered to pose a potential aesthetic issue requiring management. The investigations also identified the potential for localised contamination to soil in proximity to some infrastructure (septic tank/man-made bore as shown on **Figure 3b**) which will require inspection/validation.

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus, as shown in **Appendix B**.

The Planning Secretary's Environmental Assessment Requirements (SEARs) have been obtained for SSD-92743706, Mamre Road Data Centre Campus. **Table 1.1** identifies the SEARs item addressed by this report.

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<sup>1</sup> Preliminary Environmental Site Assessment (PSEA) and Salinity Assessment, corner of Bakers Lane and Mamre Road, Erskine Park NSW. Pells Sullivan Meynink Pty Ltd, Doc Ref: PSM1743.R1 Rev2 dated August 2010 (PSM 2010)

<sup>2</sup> Due Diligence, 706-752 Mamre Road, Kemps Creek Document 57522-33684 (Rev1). JBS&G Australia Pty Ltd. Dated 23 October 2020. (JBS&G 2020)

<sup>3</sup> Detailed Site Investigation, 706-752 Mamre Road, Kemps Creek, 70548-170,476 (Revision A), JBS&G Australia Pty Ltd, 10 September 2025 (JBS&G 2025)

**Table 1.1 SEARs Compliance Table**

SEARs Section	Item request	Item Addressed
Contamination	<p>– a site contamination assessment in accordance with the Managing Land Contamination Planning Guidelines: SEPP55 – Remediation of Land (DUAP, 1998), including:</p> <p>characterisation of the nature and extent of any contamination on the site and surrounding area</p> <p>a Detailed Site Investigation (DSI) and a Remedial Action Plan, if the Preliminary Site Investigation indicates contamination is present and a DSI is required.</p>	This report provides a Remedial Action Plan.

Remediation/management is required to address contamination/aesthetic issues identified in previous site investigations in order for the site to be considered suitable for the proposed commercial/industrial land use.

This document presents a RAP that outlines an approach to remediation and validation works for the site, that when completed, will make and demonstrate the site as suitable for the proposed land use.

This RAP has been prepared with reference to relevant guidelines made or endorsed by the NSW Environment Protection Authority (EPA) inclusive of National Environment Protection Council (NEPC 2013<sup>4</sup>), and the planning-related requirements of Chapter 4 Remediation of Land of *State Environmental Planning Policy (Resilience and Hazards) 2021* (SEPP R&H<sup>5</sup>).

## 1.2 Objective

The objectives of this RAP are to:

- Characterise and document the known extent of environmental/aesthetic impact within the site via presentation of a conceptual site model (CSM);
- Identify the remedial strategy(ies)/framework to be adopted by an assessment of remedial options and development objectives; and
- Document the procedures and standards to be followed in order to remove the risks posed by contaminated soils and aesthetic impacts to make the site suitable for the proposed commercial/industrial land use, while ensuring the protection of human health and the surrounding environment.

## 1.3 Proposed Development

The site is proposed for development under State Significant Development Application (SSDA) as a data centre campus (**Appendix B**) comprising:

- Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure.
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

<sup>4</sup> *National Environment Protection (Assessment of Site Contamination) Measure 1999*, as amended 2013. National Environment Protection Council (NEPC 2013)

<sup>5</sup> *State Environment Planning Policy No. 55 – Remediation of Land* (SEPP 55) was repealed and the requirements incorporated into *State Environment Planning Policy (Resilience and Hazards) 2021* as of 1 March 2022.



## 2. Site Condition, History & Surrounding Environment

### 2.1 Site Identification

The location of the site and surrounds is shown in **Figure 1**. The current layout is shown in **Figure 2**. Site details are summarised in **Table 2.1** and discussed in detail in the following section.

**Table 2.1 Summary of Site Details**

<b>Site Legal Identifier (as shown on Figure 2)</b>	Lot 10 DP 1280592
<b>Site Address</b>	706-752 Mamre Road, Kemps Creek NSW
<b>Site Area</b>	Approximately 52 ha
<b>Approximate Relative Level (RL) m Australian Height Datum (AHD)</b>	86 m AHD – southeastern site extent 44 m AHD – southwestern site extent
<b>Local Government Authority</b>	Penrith City Council
<b>Site Geographic Coordinates (GDA94, MGA 56)</b>	295190 mE 6253990 mN
<b>Current Zoning</b>	IN1 General Industrial, with a portion in the west along Mamre Road zoned SP2 Infrastructure
<b>Previous Land Uses</b>	Agricultural and rural/residential and pastoral land
<b>Current Land Uses</b>	Vacant land, light agricultural (cattle grazing)
<b>Proposed Land Uses</b>	Commercial/Industrial

### 2.2 Site Condition

The site has been the subject of previous investigations (**Section 3**). The following key features, as shown on **Figure 3A** and **Figure 3B**, were reported:

- Most of the site comprised vacant agricultural/pastoral land;
- The central northern site extent (the ‘residential area’) covers approximately 1,500 m<sup>2</sup> had historically been occupied by a residential dwelling and associated structures, which had been demolished and removed around February 2025;
- An open manmade bore/sump was observed within the centre of a former concrete pad footing within a former maintenance/workshop area;
- Building and demolition material had been mostly removed from across the residential area;
- A single stockpile containing concrete/asphalt was present adjacent to the accessway fronting Bakers Lane;
- A septic tank of unknown volume was partially buried 10 m southwest of the former dwelling;
- An elongated stockpile of building demolition waste (bricks, tiles, concrete, asphalt) with a series of smaller stockpiles of fill soils (adjacent), with an estimated volume of 850 m<sup>3</sup> was observed near a large dam at the central southern area of the site;
- Four large dams and seven smaller dams were scattered around site, with a series of interconnected ephemeral drainage lines traversing the site; and
- An embankment of reworked natural materials was observed north of the residential area.

## 2.3 Surrounding Land Use

The current land uses of adjacent properties at the time of investigation are summarised below.

- The site is bound to the north by Bakers Lane, beyond which Little Smarties Early Learning Centre (childcare centre), Emmaus Catholic College and Trinity Catholic Primary School (kindergarten to Year 12) and Emmaus Retirement Village surrounded by pastoral and bushland. Two Sydney Water pipelines run west to east 0.7 km to the north, beyond which lies a large recent commercial/industrial development;
- The site is bound to the east by rural residential and pastoral land, following which runs Aldington Road;
- The site is bound to the south by former rural land currently being redeveloped for a commercial/industrial (warehousing) use, and other rural residential and pastoral land; and
- To the west<sup>6</sup> the site is bound by Mamre Road, with former rural land recently redeveloped for commercial/industrial (warehousing) landuse. The newly constructed Fire and Rescue NSW Emergency Services Academy is situated 0.9 km north-east of the site.

## 2.4 Natural Site Setting

Based on review of previous investigations (**Section 3**), the environmental setting of the site is presented in **Table 2.2**.

**Table 2.2 Summary of Environmental Characteristics**

Environmental Aspect	Characteristics
Topography	Ground levels of approximately 86 m AHD in the southeast of the site to 44 m AHD in the southwestern portion of site. The site topography was noted to undulate, with several significant steep slopes. The eastern portion of the site was generally noted to fall toward the northwest, with the remainder of the site generally falling to the west/southwest from a ridgeline present in the central portion of the site.
Geology/Soil	<p>The site is present within the following natural geological and soil landscapes:</p> <p><b>Geology:</b> The site is underlain by Wianamatta Group Ashfield Shale comprising laminate and dark grey shale, and Bringelly Shale comprising shale, carbonaceous claystone, laminite and fine to medium grained lithic sandstone.</p> <p><b>Landscape:</b> Topography was predominantly undulating terrain and has been disturbed by human activity to an approximate depth of between 10 cm to 30 cm. Slopes varied between 5-20%.</p> <p><b>Soils:</b> Eastern portion of site is situated on Blacktown soil – comprising red and brown podzols on crests, yellow podzols on lower slopes and drainage lines. The eastern portion of the site is situated on Luddenham soil – comprising shallow dark podzolic soils on crests, moderately deep red podzolic soils on upper slopes, yellow podzolic and prairie soils on lower slopes and drainage lines.</p> <p><b>Limitations:</b> Blacktown – moderately reactive highly plastic subsoil, localised seasonal waterlogging and water erosion hazard, localised surface movement potential. Luddenham – water erosion hazard, localised steep slopes, localised mass movement hazard, localised surface movement potential, moderately reactive, localised impermeable highly plastic subsoil.</p> <p>Previous assessment activities as discussed in <b>Section 3</b> have identified a range of fill depths at isolated locations across the site. Fill materials have been found to be heterogeneous generally comprising a combination of gravelly clay and silty/sandy clay.</p>

<sup>6</sup> It is noted that at the time of this report revision land to the west had been developed for commercial / industrial uses.

	<p>Generally, fill comprised a combination of reworked natural material (clay) with fill in isolated locations noted to contain anthropogenic inclusions including scrap metal, asphalt plastic conduits and building waste.</p> <p>Natural soils have been encountered across the site. Natural soils were noted to generally comprise firm red, brown and yellow silty clay. Some locations typically near surface water/drainage channels reported residual clays with trace fine sand and small gravels.</p>
Acid Sulfate Soils (ASS)	<p>The location and elevation of the site (&gt; 60 m AHD) are such that the likelihood of ASS within the study area is very low.</p> <p>With consideration to the site setting and geological and soil characteristics of the site, management of development activities is not required to address the potential for impact on ASS.</p>
Hydrology	<p>South Creek, a tributary of Hawkesbury River, is located approximately 1 km west of the site. South Creek traverses northwest before discharging into the Hawkesbury River located approximately 26 km to the north of the site.</p> <p>A series of surface water farm dams are distributed across the site and interconnected via a series of ephemeral drainage lines.</p> <p>The site is predominately surfaced with grass cover, as such, it is anticipated surface water generated during periods of rainfall is likely to infiltrate the ground surface at a rate reflective of the silty clay soil permeability. In periods of heavy or prolonged rainfall, excess water is likely to result in overland flow and either be captured by site dams or re-directed either towards South Creek (western portion of the site), or northwest (eastern portion of the site), following the topographic gradient.</p>
Hydrogeology	<p>Most of the site is underlain by Bringelly Shale, as such there is a potential for perched water at the fill/natural and soil/rock interface.</p> <p>Groundwater has been reported at the following depth in previous investigations: Three existing wells were noted to be installed to a depth of between 2.5 m and 8.9 m bgs. It was noted that these wells were positioned atop a ridgeline with a topographical high point of 72 m AHD. PSM (2010) reported groundwater encountered at one location during soil investigation at a depth of 6.8 m bgs and noted it to be saline in nature.</p> <p>Based on the reported geology, topography and site observations, there is potential for perched (saline) groundwater to be present within localised (shallow) filled areas and generally within the soils in the lower landscape above shale bedrock. Saline groundwater is also anticipated at relatively shallow depths in the lower landscape portions of the site, hosted by fracturing / jointing of the Wianamatta Group shales, albeit limited in extent. Given the site is underlain by low permeability clays and shales, the potential for groundwater movement is likely to be low. Regional groundwater is expected to flow west-northwest towards South Creek.</p> <p>Groundwater is considered not to be a potable resource due to its salinity.</p>
Salinity	<p>The site was noted to lie within an area of moderate to high salinity potential. Saline affected soils may have implications in the design/construction of future buildings.</p> <p>Saline affected soils are likely to be present in low lying areas, in proximity to fluvial deposits from South Creek. It was noted previous investigations did not identify salt scarring or evidence of saline soils at the site.</p>
Meteorology	<p>Average climatic data obtained indicated the sites meteorological setting is characterised by average minimum temperatures which vary from 4.1°C in July to 17.3°C in February; average maximum temperatures which vary from 17.5°C in July to 30.3°C in January; average annual rainfall of approximately 658 mm with rainfall greater than 1 mm occurring on an average of 67 days per year; monthly rainfall varies from 24.8 mm in July to 108 mm in February.</p>

## 2.5 Summary Site History

A review of aerial photos, land title records, heritage records and records held by government agencies was reported by previous investigations (**Section 3**). The review identified that the site comprises land which has primarily been undeveloped and used for pastoral/light agricultural and rural residential purposes since at least 1913.

Surface water dams have been established across the site. Review of aerial imagery indicates that some structures in the northwest portion of the residential area were demolished between the years of 1991 and 2005, concurrent to the establishment of an elongated stockpile of material in the southern central portion of the site.

A search of the NSW EPA database for the site and immediate surroundings identified that for the site there were:

- No prevention, clean up or prohibition notices;
- No transfer, variation, suspension, surrender or revocation of an environmental protection licence; and
- No notices issued under section 58 of the *Contaminated Land Management Act 1997* (CLM Act).

### 3. Previous Investigations

A number of assessment reports, prepared by others and JBS&G have been made available for review by JBS&G. The following sections provide a summary of the information and site characterisation data presented within key assessment reports. These reports include both historical and information relating to investigations conducted at that time.

Summary tables of soil analytical data for site investigations are provided in **Appendix A**. Historical field logs are provided in **Appendix C**. Site features are shown on **Figures 3A** and **3B** and historical sample locations are shown on **Figures 4** and **5**, concentrations exceeding adopted criteria shown on **Figure 5**.

#### 3.1 Combined Preliminary Environmental Site Assessment and Salinity Assessment (PSM 2010)

Pells Sullivan Meynink (PSM 2010<sup>7</sup>) were engaged to undertake a salinity assessment and a Preliminary Environmental Site Assessment (ESA) at the site to assist with the feasibility of subdividing and redeveloping the site into a series of industrial allotments.

The salinity assessment undertaken by PSM included a site walk over survey and review of historic aerial photographs and included the advancement of 20 test pit locations, three boreholes and installation of piezometers. A program of soil and groundwater sampling and analysis was undertaken to target potential salinity concerns. The investigation reported the following:

- The site is underlain by residual stiff to very stiff clays which overlie weathered shales;
- Site soils were generally classifiable as non-saline, with saline soils at depth. No special consideration to saline soils at the site was considered warranted under the proposed development;
- Soils above the groundwater are non-aggressive, soils below the groundwater are non-aggressive to mild; and
- Groundwater was encountered at one borehole (BH3) at a depth of 6.8 m bgs. Groundwater at the site is saline in nature.

As part of the investigation, PSM engaged Urban Environmental Services Pty Ltd (UES) to undertake a Preliminary ESA for the site (UES 2010<sup>8</sup>). The investigation included a site inspection, review of the site environmental setting, including geology, hydrology, hydrogeology, review of site history including historic land title records and aerial photographs and a review of readily available reports/records including records held by the EPA under the CLM Act. It is noted no detailed description of site conditions was presented by UES at the time of reporting, other than noting the site comprised rural land.

Based on the findings of the investigation, UES(2010) concluded that the site had a history of farming and pastoral use, did not have a history of potentially contaminating activities, and no further contamination investigation was considered warranted.

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<sup>7</sup> Preliminary Environmental Site Assessment (PSEA) and Salinity Assessment, corner of Bakers Lane and Mamre Road, Erskine Park NSW. Pells Sullivan Meynink Pty Ltd, Doc Ref: PSM1743.R1 Rev2 dated August 2010 (PSM 2010)

<sup>8</sup> Phase 1 Environmental Site Assessment, Lot 1 DP 104958, Bakers Lane Erskine Park, NSW. Urban Environmental Services Pty Ltd, Doc Ref: UES 033:R01 dated 24 June 2010 (UES 2010)

JBS&G consider agriculture and farming (even light use) to be potentially contaminating land use activities which may require further investigation, consistent with SEPP R&H Planning Guidelines (DUAP 1998<sup>9</sup>).

### 3.2 Due Diligence, 706-752 Mamre Road, Kemps Creek (JBS&G 2020)

JBS&G completed a due diligence contamination assessment report at the site. The investigations included a review of available site history and background information and a review of the sites environmental setting.

The investigation included a detailed site inspection and development of a preliminary CSM which identified potential AECs including:

- Existing and former site structures;
- Former machinery/maintenance areas;
- Building and demolition materials;
- General anthropogenic waste;
- Site sewerage infrastructure (septic tank);
- Reworked natural filling; and
- Ephemeral drainage lines.

The detailed site investigation identified suspected ACM fragments surrounding the residential structures and maintenance area. A manmade bore within the maintenance area was identified to contain a hydrocarbon sheen. The CSM identified a low to moderate potential for migration of contamination from the site, noting ephemeral drainage lines discharge from the site. It was anticipated that should contamination exist, the vertical migration of contamination would be greatly reduced by the sites underlying, impermeable silty clays.

The following key findings were presented by JBS&G (2020):

- Most of the site area comprises land which has historically been undeveloped and/or utilised for agricultural purposes including grazing;
- The site is proposed to be acquired and redeveloped for commercial / industrial land use;
- No EPA notices pertaining to the site were identified;
- No notified and/or protected historical buildings were identified at the site;
- Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), planning instrument prevails over SEPP R&H, meaning any future remediation works will require development consent;
- Fragments of suspected ACM were identified around the derelict residential dwelling and demolished sheds, the inferred extent occupies an area of approximately 1,150 m<sup>2</sup> by 0.2 m depth (230 m<sup>3</sup>);
- Hydrocarbon sheen was observed on water in an open bore situated in the middle of a concrete pad of a former work area. The bore may have been used for disposal of liquid wastes and suggest the potential for groundwater to be impacted, to a localised extent, from historical use.

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<sup>9</sup> Managing Land Contamination Planning Guidelines SEPP 55 – Remediation of Land, Department of Urban Affairs and Planning, Environment Protection Authority (DUAP 1988)

- Demolition and building waste was noted at several locations in dam embankments, including suspected ACM pipes at one location;
- Fragments of bonded ACM were identified in stockpiled soil adjacent to building and demolition material in the central south of the site. As a conservative measure, it is considered all stockpiled material in this area, estimated to be 350 m<sup>3</sup>, is impacted with ACM;
- In some areas, anthropogenic materials (rubbish and agricultural materials including fencing, concrete culverts, steel) were present at quantities that may pose an aesthetic issue under a commercial/industrial land use. Identified materials were typical of the low-risk historical land uses that occurred at the site and are anticipated to be addressed through normal waste management practices;
- A septic tank of unknown volume was identified to the south of the derelict residential dwelling;
- Most dam embankments comprised reworked natural (silty clay) to heights of up to 3.8 m and were not identified to pose a likely contamination risk at the site; and
- Ephemeral drainage lines are present across the site linking dams and capturing rainwater from the slopes. Due to the potential for historical farming operations across the site there is potential for accumulation of contaminants in drainage lines and dams over time.

JBS&G (2020) noted that additional site characterisation activities may be required by the relevant Planning Authority prior to submission of a Development Application (DA) for the site. A DSI including targeted soil, sediment and groundwater sampling as well as a Remedial Action Plan (RAP) may also be required to be submitted with the DA.

A hazardous materials survey and report will be required for the demolition of the residence and site structures and a salinity assessment may be required.

### 3.3 Detailed Site Investigation, 706-752 Mamre Road, Kemps Creek (JBS&G 2025)

JBS&G completed a DSI at the site to characterise the potential for contamination at the site, targeting identified AECs and providing broad site coverage to demonstrate the suitability of the site for the proposed commercial/industrial land use or provide recommendations that would enable the site to be considered suitable.

The investigations included a review of previous investigations and development of a robust CSM for the site to identify potential sources of contamination (AECs) and contaminants of potential concern (COPCs). The investigation including the advancement of 163 soil sampling locations, collection of four sediment samples and five surface water samples and submission of selected samples for laboratory analysis for selected COPC. Additional sampling was undertaken at 41 soil sampling locations and 5 surface water locations for per- and polyfluoroalkyl substances (PFAS). Three existing groundwater monitoring wells were identified at the site and dipped using an interface probe to gauge standing water levels.

The results of the investigation indicated that, with the exception of isolated asbestos impacts (discussed below), COPC concentrations were below the adopted human health criteria in soil sampling locations. The zinc concentration exceeding the adopted ecological criteria at one location was considered not to pose an unacceptable risk under the proposed commercial/industrial land uses.

Asbestos impacts to soil (bonded asbestos containing material (ACM) and asbestos fines/fibrous asbestos (AF/FA)) were identified within the residential area (central north) and stockpiled material in the central south. Bonded ACM was identified at 13 sample locations in concentrations exceeding the criterion of 'no visible' ACM in surface soils (0-0.1 m). One sample (RZ10- 0-0.05) contained 0.668%

w/w AF/FA, exceeding the human health criterion (0.001 % w/w). Asbestos impacts at the site are considered to pose a potential unacceptable health risk and require remediation and/or management.

Building materials (brick/concrete) were identified at the site surface surrounding up-gradient retention pond embankments (utilised for stabilisation/erosion mitigation). A single ACM conduit was identified co-mingled with brick/concrete at one retention pond location. Noting the consistent composition of materials surrounding the retention ponds, JBS&G consider the potential exists for further ACM inclusions in other areas (noted to contain similar wastes) which will require remediation and/or management. It is noted brick/concrete are generally considered not to represent an unacceptable aesthetic issue under a commercial/industrial land use scenario (pursuant to NEPC 2013).

Anthropogenic wastes considered to pose a potential aesthetic issue were identified to be co-mingled with asbestos impacted materials. Materials considered to pose a potential aesthetic issue may require remediation and/or management.

One sample location advanced underlying a petroleum style drum within the residential area (~200 litre capacity) reported TRH and hydrocarbon impact (staining) exceeding the adopted Management Limits and Ecological Screening Levels (ESLs). The impact was observed to approximately 1 m depth and is anticipated to be generally limited in extent. Hydrocarbon impacts were considered to pose an aesthetic issue which will require remediation and/or management.

A septic tank of unknown volume was identified to the south of the derelict residential dwelling, which, along with soils underlying the manmade bore, required additional investigation to assess for the potential for contamination. It was anticipated that if contamination exists underlying/surrounding infrastructure/manmade bore, it will likely be limited in extent.

Based on the results of the investigation, JBS&G (2025) concluded the site can be made suitable for the proposed commercial/industrial land use subject to preparation of a RAP to ensure the site is suitable for the proposed commercial/industrial land use.

## 4. Conceptual Site Model

A conceptual site model has been presented following as:

- The extent of contamination;
- Potential fate and transport of contaminants;
- Potential receptors to site contamination; and
- Potentially complete exposure pathways.

This is detailed in the following sections.

### 4.1 Extent of Contamination

Several previous assessments have been completed on the site as detailed in **Section 3**. On the basis of these investigations, the following contamination and aesthetic issues have been identified on the site. Identified and potentially contaminated media are principally associated with the historic light agricultural and rural residential land use, including the presence of hazardous building materials (asbestos/lead paint) within site structures (current/former) which have impacted shallow surface soils. In isolated areas, the weathering of bonded ACM has resulted in friable asbestos impacted surface soils (RZ10). Potential contamination was also been identified in shallow and subsurface soils adjacent to site infrastructure, including a single septic tank and maintenance bore.

Uncontrolled fill at the site was limited, with embankments of dams generally comprising natural/reworked natural soils. Building and demolition material was noted to have been applied to the upgradient banks of several dams (as surficial stabilising media), with a single bonded ACM conduit fragment identified at one location. Uncontrolled fill of unknown origin (potentially associated with demolition of some site structures) was also identified in the southern portion of the site (elongated embankment) which was impacted with bonded ACM and waste material considered to pose a potential aesthetic issue.

Additional waste materials considered to pose an aesthetic issue (household refuse, scrap metal, timber, tyres and metal drums etc.) were identified in the residential area, in addition to relatively few locations across the broader site.

Levels of soil, sediment, surface water and groundwater constituents otherwise have not been reported at a level that pose a potential risk to site receptors under the proposed commercial/industrial land use. The locations of contamination and aesthetic impacts and the location of infrastructure (septic manmade bore) are shown on **Figure 3B**.

### 4.2 Potential Fate and Transport of Contaminants

Contaminants generally migrate from a site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);
- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- The site topography, geology, hydrology and hydrogeology.

The contaminants identified as part of previous investigations are principally in a solid form (i.e. asbestos) with limited potential for contaminants in liquid form (i.e. hydrocarbons).

As the site is largely covered by vegetation (grass cover), the potential for windblown dust migration of contamination from the site is generally low, however may be moderate where exposed soils are present in areas of high traffic areas/eroding dam embankments. A moderate potential for migration of contamination exists for soluble compounds and/or those which are readily transported by surface waters via a series of interconnected ephemeral drainage lines at the site. The potential for contamination migration via surface water movement and infiltration of water and subsequent migration through the soil profile is further considered moderate given the absence of impervious pavements and the reported geology/anticipated underlying fill conditions.

Given the nature of the underlying soils/fill, migration of contamination via groundwater movement is considered to be low in areas of natural impermeable residual clays and a moderate potential migration pathway may exist in areas of fill (which demonstrate greater permeability). Though it is noted that shallow groundwater is likely to be perched, limited in extent and limited in mobility.

Should petroleum hydrocarbon impacted soils be present in proximity to or underlying a manmade bore in the residential area, there is a potential for petroleum vapours to be present (noting that sampling and analysis to date has not reported the presence of hydrocarbon contamination in proximity to the bore).

### 4.3 Potential Receptors

Potential receptors of environmental impact within the site which will need to be addressed with respect to the redevelopment of the site for the proposed use include:

- Future site users/visitors who may potentially be exposed to contaminants of concern through direct contact with impacted soils / surface waters and sediments and/or inhalation of dusts/fibres associated with impacted soils; and/or
- Excavation/construction/maintenance workers conducting activities at the site, who may potentially be exposed to contaminants of concern through direct contact with impacted soils/surface water present within excavations and/or inhalation of dusts/fibres associated with impacted soils;
- Flora species to be established on the site; and
- Downgradient ecological receptors including the freshwater South Creek.

### 4.4 Potential Exposure Pathways

Based on the COPCs identified in various media as discussed above, the exposure pathways for the site include:

- Potential inhalation of airborne asbestos fibres and/or heavy metal impacted dust particles migrating from exposed areas of soil on site (i.e. wind-blown); and/or
- Potential dermal and oral contact to impacted soils as present at shallow depths and/or accessible by future service excavations across the extent of the site; and/or
- Potential oral and dermal contact to surface waters and sediments within current/former retention ponds as accessible by future site users and/or during future excavation/redevelopment; and/or
- Potential contaminant uptake by site vegetation.

### 4.5 Preferential Pathways

For the purpose of this assessment, preferential pathways have been identified as natural and/or man-made pathways that result in the preferential migration of COPC as either liquids or gases.

Man-made preferential pathways are likely to be generally restricted to the central northwest of the site, within the residential area, generally associated with fill materials and/or established infrastructure. Fill materials are anticipated to have a high permeability. Sub-surface services are also likely to be present in this area. Preferential pathways can be created by the generally higher permeability backfill used to re-instate these trenches.

Preferential pathways also exist in the form of manmade and natural ephemeral drainage lines which interconnect a series of manmade retention ponds, which are considered to act as a vector for soluble constituents or readily suspended particulates.

## 5. Remedial Options

### 5.1 Remedial Goal

The goal for the remediation and/or management of environmental impact is to remove unacceptable contamination and aesthetic risks to human populations who will potentially use the site in the future; and to undertake remedial works in a manner that best complies with the principles of ecologically sustainable development (ESD).

### 5.2 Extent of Remediation

Remediation and/or management is required to address the following contamination/aesthetic issues:

- **AEC 1:** Friable asbestos (AF/FA) impacted fill material at location RZ100-0.05 in the residential area of the property exceeding the adopted health criteria (approximately <math>5 \text{ m}^3</math>);
- **AEC 2:** Bonded ACM impacted fill material:
  - (a) fill within the residential zone at the site surface and to a depth of 0.3 m bgs (approximately  $300 \text{ m}^3$ );
  - (b) mounded fill material in the central south (approximately  $850 \text{ m}^3$ );
- **AEC 3:** Surface building rubble applied to the upgradient embankments of several retention ponds identified to contain (or to potentially contain) bonded ACM (refer below);
- **AEC 4:** Hydrocarbon impacted/stained soils beneath a petroleum style drum at sample location TP130 0.2-0.3 (approximately  $4 \text{ m}^2 \times 1 \text{ m}$  depth) considered to pose an aesthetic issue; and
- **AEC 5:** Sub-surface/*in-situ* anthropogenic waste within the residential zone and in mounded material in the central south (co-mingled with asbestos) and identified at the site surface at isolated locations across the broader site which are considered to pose a potential aesthetic issue.

With regards to AEC 3, previous investigations identified a single bonded ACM conduit fragment co-mingled with surficial building rubble at one retention pond. Given the consistent composition in brick/concrete rubble which had been applied to the surface of other retention ponds across the site, all locations where this material is present are considered to potentially contain bonded ACM fragments and will require remediation/management.

It is noted materials considered to pose an aesthetic issue comprise those which may pose a risk of harm (scrap metal) or are unsuitable to remain on site (i.e. household waste/tyres). As per guidance in NEPC (2013), inert waste such as brick/concrete are not considered to pose an aesthetic issue and where applicable, may be retained on site subject to consideration to placement (i.e. not within landscaped areas).

In addition to the above, there is the potential for site media to be impacted surrounding/underlying a partially buried septic tank of unknown volume to the southwest of the former residential dwelling location and underlying a manmade bore/former maintenance area within the residential area.

Levels of soil, sediment, surface water and groundwater constituents otherwise have not been reported at a level that pose a potential risk to site receptors under the proposed land use.

The locations of the contamination and aesthetic impacts and infrastructure (septic, man-made bore) are shown on **Figure 3B**.

### 5.3 Assessment of Remedial Options

The approach adopted in this RAP is consistent with the preferred hierarchy of options for site clean-up and/or management provided in NEPC (2013) and (EPA 2017<sup>10</sup>), which are listed as follows:

- on-site treatment so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level;
- off-site treatment of excavated soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site;

if the above are not practicable,

- consolidation and isolation of the soil on-site by containment within a properly designed barrier; and
- removal of contaminated soil to an approved site or facility, followed where necessary, by replacement with appropriate material;

or

- where the assessment indicates remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy.

In addition, it is also a requirement that remediation should not proceed in the event that it is likely to cause a greater adverse effect than leaving the site undisturbed. And, where there are large quantities of soil with low levels of contamination, alternative strategies are required to be considered or developed (EPA 2017).

Remedial options have been assessed for the site as detailed in **Table 5.1** following. Remedial options have been considered specific to each of the site contamination issues identified as requiring to be addressed by this RAP.

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<sup>10</sup> Contaminated Land Management – Guidelines for the NSW Site Auditor Scheme (3rd Edition). NSW EPA 2017 (EPA 2017)

**Table 5.1 Assessment of Remedial Options**

Remedial Option	Applicability	Assessment
<p>1. On-site treatment so that the contaminants are either destroyed or the associated hazards are reduced to an acceptable level.</p>	<p><b>Anthropogenic Material and Material Representing an Aesthetics Issue</b>            Certain waste material generally identified as those materials which may pose a risk of harm (i.e. scrap metal/glass) or overt waste(s) such as tyres/timber and stained/odorous soil at TP130, poses an aesthetic issue that cannot be treated on-site.</p>	<p>Not a suitable option.</p>
	<p><b>AF/FA Impacted Soil</b>            No available technology to economically remove or destroy AF/FA impacted soil.</p>	<p>Not a suitable option.</p>
	<p><b>ACM</b>            Mechanic or manual picking of ACM is only permitted within surface soils where asbestos contamination is likely the result of demolition of asbestos containing structures. Tilling of soils up to 0.1 m below the site surface is permitted, noting this may be labour intensive however is more in keeping with the principals of ESD, reducing the need to dispose of the material to landfill.</p>	<p>This is a suitable option but not the preferred option for remediation of bonded asbestos impacted fill material. A contingency is provided in <b>Section 8.3</b> should this option be considered.</p>
<p>2. Off-site Treatment (so that the contaminants are either destroyed or the associated hazards are reduced to an acceptable level, after which the soil is returned to the site)</p>	<p><b>Anthropogenic Material and Material Representing an Aesthetics Issue</b>            The waste material poses an aesthetic issue which can't be removed from site, treated and returned.</p>	<p>Not a suitable option.</p>
	<p><b>AF/FA Impacted Soil</b>            No available technology to economically remove or destroy AF/FA impacted soil.</p>	<p>Not a suitable option.</p>
	<p><b>ACM</b>            This option includes increased truck movements and the potential for exposure to emissions over a wider area. It is also noted that there are licensing issues, associated costs and limited licensed off-site treatment facilities in the surrounding area</p>	<p>Not a suitable option. The resources that would be required to remediate the material and available facilities precludes consideration of this option.</p>
	<p><b>FA/AF</b></p>	<p>Not the preferred option.</p>

Remedial Option	Applicability	Assessment
<p>3. On-site in situ management of the soil by physical separation</p>	<p>Although feasible, this option is not being considered given the objective of the remediation to allow for commercial/industrial land use without the requirement for an ongoing EMP.</p>	
	<p><b>Anthropogenic Material and Material Representing an Aesthetics Issue inc. Stained Soil</b>            Anthropogenic materials (not sorted/screened) and stained soils may be relocated at depth or placed in a location(s) not readily accessible (i.e. below an engineered concrete slab associated with the built form) such that they do not represent an aesthetic issue. On this basis, following relocation, ongoing management is not required (i.e., no requirements for an EMP).</p>	<p>The preferred option for aesthetic issues.            Given the volume of material and with consideration to the principles of ESD this is the preferred option as it is technically feasible and practicable.            Should materials be unable to be retained for other reasons (i.e. geotechnical) consideration to Option 4 is appropriate.</p>
	<p><b>Bonded Asbestos</b>            Bonded asbestos impacted material may be relocated at depth or placed in a location(s) not readily accessible (i.e. below an engineered concrete slab associated with the built form) such that they do not represent a potential health risk (i.e. not exposed at the site surface).</p>	<p>A potential option but not the preferred option. Bonded asbestos has been identified to be at concentrations below the health criteria and therefore can be retained on site without the requirement for formal environmental management (EMP) (where the ACM is at a concentration below the HSL). An AMP will be required to fulfil WHS requirements.</p>
<p>4. Excavation and off-site removal of the impacted material.</p>	<p><b>FA/AF, ACM and Anthropogenic Material and Material Representing an Aesthetic Issue</b>            There are currently suitably licensed waste facilities in the Sydney Metropolitan region capable of accepting the identified contaminants within fill materials. These are generally located within proximity of the site.</p>	<p><b>FA/AF</b>            Given the small volume of material identified to be impacted with FA/AF above the health criteria, this is the preferred option. Notwithstanding, upon excavation, consideration will also be given to Option 3 noting that should asbestos contaminated soil above HSL be retained at the site, an ongoing EMP will be required.</p>
		<p><b>Bonded ACM</b>            The preferred option.</p>
		<p><b>Materials posing an aesthetic Issue</b>            This option is inferior to Option 3, but an option for materials not suitable to remain at the site (i.e. should geotechnical issues identify the material as not being suitable to be retained).</p>

## 5.4 Preferred Remedial Strategy

A number of potential remedial options have been considered in **Table 5.1**. The preferred remedial strategy for the site is:

- Excavation and off-site disposal of AF/FA impacted fill at RZ10;
- Excavation of material identified to contain bonded ACM for off-site disposal;
- Inspection and removal of ACM from surface building rubble identified adjacent to retention pond embankments across the site;
- Removal of surface and sub-surface anthropogenic material considered to pose an aesthetic issue (as defined in **Section 4.1**) and considered not suitable for on-site retention to a landfill/licensed waste facility and/or relocation and retention on site at depth/in inaccessible areas, where appropriate;
- Excavation of stained/odorous soils at TP130 and management of the material (re-location) to a designated portion of the site such that the material does not pose an aesthetic issue under the development scenario.

The inferred extent and location of the above issues requiring remediation/management are shown on **Figure 6**. Should the preferred remedial option for bonded asbestos impacted fill be by off-site disposal and/or removal of ACM fragments by physical picking, the proposed methodologies and validation requirements have been included as a contingency in **Section 8.2** and **Section 8.3**, respectively.

## 6. Remedial Plan

### 6.1 Regulatory Approvals/Licensing

An assessment has been undertaken of the regulatory approvals / licensing, and compatibility with existing legislation / guidelines of the proposed source removal.

#### 6.1.1 Contaminated Land Management Act 1997

In NSW, the management of contaminated land is shared by the NSW EPA, the NSW Department of Planning & Environment (NSW DPE) and planning consent authorities (usually local councils).

Under the *Contaminated Land Management Act (CLM Act) 1997*, the NSW EPA regulates contaminated sites where the contamination is Significant Enough to Warrant Regulation (SEWR). Contaminated sites that are not regulated by the NSW EPA are managed by local councils through land use planning processes (such as change of land use, or some remediation works).

The site has not been identified as having impact significant enough to warrant notification to the EPA under the CLM Act.

#### 6.1.2 Environment Planning and Assessment Act 1979/SEPP (Resilience and Hazards) 2021

The site is listed as a State Significant Site within Schedule 3 of the Major Projects State Environmental Planning Policy. As such development approval for the project falls under the provisions of Part 4 of the *Environment Planning and Assessment Act 1979 (EP&A Act)*.

The specific SEPP which is relevant to remediation of the site is R&H SEPP, which requires that development consent is not granted unless contamination has been considered and, if required, remediated.

JBS&G understand that the project is being assessed under Part 4 of the EP&A Act, with consideration of remediation works, and the consent authority for the remediation works is the Director General of the NSW Department of Planning Housing and Infrastructure (DPHI).

Specifically, in relation to the subject site, Chapter 4 of SEPP R&H also requires that:

- The proposed remediation works are carried out in accordance with the contaminated land planning guidelines (DUAP/EPA 1998<sup>11</sup>) and any guidelines in force under the CLM Act;
- The proposed remediation works are carried out in accordance with any development consent conditions; and
- Notice of completion is provided to the local council and the consent authority (DPHI) within 30 days of completion of the works, with the details required under clause 18 of Chapter 4 of the R&H SEPP.

As per the R&H SEPP, JBS&G do not consider there to be any triggers for the site which would categorise the remediation as Category 1. As such, the remediation is considered Category 2 and not needing consent.

#### 6.1.3 Environment Planning and Assessment Regulation 2000 – Schedule 3 Designated Development

The proposed remediation works is less than 3 aggregated ha and does not trigger specific designated development consent.

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<sup>11</sup> *Managing Land Contamination – Planning Guidelines SEPP 55 Remediation of Land*. NSW EPA Department of Urban Affairs and Planning 1998 (DUAP 1998)

#### **6.1.4 Protection of the Environment Operations Act 1997**

All potential discharges from the remediation works will require to be maintained below applicable assessment criteria/threshold guidelines during the remediation works. This would apply to potential emissions in air and water. Levels of discharges are typically assessed at a site boundary.

Site specific environmental management plans, as prepared and maintained by remedial contractor, will require to ensure appropriate controls and monitoring criteria to assess compliance with these aspects.

The proposed remediation/validation activities do not require to be licensed under the *Protection of the Environment Operation Act 1997* (POEO Act). The remedial area is less than 3 aggregated ha, does not propose handling of greater than 30,000 m<sup>3</sup> of contaminated fill and hence does not trigger licensing requirements.

#### **6.1.5 Water Management Act 2000**

Dewatering is not anticipated for remedial works.

Should groundwater dewatering be required, a dewatering licence will be obtained from WaterNSW. The approval will require to be obtained prior to the undertaking of any groundwater dewatering and treatment.

If rainwater accumulates at the site and requires removal from the site, any discharge is required to be in accordance with the POEO Act. Poned water at the site is anticipated to be discharged to the site surface to allow for infiltration to the subsurface (i.e. not discharged from the site).

If any water is required to be discharged from site to sewer as part of the remedial works scope, approval from the asset owner (Sydney Water) will be required. Sydney Water's approval conditions will require to be upheld by the Principal/Remediation Contractor and demonstration thereof included as part of the validation report.

#### **6.1.6 Protection of the Environment Operations (Waste) Regulation 2014**

The POEO (Waste) Regulation makes requirements relating to non-licensed waste activities and waste transporting. The proposed works on the site will not require to be licensed. Section 48 of the Regulation requires that wastes are stored in an environmentally safe manner. It is also stipulated that vehicles used to transport waste must be appropriately licensed and covered when loaded with impacted materials. For transport activities this regulation also details additional tracking requirements for vehicles carrying Special (asbestos) waste if material is identified to contain asbestos following waste classification activities.

Provision is provided in the Regulation and EPA (2014) guidelines for the NSW EPA to approve the immobilisation of contaminants in waste (if required with unexpected finds).

#### **6.1.7 Waste Classification Guidelines**

All wastes generated and proposed to be disposed off-site shall be assessed, classified and managed in accordance with EPA (2014). Where wastes require immobilisation prior to off-site disposal (to reduce waste classifications) an immobilisation approval shall be sought in accordance with Part 2 of the guideline. Immobilisation is not anticipated.

#### **6.1.8 Work Health and Safety Act 2011 and Work Health and Safety Regulation 2017**

All remediation works should be undertaken in accordance with requirements of the *Work Health and Safety Act 2011* (WHS Act) and *Work Health and Safety Regulation 2017* (WHS Regulation). The information and data provided in this RAP should be considered by the remedial contractor in preparation of their health and safety plans for the remedial works (refer to **Section 9.2**). This legislation also determines the requirements for any future site AMP.

### 6.1.9 Mamre Road Precinct Development Control Plan 2021

The site is subject to development controls specified in the Mamre Road DCP, which forms part of the WSEA Employment Area 2009, which have been incorporated into this RAP. Site specific development consent is required under this planning instrument for remediation of contamination.

### 6.1.10 Asbestos Removal and Management

The removal and disposal of asbestos will be managed in accordance with the WHS Act and WHS Regulation and relevant Australian standards, regulations and codes of practice.

A licensed asbestos removalist (Class A for friable asbestos works and Class B for bonded asbestos works) and SafeWork notification regarding the scope of the removal works is required. It will be the requirement of the appointed remedial contractor to obtain the appropriate approvals and prepare an asbestos management plan (AMP).

## 6.2 Site Establishment

The extent of remediation is summarised in **Section 5.2** and shown on **Figure 6**. The remedial contractor shall secure the site to ensure that all safety and environmental controls are implemented. These controls will include, but not be limited to:

- Locate and isolate all required utilities in the proximity of the works;
- Assess need for and implement of any necessary traffic controls;
- Work area security fencing;
- Site signage and contact numbers;
- Stabilised site entry gate;
- Appropriate decontamination areas for personnel and plant, if required;
- Sediment fencing (attached to security fencing); and
- Stormwater runoff and sediment controls (e.g. silt fences and hay bales).

## 6.3 Remedial Works

Areas requiring remediation are discussed in **Section 5.2** and shown on **Figure 5**. The remedial works are required to be undertaken by a remedial contractor with appropriately qualifications, licenses and experience, under the supervision of JBS&G.

### 6.3.1 AEC 1 (AF/FA Impacted Material)

The remedial works to remove AF/FA above the health criteria includes:

- AF/FA exceeding the land use criterion at location RZ10 are to be located via hand held GPS and boxed out (excavated) as per the lateral extents on **Figure 6** to a depth of 0.05-0.1 m and loaded directly onto trucks and disposed of off-site to an appropriately licensed waste facility;
- Excavations are to be validated by JBS&G as per **Section 7**. Should validation fail, the failed walls of the excavation will be excavated a further 0.5 m in the direction of the failure, and the base will be excavated a further 0.2 m and the validation process repeated until validation is achieved; and
- The lateral and vertical extents of each excavation are to be documented for material volume reconciliation.

### 6.3.2 AEC 2 and AEC 5 (bonded ACM impacted fill and anthropogenic waste)

The extent of remediation is summarised in **Section 5.2** and shown on **Figure 6**. The remedial contractor shall undertake the following to address bonded ACM and co-mingled anthropogenic material proposed to be retained at the site:

- Fill identified to contain bonded ACM (and anthropogenic material) is to be progressively excavated, during which gross waste material considered to pose an aesthetic issue will be physically removed by the remedial contractor;
- Direct load out of foreign materials that represent an aesthetics issue to an appropriately licensed waste facility;
- The excavation extent(s) will be documented by the remediation consultant and residual soil validated as per **Section 7**. Should validation fail, the failed base/wall will be excavated a further 0.2 m in the direction of the failure and the validation process repeated until validation is achieved;
- Material proposed for retention will be visually inspected by the remediation consultant to confirm the material is free from anthropogenic waste considered to pose an aesthetic issue;
- Temporary storage of ACM impacted soil (as required) will be conducted in accordance with **Table 9.1** (i.e. appropriately covered);
- The footprint(s) of all stored material (where placed on unsealed ground) are to be validated by as per **Section 7**. Should validation fail, the failed base will be excavated a further 0.2 m in the direction of the failure and the validation process repeated until validation is achieved;
- The containment area is to be determined by the civil works contractor and excavated (where required) to allow for placement of impacted materials;
- The material proposed for retention is to be surveyed for material volume reconciliation. In addition, a survey of placed material, including the lateral and vertical extent of retention (the asbestos consolidation area) will be required; and
- Materials will be tracked from source, through required remedial activities to final placement, noting remediation undertaken and validation outcome.

### 6.3.3 AEC 3 (bonded ACM in surface building rubble)

The following remedial works shall be undertaken following pump out/removal of ponded waters to allow for access to surficial building/demolition material along embankments of site dams:

- The surface building/demolition material is to be inspected by the remedial contractor by walking transects no more than 1m wide. The remedial contractor will remove any identified ACM for disposal off-site to an appropriately licenced waste facility. A minimum of two passes of picking and raking will be made with a 90° direction change between each;
- Following the initial inspection process, the remedial contractor or their appointed contractor shall turn the material (0.1 m of surface building and demolition material) and complete a second walkover of the area to confirm there is no visible ACM; and
- Each area will be validated by the remediation consultant as per **Section 7**. Should validation fail the area will be subjected to an additional walk/pick by the remedial contractor or their appointed contractor and re-validated by JBS&G until such time as validation is achieved.

Following successful validation, the building and demolition material (inert waste considered not to pose an unacceptable aesthetic issue) can be excavated for onsite reuse and/or disposal. Should

impact be identified beyond 100 mm (i.e. subsurface), the process outlined in **Section 6.3.2** may be implemented as a contingency and/or off-site disposal as per **Section 6.6**.

#### 6.3.4 AEC 4 (stained soil)

Subsurface soil in the vicinity of historical sample location TP130 0.2-0.3 are identified to be impacted with stained and odours soils which TRH concentrations exceeding adopted ESL and Management Limits (by virtue of raised laboratory LORs).

Noting the small, anticipated volume of impact (<5m<sup>3</sup>) the materials are required to be managed via excavation and separation from the balance of the site fill/natural soils. The fate of materials is required to be documented to ensure they are relocated within a portion of the site where they do not pose a risk to groundwater (i.e. not at great depth) or do not pose an aesthetic issue (i.e. below hardstand pavement) under the future development scenario.

Impacted material will be identified visually, from olfactory detection, and through the use of a PID and will be chased out under the direction/supervision of one of the remediation consultant's qualified and experienced scientists/engineers. Excavated fill materials will be temporarily stockpiled. Stockpiling shall be undertaken to restrict potential environmental emissions in accordance with the requirements of REMP as discussed in **Section 9**.

Remedial excavation validation samples will be subsequently collected by JBS&G field staff for field screening and laboratory analysis.

#### 6.3.5 AEC 5 (subsurface/surface waste material)

In addition to removal of subsurface waste material (co-mingled with ACM impacted fill), surface waste primarily identified within the residential zone and at isolated other locations across the site will require removal. Those which are unsuitable to remain on the site (i.e. scrap metal/timber/household refuse and tyres) will require offsite disposal to a facility lawfully able to accept such waste.

Where material is considered suitable to be retained, consideration to the final placement (i.e. at depth/below hardstand pavement) will be required to ensure the materials are inaccessible to future site users under the development scenario in accordance with the validation requirements outlined in **Section 7**.

Materials will be tracked from source, through required remedial activities to final placement/disposal, noting remediation undertaken and validation outcome.

#### 6.3.6 Validation of Infrastructure Removal (maintenance bore/septic tank)

Following demolition of site structures and removal of infrastructure, including the maintenance bore and septic tank within the residential area, residual soils will be inspected by the remediation consultant for the presence of potential contamination. Should potential for contamination be identified (i.e. visually, from olfactory detection, and through the use of a PID) the soil will be chased out under the direction/supervision of one the remediation consultant's qualified and experienced scientists/engineers. Excavated fill materials will be temporarily stockpiled and subject to appropriate assessment as outlined in **Section 6.6** and **Table 7.3**.

### 6.4 Asbestos Management Requirements

Based on the available characterisation information, distinct fill materials within the site are impacted with asbestos. Asbestos impacted soil necessitating management for potential asbestos exposure is defined in *How to Manage and Control Asbestos in the Workplace Code of Practice* (SWA 2020) as:

- Soil that contains visible asbestos as determined by a competent person; or

- Soil that contains asbestos fibres at quantities exceeding trace levels (considered to be the analytical detection limit in lieu of alternate guidance) as reported by analysis undertaken in accordance with AS4964:2004 *Method for the qualitative identification of asbestos in bulk samples*.

Environmental, health and safety management requirements for the handling of these materials will be documented in an AMP to be prepared by the remedial contractor and based on the requirements provided for asbestos-related works in SWA (2020). This will include preparation of an asbestos register and associated asbestos removal control/management plan as outlined in SWA (2020). Appropriate signage specific to asbestos removal works will be provided.

Where sampling and analysis of specific fill materials is completed in conjunction with inspection by an appropriately qualified person, and the results indicate the material does not fall within the “asbestos contaminated soil” definition, the requirements for management of “asbestos contaminated soils” will not be required to be implemented. For the purposes of remediation works within the site, a competent person shall be considered to be a person who holds a tertiary degree in a science or engineering discipline, has experience in contaminated site assessment and has completed a WorkSafe approved Asbestos Removal Supervisor course.

Additional requirements for asbestos remediation works will be documented within the AMP, which shall make specific reference to the requirement for:

- Decontamination procedures;
- Air monitoring;
- Exclusion zones;
- Fencing and signage; and
- Other relevant controls identified stipulated within SWA (2020).

## 6.5 Asbestos Air Monitoring

During the remedial works, perimeter air monitoring will be conducted on each of the site boundaries. Additional downwind monitoring locations will be included in the air monitoring program as required.

Air monitoring will be conducted in accordance with the requirements of the National Occupational Health and Safety Commission (NOHSC) Asbestos Code of Practice and Guidance Notes, in particular the *Guidance note for the estimation of airborne asbestos dust* [NOHSC 3002:2005].

## 6.6 Off-site Disposal

Fill materials shall be classified in accordance with EPA (2014) *Waste Classification Guidelines* or an appropriate exemption as created under the *Protection of the Environment Operations (Waste) Regulation 2014*.

Should natural soils/bedrock require off-site disposal then these shall also be classified in accordance with EPA (2014) *Waste Classification Guidelines*.

Waste certificates will be prepared for each stockpile and/or material type that is to be disposed.

The waste facility must be lawfully licensed to receive the material sent to it for disposal.

The remedial contractor must be aware of and conduct all waste disposal in accordance with all relevant regulations. All waste tracking documentation including disposal dockets must be maintained by the remedial contractor and must be provided to JBS&G/the client for inclusion in the validation report.

## 6.7 On-site Reuse

Following remediation of AECs and successful validation, fill materials are proposed to be re-used on site.

## 6.8 Materials Importation

If material is to be imported to the site (i.e. for the reinstatement of site surfaces, raise site levels) then it shall be validated as per **Section 7**.

## 6.9 Surveying

A qualified surveyor will conduct surveying of excavations, stockpiles and remedial extent such that the remedial/validation objectives can be achieved.

## 6.10 Validation

Validation of the remedial works will be conducted by the environmental/remediation consultant to demonstrate that the remediation objectives have been achieved. Details of the validation program are provided in **Section 7**.

## 6.11 Site Disestablishment

On completion of the remediation works all plant/equipment and safety/environmental controls shall be removed from the site by the appointed remedial contractor. All equipment used during remediation works will need to be appropriately decontaminated or disposed of as waste in accordance with relevant waste regulations.

## 7. Validation Plan

### 7.1 Overview

Validation data is required to be collected to verify the effectiveness of the remedial works and document the final site condition as being suitable for the proposed future use(s).

The following sections establish the data quality objectives (DQOs) to be adopted during validation of the site remediation works.

#### 7.1.1 State the Problem

The site, which has historically been used for pastoral/agricultural land uses is proposed to be redeveloped for commercial/industrial land use.

Site assessments, as summarised in **Section 3**, have identified that prior to redevelopment, remediation of contamination/aesthetic impacts are required.

During remediation activities, sufficient validation of the site activities is required to demonstrate that the identified environmental and health-based risks to future site user(s) have been remediated/managed to render the site suitable for the proposed development.

#### 7.1.2 Identify the Decision

The decisions which are required to be made for validation of the site are as follows:

- Are contaminant concentrations in remedial excavations above the adopted site remediation criteria?
- Are there any aesthetic issues remaining following remediation works?
- Are there any outstanding regulatory compliance issues?
- Is the site considered suitable for the proposed use (without ongoing contamination management controls)?

#### 7.1.3 Identify Inputs to the Decision?

The inputs to the decision are:

- Field observations in relation to inspection of all excavation bases, walls and stockpiles for odours, sheen, ACM, discolouration, and other indicators of potential contamination;
- Soil validation analysis data collected where required from remediated surfaces and from the base and walls of the remedial excavations;
- Waste classification and material characterisation data obtained during assessment of fill material prior to and during remediation works;
- Survey data for relevant stockpiles/excavation extents/containment cells etc.;
- Disposal dockets and relevant documents in relation to appropriate disposal of material to be removed from site as part of the remediation works (landfill dockets, beneficial reuse / recycling dockets, etc.);
- Relevant guideline criteria for validation and waste classification; and
- Data quality indicators (DQIs) as assessed by quality assurance/quality control (QA/QC).

### 7.1.4 Define the Study Boundaries

The site boundaries are defined in **Section 2.1** and presented on **Figures 1** and **2**. The lateral and vertical extent of remedial works is described in **Section 5.2** and presented on **Figure 6**.

Validation works will be completed within development timelines to be informed by the client, which may be completed in a staged manner.

### 7.1.5 Develop a Decision Rule

The decision rules adopted to answer the decisions identified in **Section 7.1.2** are discussed below in **Table 7.1** following.

**Table 7.1 Summary of Decision Rules**

Decision Required to be Made	Decision Rule
1. Are contaminant concentrations in remedial excavations above the adopted site remediation criteria?	<p>Soil analytical data for chemical COPCs will be compared against the adopted criteria in the RAP.</p> <p>For the validation sample sets, statistical analysis of the data will be undertaken in accordance with relevant guidance documents, as appropriate, to facilitate the decisions. The following statistical criteria will be adopted with respect to soils:</p> <p>Either: the reported concentrations will be below the site criteria;            Or, the 95% Upper Confidence Limit (UCL) of the average concentration for each analyte will be below the adopted health-based site criterion, no single analyte concentration will exceed 250% of the adopted health based site criterion, and the standard deviation of the results will be less than 50% of the site health based criterion.</p> <p>Analytical results for asbestos in soils will be directly compared to the site criteria. No statistical assessment for asbestos in soils will be undertaken.</p> <p>and</p> <p>If the statistical criteria stated above are satisfied, the answer to the decision will be No.</p> <p>If the statistical criteria are not satisfied, the answer to the decision will be Yes.</p>
2. Are there any aesthetic issues remaining following remediation works?	<p>If there are any remaining unacceptable odours, soil inclusions or soil discolouration, the answer to the decision will be Yes.</p> <p>Otherwise, the answer to the decision will be No.</p>
3. Are there any outstanding regulatory compliance issues?	<p>Qualitative assessment of the works in relation to EPA, SafeWork NSW, Council, Sydney Water etc. approvals will be undertaken during and following the completion of remediation activities. If this review identifies non-compliance or outstanding issues the answer to the decision will be Yes.</p> <p>Otherwise, the answer to the decision will be No.</p>
4. Is the site considered suitable for the proposed use (without ongoing contamination management controls)?	<p>If the answer to any of the above decisions was Yes, then the answer to the decision question is No, and additional works are required to achieve the RAP objective.</p> <p>Otherwise, the answer to the decision question is Yes.</p>

### 7.1.6 Specify Limits of Decision Error

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

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

To assess the usability of the data prior to making decisions, the data will be assessed against pre-determined DQIs as described below.

The pre-determined DQIs established for the project are discussed below in relation to precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS parameters), and are shown in **Table 7.2**.

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

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

**Table 7.2 Summary of Quality Assurance/Quality Control Program**

Data Quality Indicators	Frequency	Data Quality Criteria
<b>Precision</b>		
Split duplicates (intra laboratory)	1 / 20 samples 1/10 samples for per- and polyfluoroalkyl substances (PFAS)	<30 % RPD <sup>1</sup>
Blind duplicates (inter laboratory)	1 / 20 samples 1/10 samples for PFAS	<30 % RPD <sup>1</sup>
Laboratory Duplicates (not asbestos)	1 / 20 samples	<30 % RPD <sup>1</sup>
<b>Accuracy</b>		
Surrogate spikes (not asbestos)	All organic samples	70-130 %
Laboratory control samples (not asbestos)	1 per lab batch	70-130 %
Matrix spikes (not asbestos)	1 per lab batch	70-130 %
<b>Representativeness</b>		
Sampling appropriate for media and analytes	All samples	.2
Samples extracted and analysed within holding times	All samples	Soil: organics (14 days, other than vinyl chloride – 7 days), inorganics (6 months)
Laboratory Blanks (not asbestos)	1 per lab batch	<Limit of Reporting (LOR)
Trip spike (not asbestos and waste classification samples)	1 per lab batch (where volatile analysis is required)	70-130% recovery
Storage blank (not asbestos and waste classification samples)	1 per lab batch (where volatile analysis is required)	<LOR
Rinsate sample (not asbestos and waste classification samples)	1 per sampling event/media (where reusable equipment is employed)	<LOR
<b>Comparability</b>		
Standard operating procedures for sample collection & handling	All Samples	All Samples
Standard analytical methods used for all analyses	All Samples extracted and analysed within holding times	NATA accredited methods for all sample analysis
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples <sup>2</sup>
Limits of reporting appropriate and consistent	All Samples extracted and analysed within holding times	All samples <sup>2</sup>
<b>Completeness</b>		
Sample description and chain of custody completed and appropriate	All Samples	All samples <sup>2</sup>
Appropriate documentation	All Samples	All samples <sup>2</sup>
Satisfactory frequency and result for QC samples		95% compliance
Data from critical samples is considered valid	-	Critical samples valid

Data Quality Indicators	Frequency	Data Quality Criteria
<b>Sensitivity</b>		
Analytical methods and limits of recovery appropriate for media and adopted Site assessment criteria	All samples	LOR<= Site assessment criteria

- (1) If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.
- (2) A qualitative assessment of compliance with standard procedures and appropriate sample collection methods will be

### 7.1.7 Optimise the Design for Obtaining Data

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

The remediation validation and subsequent laboratory analysis program as outlined in the following sections will need to be implemented during site remediation activities to demonstrate the successful completion of works in compliance with the RAP goals. The validation/characterisation sampling and analytical program for the site is outlined in **Table 7.3** below.

**Table 7.3 Characterisation/Remediation Validation Program**

Item	RAP Sampling Frequency		Analytical Suite
<b>Export of Materials</b>			
Classified in accordance with EPA (2014) <i>Waste Guidelines</i>	Soils requiring classification for off-site disposal will be sampled by JBS&G with reference to relevant sampling densities outlined in materials in NEPC (2013)		Heavy metals TRH/benzene, toluene, ethylbenzene, xylene (BTEX) Polycyclic aromatic hydrocarbons (PAHs) Organochlorine Pesticides (OCPs)/ Polychlorinated Biphenyls (PCBs) Per- and polyfluoroalkyl substances (PFAS) Asbestos (presence/absence: 40 g) TCLP heavy metals and PAHs
<b>AF/FA Remedial Excavation (AEC 1)</b>			
	<b>Excavation Floors</b>	<b>Excavation Walls</b>	
AF/FA remedial excavation	Visual, and 1 per 25 m <sup>2</sup> (5 m grid) or minimum 1x sample per base	1 per 5 m lineal (from each distinct horizon/material type/1 m vertical soil profile). Minimum 1 x sample per wall. If excavation is shallow, i.e. wall height ≤ 0.2 m, then wall samples are not required.	Asbestos (NEPM protocol: 500 mL)
<b>ACM Impacted Fill Remedial Activities (AEC 2)</b>			
	<b>Excavation Floors</b>	<b>Excavation Walls</b>	
Exposed ground surface (following excavation, stockpiling (where required) of ACM impacted fill)	Visual, and 1 per 100 m <sup>2</sup> (10 m grid) or minimum 1x sample per base	1 per 10 m lineal (from each distinct horizon/material type/1 m vertical soil profile). Minimum 1 x sample per wall. If excavation is shallow, i.e. wall height ≤ 0.2 m, then wall samples are not required.	Visual Inspection by JBS&G + Asbestos (NEPM protocol: 500 mL)
<b>ACM Impacted Surface Building Rubble Remedial/Removal Activities (AEC 3)</b>			
	<b>Each Remedial Area (pond embankment)</b>		
Ground surface (following inspection/removal of ACM fragments)	Visual inspection of each area by JBS&G by walking transects to inspect building rubble for ACM		Visual Inspection by JBS&G
<b>Removal of Foreign Material from Surface Soils (AEC 5)</b>			
	<b>Excavation Floors</b>	<b>Excavation Walls</b>	
Anthropogenic material on the ground surface and within the soil profile	Remove materials that present a potential physical hazard such as sheet metal, car parts, tyres.		Visual Inspection by JBS&G (where anthropogenic material may be retained, they are to be placed in an area that is either be paved

Item	RAP Sampling Frequency		Analytical Suite
(generally co-mingled with ACM)			or covered with 0.5 m or more of environmentally suitable material. Services are required to be backfilled with environmentally suitable material)
<b>Stained/Odorousoil Remedial Excavation (AEC 5)</b>			
	<b>Excavation Floors</b>	<b>Excavation Walls</b>	
Remedial excavation following removal of stained/odorous soil at TP130	1 sample per 25 m <sup>2</sup> , with a minimum of 1 sample per excavation	5 m of excavation wall, with a minimum of 1 sample per wall	Visual inspection/field screening by JBS&G + TRH/BTEX PAH
<b>Materials Importation</b>			
Imported VENM	Minimum of 5 samples per source site/material type up to 10,000 m <sup>3</sup> then 1 sample per 1000 m <sup>3</sup> thereafter. Analysis required prior to import in addition to source site documentation to confirm consistency		TRH/BTEX PAH Heavy metals OCP/PCBs Asbestos (NEPM protocol: 500 mL)
Quarried natural materials (e.g. blue metal, sandstone, shale)	Confirmation that the material is natural quarried material prior to importation, and visual confirmation.		Source site inspection required
Recycled materials including 'quarry' products that are recycled.	Documentation showing compliance with the relevant RRO/RRE from the source facility and supplemented with sampling and analytical data at a density of 3 samples per material type/batch up to 2,000 m <sup>3</sup> then 1 sample per 500 m <sup>3</sup> thereafter Sampling/inspection at the source site required prior to importation.		TRH/BTEX PAH Heavy metals Asbestos (NEPM protocol: 500 mL)
Imported ENM	Documentation from source site to confirm material complies with requirements of the ENM order/exemption, prior to importation Confirmatory analysis required to supplement documentation.		Heavy metals PAHs TRH/BTEX Asbestos (NEPM protocol: 500 mL)
<b>Unexpected Finds</b>			
	<b>Excavation Floors</b>	<b>Excavation Walls</b>	
Unexpected Find	1 per 25 m <sup>2</sup>	1 per 5 m lineal	As appropriate, depending on the location and characteristics of the unexpected find

The nominated sampling densities and analytical program have considered sample density guidance provided in EPA made and endorsed guidelines.

## 7.2 Soil Sampling Methodology

### 7.2.1 Validation of Excavation(s)

Samples will need to be collected by an appropriately trained and experienced environmental scientist/engineer using a hand trowel or from the bucket of mechanical excavation equipment, at the required densities to meet the project DQOs.

Prior to collection of each sample, hand tools will need to be thoroughly decontaminated using phosphate free detergent and distilled water as per **Section 7.2.6**.

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indicators of contamination will need to be noted on the field documentation.

### 7.2.2 Stockpile Sampling

For stockpile sampling, material will be obtained from a minimum depth of 0.3 m below the surface of the stockpile at the time of sampling. Appropriate decontamination activities shall be followed following the collection of each sample.

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indications of contamination will be noted on the field documentation.

### 7.2.3 Sampling for Asbestos Assessment

Where assessment of the quantity of ACM in soil is required for comparison with validation criteria, consistent with NEPC (2013) guidance, bulk soil samples (minimum 10L) will be collected at each sampling location. Collected bulk sample will be sieved in the field ( $\leq 7\text{mm}$  passing) and separated fragments retained and weighed in the field, or spread out on contrasting plastic. The asbestos concentration as ACM in soil will be calculated in accordance with NEPC (2013) and based on the weight of collected fragment/s (assuming 15% asbestos content) divided by the weight of the collected 10L soil sample, providing a w/w %.

A separate 500 mL soil sample will be collected from the same location as a bulk sample, labelled and sent to the laboratory for asbestos analysis according to NEPC (2013) protocol.

Validation criteria will be adopted in accordance with NEPC (2013) for the permissible land use, noting that all visually asbestos impacted fill will be excavated and relocated (retained) on site to manage WHS considerations during development.

### 7.2.4 Sample Handling

Collected samples will be immediately transferred to sample containers of appropriate composition (glass jars for chemical analysis, plastic bags for asbestos). Sample labels recorded: job number; sample identification number; and date of sampling.

Sample containers will be transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form will be completed and forwarded with the samples to the testing laboratory.

### 7.2.5 Soil Duplicate and Triplicate Sample Preparation and QA/QC Requirements

Field duplicate and triplicate samples for the characterisation/validation assessment will be obtained during sampling using the procedures outlined at a frequency outlined in **Table 7.2**. The primary sample will be divided laterally into three samples with minimal disturbance to reduce the potential for loss of volatiles and placed in three clean glass jars and / or plastic bags. All jars will be filled completely with no headspace to reduce the potential for loss of volatiles and separately labelled as the primary, duplicate and triplicate samples before being placed in the same chilled esky for laboratory transport.

Trip spike, storage blank and rinsate samples will be collected as per **Table 7.2** where analysis for volatile compounds is required.

### 7.2.6 Soil Sampling Equipment Decontamination

The following procedure will be used to clean non-disposable equipment, including sampling trowel, pick etc., prior to the collection of each sample:

- Scrubbing with a wire brush to remove gross contamination;
- Pressure spray with PFAS free detergent and potable water mix; and
- Rinse with potable water.

Rinsate samples will be obtained during the field decontamination procedures at regular intervals during characterisation/validation sampling activities (which include reusable equipment). Each rinsate sample will be obtained by rinsing the trowel with laboratory grade demineralised water following the decontamination procedure. The water sample will be appropriately preserved and stored with the site samples prior to transport to the laboratory for chemical analysis.

### 7.2.7 Laboratory Analyses

All laboratories undertaking validation analyses will be National Association of Testing Authorities (NATA) registered for the relevant analyses.

## 7.3 Validation Criteria

Based on the proposed development details and in accordance with the decision process for assessment of urban redevelopment sites (EPA 2017), validation criteria sourced from the publications have been adopted:

- NEPC (2013) Health-based Investigation Levels (HILs) for commercial/industrial land use (HIL- D);
- NEPC (2013) Health Screening Levels (HSLs) for petroleum hydrocarbons considering potential for vapour intrusion, fine grained soil for commercial/industrial land use (HSL D) land use at 0.0-1.0 m depth;
- CRC Care (2011) HSLs: – Commercial/Industrial for direct contact/intrusive maintenance worker (HSL D);
- NEPC (2013) HSLs for asbestos in soil for commercial/industrial land use (HSL D);
- NEPC (2013) site specific ecological investigation levels (EILs) derived through the added contaminant limits for commercial/industrial land use;
- NEPC (2013) Management Limits for TRH, fine grained soils for commercial/industrial land use;
- NEPC (2013) Ecological Screening Levels (ESLs) for TRH fractions, BTEX and benzo(a)pyrene in fine grained soil for commercial/industrial land use; and
- Where there are no NSW EPA endorsed thresholds the laboratory LOR has been adopted as an initial screening value for the purposes of this validation assessment.

It is noted validation for the known asbestos impact will attempt to achieve no visible ACM and friable asbestos is required to be below NEPC (2013) criterion such that the area(s) can be validated to not constitute an asbestos impacted environment under WHS Regulations (with consideration to the development activities which will include bulk excavation and re-contouring of the site to establish required construction levels).

Reference will be made to NEPC (2013) under a commercial/industrial setting to establish what constitutes an aesthetics issue.

### 7.3.1 Application of Soil Assessment Criteria

For soils to be considered as meeting the health/ecological based assessment criteria (i.e., not posing an unacceptable risk), the following criteria will be adopted:

Either:

- All contaminant concentrations were less than the adopted site assessment criteria,

Or:

- The upper 95% confidence limit on the average concentration for each analyte (calculated for samples collected from consistent soil horizons, stratigraphy or material types) was below the adopted criterion;
- No single analyte concentration exceeded 250% of the adopted criterion; and
- The standard deviation of the results was less than 50% of the criterion.

Analytical results for asbestos in soils will be directly compared to the site criteria. No statistical assessment for asbestos in soils will be undertaken.

In addition to the numerical criteria, the following visual observations will also supplement the assessment process:

- No visible asbestos containing material within remedial excavations, in addition to laboratory analysis results.

### 7.3.2 Off-site Disposal

Where contaminated fill/soil is not suitable for on-site retention or is surplus to site requirements, materials are proposed to be remediated by off-site removal and disposal. Materials shall be classified in accordance with EPA (2014) *Waste Classification Guidelines* or an appropriate resource recovery order/exemption (RRO/RRE) as created under the POEO Waste Regulation.

Material will require to be removed to a facility lawfully able to receive it.

### 7.3.3 Imported Materials

In accordance with current EPA policy, only material that does not represent an environmental or human health risk at the receiving site may be considered for resource recovery. Imported materials will only be accepted to the site if they meet the restrictions placed on these materials, as described below:

- natural quarried products such as blue metal gravel, shale, sandstone, etc, that are not considered to meet the POEO Act definition of a waste;
- VENM as defined in as defined in EPA (2014) *Waste Classification Guidelines* and the POEO Act Schedule 1;
- Excavated Natural Material (ENM) as defined in the ENM RRO/RRE; or
- Recycled materials as per relevant RRO/RRE.

All material imported onto site are required to be accompanied by appropriate documentation that has been verified by the appointed site contamination (environmental) consultant.

Sampling of materials as per relevant RRO/RRE (ENM or recycled products) is required to be undertaken and appropriate documentation provided by the source facility/site prior to import. In addition, where materials are proposed for beneficial reuse under a relevant RRO/RRE (i.e. imported

to the site), fill material will need to be further assessed by JBS&G for land use suitability (refer to **Section 7.1.7**) including review of source site documentation and inspection and (where required) sampling at the source site prior to import.

## 7.4 Validation Report

The validation report shall be prepared by the environmental consultant written in general accordance with EPA reporting guidelines (EPA 2020<sup>12</sup>). The validation report will be submitted to the client at the completion of remedial works at the site. Where remediation works are staged, validation reporting may also be staged with a complete validation report for each stage or interim-validation report for each stage with overall complete validation report on completion of all stages.

The validation report should contain information including:

- Results of previous investigations conducted at the site;
- Details of the remediation works conducted;
- Details of validation sampling;
- Information demonstrating that the objectives of the RAP have been achieved;
- Information demonstrating compliance with appropriate regulations and guidelines;
- All material tracking data;
- Any variations to the strategy undertaken during the implementation of the remedial works; and
- Details of any environmental incidents occurring during the remedial works and the actions undertaken in response to these incidents; and
- Other information as appropriate.

It is understood the site may be signed off in a staged manner.

## 8. Contingency Plan

A review of the proposed contamination-related aspects of the works associated with development of the site has been undertaken and has identified a number of potential risks, outlined in the following sections that required the development of contingencies to ensure that the objectives of this RAP are met.

The Contingency Plan is required to be part of the Remediation Environmental Management Plan (REMP), as described in **Section 9.1**, and part of the Work Health and Safety Plan (WHSP), as described in **Section 9.2**.

### 8.1 Unexpected Finds

The possibility exists for hazards that have not been identified to date to be present within fill materials on the site. The nature of hazards which may be present, and which may be discovered at the site are generally detectable through visual or olfactory means, for example:

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<sup>12</sup> *Consultants Reporting on Contaminated Land. Contaminated Land Guideline.* NSW EPA 2020 (EPA 2020)

- The presence of significant aggregates of friable asbestos materials (visible) as opposed to minor occurrences of fibre bundles in soil; and/or
- Greater amounts of bonded ACM in surface soil or fill material; and/or
- Excessive quantities of construction/demolition waste that represents an aesthetics issue beyond that reported to date (visible); and/or
- Hydrocarbon/chemical impacted materials beyond that reported to date (visible/odorous); and/or
- Drums, waste pits (visible); and/or
- Visibly impacted soil as a result of septic infrastructure; and/or
- Oily Ash and/or oily slag contaminated soils/fill materials (visible/odorous); and/or
- Tarry like impacted soil/fill material (visible/odorous); and/or
- Potential chlorinated hydrocarbon impact (sweet odour soils).

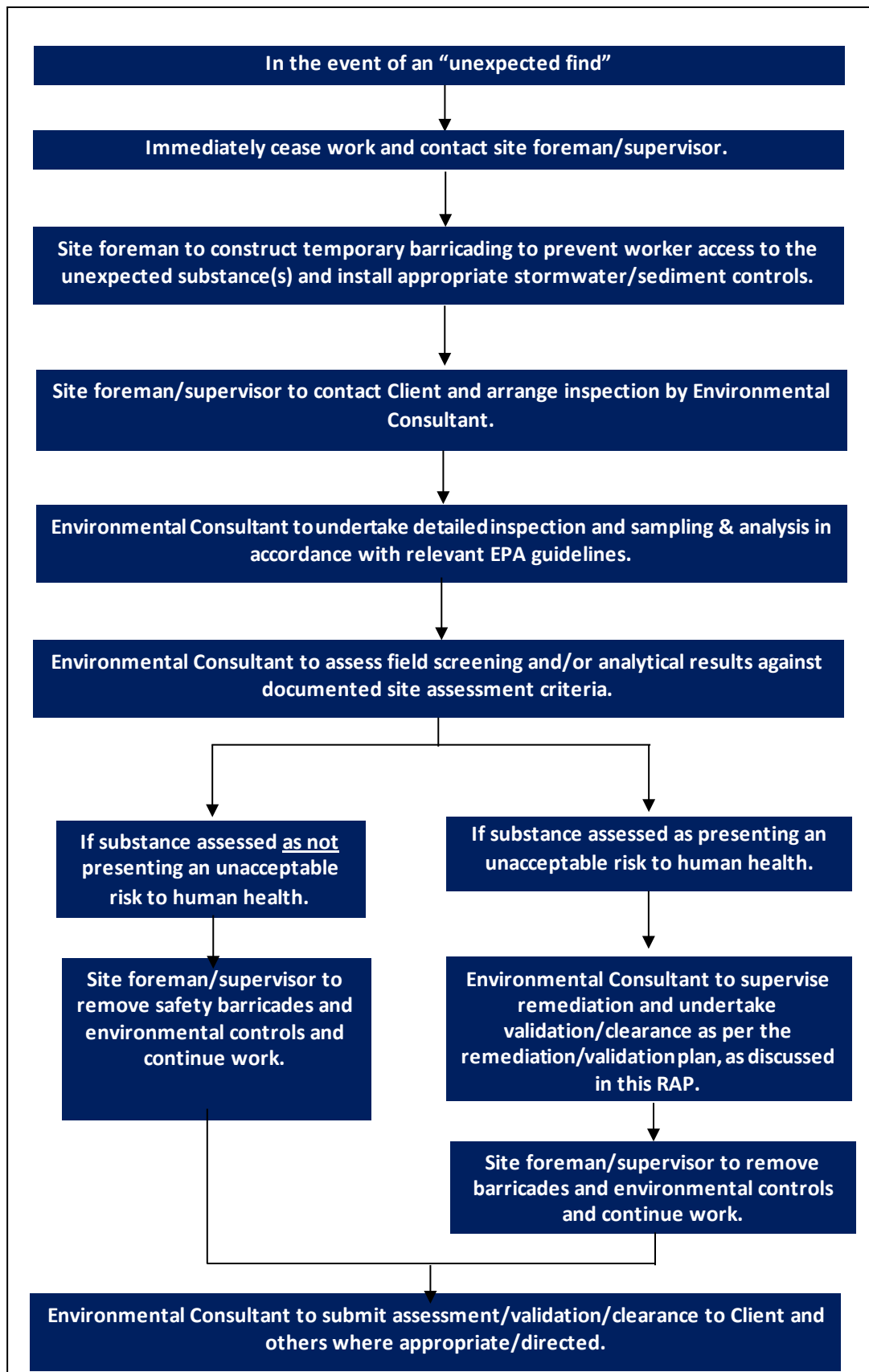
As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned substances (or any other unexpected potentially hazardous substance) be identified, the procedure summarised in **Flow Chart 8.1** is to be followed.

An enlarged version of the Unexpected Finds Protocol, suitable for use on the site, should be posted in the Site Office and referred to during the site-specific induction by the Principal Contractor.

The sampling strategy for each “unexpected find” shall be designed by the environmental consultant. The strategy will, however, be aimed at determining the nature of the substance – that is, is it hazardous and, if so, is it at concentrations which pose an unacceptable risk to human health or the environment.

The sampling frequency of the identified substance/materials shall meet the minimum requirements outlined in EPA (2022) in addition to those outlined in **Section 7**.

Figure 8.1 – Unexpected Finds Protocol



### 8.1.1 Emissions Complaints

Due to the nature of the activities and type of contaminants identified within the site, there is a low potential for complaints to be received from members of the public and/or occupants of surrounding properties relating to environmental emissions. However, complaints may be received for the following emissions:

- Noise and vibration arising from excavation, piling and other works;
- Dust emissions arising from excavation, material handling and placement; and
- Visibly impacted water quality in surface water discharge from the site.

Monitoring of all environmental emissions shall be undertaken during the works as detailed in the REMP (discussed in **Section 9**) and appropriate actions taken to further control emissions following receipt of a complaint. The REMP shall contain provision for contingency actions where excessive emissions occur, however it is anticipated that one or more of the following actions will be considered:

- Disturbance of soils during meteorologically favourable periods only; and/or
- Covering of impacted soils.

### 8.1.2 Onsite Containment of Impacted Soils (Contingency)

Where the potential for onsite containment of in-situ material is identified as practical, it is anticipated that such works would be implemented in conjunction with civil works to establish proposed development levels and installation of new site infrastructure, with final capping arrangements to be completed with either the overlying structure pavements or alternatively, the landscaping works, which will comprise the cap.

Where the strategy requires the movement of contaminated material from its current location to the proposed area of containment, the following will require to be implemented:

- The contractor will commence excavation of the material required to be relocated under the supervision of the Environmental Consultant. Environmental Consultant to complete validation inspection and sampling of the resultant excavation as required;
- Where feasible, material may be encapsulated in-situ without the need to excavate, relocate and validate the resultant excavation. The lateral extent of the impacted material must be investigated and confirmed to ensure all materials are appropriately encapsulated;
- Visual inspection will be undertaken by the Environmental Consultant to verify the suitable installation of the marker layer across required areas;
- Material to be used as a capping layer must be validated by the Environmental Consultant as environmentally suitable (see **Section 7.3.3**). Contaminant concentrations in any capping layer material must not exceed the adopted site validation criteria for soils;
- The capping layer must be placed at an appropriate thickness to be determined by the Environmental Consultant. Cover thickness may vary depending on landscaping requirements but should be a minimum of 0.3 to 0.5 m beneath grassed areas or low vegetation or 0.7 to 1.2 m for shrubs and trees depending on root depths;
- In all areas where cap and containment has been implemented, the Remedial Contractor must provide a survey of the placed marker layer and capping layer prepared by a registered surveyor that demonstrates the lateral and vertical extents of each layer; and
- At the conclusion of remediation/validation works, should contaminated material be the subject of retention onsite under permanent capping arrangements, a long-term environmental management plan (EMP) will be prepared according to the requirements

outlined *NSW EPA Guidelines for the NSW Site Auditor Scheme (3rd edition)* (NSW EPA 2017) to detail the required measures to ensure the continued suitability of the site for its proposed use.

## 8.2 On-Site Remediation of Bonded ACM Impacted Soil

Should bonded ACM impacted soil be remediated on site by physically picking / removing ACM fragments, the following methodology and subsequent validation program will require to be implemented.

The following methodology and validation criteria have been developed on the basis that the Client's objective will be to remediate the site such that it is unencumbered by any future / ongoing management obligations for asbestos, such as an AMP.

### 8.2.1 Asbestos Removal

The remedial contractor shall undertake the following to remove ACM from fill-based soils to non-detectable levels noting the following:

- Fill identified to contain bonded ACM (and anthropogenic material) is to be progressively excavated and stockpiled;
- It is understood that anthropogenic and building/demolition materials may require removal to address geotechnical specifications, and these may be required to be physically separated from fill materials prior to treatment to remove bonded ACM fragments (should they obstruct / limit the ability to remove ACM);
- The bonded impacted ACM fill materials are to be spread by the remedial contractor to form individual pad/s (per matrix) not more than 0.1 m thick, within the designated pad sorting area;
  - **Note:** The Contractor will minimise tracking over stockpiles and formed pads at avoid further degradation/attrition of existing ACM and generation of asbestos fibres.
- ACM fragments are to be collected by raking (teeth >10 cm long and not more than 7 mm spacing) and picking of the spread material by the remedial contractor or their appointed contractor. A minimum of two passes of picking and raking will be made with a 90° direction change between each;
  - **Note:** Alternative methodologies may be deployed based on a cost/benefit evaluation by the remedial contractor such as use of a Table Screen (or similar) due to inseparable anthropogenic and/or building/demolition materials which may make it difficult to sort/treat manually.
- All collected bonded (non-friable) ACM fragments and asbestos PPE will be double bagged in 200 µm asbestos waste bags and disposed of to a licensed waste facility lawfully able to accept the waste;
- Large and oversized inert materials (i.e. concrete, boulders etc) that cannot be raked/picked are to be separated, stockpiled, removed from site following confirmation of the absence of bonded ACM;
- Following the initial screening process, the Contractor shall complete a second walkover of the pads (two directions 90° of each other) to confirm that there is no visible ACM;
- Pads will be validated by JBS&G as per **Section 8.3.2** at a rate of 1 sample per 25 m<sup>3</sup>. Should validation fail the pad will be subjected to an additional rake, walk/pick by the remedial contractor or their appointed contractor and re-validated by the environmental/remediation consultant until such time as validation is achieved;

- At completion of visual validation of a prepared pad, it will be excavated and placed in a holding stockpile until such time as it has been analytically validated by environmental/remediation consultant (**Section 8.3.2**) and the process restarted with the placement of a new pad;
- The footprint of all stockpiles/pads and material underlying impacted fill (following excavation) are to be validated by JBS&G as per **Section 8.3.2**. Should validation fail, the failed base of the excavation/pad/stockpile will be excavated a further 0.2 m in the direction of the failure and the validation process repeated until validation is achieved;
- For the duration of the works, control asbestos fibre air monitoring should be conducted around the perimeter of the work area (**Section 9.2.3**);
- Following visual and analytical validation, the materials may be re-used on site (**Section 8.3**) with validation and clearance documentation to be included in the final Validation Report; and
- Materials will be tracked from source, through required treatment activities to final placement/disposal, noting remediation undertaken and validation outcome.

### 8.2.2 Validation Plan

The remedial contractor will be responsible for ensuring management and segregation of materials until such time that the material has been both visually and analytically validated by environmental/remediation consultant.

Following visual inspection and confirmation of no visible ACM, as outlined in **Section 8.3.1**, bulk soil samples (minimum 10L) will be collected at a rate no less than 1 per 25 m<sup>3</sup>. For field quantification samples a criterion of 'no visible ACM' including 0.0% w/w concentration of bonded ACM will be required to be achieved during validation inspections. Samples will be collected and submitted for 500 mL analysis in accordance with the methodology outlined in **Section 7.2.3**.

To meet the validation objectives, a validation criterion of no detectable or trace level asbestos will be adopted for samples submitted to the laboratory. Should detectable asbestos be reported by the laboratory, then the material would require off-site disposal (**Section 7.3.2**) to ensure that no ongoing management of asbestos will be required for the site (i.e., an asbestos management plan to fulfil WHS obligations).

Upon completion of remediation works, the footprint of the designated pad sorting area and any stockpiled material(s) will require validation in accordance with the frequencies outlined in **Table 7.3** for bonded ACM excavations and the methodology outlined in **Section 7.2.3**.

### 8.2.3 Reuse of Validated Materials

Following confirmation that the materials have met the validation requirements as outlined in **Section 8.3.1** and **Section 8.3.2**, the materials may be re-used on site without the requirement for any ongoing management. As outlined in **Section 8.3.1** materials will be tracked from source, through required treatment activities to final placement / disposal.

### 8.2.4 Third Party Documentation

The remedial contractor is required to provide the JBS&G with all third-party documents (disposal dockets and other relevant documents in relation to appropriate disposal of material to be removed from site, if required). The validation data collected as part of these works will be included in the final validation report to be prepared for the site following all remediation works.

## 9. Other Remediation Documents

### 9.1 Environmental Management

#### 9.1.1 Preparation of a Remediation Environmental Management Plan

Prior to commencement of remediation works, a Remediation Environmental Management Plan (REMP) shall be prepared by the remedial contractor which documents the environmental monitoring and management measures required to be implemented during the remediation and construction related activities associated with the construction of the site.

The REMP shall address each of the nominated items in **Section 9.1.2** following and shall include the Contingency Plan, referred to in **Section 8**, above. Additional environmental management requirements may be required as part of development consent.

#### 9.1.2 Required Elements/Procedures

An assessment of the proposed activities and the associated elements required to be incorporated into the REMP is provided in **Table 9.1**. The REMP is required to address each of the required elements and procedures in full detail and to include detailed monitoring processes and procedures, corrective actions and reporting requirements.

**Table 9.1 Required Elements of the REMP**

Element	Specific Minimum Requirements to be included in REMP
1. Dust and Airborne Hazard Control	Dust and asbestos air monitoring. Provisions for dust control based on monitoring results.
2. Flora and Fauna	As appropriate/in accordance with relevant ecological studies.
3. Heritage/Archaeological	In accordance with relevant heritage/archaeological studies.
4. Visual Impacts	Visual monitoring at site boundary Specific colour requirements for various controls/measures, including PPE (e.g., masks/coveralls).
5. Emergency Response	As appropriate. Procedures required for spill incident response including material storage breach.
6. Noise Control	Hours of operation, consistent with the consent conditions.
7. Traffic	Controls on vehicle movements on public roads. Controls on transport of impacted materials.
8. Protection of Adjoining Structures	As appropriate.
9. Odour Control	Management of all potential odour generating activities (i.e., excavation of petroleum hydrocarbon contaminated soils) with appropriate odour controls incorporating safeguards and monitoring. Daily monitoring of odour levels at site boundary during handling of malodorous materials. Procedures for addressing elevated odour monitoring results, including, but not limited to reduction in earthworks activities within odorous material areas during adverse meteorological conditions; application of odour masking solutions at the odour source or between identified source(s) and receptor(s).
10. Handling of Contaminated Soil and Groundwater	Soil and water management (stockpiling, site access, excavation pump out, reinstatement).

Element	Specific Minimum Requirements to be included in REMP
11. Soil Storage/Placement Areas	Soil and water management (stockpiling, site access, excavation pump out, reinstatement). Bunding. Heavy vehicle/personnel decontamination. Site drainage requirements, incorporating clean/dirty areas and modifications to existing surface water and drainage controls beneath retained pavements. Monitoring as required.
12. Sediment Control	Bunding. Collection/treatment/handling impacted sediments.
13. Operation of Site Office	As appropriate.
14. Decontamination of Heavy Equipment	As appropriate.
15. Environmental Monitoring	Monitoring of dusts, noise, odour and fibres. Monitoring as required for vibration and water releases. Inspection checklists and field forms.
16. Environmental Criteria	Criteria as presented in this RAP
17. Material Classification	As detailed in this RAP.
18. Community Relations Plan	Specific communication protocols, incorporating nomination of specific contact persons & details and requirements for communications/response register.
19. Incident Reporting	As appropriate, including standard form/checklist.
20. Security and Signage	Secure site perimeter. Site boundary signage.
21. Training	As appropriate.
22. Contact Details	Company/personnel details, including names/phone numbers for: - Principal Contractor - Remediation Consultant - Remediation Contractor - OH&S Compliance - Environmental Consultant
23. Stockpiling	No stockpiles of soil or other materials shall be placed on footpaths or nature strips unless prior Council approval has been obtained. All stockpiles of soil or other materials shall be placed away from drainage lines gutters or stormwater pits or inlets. All stockpiles of soil or other materials likely to generate dust or odours shall be covered. All stockpiles of chemically contaminated soil shall be stored in a secure area and be covered if remaining more than 24 hours. All stockpiles of asbestos contaminated soils shall be kept damp and covered to minimise potential fibre release, and if left for more than 24 hours, be stored in a secure area.

### 9.1.3 Certification

Prior to commencement of remediation works, the remedial contractor is required to have the REMP endorsed as acceptable by the environmental consultant or the client.

#### 9.1.4 Hours of Site Operation/Duration of Works

Remediation works shall be completed in accordance with the permissible hours of work and noise as nominated in of the Development Consent.

The appointed remediation contractor will be required to include a proposed schedule of remediation works within the REMP submitted for endorsement as discussed above.

## 9.2 Health and Safety

### 9.2.1 Work Health and Safety Management Plan

A WHSP shall be prepared by the remedial contractor prior to commencement of remediation works. The plan shall contain procedures and requirements that are to be implemented as a minimum during the works, in addition to the Contingency Plan, referred to in **Section 8**.

The objectives of the WHSP are:

- To apply standard procedures that minimises risks resulting from the works;
- To ensure all employees are provided with appropriate training, equipment and support to consistently perform their duties in a safe manner; and
- To have procedures to protect other site workers and the general public.

These objectives will be achieved by:

- Assignment of responsibilities;
- An evaluation of hazards;
- Establishment of personal protection standards, mandatory safety practices and procedures;
- Monitoring of potential hazards and implementation of corrective measures; and
- Provision for contingencies that may arise while operations are being conducted at the site.

### 9.2.2 Additional Site-Specific Elements/Procedures

In addition to the normal construction-related matters, the WHSP shall address the following site-specific hazards associated with the works relating to the management of contaminated soil:

- Under/aboveground services;
- Use of plant and machinery within confined spaces (i.e. pit excavations);
- Contact to asbestos contaminated soils;
- Contact with contaminated soil (TRH) other than asbestos; and
- Heat/cold stress.

### 9.2.3 Asbestos

During asbestos-related remedial works, perimeter asbestos in air monitoring will be conducted at each applicable remedial works area boundary when soil with asbestos are being disturbed. Air monitoring will be conducted on a daily basis at relevant locations whilst disturbance of asbestos contaminated areas takes place.

Air monitoring will be conducted during any ground disturbance activities associated with asbestos remedial works to verify that implementation of appropriate control measures has been successful at managing the risk of air borne fibre generation. Air monitoring will be undertaken in accordance with the requirements of the National Occupational Health and Safety Commission (NOHSC) Asbestos Code

of Practice and Guidance Notes, in particular the *Guidance note for the estimation of airborne asbestos dust* [NOHSC 3002:2005].

## 10. Conclusions and Recommendations

### 10.1 Conclusions

Overall, it is considered that the proposed actions outlined in this RAP conform to the requirements of the *Contaminated Sites Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> Edition)* (EPA 2017) because they are: technically feasible; environmentally justifiable; and consistent with relevant laws policies and guidelines endorsed by NSW EPA.

Subject to the successful implementation of the measures described in this RAP and the recommendations below, it is concluded that the site can be made suitable for the intended uses and that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment.

### 10.2 Recommendations

It is recommended that the processes outlined in this RAP be implemented and that the following documentation be developed and implemented to ensure the risks and impacts during remediation works are controlled in an appropriate manner:

- A REMP, to document the monitoring and management measures required to control the environmental impacts of the works and ensure the validation protocols are being addressed; and
- A WHSP to document the procedures to be followed to manage the risks posed to the health of the remediation workforce.

## 11. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquiries.

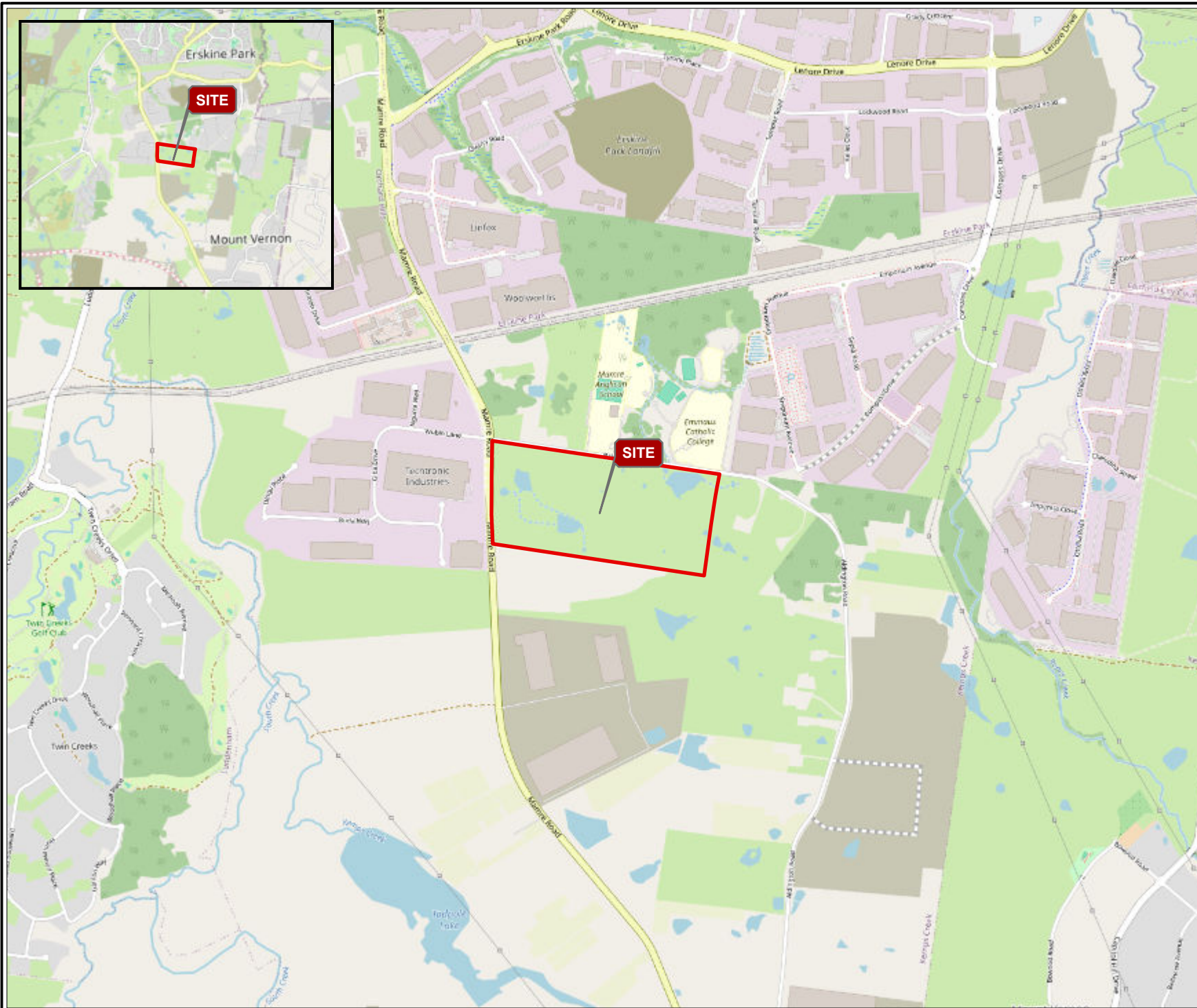
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the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


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

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

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

## Figures



Legend  
 Approximate Site Boundary



Job No: 70548

Client: Plan Project Management Pty Ltd

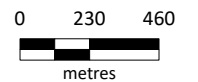
Version: R02 Rev A

Date 18/09/2025

Drawn By: JL

Checked By: JDM

Scale 1:25,000

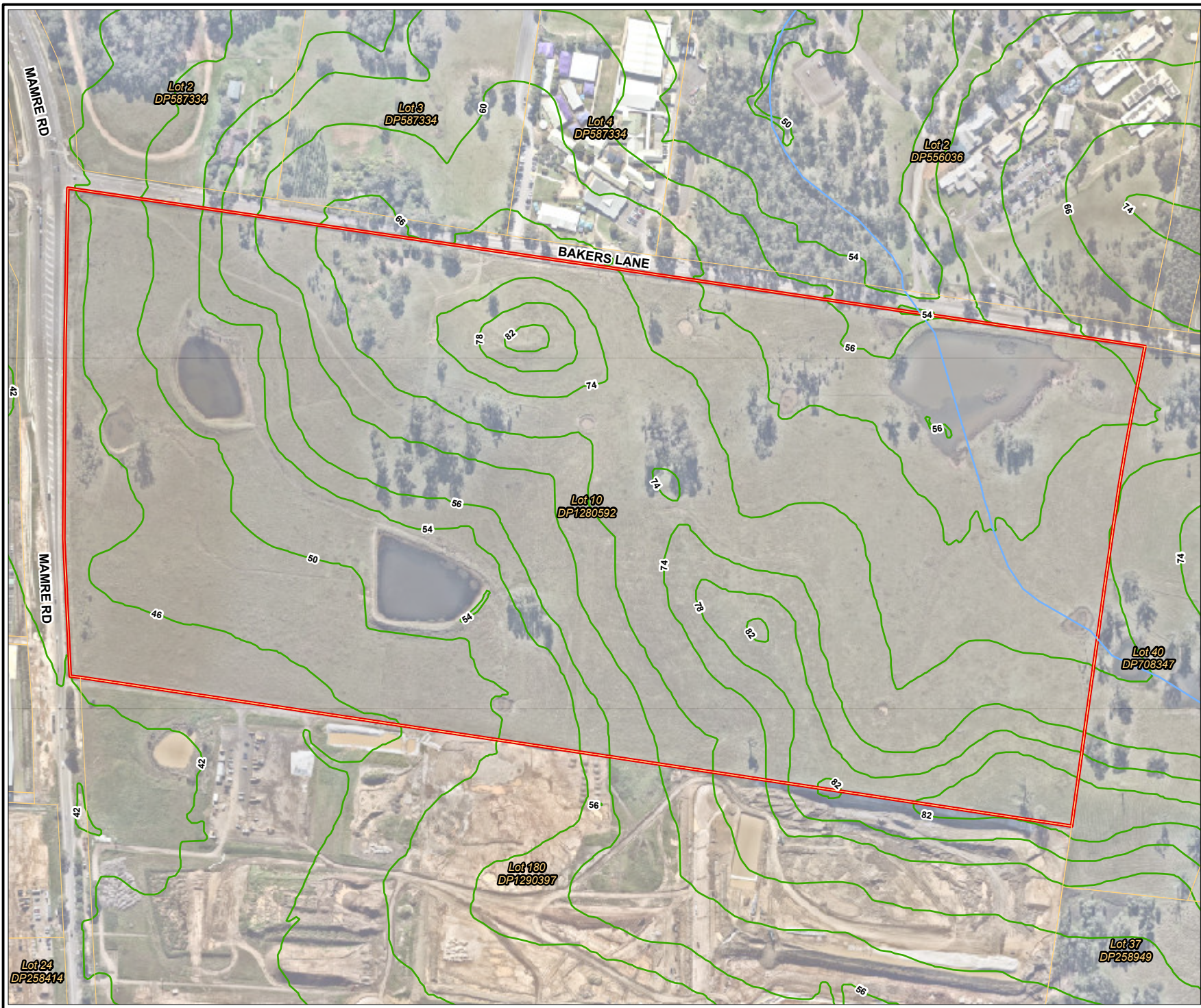






Coord. Sys. GDA2020 MGA Zone 56

**Lot 10 DP1280592,  
 706-752 Mamre Road  
 Kemps Creek, NSW**

**SITE LOCATION**


**FIGURE 1**

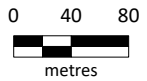


- Legend
-  Approximate Site Boundary
  -  NSW Cadastre
  - NSW Spatial Collaboration Portal
  -  10m Elevation Contours (m AHD)
  -  Hydro Line



Job No: 70548  
 Client: Plan Project Management Pty Ltd  
 Version: R02 Rev A      Date 18/09/2025  
 Drawn By: JL              Checked By: JDM

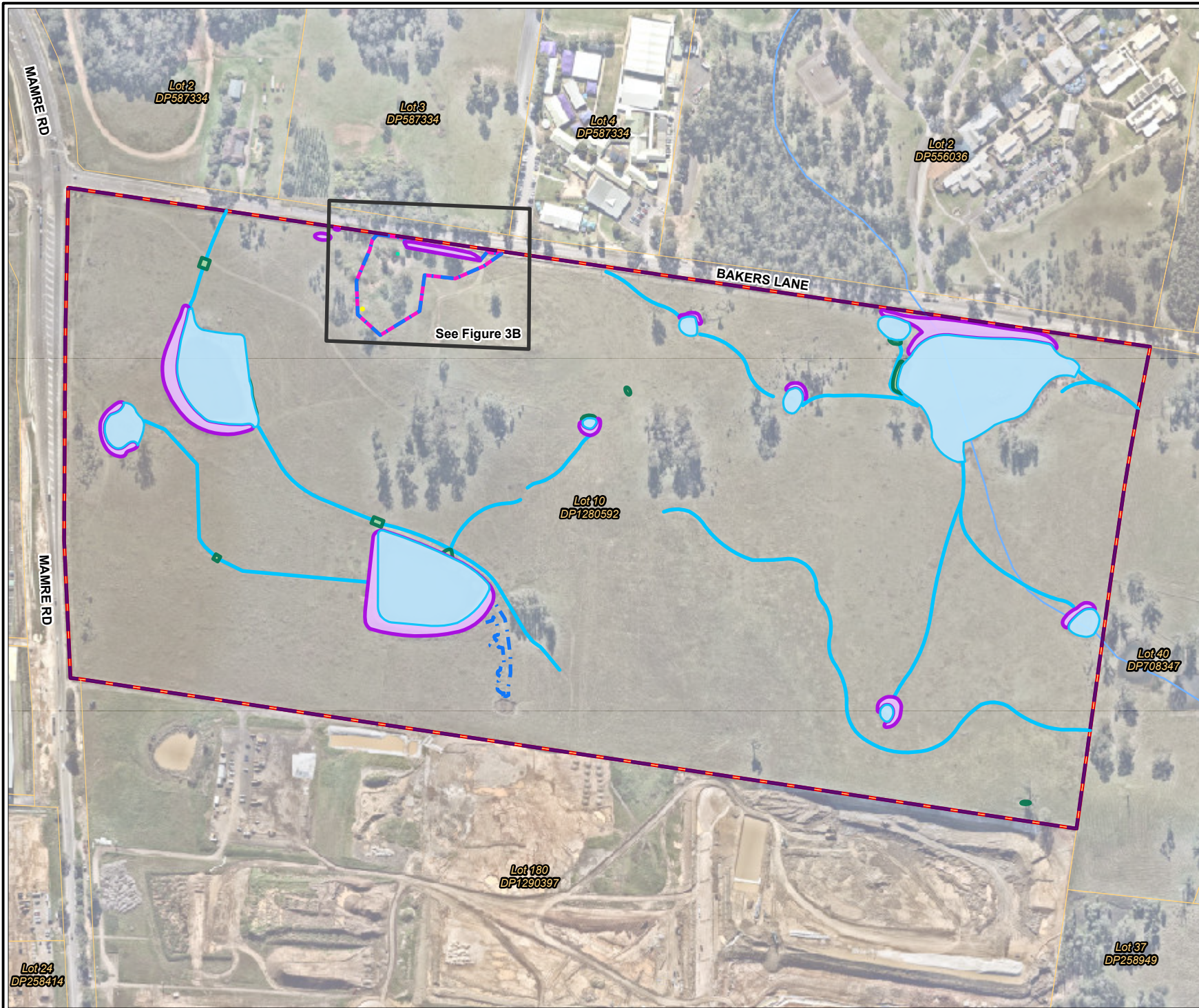
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Coord. Sys. GDA2020 MGA Zone 56  
**Lot 10 DP1280592,**  
**706-752 Mamre Road**  
**Kemps Creek, NSW**

**SITE LAYOUT**

**FIGURE 2**



- Legend
- Approximate Site Boundary
  - NSW Cadastre
  - Hydro Line
- Areas of Environmental Concern
- AEC 1: Former rural residential and agricultural area comprising existing/f
  - AEC 2: Fill of Unknown Origin
  - AEC 3: Septic Tank
  - AEC 4: General anthropogenic waste/building materials (bricks, concrete cul
  - AEC 5: Reworked natural filling (embankments)
  - AEC 6: Pastoral agricultural land (entire site)
  - AEC 7: Made surface water retention ponds and ephemeral drainage lines
  - Man Made Bore / Sump



Job No: 70548

Client: Plan Project Management Pty Ltd

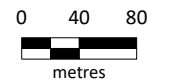
Version: R02 Rev A

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Coord. Sys. GDA2020 MGA Zone 56

**Lot 10 DP1280592,  
706-752 Mamre Road  
Kemps Creek, NSW**

**SITE FEATURES AND AREAS  
OF ENVIRONMENTAL CONCERN**

**FIGURE 3A**



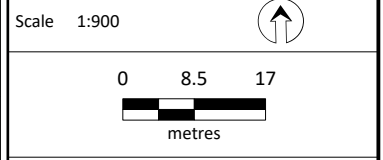
- Legend
- Approximate Site Boundary
  - NSW Cadastre
- Areas of Environmental Concern
- AEC 1: Former rural residential and agricultural area comprising existing/f
  - AEC 2: Fill of Unknown Origin
  - AEC 3: Septic Tank
  - AEC 5: Reworked natural filling (embankments)
  - AEC 6: Pastoral agricultural land (entire site)
  - Man Made Bore / Sump



Job No: 70548

Client: Plan Project Management Pty Ltd

Version: R02 Rev A	Date 18/09/2025
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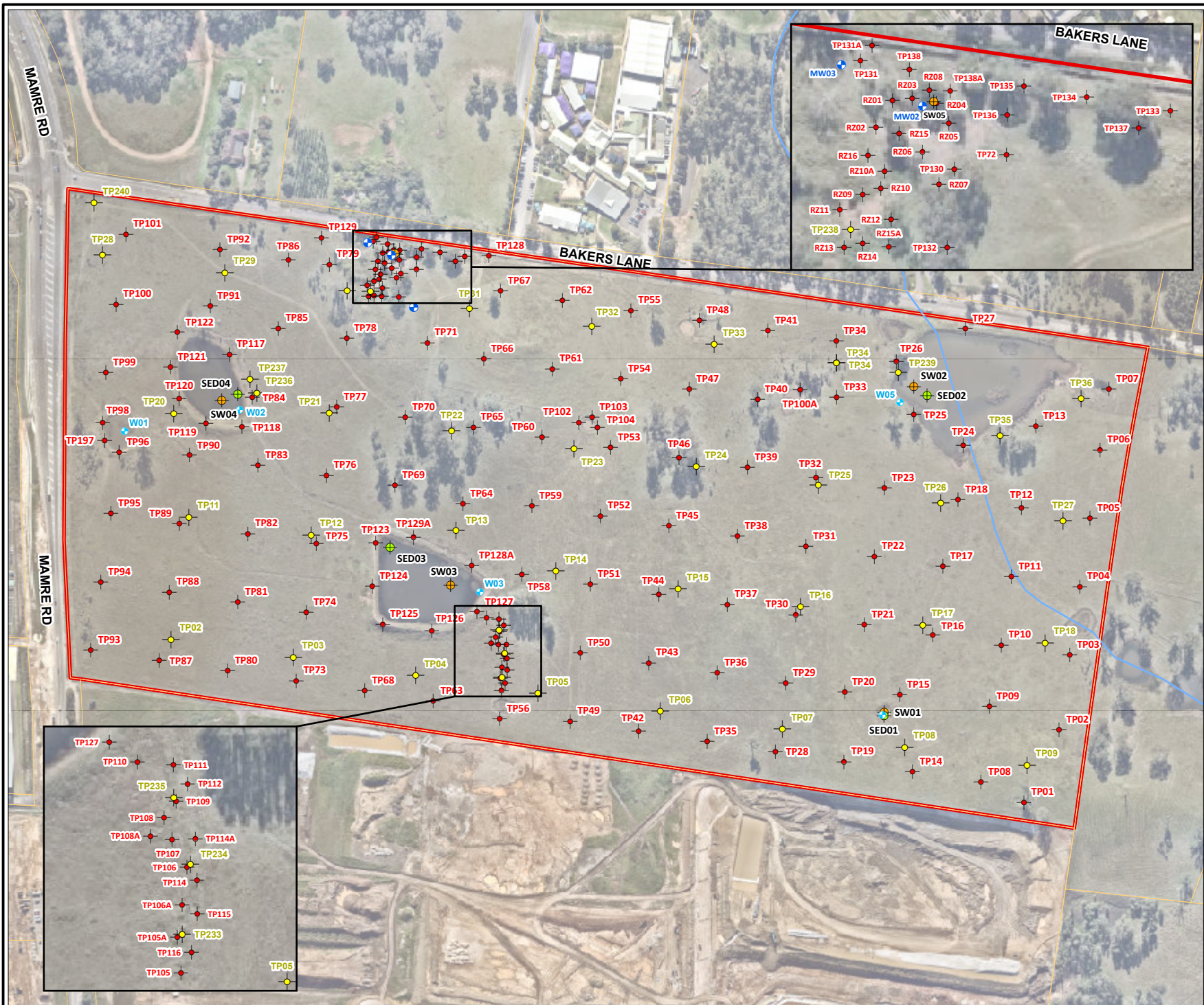


Coord. Sys. GDA2020 MGA Zone 56

**Lot 10 DP1280592,  
706-752 Mamre Road  
Kemps Creek, NSW**

**SITE FEATURES AND AREAS OF ENVIRONMENTAL CONCERN**

**FIGURE 3B**



- Legend
- ▬ Approximate Site Boundary
  - NSW Cadastre
  - Sample Locations (JBS&G 2020)
    - ⊕ Existing Groundwater Monitoring Well (JBS&G 2020)
    - ⊕ Sediment (JBS&G 2020)
    - ⊕ Surface Water (JBS&G 2020)
    - ⊕ Test Pit (JBS&G 2020)
  - Sample Locations (JBS&G 2025)
    - ⊕ Surface Water Samples (JBS&G 2025)
    - ⊕ Test Pit (JBS&G 2025)



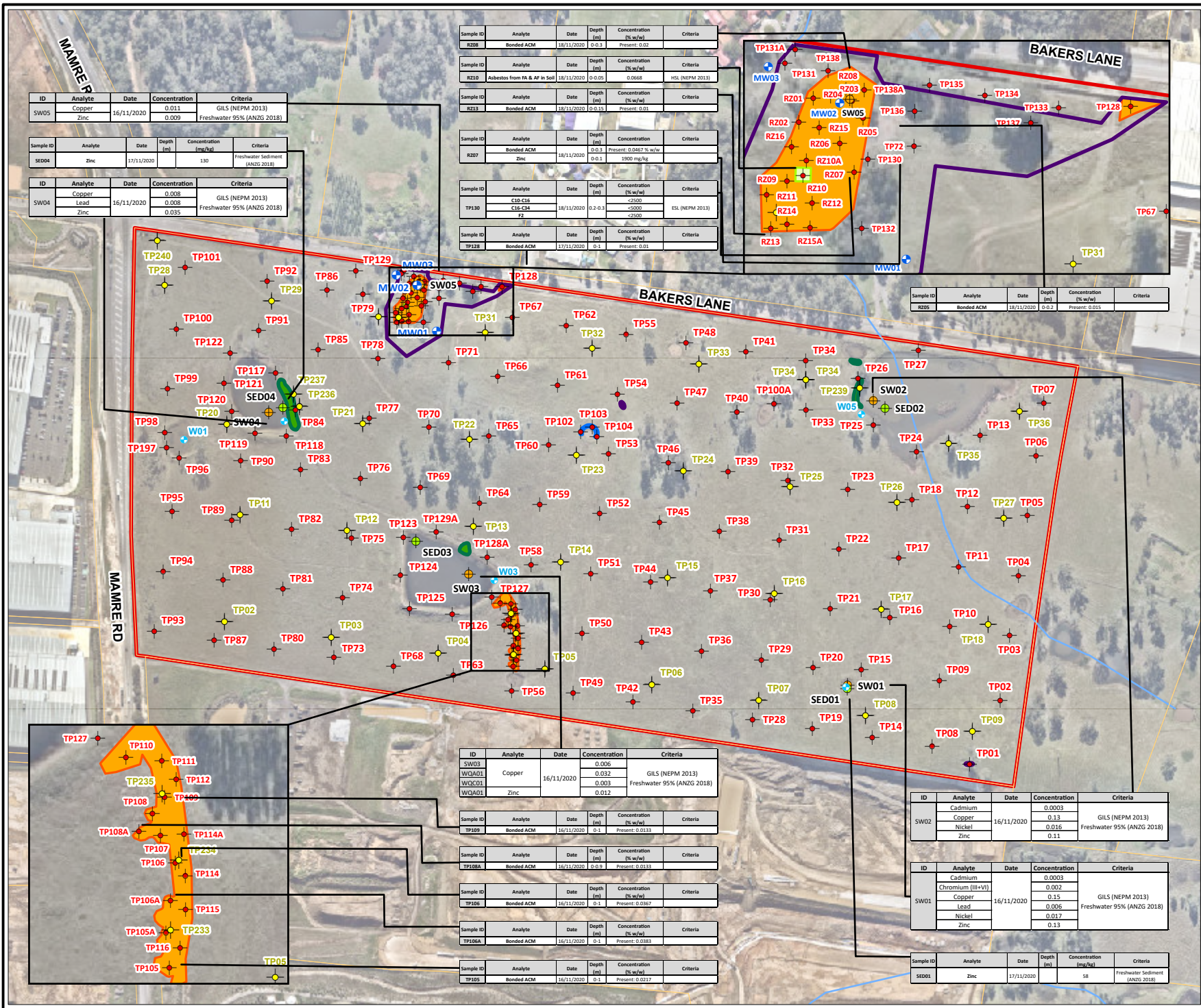
Job No: 70548	
Client: Plan Project Management Pty Ltd	
Version: R02 Rev A	Date 18/09/2025
Drawn By: JL	Checked By: JDM
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Coord. Sys. GDA2020 MGA Zone 56

**Lot 10 DP1280592,  
706-752 Mamre Road  
Kemps Creek, NSW**

**SAMPLE LOCATIONS**

**FIGURE 4**



- Legend**
- ▭ Approximate Site Boundary
  - ▭ NSW Cadastre
  - Contamination Extents**
  - ▭ Anthropogenic Waste
  - ▭ Building and Demolition Waste (concrete/brick)
  - ▭ Building and Demolition Waste with ACM
  - ▭ Friable Asbestos in Soil
  - ▭ Bonded ACM in Soil
  - Sample Locations (JBS&G 2020)**
  - ⊕ Existing Groundwater Monitoring Well
  - ⊕ Sediment
  - ⊕ Surface Water
  - ⊕ Test Pit
  - Sample Locations (JBS&G 2025)**
  - ⊕ Surface Water Samples (JBS&G 2025)
  - ⊕ Test Pit (JBS&G 2025)



Job No: 70548  
 Client: Plan Project Management Pty Ltd

Version: R02 Rev A	Date 18/09/2025
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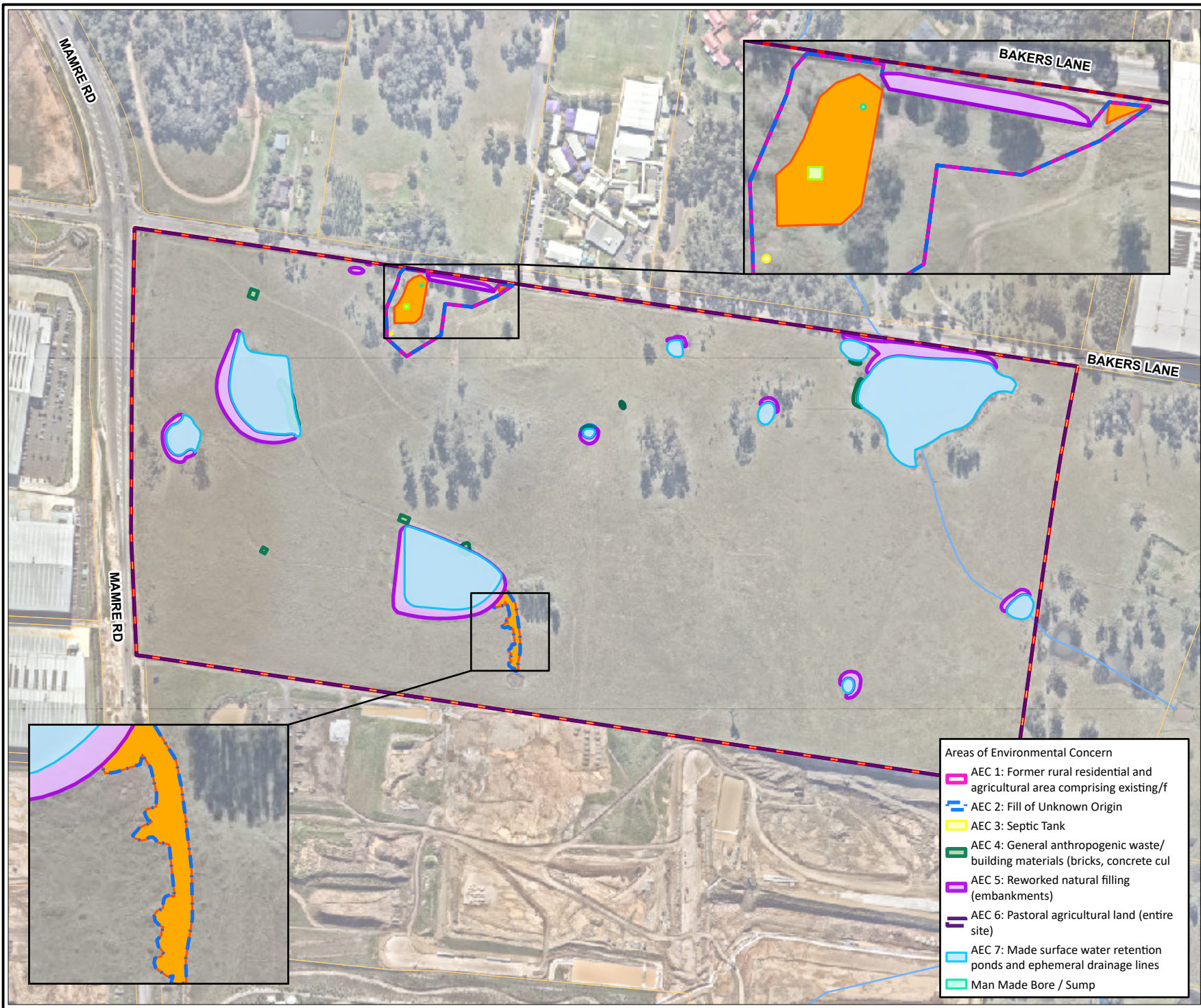
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Coord. Sys. GDA2020 MGA Zone 56

**Lot 10 DP1280592,  
 706-752 Mamre Road  
 Kemps Creek, NSW**

**EXCEEDANCES AND INFERRED  
 CONTAMINATION EXTENTS**

**FIGURE 5**



- Legend
- Approximate Site Boundary
  - NSW Cadastre
  - Contamination Extents**
  - Anthropogenic Waste
  - Building and Demolition Waste (concrete/brick)
  - Building and Demolition Waste with ACM
  - Friable Asbestos in Soil
  - Bonded ACM in Soil



Job No: 70548  
 Client: Plan Project Management Pty Ltd  
 Version: R02 Rev A      Date 18/09/2025  
 Drawn By: JL              Checked By: JDM

Scale 1:6,000

0    50    100  
 metres

Coord. Sys. GDA2020 MGA Zone 56

**Lot 10 DP1280592,  
 706-752 Mamre Road  
 Kemp's Creek, NSW**

**EXTENT OF REMEDIATION REQUIRED**

- Areas of Environmental Concern**
- AEC 1: Former rural residential and agricultural area comprising existing/f
  - AEC 2: Fill of Unknown Origin
  - AEC 3: Septic Tank
  - AEC 4: General anthropogenic waste/building materials (bricks, concrete cul
  - AEC 5: Reworked natural filling (embankments)
  - AEC 6: Pastoral agricultural land (entire site)
  - AEC 7: Made surface water retention ponds and ephemeral drainage lines
  - Man Made Bore / Sump

**FIGURE 6**

## Appendix A Analytical Summary Tables

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemp's Creek DSI



	Metals & Metalloids								TRHs (NEPC 2013)								BTEXN							
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	2	0.4	5	5	5	0.1	5	5	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.5	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	3000	900	3600	240000	1500	730	6000	400000																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																								
0-1m														310	NL	4	NL	NL			NL	NL	NL	
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind	160		680	340	1800		550	1400													370	370		
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil											2500	6600		215	170	95	135	185			95			
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil									800	1000	5000	10000												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																								

Field_ID	Sampled_Date_Time	Lab_Report_Number	14	<0.4	32	32	20	<0.1	19	58	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
SED01	17/11/2020	757742	14	<0.4	32	32	20	<0.1	19	58	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
SED02	17/11/2020	757742	8.8	<0.4	25	26	15	<0.1	15	36	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
SED03	17/11/2020	757742	15	<0.4	23	23	23	<0.1	11	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SED04	17/11/2020	757742	38	<0.4	31	55	39	<0.1	26	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DRUM1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ01_0-0.05	18/11/2020	757712	16	<0.4	20	45	15	<0.1	13	69	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ02_0-0.1	18/11/2020	757712	16	<0.4	21	30	30	<0.1	14	130	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ02_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ03_0.3-0.4	18/11/2020	757712	19	<0.4	26	47	15	<0.1	9.2	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ03_0-0.1	18/11/2020	757712	12	<0.4	22	30	14	<0.1	12	54	<20	<50	130	<100	130	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ03_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ04_0-0.1	18/11/2020	757712	3.1	<0.4	130	35	21	<0.1	100	170	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ04_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ05_0-0.1	18/11/2020	757712	2.9	0.5	88	47	56	<0.1	110	980	<20	<50	270	<100	270	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ05_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ06_0-0.1	18/11/2020	757712	6.5	0.7	95	40	73	<0.1	88	680	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ06_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ07_0-0.1	18/11/2020	757712	14	2.4	33	58	200	<0.1	27	1900	<20	<50	130	<100	130	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ07_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ08_0-0.1	18/11/2020	757712	2.1	<0.4	25	12	13	<0.1	27	50	<20	<50	190	<100	190	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ08_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ09_0-0.1	18/11/2020	757712	9.2	0.8	32	41	120	0.1	22	610	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ09_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ10_0-0.05	18/11/2020	757712	7.7	<0.4	19	42	96	<0.1	12	170	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ10A_0-0.1	18/11/2020	757712	9.1	<0.4	27	31	32	<0.1	22	69	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ10A_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ11_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ12_0-0.1	18/11/2020	757712	6.6	0.4	70	36	100	<0.1	65	260	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ13_0-0.15	18/11/2020	757712	8.2	0.4	20	35	110	<0.1	15	220	<20	<250	<500	<500	<500	<20	<250	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ14_0-0.1	18/11/2020	757712	10	0.7	44	35	180	<0.1	22	400	<20	<50	280	<100	280	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ14A_0-0.1	18/11/2020	757712	7.4	<0.4	19	34	48	0.2	13	170	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ15_0-0.1	18/11/2020	757712	7.8	<0.4	19	26	24	<0.1	11	81	<20	<50	100	<100	100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ15_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ16_0-0.1	18/11/2020	757712	2.3	<0.4	37	16	7.5	<0.1	46	58	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
RZ16_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02_0-0.1	17/11/2020	757742	12	<0.4	30	31	15	<0.1	25	68	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP07_0-0.1	17/11/2020	757742	11	<0.4	25	18	24	<0.1	14	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18_0-0.1	19/11/2020	758326	10	<0.4	28	21	25	<0.1	14	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25_0.5-0.6	17/11/2020	757742	11	<0.4	33	30	25	<0.1	21	46	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP26_0-0.1	17/11/2020	757742	13	<0.4	39	21	29	<0.1	16	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP27_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP34_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP36_0-0.1	19/11/2020	758326	12	<0.4	21	32	25	<0.1	26	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Metals & Metalloids								TRHs (NEPC 2013)								BTEXN							
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	2	0.4	5	5	5	0.1	5	5	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.5	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	3000	900	3600	240000	1500	730	6000	400000																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																								
0-1m														310	NL	4	NL	NL			NL	NL	NL	
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind	160		680	340	1800		550	1400													370	370		
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil											2500	6600		215	170	95	135	185			95			
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil									800	1000	5000	10000												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																								

Field_ID	Sampled_Date_Time	Lab_Report_Number	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH
TP39_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP42_0-0.1	18/11/2020	757712	14	<0.4	19	19	28	<0.1	15	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP47_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP48_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP52_0-0.1	18/11/2020	757712	7.4	<0.4	16	22	22	<0.1	15	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP61_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP63_0-0.1	18/11/2020	757712	12	<0.4	17	19	23	<0.1	12	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP65_0-0.1	17/11/2020	757742	20	<0.4	21	33	28	<0.1	23	72	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP69_0.3-0.4	17/11/2020	757742	9.5	<0.4	22	28	18	<0.1	11	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP76_0.3-0.4	17/11/2020	757742	17	<0.4	28	32	18	<0.1	13	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP82_0-0.1	17/11/2020	757742	13	<0.4	33	15	24	<0.1	7.7	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP88_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP90_0-0.1	17/11/2020	757742	9.2	<0.4	22	22	13	<0.1	8.3	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA05	17/11/2020	256165	<4	<0.4	9	10	7	<0.1	3	13	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
QC05	17/11/2020	757742	13	<0.4	27	24	16	<0.1	8.9	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP92_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP98_0.5-0.6	17/11/2020	757742	15	<0.4	25	17	23	<0.1	14	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP105_0.6-0.7	16/11/2020	757742	15	<0.4	29	35	230	0.2	24	220	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP105_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP105A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106_0.2-0.3	16/11/2020	757742	7.8	<0.4	16	14	86	<0.1	11	110	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP106_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106A_0.6-0.7	16/11/2020	757742	13	<0.4	26	24	150	0.1	22	170	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP106A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP107_0.2-0.3	16/11/2020	757742	3.8	<0.4	8.9	8	35	<0.1	<5	23	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP107_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP107_1.4-1.5	16/11/2020	757742	11	<0.4	24	25	12	<0.1	9.7	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP108_0.6-0.7	16/11/2020	757742	7.8	<0.4	20	22	27	<0.1	13	42	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP108_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP108A_0.2-0.3	16/11/2020	757742	26	<0.4	38	50	260	0.4	23	230	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP109_0.2-0.3	16/11/2020	757742	14	0.9	30	41	130	<0.1	26	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP109_0.6-0.7	16/11/2020	757742	14	<0.4	23	20	30	<0.1	9.8	36	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
QA04	16/11/2020	256165	6	<0.4	11	10	14	<0.1	5	16	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<3	<0.1	-
QC04	16/11/2020	757742	12	0.7	22	17	22	<0.1	8.4	36	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP109_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA03	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110_0.6-0.7	16/11/2020	757742	15	<0.4	35	37	68	<0.1	29	78	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP110_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110_1.4-1.5	16/11/2020	757742	11	<0.4	27	36	19	<0.1	12	31	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP111_0.2-0.3	16/11/2020	757742	8.5	<0.4	27	20	29	<0.1	16	95	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP111_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP112_0.2-0.3	16/11/2020	757742	<2	<0.4	5.3	<5	12	<0.1	<5	8.4	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5
TP112_0.6-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP112_0-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Metals & Metalloids								TRHs (NEPC 2013)								BTEXN							
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL	2	0.4	5	5	5	0.1	5	5	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.5	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	3000	900	3600	240000	1500	730	6000	400000																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																								
0-1m														310	NL	4	NL	NL			NL	NL	NL	
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind	160		680	340	1800		550	1400													370	370		
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil											2500	6600		215	170	95	135	185			95			
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil									800	1000	5000	10000												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																								

Field_ID	Sampled_Date_Time	Lab_Report_Number	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Naphthalene - MAH	
TP114_0.2-0.3	16/11/2020	757742	6.1	<0.4	15	22	18	<0.1	19	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP114_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP115_0.2-0.3	16/11/2020	757742	4.3	<0.4	8	8.6	20	<0.1	<5	48	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	
QA02	16/11/2020	256165	<4	<0.4	5	7	15	<0.1	2	36	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<3	<0.1	-	
QC02	16/11/2020	757742	22	<0.4	32	9	24	<0.1	<5	53	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	
TP115_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP116_0.5-0.6	16/11/2020	757742	3.6	<0.4	21	24	26	<0.1	32	49	<20	<50	240	<100	240	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	
TP116_0.9-1.0	16/11/2020	757742	8.4	<0.4	24	22	21	<0.1	20	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP116_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0-0.1	16/11/2020	757742	18	<0.4	27	26	34	<0.1	14	53	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	
TP120_0-0.1	16/11/2020	757742	15	<0.4	23	16	25	<0.1	11	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.5-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP122_0-0.1	16/11/2020	757742	10	<0.4	21	11	18	<0.1	6.3	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP124_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP126_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-1.0	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128A_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.2-0.3	18/11/2020	757712	6	<0.4	18	24	18	<0.1	19	58	<20	<2500	<5000	<5000	<5000	<20	<2500	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	
TP130_0.7-0.8	18/11/2020	757712	10	<0.4	19	29	11	<0.1	10	48	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	
TP131_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP135_0.2-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.2	18/11/2020	757712	11	<0.4	22	38	52	<0.1	18	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138A_0-0.4	18/11/2020	757712	6.8	<0.4	53	27	18	<0.1	50	62	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-	<0.5	
TP197_0-0.1	17/11/2020	757742	15	<0.4	26	22	27	<0.1	13	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	PAH																				
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (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	
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil						40														4000	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																					
0-1m																	NL				
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind																			370		
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil					1.4																
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																					
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																					

Field_ID	Sampled_Date_Time	Lab_Report_Number	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
SED01	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
SED02	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
SED03	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
SED04	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
DRUM1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ01_0-0.05	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ02_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ02_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ03_0.3-0.4	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ03_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ03_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ04_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ04_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ05_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ05_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ06_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ06_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ07_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ07_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ08_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ08_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ09_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ09_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ10_0-0.05	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ10A_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ10A_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ11_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ12_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ13_0-0.15	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ14_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ14A_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ15_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ15_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ16_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RZ16_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02_0-0.1	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
TP07_0-0.1	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
TP11_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18_0-0.1	19/11/2020	758326	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
TP21_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25_0.5-0.6	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
TP26_0-0.1	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
TP27_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP34_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP36_0-0.1	19/11/2020	758326	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	

Table A: Soil Analytical Results

Project Number: 70548

Project Name: Kemps Creek DSI



	PAH																			
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (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	
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil						40														4000
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																				
0-1m																	NL			
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind																				370
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil					1.4															
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																				

Field_ID	Sampled_Date_Time	Lab_Report_Number																			
TP39_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP42_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP47_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP48_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP52_0-0.1	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP61_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP63_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP65_0-0.1	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP69_0.3-0.4	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP76_0.3-0.4	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP82_0-0.1	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP88_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP90_0-0.1	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA05	17/11/2020	256165	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.05
QC05	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP92_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP98_0.5-0.6	17/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP105_0.6-0.7	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP105_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP105A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106_0.2-0.3	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP106_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106A_0.6-0.7	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP106A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP107_0.2-0.3	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP107_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP107_1.4-1.5	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP108_0.6-0.7	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP108_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP108A_0.2-0.3	16/11/2020	757742	<0.5	<0.5	0.6	0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	0.5	0.8	3.1
TP109_0.2-0.3	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP109_0.6-0.7	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA04	16/11/2020	256165	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.05
QC04	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP109_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA03	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110_0.6-0.7	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP110_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110_1.4-1.5	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP111_0.2-0.3	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP111_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP112_0.2-0.3	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP112_0.6-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP112_0-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	PAH																		
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (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
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil						40													4000
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																			
0-1m																	NL		
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind																		370	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil					1.4														
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																			
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																			

Field_ID	Sampled_Date_Time	Lab_Report_Number	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	0.8
TP114_0.2-0.3	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP114_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP115_0.2-0.3	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA02	16/11/2020	256165	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.5	<0.05
QC02	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP115_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP116_0.5-0.6	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP116_0.9-1.0	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP116_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0-0.1	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP120_0-0.1	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP121_0.5-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP122_0-0.1	16/11/2020	757742	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP124_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP126_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-1.0	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128A_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.2-0.3	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP130_0.7-0.8	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP135_0.2-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.2	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP138A_0-0.4	18/11/2020	757712	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP197_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Organochlorine Pesticides																							
	4,4-DDE	a-BHC	b-BHC	d-BHC	β-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.1
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil								45	530					3600			100				50		2500	160
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-1m																								
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind												640												
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																								

Field_ID	Sampled_Date_Time	Lab_Report_Number	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
SED01	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
SED02	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
SED03	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SED04	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DRUM1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ01_0-0.05	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ02_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ02_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ03_0.3-0.4	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ03_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ03_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ04_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ04_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ05_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ05_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ06_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ06_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ07_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ07_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ08_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ08_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ09_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ09_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ10_0-0.05	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ10A_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ10A_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ11_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ12_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ13_0-0.15	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ14_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ14A_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ15_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ15_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ16_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RZ16_0-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02_0-0.1	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
TP07_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11_0-0.1	19/11/2020	758326	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
TP18_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25_0.5-0.6	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP27_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP34_0-0.1	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
TP36_0-0.1	19/11/2020	758326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



	Organochlorine Pesticides																							
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.1
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil								45	530					3600				100			50		2500	160
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-1m																								
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind												640												
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																								

Field_ID	Sampled_Date_Time	Lab_Report_Number	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP39_0-0.1	19/11/2020	758326	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP42_0-0.1	18/11/2020	757712	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP47_0-0.1	19/11/2020	758326	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP48_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP52_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP61_0-0.1	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP63_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP65_0-0.1	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP69_0.3-0.4	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP76_0.3-0.4	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP82_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP88_0-0.1	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP90_0-0.1	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
QA05	17/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC05	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP92_0-0.1	17/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP98_0.5-0.6	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP105_0.6-0.7	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP105_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP105A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP106A_0.6-0.7	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP106A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP107_0.2-0.3	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP107_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP107_1.4-1.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP108_0.6-0.7	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP108_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP108A_0.2-0.3	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.08	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP109_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP109_0.6-0.7	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
QA04	16/11/2020	256165	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
QC04	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1
TP109_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA03	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110_0.6-0.7	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110_1.4-1.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP112_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP112_0.6-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP112_0-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Organochlorine Pesticides																							
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.1
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil							45	530						3600			100				50		2500	160
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-1m																								
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind												640												
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																								

Field_ID	Sampled_Date_Time	Lab_Report_Number	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	
TP114_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP114_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP115_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP115_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP116_0.5-0.6	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
TP116_0.9-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP116_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0-0.1	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
TP120_0-0.1	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
TP121_0.5-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP122_0-0.1	16/11/2020	757742	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	
TP124_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP126_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-1.0	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128A_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.2-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.7-0.8	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP135_0.2-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138A_0-0.4	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP197_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-





**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Organophosphorus Pesticides																																		
	Azinophos methyl	Boistar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfotion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Primiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Toxuthion	Trichloronate	Parathion	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.2	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	2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil				2000																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-1m																																			
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind																																			
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																			
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																			
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																			

Field_ID	Sampled_Date_Time	Lab_Report_Number	Azinophos methyl	Boistar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfotion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Primiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Toxuthion	Trichloronate	Parathion		
TP114_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TP114_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP115_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP115_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP116_0.5-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP116_0.9-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP116_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP118_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP120_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.5-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP122_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP124_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP126_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-1.0	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128A_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.2-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.7-0.8	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP135_0.2-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138A_0-0.4	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP197_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Polychlorinated Biphenyls								Ionic Balance					Asbestos								Other						
	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	Hexachlorobenzene	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	Moisture	% Clay*	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Asbestos Field Quantification	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	Moisture Content (dried @ 103°C)	Coal Tar	Comment
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MEQ/100G	US/CM	pH Units	%	%	g	g	g	g	g	g	g	g	g	g	g	g	%	
EQL	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	10	0.1	0.1	1													1	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil								7	80																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-1m																												
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind																												
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																												
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																	0.05	0.05						0.001				

Field_ID	Sampled_Date_Time	Lab_Report_Number																											
TP39_0-0.1	19/11/2020	758326	-	-	-	-	-	-	<0.05	-	-	-	-	-	724	0	0	0	-	0	0	0	0	0	0	0	0	14	-
TP42_0-0.1	18/11/2020	757712	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	
TP47_0-0.1	19/11/2020	758326	-	-	-	-	-	-	<0.05	-	-	-	-	-	613	0	0	0	-	0	0	0	0	0	0	0	11	-	
TP48_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	582	0	0	0	-	0	0	0	0	0	0	0	-	-	
TP52_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	557	0	0	0	-	0	0	0	0	0	0	0	15	-	
TP61_0-0.1	17/11/2020	757742	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	
TP63_0-0.1	18/11/2020	757712	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	658	0	0	0	-	0	0	0	0	0	0	0	16	-	
TP65_0-0.1	17/11/2020	757742	-	-	-	-	-	-	<0.05	-	-	-	-	-	560	0	0	0	-	0	0	0	0	0	0	0	15	-	
TP69_0.3-0.4	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	
TP76_0.3-0.4	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	
TP82_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	689	0	0	0	-	0	0	0	0	0	0	0	23	-	
TP88_0-0.1	17/11/2020	757742	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	
TP90_0-0.1	17/11/2020	757742	-	-	-	-	-	-	<0.05	-	-	-	-	-	558	0	0	0	-	0	0	0	0	0	0	0	19	-	
QA05	17/11/2020	256165	-	-	-	-	-	-	-	-	-	-	8.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
QC05	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	641	0	0	0	-	0	0	0	0	0	0	0	12	-	
TP92_0-0.1	17/11/2020	757742	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	
TP98_0.5-0.6	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	
TP105_0.6-0.7	16/11/2020	757742	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	
TP105_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	771	0	0	0	0.022	0	0	0	0	0	0	0	-	-	
TP105A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	762	0	0	0	0	0	0	0	0	0	0	0	-	-	
TP106_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	
TP106_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	737	0	0	0	0.036	0	0	0	0	0	0	0	-	-	
TP106A_0.6-0.7	16/11/2020	757742	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	-	
TP106A_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	736	0	0	0	0.038	0	0	0	0	0	0	0	-	-	
TP107_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	
TP107_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	839	0	0	0	0	0	0	0	0	0	0	0	-	-	
TP107_1.4-1.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	
TP108_0.6-0.7	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	
TP108_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	737	0	0	0	0.013	0	0	0	0	0	0	0	-	-	
TP108A_0.2-0.3	16/11/2020	757742	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	30	170	8.5	8	-	-	-	-	-	-	-	-	-	-	-	-	8.4	-	
TP109_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	
TP109_0.6-0.7	16/11/2020	757742	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	
QA04	16/11/2020	256165	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
QC04	16/11/2020	757742	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	
TP109_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	709	0	0	0	0.013	0	0	0	0	0	0	0	-	-	
QA03	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
QC03	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	681	0	0	0	0	0	0	0	0	0	0	0	-	-	
TP110_0.6-0.7	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	
TP110_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	663	0	0	0	0	0	0	0	0	0	0	0	-	-	
TP110_1.4-1.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	
TP111_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	
TP111_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	839	0	0	0	0	0	0	0	0	0	0	0	-	-	
TP112_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	-	
TP112_0.6-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	749	0	0	0	0	0	0	0	0	0	0	0	-	-	
TP112_0-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	699	0	0	0	0	0	0	0	0	0	0	0	-	-	

**Table A: Soil Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Polychlorinated Biphenyls								Ionic Balance					Asbestos										Other			
	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	Hexachlorobenzene	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	Moisture	% Clay*	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Asbestos Field Quantification	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	Moisture Content (dried @ 103°C)	Coal Tar
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MEQ/100G	US/CM	pH Units	%	%	g	g	g	% (w/w)	% (w/w)	g	g	g	g	% (w/w)	g	%	Comment
EQL	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	10	0.1	0.1	1												1	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil								7	80																		
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-1m																											
NEPM 2013 Table 1B(1-5) Specific EIL - Comm/Ind																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																	0.05	0.05						0.001			

Field_ID	Sampled_Date_Time	Lab_Report_Number																											
TP114_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
TP114_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	653	0	0	0	0	0	0	0	0	0	0	0	0	0	-
TP115_0.2-0.3	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.8	
QA02	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
QC02	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	
TP115_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	756	0	0	0	0	0	0	0	0	0	0	0	0	-	
QA01	16/11/2020	256165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
QC01	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	754	0	0	0	0	0	0	0	0	0	0	0	0	-	
TP116_0.5-0.6	16/11/2020	757742	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.1		
TP116_0.9-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22		
TP116_0-1.0	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	714	0	0	0	0	0	0	0	0	0	0	0	0	-	
TP118_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	778	0	0	0	-	0	0	0	0	0	0	0	0	-	
TP118_0-0.1	16/11/2020	757742	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	-	-	-	743	0	0	0	-	0	0	0	0	0	0	0	17		
TP120_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	<0.05	-	-	-	-	765	0	0	0	-	0	0	0	0	0	0	0	20		
TP121_0.5-0.6	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	765	0	0	0	-	0	0	0	0	0	0	0	-		
TP122_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19		
TP124_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	783	0	0	0	-	0	0	0	0	0	0	0	-		
TP126_0.4-0.5	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	830	0	0	0	-	0	0	0	0	0	0	0	-		
TP128_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	775	0	0	0	-	0	0	0	0	0	0	0	-		
TP128_0-1.0	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	661	0	0	0	0.01	0	0	0	0	0	0	0	-		
TP128A_0-0.1	16/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	648	0	0	0	-	0	0	0	0	0	0	0	-		
TP130_0.2-0.3	18/11/2020	757712	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14		
TP130_0.7-0.8	18/11/2020	757712	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15		
TP131_0-0.1	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	793	0	0	0	-	0	0	0	0	0	0	0	-		
TP135_0.2-0.3	18/11/2020	757712	-	-	-	-	-	-	-	-	26	330	7.2	-	20	-	-	-	-	-	-	-	-	-	-	-	14		
TP138_0-0.2	18/11/2020	757712	-	-	-	-	-	-	-	-	-	-	-	-	64	0	0	0	-	0	0	0	0	0	0	0	3.4		
TP138A_0-0.4	18/11/2020	757712	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	46	0	0	0	-	0	0	0	0	0	0	0	12		
TP197_0-0.1	17/11/2020	757742	-	-	-	-	-	-	-	-	-	-	-	-	656	0	0	0	-	0	0	0	0	0	0	0	19		





	PFAS																					
	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001
PFAS NEMP 3.0 (2025) Ecological Direct Exposure - all land uses					10																	
PFAS NEMP 3.0 (2025) HIL D - Commercial/Industrial					50																	20
PFAS NEMP 3.0 (2025) Interim Ecological Direct Exposure (Reptiles)					0.005																	
PFAS NEMP 3.0 (2025) Interim Ecological Indirect Exposure - all land uses					0.003																	

Location Code	Field ID	Matrix Type	Date	Lab Report	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	
TP31	QA20250825_P01	Soil	25 Aug 2025	ES2526333	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002
TP31	QC20250825_P01	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP31	TP31-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP32	TP32-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP33	TP33-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP33	TP33-0-0.1	Soil	25 Aug 2025	1262660	0.0018	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
TP34	TP34-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP35	TP35-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP36	TP36-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP36	TP36-0-0.1	Soil	26 Aug 2025	1262660	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	0.0003
TP233	TP233-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP234	TP234-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP235	TP235-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP236	TP236-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP237	TP237-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP238	TP238-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP239	TP239-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005
TP240	TP240-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005



	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHS and PFOS	Sum of WA DWER PFAS (n=10)*	Sum of PFAS	Perfluorononanesulfonic acid ion	Other
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/KG	mg/kg	mg/kg	%
EQL	0.0001	0.0001	0.0001	0.0001	0.0005	0.0001	0.0001	0.0001	0.0002	0.0002	0.0001	1
PFAS NEMP 3.0 (2025) Ecological Direct Exposure - all land uses		1										
PFAS NEMP 3.0 (2025) HIL D - Commercial/Industrial		20						20				
PFAS NEMP 3.0 (2025) Interim Ecological Direct Exposure (Reptiles)												
PFAS NEMP 3.0 (2025) Interim Ecological Indirect Exposure - all land uses		0.003										

Location Code	Field ID	Matrix Type	Date	Lab Report	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	24
TP02	TP02-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	24
TP03	TP03-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	24
TP03	TP03-0-0.1	Soil	25 Aug 2025	1262660	<0.0001	0.0003	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0003	0.0008	0.0008	<0.0001	24
TP04	TP04-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	28
TP05	TP05-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	25
TP06	TP06-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	24
TP06	TP06-0-0.1	Soil	25 Aug 2025	1262660	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001	23
TP07	TP07-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	20
TP08	TP08-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	21
TP09	TP09-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	18
TP09	TP09-0-0.1	Soil	26 Aug 2025	1262660	<0.0001	0.0002	<0.0001	<0.0001	0.0016	<0.0001	<0.0001	0.0002	0.0018	0.0018	<0.0001	17
TP11	TP11-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	30
TP12	TP12-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	26
TP13	TP13-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	32
TP13	TP13-0-0.1	Soil	25 Aug 2025	1262660	<0.0001	0.0003	<0.0001	<0.0001	0.0082	<0.0001	<0.0001	0.0003	0.0085	0.0085	<0.0001	32
TP14	TP14-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	25
TP14	TP14-0-0.1	Soil	25 Aug 2025	1262660	<0.0001	0.0002	<0.0001	<0.0001	0.0019	<0.0001	<0.0001	0.0002	0.0021	0.0021	<0.0001	25
TP15	TP15-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	34
TP16	TP16-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	21
TP17	TP17-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	26
TP18	TP18-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	26
TP20	QA20250825_P03	Soil	25 Aug 2025	E52526333	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	0.0003	0.0003	<0.0002	43.9
TP20	QC20250825_P03	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	20
TP20	TP20-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	16
TP20	TP20-0-0.1	Soil	25 Aug 2025	1262660	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	<0.0001	<0.0001	0.0006	0.0006	<0.0001	18
TP21	QA20250825_P05	Soil	25 Aug 2025	E52526333	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	0.0002	0.0002	<0.0002	38.6
TP21	QC20250825_P05	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	26
TP21	TP21-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	25
TP22	TP22-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	21
TP23	TP23-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	36
TP24	TP24-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	21
TP25	TP25-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	30
TP25	TP25-0-0.1	Soil	26 Aug 2025	1262660	<0.0001	0.0002	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	<0.0005	<0.0005	<0.0001	28
TP26	TP26-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	22
TP26	TP26-0-0.1	Soil	26 Aug 2025	1262660	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001	22
TP27	TP27-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	23
TP28	QA20250825_P02	Soil	25 Aug 2025	E52526333	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	0.0005	0.0005	<0.0002	29.4
TP28	QC20250825_P02	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	30
TP28	TP28-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	31
TP29	QA20250825_P04	Soil	25 Aug 2025	E52526333	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	24.7
TP29	QC20250825_P04	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	22
TP29	TP29-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	25
TP30	TP30-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	21
TP30	TP30-0-0.1	Soil	25 Aug 2025	1262660	<0.0001	0.0002	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	0.0002	0.0009	0.0009	<0.0001	21



	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of WA DWER PFAS (n=10)*	Sum of PFAS	Perfluorononanesulfonic acid ion	Other
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/KG	mg/kg	mg/kg	%
EQL	0.0001	0.0001	0.0001	0.0001	0.0005	0.0001	0.0001	0.0001	0.0002	0.0002	0.0001	1
PFAS NEMP 3.0 (2025) Ecological Direct Exposure - all land uses		1										
PFAS NEMP 3.0 (2025) HIL D - Commercial/Industrial		20						20				
PFAS NEMP 3.0 (2025) Interim Ecological Direct Exposure (Reptiles)												
PFAS NEMP 3.0 (2025) Interim Ecological Indirect Exposure - all land uses		0.003										

Location Code	Field ID	Matrix Type	Date	Lab Report	<0.0002	0.0014	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0014	0.0014	0.0014	<0.0002	24.7
TP31	QA20250825_P01	Soil	25 Aug 2025	ES2526333	<0.0002	0.0014	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0014	0.0014	0.0014	<0.0002	24.7
TP31	QC20250825_P01	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	30
TP31	TP31-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	24
TP32	TP32-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	29
TP33	TP33-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	27
TP33	TP33-0-0.1	Soil	25 Aug 2025	1262660	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	0.0018	0.0018	<0.0001	27
TP34	TP34-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	22
TP35	TP35-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	25
TP36	TP36-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	23
TP36	TP36-0-0.1	Soil	26 Aug 2025	1262660	<0.0001	0.0011	<0.0001	<0.0001	0.0017	<0.0001	<0.0001	0.0014	0.0031	0.0031	<0.0001	22
TP233	TP233-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	21
TP234	TP234-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	17
TP235	TP235-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	20
TP236	TP236-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	23
TP237	TP237-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	29
TP238	TP238-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	21
TP239	TP239-0-0.1	Soil	26 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	15
TP240	TP240-0-0.1	Soil	25 Aug 2025	1260403	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	25

**Table C: Soil Leachate Analytical Results**  
 Project Number: 70548  
 Project Name: Kemps Creek DSI



	Metals & Metalloids													PAH													Ionic Balance				Inorganics						
	Arsenic	Cadmium	Chromium (III+VI)	Copper TCLP	Copper ASLP	Lead TCLP	Lead ASLP	Mercury TCLP	Mercury ASLP	Nickel TCLP	Nickel ASLP	Zinc TCLP	Zinc ASLP	Acenaphthene	Acenaphthylene	Anthracene	Benz(b)anthracene	Benz(e)pyrene	Benz(b)fluoranthene	Benz(a,h)perylene	Benz(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (Sum of total)	pH of Leaching Fluid	pH (after HCL)	pH (Final)	pH (Initial)	Leachate Fluid		
EQL	0.005	0.0005	0.01	0.01	0.01	0.01	0.0001	0.0001	0.01	0.01	0.01	0.01	0.01	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
NSW 2014 General Solid Waste TCLP1	5	1	5	0.01	*	5	*	0.2	*	2	*	*	*																								
ANZG (2018) 95% Species Protection (Freshwater)					0.0014		0.0034		0.0006		0.011		0.008																								

Location_Code	Field_ID	Sampled_Date_Time	Lab_Report_Number	Matrix_Type	Arsenic	Cadmium	Chromium (III+VI)	Copper TCLP	Copper ASLP	Lead TCLP	Lead ASLP	Mercury TCLP	Mercury ASLP	Nickel TCLP	Nickel ASLP	Zinc TCLP	Zinc ASLP	Acenaphthene	Acenaphthylene	Anthracene	Benz(b)anthracene	Benz(e)pyrene	Benz(b)fluoranthene	Benz(a,h)perylene	Benz(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (Sum of total)	pH of Leaching Fluid	pH (after HCL)	pH (Final)	pH (Initial)	Comment		
R205	R205 0-0.1	18/11/2020	758578	SOIL	<0.005	<0.0005	<0.05 - 0.06	<0.05	0.03	<0.01	0.03	<0.0001	<0.0001	0.02	0.04	0.47	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	1.6	5.2 - 6.7	6.9 - 7.4	4
TP105	TP105 0.6-0.7	16/11/2020	758576	SOIL	<0.01 - 0.012	<0.0005	<0.05 - 0.05	<0.05	0.03	0.01	0.07	<0.0001	<0.0001	<0.01	0.01	0.14	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	1.6	5.2 - 8.3	7.4 - 7.6	4
TP108A	TP108A 0.2-0.3	16/11/2020	758576	SOIL	<0.01 - 0.031	<0.0005	<0.05 - 0.06	<0.05	0.04	0.02	0.27	<0.0001	0.0002	<0.01	0.02	0.32	0.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	1.6	5.2 - 8.2	7.4 - 7.8	4	
TP111	TP111 0.2-0.3	16/11/2020	757742	soil	<0.01 - 0.019	<0.0005	<0.05 - 0.06	<0.05	0.04	<0.01	0.04	<0.0001	<0.0001	<0.01	0.02	0.13	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	5.8	1.6	5.1 - 6.8	7.2	4
TP130	TP130_0.2-0.3	18/11/2020	757712	soil	<0.01	<0.005	<0.05	<0.05	<0.05	<0.01	<0.01	<0.001	<0.001	0.01	0.01	0.11	0.11	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	1.5	5.1	7.2	-	

Statistical Summary																																										
Number of Results	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Number of Detects	3	0	4	0	4	2	4	0	1	2	5	5	5	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
Minimum Concentration	<0.005	<0.0005	<0.05	<0.05	0.03	<0.01	<0.01	<0.0001	<0.0001	<0.01	0.01	0.11	0.11	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Minimum Detect	ND	ND	ND	ND	0.03	0.01	0.03	ND	0.0002	0.01	0.01	0.11	0.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	0.031	<0.005	0.06	<0.05	<0.05	0.02	0.27	<0.001	<0.001	0.02	0.04	0.47	3.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Maximum Detect	0.031	ND	0.06	ND	0.04	0.02	0.27	ND	0.0002	0.02	0.04	0.47	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Average Concentration	0.0092	0.0007	0.038	0.025	0.033	0.009	0.083	0.00023	0.00017	0.009	0.02	0.23	0.82																													
Median Concentration	0.0085	0.00025	0.0425	0.025	0.03	0.005	0.04	0.00005	0.00005	0.005	0.02	0.14	0.2	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005		
Standard Deviation	0.0061	0.001	0.0076	0	0.0067	0.0065	0.11	0.00025	0.0002	0.0065	0.012	0.16	1.3																													
Number of Guideline Exceedances	0	0	0	0	5	0	5	0	1	0	3	0	5	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	
Number of Guideline Exceedances(Detects Only)	0	0	0	0	4	0	4	0	0	0	3	0	5	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	

Comments  
 \* No EPA (2014) Criteria for ASLP  
 Grey Shaded = LOR above adopted criterion

**Table D: Surface Water Analytical Results**

Project Number: 70548

Project Name: Kemps Creek DSI



	Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)						BTEXN								
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphtthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphtthalene	Naphtthalene - MAH
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0002	0.001	0.001	0.001	0.0001	0.001	0.005	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.001	0.001	0.001	0.001	0.002	0.003	0.0002	0.01
ADWG 2018 Health x10	0.1	0.02		20	0.1	0.01	0.2					0.9					0.9		0.9	0.01	8	3			6			
ANZG (2018) Freshwater 95% toxicant DGVs	0.013	0.0002	0.001	0.0014	0.0034	0.0006	0.011	0.008												0.95			0.35			0.016	0.016	
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																			NL	NL	30	NL	NL			NL	NL	NL
2-4m																												

Field_ID	Sampled_Date_Time	Lab_Report_Number	Matrix_Type	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphtthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphtthalene	Naphtthalene - MAH
SW01	16/11/2020	757581	WATER	0.002	0.0003	0.002	0.15	0.006	<0.0001	0.017	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW02	16/11/2020	757581	WATER	<0.001	0.0003	<0.001	0.13	0.003	<0.0001	0.016	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW03	16/11/2020	757581	WATER	<0.001	<0.0002	<0.001	0.006	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQA01	16/11/2020	757581	WATER	<0.001	<0.0002	<0.001	0.032	<0.001	<0.0001	0.003	0.012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQC01	16/11/2020	256050	WATER	<0.001	<0.0001	<0.001	0.003	<0.001	<0.00005	<0.001	0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0002	-
SW04	16/11/2020	757581	WATER	0.001	<0.0002	0.001	0.008	0.008	<0.0001	0.002	0.035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW05	16/11/2020	757581	WATER	<0.001	<0.0002	<0.001	0.011	<0.001	<0.0001	0.002	0.009	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	-	<0.01

Statistical Summary	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphtthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphtthalene	Naphtthalene - MAH	
Number of Results	7	7	7	7	7	7	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of Detects	2	2	2	7	3	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.001	<0.0001	<0.001	0.003	<0.001	<0.00005	<0.001	0.002	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.0002	<0.01	
Minimum Detect	0.001	0.0003	0.001	0.003	0.003	ND	0.002	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	0.002	0.0003	0.002	0.15	0.008	<0.0001	0.017	0.13	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.0002	<0.01	
Maximum Detect	0.002	0.0003	0.002	0.15	0.008	ND	0.017	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Average Concentration	0.00079	0.00015	0.00079	0.049	0.0027	0.000046	0.0059	0.043																					
Median Concentration	0.0005	0.0001	0.0005	0.011	0.0005	0.00005	0.002	0.012	0.01	0.025	0.05	0.05	0.05	0.01	0.025	0.05	0.05	0.05	0.01	0.025	0.0005	0.0005	0.0005	0.0005	0.001	0.0015	0.0001	0.005	
Standard Deviation	0.00057	0.0001	0.00057	0.063	0.0031	9.4E-06	0.0073	0.054																					
Number of Guideline Exceedances	0	2	2	7	2	6	2	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
Number of Guideline Exceedances (Detects Only)	0	2	2	7	2	0	2	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	

Table D: Surface Water Analytical Results

Project Number: 70548

Project Name: Kemps Creek DSI



	PAH																					
	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ	Benzo(b)fluoranthene	Benzo(b+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (Sum of total)
EQL	0.005	0.005	0.005	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
ADWG 2018 Health x10								0.0001														
ANZG (2018) Freshwater 95% toxicant DGVs																			0.016			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay 2-4m																			NL			

Field_ID	Sampled_Date_Time	Lab_Report_Number	Matrix_Type	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ	Benzo(b)fluoranthene	Benzo(b+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene - PAH	Phenanthrene	Pyrene	PAHs (Sum of total)	
SW01	16/11/2020	757581	WATER	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
SW02	16/11/2020	757581	WATER	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
SW03	16/11/2020	757581	WATER	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
WQA01	16/11/2020	757581	WATER	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
WQC01	16/11/2020	256050	WATER	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	-	<0.0002	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001
SW04	16/11/2020	757581	WATER	-	-	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
SW05	16/11/2020	757581	WATER	<0.005	<0.005	<0.005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001

Statistical Summary																									
Number of Results	1	1	1	7	7	7	7	7	1	6	1	7	6	7	7	7	7	7	6	7	7	7	7	7	7
Number of Results	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
Number of Detects	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
Minimum Concentration	<0.005	<0.005	<0.005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0005	<0.00001	<0.0002	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	<0.00001	<0.0002	<0.0001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration				0.000011	0.000011	0.000011	0.000011	0.000011	0.000011	0.000011	0.000011	0.000005	0.000011	0.000005	0.000011	0.000011	0.000011	0.000011	0.000011	0.000011	0.000011	0.000005	0.000011	0.000011	0.000011
Median Concentration	0.0025	0.0025	0.0025	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.00025	0.000005	0.0001	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Standard Deviation				0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0	0.000017	0	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0	0.000017	0.000017	0.000017
Number of Guideline Exceedances	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
Number of Guideline Exceedances(Detects Only)	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



	Organochlorine Pesticides																	Chlorinated Alkanes															
	Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	DDT	DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
ADWG 2018 Health x10	0.1					0.1											0.003										0.03						
ANZG (2018) Freshwater 95% toxicant DGVs	0.01					0.0002								0.00002			0.00009						6.5										
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay 2-4m																																	

Field_ID	Sampled_Date_Time	Lab_Report_Number	Matrix_Type	Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	DDT	DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane		
SW01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SW02	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW03	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQA01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQC01	16/11/2020	256050	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW04	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW05	16/11/2020	757581	WATER	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	

Statistical Summary																																						
Number of Results	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Number of Detects	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	0	0	0	0	
Minimum Concentration	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Average Concentration																																						
Median Concentration	0.005	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005			
Standard Deviation																																						
Number of Guideline Exceedances	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0		

Table D: Surface Water Analytical Results

Project Number: 70548

Project Name: Kemps Creek DSI



	Chlorinated Alkenes														Semivolatile Organic Compounds																		
	Dichlorodifluoromethane	Dichloromethane	Hexachloroethane	Trichlorofluoromethane	1,1-dichloroethene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	1-Chloronaphthalene	2-Chloronaphthalene	Bis(2-chloroethoxy) methane	Dibenz(a,h)acridine	Acetophenone	Bis(2-chloroisopropyl) ether	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	2,6-dinitrotoluene	2-Picoline	4-Aminobiphenyl	N-Nitrosopiperidine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	1-Naphthylamine	2-Naphthylamine	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	
EQL	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ADWG 2018 Health x10		0.04			0.3								0.2	0.003																			
ANZG (2018) Freshwater 95% toxicant DGVs			0.36																														
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay 2-4m																																	

Field_ID	Sampled_Date_Time	Lab_Report_Number	Matrix_Type	Dichlorodifluoromethane	Dichloromethane	Hexachloroethane	Trichlorofluoromethane	1,1-dichloroethene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	1-Chloronaphthalene	2-Chloronaphthalene	Bis(2-chloroethoxy) methane	Dibenz(a,h)acridine	Acetophenone	Bis(2-chloroisopropyl) ether	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	2,6-dinitrotoluene	2-Picoline	4-Aminobiphenyl	N-Nitrosopiperidine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	1-Naphthylamine	2-Naphthylamine	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	
SW01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW02	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW03	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQA01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WQC01	16/11/2020	256050	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW04	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW05	16/11/2020	757581	WATER	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Statistical Summary																																						
Number of Results	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Number of Detects	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	0	0	0	0	
Minimum Concentration	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Average Concentration																																						
Median Concentration	0.0005	0.0005	0.0025	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025		
Standard Deviation																																						
Number of Guideline Exceedances	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	0	0	0		
Number of Guideline Exceedances(Detects Only)	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	0	0	0		

Table D: Surface Water Analytical Results

Project Number: 70548

Project Name: Kemps Creek DSI



	Solvents					Phenols													MAH					Miscellaneous Hydrocarbons								
	Diphenylamine	Butyl benzyl phthalate	Dibenzofuran	Acetone	Benzyl chloride	2,3,4,5-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4-Chloro-3-Methylphenol	4-nitrophenol	Phenol	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2,3,4-tetrachlorobenzene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
EQL	0.005	0.005	0.005	0.001	0.005	0.01	0.01	0.01	0.003	0.003	0.03	0.003	0.003	0.003	0.01	0.03	0.01	0.03	0.003	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005
ADWG 2018 Health x10				140				0.2	2				3								0.3				0.01	0.01						
ANZG (2018) Freshwater 95% toxicant DGVs						0.02		0.02	0.16		0.045		0.49						0.32													
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay 2-4m																																

Field_ID	Sampled_Date_Time	Lab_Report_Number	Matrix_Type	Diphenylamine	Butyl benzyl phthalate	Dibenzofuran	Acetone	Benzyl chloride	2,3,4,5-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	4,6-Dinitro-2-methylphenol	4-Chloro-3-Methylphenol	4-nitrophenol	Phenol	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2,3,4-tetrachlorobenzene	
SW01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SW02	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SW03	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
WQA01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
WQC01	16/11/2020	256050	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SW04	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SW05	16/11/2020	757581	WATER	<0.005	<0.005	<0.005	<0.001	<0.005	<0.01	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.03	<0.01	<0.03	<0.03	<0.003	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005

Statistical Summary																																						
Number of Results	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Number of Detects	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	0	0	0	0	
Minimum Concentration	<0.005	<0.005	<0.005	<0.001	<0.005	<0.01	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.03	<0.01	<0.03	<0.003	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005		
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration	<0.005	<0.005	<0.005	<0.001	<0.005	<0.01	<0.01	<0.01	<0.003	<0.003	<0.03	<0.003	<0.003	<0.003	<0.01	<0.03	<0.01	<0.03	<0.003	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005			
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Average Concentration																																						
Median Concentration	0.0025	0.0025	0.0025	0.0005	0.0025	0.005	0.005	0.005	0.0015	0.0015	0.015	0.0015	0.0015	0.0015	0.005	0.015	0.005	0.015	0.0015	0.0005	0.0005	0.0015	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0025	0.0025			
Standard Deviation																																						
Number of Guideline Exceedances	0	0	0	0	0	0	0	1	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		
Number of Guideline Exceedances(Detects Only)	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	0	0	0		

Table D: Surface Water Analytical Results

Project Number: 70548

Project Name: Kemps Creek DSI



	Chlorinated Benzenes											Trihalomethanes					Phthalates					Nitrobenzenes		Anilines			Non-Metallic Inorganics				Other					
	1,2,3,5-tetrachlorobenzene	1,2,3-trichlorobenzene	1,2,4,5-tetrachlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3,5-trichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Pronamide	Trifuralin	Bis(2-ethylhexyl) phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Nitrobenzene	Pentachloronitrobenzene	2,4-dinitrotoluene	2-Nitroaniline	Aniline	Hexachlorocyclopentadiene	Hexachlorobutadiene	Carbon disulfide	Ammonia as N	Nitrate (as N)	Nitrite (as N)	pH (Lab)	Nitrite + Nitrate as N	TSS
EQL	0.005	0.005	0.005	0.005	0.001	0.005	0.001	0.001	0.001	0.005	0.005	0.001	0.005	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.005	0.05	0.005	0.005	0.005	0.005	0.005	0.005	0.001	0.01	0.02	0.02	0.1	0.05	5	
ADWG 2018 Health x10					15		0.4	3							0.7	0.9	0.1						0.3					0.007			112.9	9.1				
ANZG (2018) Freshwater 95% toxicant DGVs		0.01		0.17	0.16		0.26	0.06								0.0044		1	3.7	0.026		0.55		0.065		0.25			0.9							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay 2-4m																																				

Field_ID	Sampled_Date_Time	Lab_Report_Number	Matrix_Type	1,2,3,5-tetrachlorobenzene	1,2,3-trichlorobenzene	1,2,4,5-tetrachlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3,5-trichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Pronamide	Trifuralin	Bis(2-ethylhexyl) phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Nitrobenzene	Pentachloronitrobenzene	2,4-dinitrotoluene	2-Nitroaniline	Aniline	Hexachlorocyclopentadiene	Hexachlorobutadiene	Carbon disulfide	Ammonia as N	Nitrate (as N)	Nitrite (as N)	pH Units	Nitrite + Nitrate as N	TSS	
SW01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65	0.34	<0.02	7.5	0.35	35	
SW02	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	<0.02	<0.02	7.1	<0.05	11	
SW03	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	<0.02	<0.02	9	<0.05	7.4	
WQA01	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	<0.02	<0.02	9	<0.05	8.4		
WQC01	16/11/2020	256050	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<0.005	<0.005	9.2	-	12		
SW04	16/11/2020	757581	WATER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	<0.02	<0.02	7.8	<0.05	<5	
SW05	16/11/2020	757581	WATER	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.06	0.03	<0.02	7.9	<0.05	6.6

Statistical Summary																																									
Number of Results	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	7	7	7	6	7	
Number of Detects	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	0	6	2	0	7	1	6	
Minimum Concentration	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	<0.005	7.1	<0.05	<5	
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	0.03	ND	7.1	0.35	6.6
Maximum Concentration	<0.005	<0.005	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	0.65	0.34	<0.02	9.2	0.35	35	
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65	0.34	ND	9.2	0.35	35	
Average Concentration																																			0.12	0.059	0.0089	8.2	0.079	12	
Median Concentration	0.0025	0.0025	0.0025	0.0025	0.0005	0.0025	0.0005	0.0005	0.0005	0.0005	0.0025	0.0005	0.0005	0.0005	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0005	0.03	0.01	0.01	7.9	0.025	8.4		
Standard Deviation																																		0.23	0.12	0.0028	0.84	0.13	11		
Number of Guideline Exceedances	0	1	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	0	0	0	7	0	0
Number of Guideline Exceedances(Detects Only)	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	0	0	0	0	0	7	0	0



	PFAS																										
	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecanesulfonic acid (PFDS)	
	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
EQL	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.02	0.05	0.05	0.05	0.05	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
PFAS NEMP 3.0 (2025) Freshwater 95% species protection					220																					0.13	
PFAS NEMP 3.0 (2025) Freshwater 99% species protection					19																					0.00023	
PFAS NEMP 3.0 (2025) Recreational Water					10																		2		2		

Location	Field ID	Matrix Type	Date	Lab Report	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFTrDA	PFTeDA	PFHxDA	FOSA	NMeFOSA	NEFOSA	NMeFOSE	NEFOSE	NMeFOSAA	NEtFOSAA	PFPrS	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFDS	
W01	W01	Water	25 Aug 2025	1260403	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
W02	QA20250825_W01	Water	25 Aug 2025	ES2526333	<0.1	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
W02	QC20250825_W01	Water	25 Aug 2025	1260403	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
W03	W03	Water	25 Aug 2025	1260403	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
W04	W04	Water	26 Aug 2025	1260403	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
W05	W05	Water	26 Aug 2025	1260403	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	0.04	<0.01	0.02	<0.01	

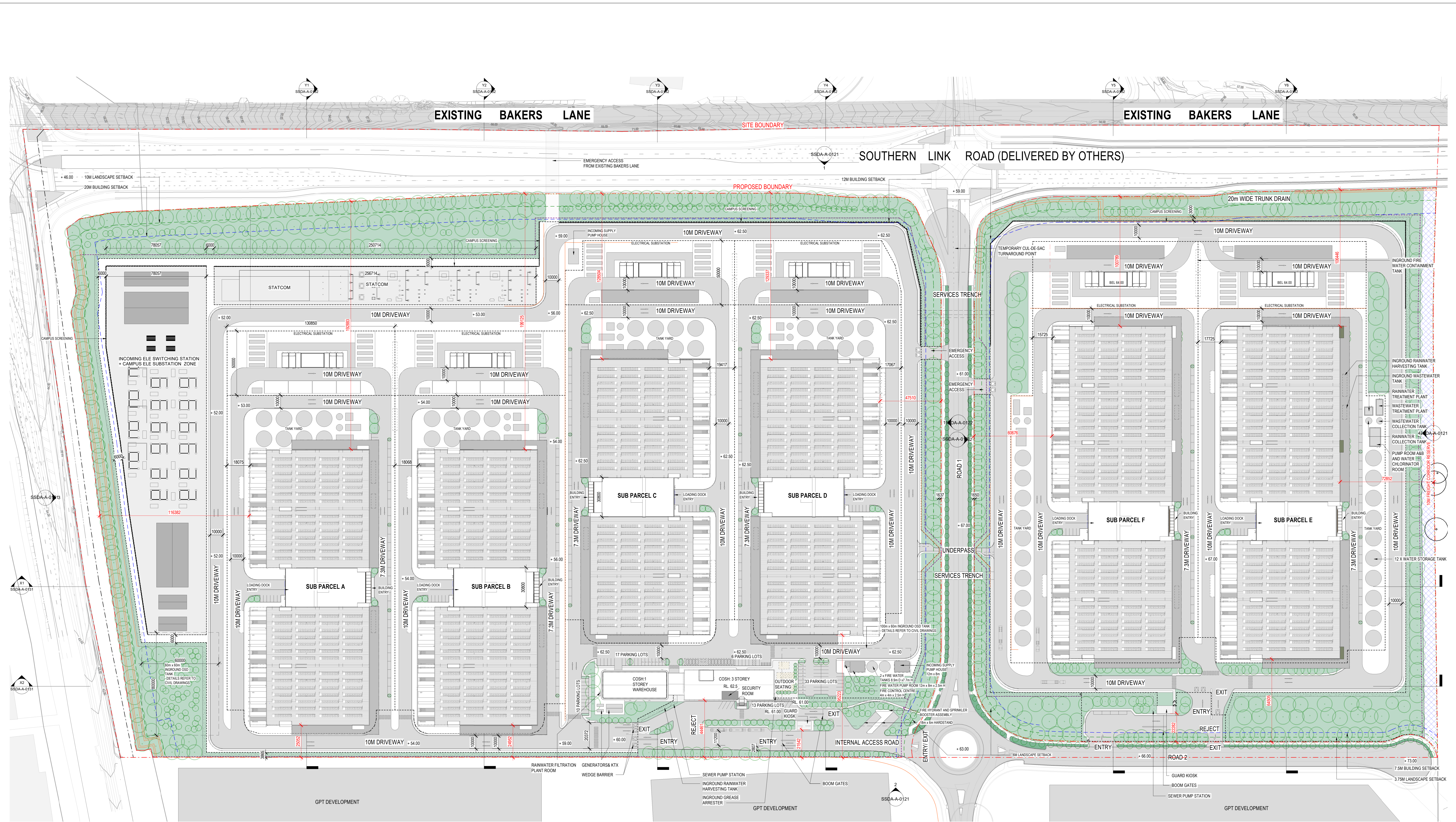
TABLE E - Results of Analysis, PFAS in Surface Water  
 Project Number: 70548 Project Name: Mamre Road Kemps Creek



	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of WA DWER PFAS (n=10)*	Sum of PFAS	Perfluorononanesulfonic acid ion
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.01
PFAS NEMP 3.0 (2025) Freshwater 95% species protection								
PFAS NEMP 3.0 (2025) Freshwater 99% species protection								
PFAS NEMP 3.0 (2025) Recreational Water					2			

Location	Field ID	Matrix Type	Date	Lab Report								
W01	W01	Water	25 Aug 2025	1260403	<0.01	<0.05	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01
W02	QA20250825_W01	Water	25 Aug 2025	ES2526333	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.02
W02	QC20250825_W01	Water	25 Aug 2025	1260403	<0.01	<0.05	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01
W02	W02	Water	25 Aug 2025	1260403	<0.01	<0.05	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01
W03	W03	Water	25 Aug 2025	1260403	<0.01	<0.05	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01
W04	W04	Water	26 Aug 2025	1260403	<0.01	<0.05	<0.01	<0.01	<0.01	<0.05	<0.1	<0.01
W05	W05	Water	26 Aug 2025	1260403	<0.01	<0.05	<0.01	<0.01	0.06	0.07	<0.1	<0.01

## Appendix B Design Plans



PARKING SCHEDULE	
NUMBER PER PARCEL:	90 (90 total for 6 parcels)
COSH PARKING:	79
TOTAL:	819 (including 124 EV parking)
MOTORCYCLE PARKING:	6



LEGEND	
--- (dashed line)	FENCE TYPE 1 - ANTICLIMB 358 WELD MESH 2.438m (H) BLACK FINISH (CAT3)
--- (dotted line)	FENCE TYPE 2 - CHAIN LINK FENCE 2.1m (H) (CAT2)
--- (dash-dot line)	FENCE TYPE 3 - WOODEN FENCE 1.2m (H) (CAT1)
---	BOUNDARY LINE
---	SETBACK - BUILDING
---	SETBACK - LANDSCAPE
---	EASEMENT/RESTRICTION ON USERS
○ (circle with dot)	PROPOSED TREES
○ (circle)	EXISTING TREES
---	RETAINING WALL (FOR INDICATION ONLY, REFER TO CIVIL PACKAGE)
---	PEDESTRIAN FOOTPATH
---	ROAD
---	10M ROAD RESERVE
---	STERILE ZONE
---	LANDSCAPED AREA / DEEP SOIL ZONE
---	UNDERPASS
---	SERVICE TRENCH
---	COSH
---	CAMPUS OPERATIONS & SUPPORT HUB

<p>Issue 01 Date 31.10.2025 Description SDA SUBMISSION Notes</p>	<p>Key Plan</p>	<p>Project Manager</p>	<p>Client</p>	<p>Client: Plan Project Management Pty Ltd Project: MAMRE ROAD DATA CENTRE CAMPUS Address: 706-732 MAMRE ROAD, KEMPS CREEK NSW 2178</p>	<p>Scale: As indicated 0 10 20 30 40 50 m</p> <p>Project Status: DEVELOPMENT APPLICATION Drawing Title: CAMPUS PLAN Drawing Number: SSDA-A-0100 Issue: 02</p>
<p>Greenbox A WOOLPERT COMPANY</p> <p>611 2 8069 8000 LEVEL 22 68 PITT STREET SYDNEY NSW 2000 AUSTRALIA</p> <p>GREENBOX ARCHITECTURE PTY LTD ABN: 79 139 779 098 ISO 9001 CERTIFIED QUALITY SYSTEM</p>		<p>Use written dimensions only Do not scale from drawing Contractors shall confirm all dimensions on-site prior to commencing any work or producing any shop drawings All materials to be used in accordance with the manufacturer's specifications and instructions and shall comply with the relevant Australian Standards Copyright of this drawing and design remain the property of Greenbox Architecture Pty Ltd Nominated Architect - Gerard Page, NSW reg No. 7247, Vic reg No. 17864, QLD reg No. 4538</p>		<p>Sheet Size: As indicated 0 10 20 30 40 50 m</p> <p>Checked By: [Signature] Approved By: [Signature] Job Number: 250070</p>	

## Appendix C Historical Field Logs



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,985.3
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,239.51
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots and rootlets CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		RZ01_0-0.05	0.4	10L AQNo visible ACM observed
		0.2		CL			RZ01_0.3-0.4	0	No Odour, Staining or Asbestos observed.
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,980.4
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,231.39
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots, rootlets and scrap metal		RZ02_0-0.1	0.8	No Odour, Staining or Asbestos observed.
		RZ02_0-0.3					0.9	10L AQNo visible ACM observed	
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity				
		0.4					RZ02_0.4-0.5	0.5	No Odour, Staining or Asbestos observed.
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,991.14
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,240.11
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots, rootlets, rock boulders and gravels		RZ03_0-0.1	0.3	
		0.2					RZ03_0-0.3	0.7	10L AQVisible ACM observed
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		RZ03_0.3-0.4	1	No Odour, Staining or Asbestos observed.
0.4									
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,998.44
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,238.61
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots and rootlets and igneous gravel		RZ04_0-0.1	0.9	
		0.2					RZ04_0-0.3	0.5	10L AQV visible ACM observed. 40cm x 15cm Sheeting (no ACM weight obtained)
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		RZ04_0.3-0.4	0.4	No Odour, Staining or Asbestos observed.
0.4									
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,002.12
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,232.69
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots and rootlets, igneous gravel		RZ05_0-0.1	0	
		0.2		RZ05_0-0.2			0.3	10L AQVisible ACM observed (0.015 %w/w ACM)	
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		RZ05_0.3-0.4	0.3	No Odour, Staining or Asbestos observed.
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,994.27
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,224.16
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots, rootlets, road base and gravels		RZ06_0-0.1	0.9	
		0.2					RZ06_0-0.3	0.5	10L AQNo visible ACM observed
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		RZ06_0.3-0.4	0.1	No Odour, Staining or Asbestos observed.
0.4									
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,999.14
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,214.44
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots, rootlets, brick, stone boulders, concrete, large tree roots		RZ07_0-0.1	0.4	
							RZ07_0-0.3	0.7	10L AQ Visible ACM observed (0.046 %w/w ACM)
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity				
		0.5					RZ07_0.5-0.6	0.8	No Odour, Staining or Asbestos observed.
		0.6			Termination Depth at: 0.6 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,996.33
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,242.58
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots, rootlets, stone boulders, gravels and road base		RZ08_0-0.1	0.2	
		RZ08_0-0.3					0.3	10L AQ Visible ACM observed (0.020 %w/w ACM)	
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		RZ08_0.3-0.4	0	No Odour, Staining or Asbestos observed.
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,976.43
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,211.44
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots and rootlets		RZ09_0-0.1	0.6	
		0.2					RZ09_0-0.3	0	10L AQ Visible ACM observed (0.005 %w/w ACM)
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity				
		0.4					RZ09_0.4-0.5	0	No Odour, Staining or Asbestos observed.
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,981.81
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,213.29
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, low plasticity with inclusions of tile, gravels and ACM fragments		RZ10_0-0.05	0.9	10L AQ Visible ACM observed+100 frags in sieve No frag bag collected QAQC_06 at 0 - 0.05 mbgs
		0.2		Fill			RZ10_0.2-0.3	0.8	
		0.3		CL	CLAY - Red - Orange, heterogeneous, dry, stiff, low plasticity		RZ10_0.4-0.5	1	No Odour, Staining or Asbestos observed.
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,983
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,218.4
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, soft, dry, non-plastic, with inclusions of road base gravels at 0 - 0.1 mbgs		RZ10A_0-0.1	0.7	
		0.2					RZ10A_0-0.3	0.2	10L AQNo visible ACM observed
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity				
		0.4					RZ10A_0.4-0.5	0.1	No Odour, Staining or Asbestos observed.
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,969.57
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,206.82
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CH

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots, rootlets, and road base		RZ11_0-0.1	0.9	10L AQNo visible ACM observed ACM on surface adjacent to location
		0.2		CL-ML	Silty CLAY - brown, heterogeneous, damp, firm, medium plasticity				
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,984.87
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,203.96
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CH

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Gravelly CLAY - Brown, heterogeneous, damp, soft, low plasticity with inclusions of poorly sorted igneous, road base gravel		RZ12_0-0.1	0.2	10L AQNo visible ACM observed
		0.2		Fill			Fill - Silty CLAY - Orange - brown, heterogeneous, dry, stiff, low plasticity	RZ12_0.2-0.3	0.7
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,970.92
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,195.6
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CH

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY - (Topsoil) Organic rich brown, heterogeneous, dry, with inclusions of small road base gravels and ACM Fill - Silty CLAY - Red - brown, heterogeneous, dry, stiff with inclusions of organic materials		RZ13_0-0.15	0.3	10L AQ Visible ACM observed (0.010 %w/w ACM)  No Odour, Staining or Asbestos observed.
		0.2		Fill			RZ13_0.2-0.3	0.8	
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,976.44
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,196.84
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CH

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Gravelly CLAY - Brown, heterogeneous, damp, stiff, low plasticity with inclusions of brick, roots, igneous gravel and trace glass		RZ14_0-0.1	0.7	10L AQNo visible ACM observed
		0.2		CL-ML	Silty CLAY - Red - brown, heterogeneous, damp, firm, medium plasticity		RZ14_0.1-0.2	1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> N/A
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> N/A
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CH

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of rounded gravels		RZ14A_0-0.1	0.5	10L AQNo visible ACM observed
		0.2		CL	Silty CLAY, red / brown mottled, heterogeneous		RZ14A_0.1-0.2	0	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,987.3
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,229.57
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots, rootlets, scrap metal, concrete boulders and brick		RZ15_0-0.1	0	
		0.2					RZ15_0-0.2	0	10L AQNo visible ACM observed
		0.3		CL	CLAY - Orange - Brown, heterogeneous, damp, hard, medium plasticity		RZ15_0.3-0.4	0.3	No Odour, Staining or Asbestos observed.
0.4	Termination Depth at: 0.4 m.								
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,977.97
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,223.08
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots and rootlets		RZ16_0-0.1	0.3	
		0.2					RZ16_0-0.3	0.6	10L AQNo visible ACM observed
		0.3		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity				
		0.4					RZ16_0.4-0.5	0.1	No Odour, Staining or Asbestos observed.
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,659.45
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,694.32
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		CL-ML	Silty Clay, yellow / brown, heterogeneous, stiff		TP01 0.0-0.1	0.4	No Odour, Staining or Asbestos
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,669.08
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,757.38
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Gravelly Silty CLAY, brown, heterogeneous, damp, inclusions of medium gravel and shale		TP02 0.0-0.1	0.7	No Odour, Staining or Asbestos
		0.2		CL-GC	Gravelly CLAY, yellow / brown, medium to high plasticity, damp, inclusions of small founded gravel		TP02 0.2-0.3	0.6	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,679.93
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,832.82
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		CL-ML	Silty Clay, brown, heterogeneous, firm / stiff, dry		TP03 0.0-0.1	0.1	No Odour, Staining or Asbestos
		TP03 0.1-0.2					0.7	No Odour, Staining or Asbestos	
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,690.17
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,902.06
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, stiff, dry, inclusions of roots (reworked natural)		TP04 0.0-0.1	0.6	No Odour, Staining or Asbestos
		0.2		CL	CLAY, red / brown, heterogeneous, dry, inclusions of small gravels		TP04 0.3-0.4	0.9	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,700.41
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,971.31
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		CL	CLAY, red / brown, heterogeneous, medium plasticity, damp, soft, inclusions of roots and rootlet @ 0.05m		TP05 0.0-0.1	0.5	No Odour, Staining or Asbestos
		0.2							
		0.3					TP05 0.2-0.3	1	No Odour, Staining or Asbestos
		0.4			Termination Depth at: 0.3 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,710.65
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,040.56
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Silty Clay, brown, heterogeneous, stiff, dry, Reworked natural		TP06 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2		CL	CLAY, orange / brown, heterogeneous, medium to high plasticity, damp, inclusions of small rounded ironstone gravel		TP06 0.4-0.5	0.3	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,719.57
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,101.87
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP07 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2		CL			CLAY, orange, homogeneous, medium plasticity, hard, dense, damp	TP07 0.2-0.3	0
		0.3							
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,590.2
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,704.56
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, firm with inclusions of trace roots		TP08_0-0.1	0.7	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,598.81
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,780.7
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, firm with inclusions of trace roots		TP09_0-0.1	0.7	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,610.68
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,843.06
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, soft - firm with inclusions of trace roots		TP10_0-0.1	0.5	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,620.92
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,912.3
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Light brown - brown, heterogeneous, dry, low plasticity, soft with inclusions of trace roots		TP11_0-0.1	0.6	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,631.16
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,981.55
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft with inclusions of grass roots		TP12_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,645.7
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,064.36
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, dark brown, heterogeneous, low plasticity, soft, damp		TP13 0.0-0.1	0.4	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5					TP13 0.5-0.6	0.9	No Odour, Staining or Asbestos
		0.6		CL	CLAY, red, homogeneous, medium plasticity, firm, damp to wet				
		0.7							
		0.8							
		0.9							
		1.0							
		1.1					TP13 1.0-1.1	0.9	No Odour, Staining or Asbestos
		1.2							
		1.3			Termination Depth at: 1.3 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,520.96
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,714.8
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, firm with inclusions of trace roots		TP14_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,508.16
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,792.95
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non-plastic, firm with inclusions of trace roots		TP15_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,541.44
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,853.3
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, soft - firm with inclusions of trace roots		TP16_0-0.1	0	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,551.67
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,922.54
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Light brown - brown, heterogeneous, dry, low plasticity, soft with inclusions of trace roots		TP17_0-0.1	1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,566.92
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,989.92
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft with inclusions of grass roots		TP18_0-0.1	0.4	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,451.71
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,725.04
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, firm with inclusions of trace roots		TP19_0-0.1	0.6	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,452.48
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,795.57
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non-plastic, firm with inclusions of trace roots		TP20_0-0.1	0.2	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,472.19
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,863.53
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, soft - firm with inclusions of trace roots		TP21_0-0.1	0.4	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,482.43
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,932.78
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Light brown - brown, heterogeneous, dry, low plasticity, soft with inclusions of trace roots		TP22_0-0.1	0.2	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,492.67
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,002.03
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft with inclusions of grass roots		TP23_0-0.1	0	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,572.2
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,045.23
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP24 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2							
		0.3		CL	CLAY, orange / brown mottled, heterogeneous, medium plasticity, firm, damp		TP24 0.5-0.6	0.6	No Odour, Staining or Asbestos
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0							
		1.1							
		1.2					TP24 1.2-1.3	0.2	No Odour, Staining or Asbestos
		1.3							
		1.4							
		1.5			Termination Depth at: 1.5 m.				
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,522.22
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,076.32
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, non to low plasticity, soft, dry to damp		TP25 0.0-0.1	1	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5					TP25 0.5-0.6	0.6	No Odour, Staining or Asbestos
		0.6		CL	CLAY, orange / red / grey mottled, heterogeneous, medium plasticity, firm, damp				
		0.7							
		0.8							
		0.9							
		1.0					TP25 0.9-1.0	0.8	No Odour, Staining or Asbestos
		1.1							
		1.2			Termination Depth at: 1.2 m.				
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,504.59
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,130.2
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty Clay, light brown, heterogeneous, non to low plasticity, soft		TP26 0.0-0.1	0	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5					TP26 0.5-0.6	0	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8							
		0.9							
		1.0		CL	CLAY, red, homogeneous, low to medium plasticity, stiff, hard, dry				
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6			Termination Depth at: 1.5 m.				
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,574.25
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,163.1
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP27 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5							
		0.6							
		0.6		CL	CLAY, orange / brown, homogeneous, medium plasticity, hard, dense, damp		TP27 1.2-1.3	0.6	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0			Termination Depth at: 2.0 m.				
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,382.46
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,735.28
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft with inclusions of grass roots		TP28_0-0.1	0.2	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,392.7
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,804.53
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft with inclusions of grass roots		TP29_0-0.1	0.3	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,402.94
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,873.77
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, soft - firm with inclusions of trace roots		TP30_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,413.18
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,943.02
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Light brown - brown, heterogeneous, dry, non-plastic, soft with inclusions of trace roots		TP31_0-0.1	0.6	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,423.42
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,012.27
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft with inclusions of grass roots		TP32_0-0.1	1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,444.2
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,093.85
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft - firm with inclusion of trace grass roots		TP33_0-0.1	0.7	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,443.9
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,150.76
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP34 0.0-0.1	0.4	No Odour, Staining or Asbestos
		0.2		CL	CLAY, orange / brown, heterogeneous, low plasticity, hard, dense, damp		TP34 0.2-0.3	0.4	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,313.22
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,745.52
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Dark brown, heterogeneous, dry, non plastic with inclusions of trace grass roots		TP35_0-0.1	1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,323.45
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,814.77
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic with inclusions of trace grass roots		TP36_0-0.1	1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,333.69
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,884.01
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, soft - firm with inclusions of trace roots		TP37_0-0.1	1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,343.93
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,953.26
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, firm with inclusions of trace roots		TP38_0-0.1	0.4	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,354.17
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,022.51
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft with inclusions of grass roots		TP39_0-0.1	0.9	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,364.41
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,091.75
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, firm with inclusions of grass roots		TP40_0-0.1	0.4	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,374.65
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,161
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP41 0.0-0.1	0	No Odour, Staining or Asbestos
		0.2		CL			CLAY, red / grey, heterogeneous, low plasticity, hard, dense, damp	TP41 0.2-0.3	0.4
		0.3							
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,243.97
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,755.76
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Silty CLAY, reworked natural - (Topsoil) Brown, heterogeneous, dry, soft, non-plastic		TP42_0-0.1	0.7	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m. Natural material observed at base.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,254.21
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,825
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Silty CLAY, reworked natural - (Topsoil) Brown, heterogeneous, dry, soft, non-plastic		TP43_0-0.1	0.4	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m. Natural material observed at base.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,264.45
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,894.25
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Yellow - brown, heterogeneous, dry, low plasticity, soft		TP44_0-0.1	0.7	No Odour, Staining or Asbestos observed.
		TP44_0.2-0.3					0.4	No Odour, Staining or Asbestos observed.	
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,274.69
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,963.5
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Silty CLAY, reworked natural - (Topsoil) Brown, heterogeneous, dry, soft, non-plastic		TP45_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,284.93
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,032.75
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, non plastic - low plasticity, firm with inclusions of trace roots		TP46_0-0.1	0.9	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,295.16
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,101.99
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, firm with inclusions of trace roots, leaves and gravels		TP47_0-0.1	0	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,305.4
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,171.24
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP48 0.0-0.1	0.4	No Odour, Staining or Asbestos
		0.2		CL			CLAY, red, heterogeneous, low plasticity, hard, dense, damp	TP48 0.2-0.3	0.4
		0.3							
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,174.72
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,766
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, low plasticity, soft		TP49_0-0.1	0.4	No Odour, Staining or Asbestos observed.
		0.3		CL			CLAY - Yellow - brown, heterogeneous, damp, hard, dense, medium plasticity	TP49_0.3-0.4	0.7
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,184.96
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,835.24
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY - (Topsoil) Brown, heterogeneous, dry, soft, non-plastic		TP50_0-0.1	0.5	No Odour, Staining or Asbestos observed.
		0.2		CL	CLAY - Red - Brown, homogeneous, damp, hard, dense, medium plasticity				
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,195.2
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,904.49
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Silty CLAY, reworked natural - (Topsoil) Brown, heterogeneous, dry, soft, non-plastic Increasing volume of natural clay and stiffness		TP51_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		TP51_0.2-0.3					0.1	No Odour, Staining or Asbestos observed.	
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,205.44
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,973.74
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY (Topsoil) - Brown, heterogeneous, damp with inclusions of roots		TP52_0-0.1	0.7	No Odour, Staining or Asbestos observed.
		0.2		RWN	Fill - Re-Worked Natural - Silty CLAY (Topsoil) - Brown, heterogeneous, damp, firm - stiff with inclusions of roots and gravels		TP52_0.2-0.3	0.6	No Odour, Staining or Asbestos observed.
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,215.68
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,042.98
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY (Topsoil) - Yellow - Brown, heterogeneous, damp, firm - stiff with inclusions of roots and gravels		TP53_0-0.1	0	No Odour, Staining or Asbestos observed.
		0.2							
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,225.92
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,112.23
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - CLAY - Red - brown, heterogeneous, dry, stiff - hard, low plasticity		TP54_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		0.2		CL	CLAY - Red - brown, heterogeneous, mottled, damp, firm, low - medium plasticity				
		0.3					TP54_0.3-0.4	0.7	No Odour, Staining or Asbestos observed.
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,103.49
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,768.43
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1 0.2 0.3		RWN	Fill - Re-Worked Natural - Silty CLAY, brown, heterogeneous, wet		TP56_0-0.1	0.5	No Odour, Staining or Asbestos observed. Drainage channel encountered
		0.4 0.5 0.6 0.7 0.8 0.9 1 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2 2.1			Termination Depth at: 0.3 m.				


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,125.95
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,914.73
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY (Topsoil) - Brown, heterogeneous, damp with inclusions of roots		TP58_0-0.1	0	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,136.19
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,983.98
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY (Topsoil) - Brown, heterogeneous, damp with inclusions of roots		TP59_0-0.1	1	No Odour, Staining or Asbestos observed.
		0.2		CL			CLAY - Yellow - brown, heterogeneous, mottled, damp, firm, low - medium plasticity	TP59_0.2-0.3	1
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,146.43
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,053.22
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY (Topsoil) - Brown, heterogeneous, damp with inclusions of roots		TP60_0-0.1	0.5	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,156.67
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,122.47
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, firm, stiff		TP61 0.0-0.1	0.9	No Odour, Staining or Asbestos
		0.2			Termination Depth at: 0.2 m.				Refusal @ 0.2m
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,166.91
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,191.72
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		CL-ML	Silty CLAY, brown, heterogeneous, very firm, stiff, inclusions of roots		TP62 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,036.23
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,253,786.47
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY (Topsoil) - Brown, heterogeneous, damp with inclusions of roots		TP63_0-0.1	0.6	No Odour, Staining or Asbestos observed.
		0.2		CL	CLAY - Yellow - brown, heterogeneous, mottled, damp, firm, low - medium plasticity		TP63_0.2-0.3	0.9	No Odour, Staining or Asbestos observed.
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,066.42
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,985.75
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP64 0.0-0.1	0.9	No Odour, Staining or Asbestos
		0.2		CL			CLAY, yellow / brown, heterogeneous, dry	TP64 0.2-0.3	0.7
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,077.18
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,063.46
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Gravelly Silty CLAY, brown, heterogeneous, firm, dry		TP65 0.0-0.1	0.6	No Odour, Staining or Asbestos
		0.2		CL-ML-GM	Gravelly Silty CLAY, brown, heterogeneous, extremely stiff, hard, dry		TP65 0.2-0.3	0.5	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							




<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,087.42
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,132.71
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, hard / firm, dry, inclusions of roots		TP66 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, brown / yellow / orange, heterogeneous, very stiff, dry				
		0.3			Termination Depth at: 0.3 m.			TP66 0.2-0.3	0.2
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,104.51
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,201.24
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, low plasticity, firm, dry, inclusions of roots		TP67 0.0-0.1	1	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, brown, heterogeneous, low plasticity, very stiff, dry				
		0.3					TP67 0.2-0.3	0.4	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,966.98
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,796.71
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP68 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2		CL-ML			Silty CLAY, yellow / orange / brown mottled, heterogeneous, medium plasticity	TP68 0.2-0.3	0.2
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,997.7
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,004.46
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP69 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, brown, heterogeneous, low plasticity, very stiff, dry		TP69 0.3-0.4	0.9	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,007.94
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,073.7
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Gravelly CLAY - reworked natural, brown, heterogeneous, firm, stiff, dry		TP70 0.0-0.1	0.8	No Odour, Staining or Asbestos
		0.2							
		0.3			Termination Depth at: 0.3 m.				Refusal @ 0.3m
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,030.61
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,148.77
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Silty Clay, reworked natural, light brown, heterogeneous, firm, stiff, dry, inclusions of roots		TP71 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2		CL-ML			Silty CLAY, light brown, heterogeneous, extremely firm / stiff, dry	TP71 0.2-0.3	0.9
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,019.36
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,223.31
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Dark brown, heterogeneous, dry, firm, low plasticity with inclusions of some roots		TP72_0-0.1	0.9	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,897.73
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,806.95
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP73 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2		CL	CLAY, yellow / brown, heterogeneous, medium plasticity, inclusions of small gravel		TP73 0.4-0.5	0.8	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,907.97
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,876.2
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP74 0.0-0.1	0	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, yellow / red / brown, heterogeneous, medium plasticity, soft, damp, inclusions of small gravels		TP74 0.2-0.3	0.9	No Odour, Staining or Asbestos
		0.3							
		0.4					TP74 0.4-0.5	0.9	No Odour, Staining or Asbestos
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,918.21
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,945.45
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP75 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2		CL	CLAY, red / brown, heterogeneous, dry		TP75 0.2-0.3	0.6	No Odour, Staining or Asbestos
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,928.45
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,014.69
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP76 0.0-0.1	0.6	No Odour, Staining or Asbestos
		0.2		CL	CLAY, red / brown, heterogeneous, dry		TP76 0.3-0.4	0.9	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,938.69
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,083.94
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP77 0.0-0.1	0.3	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, orange / brown, heterogeneous, medium plasticity, damp		TP77 0.2-0.3	0.7	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,948.93
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,153.19
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, dry		TP78 0.0-0.1	0.4	No Odour, Staining or Asbestos
		0.2			CL		CLAY, red / grey, heterogeneous, medium plasticity, hard, dense, damp		
		0.5	TP78 0.5-0.6					0	No Odour, Staining or Asbestos
		0.9	TP78 0.9-1.0					0.6	No Odour, Staining or Asbestos
		1			Termination Depth at: 1.0 m.				
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,931.35
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,228.14
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP79 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5		CL	CLAY, red / orange, heterogeneous, low to medium plasticity, hard, dense, damp		TP79 0.5-0.6	0	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8			Termination Depth at: 0.7 m.				
		0.9							
		1.0							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,828.49
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,817.19
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP80 0.0-0.1	1	No Odour, Staining or Asbestos
		0.2		CL	CLAY, red / brown, heterogeneous, dry		TP80 0.2-0.3	0	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,838.73
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,886.44
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP81 0.0-0.1	0.7	No Odour, Staining or Asbestos
		0.2		CH	CLAY, red / brown, heterogeneous, medium to high plasticity, dry, inclusions of small gravel		TP81 0.3-0.4	0.6	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,848.96
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,955.69
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, stiff, dry, inclusions of roots and rootlets		TP82 0.0-0.1	0.4	No Odour, Staining or Asbestos
		0.2		CH-MH	Silty CLAY, red / brown, heterogeneous, medium to high plasticity, damp		TP82 0.2-0.3	0.3	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,859.2
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,024.93
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, dry		TP83 0.0-0.1	0.9	No Odour, Staining or Asbestos
		0.2		CH	CLAY, red / brown / grey mottled, heterogeneous, medium plasticity, inclusions of small rounded gravels		TP83 0.2-0.3	0.6	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,853.43
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,093.71
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY, heterogeneous, low plasticity, soft, damp, inclusions of bricks, tiles, gravels, concrete		TP84 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2		CL	CLAY, red, homogeneous, medium plasticity, hard, dense, damp		TP84 0.5-0.6	0	No Odour, Staining or Asbestos
		0.7			Termination Depth at: 0.7 m.				
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,879.68
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,163.43
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, non to low plasticity, soft, dry		TP85 0.0-0.1	0.7	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5		CL	CLAY, red / orange, homogeneous, hard, dense, damp, inclusion of large tree roots		TP85 0.5-0.6	1	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2			Termination Depth at: 1.1 m.				
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,889.92
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,232.67
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, brown, heterogeneous, low plasticity, soft, damp		TP86 0.0-0.1	0.6	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5		CL	CLAY, deep red, homogeneous, low to medium plasticity, hard, damp		TP86 0.5-0.6	0.5	No Odour, Staining or Asbestos
		0.6							
		0.7			Termination Depth at: 0.7 m.				
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,759.24
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,827.43
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, damp, inclusions of roots and rootlets		TP87 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, red / brown, heterogeneous, medium to high plasticity, damp		TP87 0.3-0.4	0	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,769.48
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,896.68
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, damp, inclusions of roots and rootlets		TP88 0.0-0.1	0.9	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, yellow / brown, heterogeneous, damp		TP88 0.2-0.3	0.1	No Odour, Staining or Asbestos
		0.3			Termination Depth at: 0.3 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,779.72
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,965.93
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, stiff, dry, inclusions of roots and rootlets		TP89 0.0-0.1	0.6	No Odour, Staining or Asbestos
		0.2		CL-ML	Silty CLAY, red / brown / yellow mottled, heterogeneous, medium plasticity, dry		TP89 0.3-0.4	1	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,789.96
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,035.17
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - CLAY, reworked natural, red / brown, heterogeneous, inclusions of minor gravels, rootlets		TP90 0.0-0.1	0.1	No Odour, Staining or Asbestos. QA/QC 05
		0.2		CH	CLAY, red / brown mottled, heterogeneous, medium to high plasticity				
		0.3					TP90 0.3-0.4	0	No Odour, Staining or Asbestos
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,810.83
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,185.97
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, low plasticity, soft, dry to damp		TP91 0.0-0.1	0.5	No Odour, Staining or Asbestos
		0.2							
		0.3		CL	CLAY, red / grey mottled, heterogeneous, low to medium plasticity, hard, dense, damp		TP91 0.5-0.6	0.2	No Odour, Staining or Asbestos
		0.4							
		0.5							
		0.6							
		0.7							
		0.8			Termination Depth at: 0.8 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,820.67
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,242.91
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, brown, heterogeneous, low plasticity, soft, dry to damp		TP92 0.0-0.1	0.8	No Odour, Staining or Asbestos
		0.2		CL			CLAY, red, homogeneous, medium plasticity, hard, dense, damp		
		0.3			TP92 0.5-0.6			1	No Odour, Staining or Asbestos
		0.4							
		0.5							
		0.6							
		0.7			Termination Depth at: 0.7 m.				
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,689.99
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,837.67
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, loose, damp, inclusions of roots		TP93 0.0-0.1	0.9	No Odour, Staining or Asbestos
		0.2		CH-MH	Silty CLAY, orange mottled, heterogeneous, medium to high plasticity		TP93 0.3-0.4	0	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,700.23
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,906.92
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, soft, inclusions of roots		TP94 0.0-0.1	0.8	No Odour, Staining or Asbestos
		0.2		CH	CLAY, red / brown mottled, heterogeneous, medium to high plasticity, damp		TP94 0.3-0.4	0.5	No Odour, Staining or Asbestos
		0.3							
		0.4			Termination Depth at: 0.4 m.				
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 294,710.47
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,253,976.16
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - Silty CLAY, dark brown, heterogeneous, low plasticity, stiff, dry, inclusions of roots		TP95 0.0-0.1	0.9	No Odour, Staining or Asbestos
		0.2		CH-MH	Silty CLAY, yellow / brown / white mottled, heterogeneous, medium to high plasticity, moist				
		0.4					TP95 0.4-0.5	1	No Odour, Staining or Asbestos
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,718.65
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,038.27
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, red / orange, heterogeneous, low plasticity, soft, dry to damp		TP96 0.0-0.1	0.8	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5		CL	CLAY, red, heterogeneous, medium plasticity, hard, dense, damp		TP96 0.5-0.6	0.9	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8							
		0.9							
		1			Termination Depth at: 1.0 m.				
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,702.14
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,067.77
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, brown, heterogeneous, low plasticity, soft to firm, damp		TP98 0.0-0.1	0.4	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5		RWN	Fill - Silty CLAY, reworked natural, dark brown / grey, heterogeneous, non to low plasticity, soft, wet		TP98 0.5-0.6	0	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8							
		0.9		CH	CLAY, red, homogeneous, medium to high plasticity, hard, dense, damp				
		1.0							
		1.1					TP98 1.0-1.1	0.4	No Odour, Staining or Asbestos
		1.2							
		1.3			Termination Depth at: 1.2 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,705.39
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,118.44
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, brown, heterogeneous, low plasticity, soft, dry to damp		TP99 0.0-0.1	0	No Odour, Staining or Asbestos
		0.2							
		0.3		CL	CLAY, red, homogeneous, medium plasticity, hard, dense, damp		TP99 0.5-0.6	0.4	No Odour, Staining or Asbestos
		0.4							
		0.5							
		0.6							
		0.7							
		0.8			Termination Depth at: 0.8 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,715.63
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,187.69
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, brown, heterogeneous, low plasticity, soft, dry to damp		TP100 0.0-0.1	0.2	No Odour, Staining or Asbestos
		0.2							
		0.3		CL	CLAY, red, homogeneous, medium plasticity, hard, dense, damp				
		0.4							
		0.5					TP100 0.5-0.6	0.9	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8			Termination Depth at: 0.8 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,407.27
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,101.28
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, firm, low plasticity with inclusions of trace roots		TP100A_0-0.1	0.2	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,725.6
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,258.66
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, brown, heterogeneous, low plasticity, soft, dry to damp		TP101 0.0-0.1	0.5	No Odour, Staining or Asbestos
		0.2		CL			CLAY, red, homogeneous, medium plasticity, hard, dense, damp		
		0.3							
		0.4							
		0.5					TP101 0.5-0.6	0.6	No Odour, Staining or Asbestos
		0.6							
		0.7			Termination Depth at: 0.7 m.				
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							




<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,183.52
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,068.26
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations	
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Orange - brown, heterogeneous, damp, hard, firm, low - medium plasticity					
		0.2					TP102_0.2-0.3	0.3	No Odour, Staining or Asbestos observed.	
		0.3								
		0.4								
		0.5								
		0.6		RWN	Fill - Re-Worked Natural - Silty CLAY - Dark brown, heterogeneous, damp - wet, soft, firm, low - medium plasticity					
		0.7	TP102_0.7-0.8			0.7	No Odour, Staining or Asbestos observed.			
		0.8								
		0.9								
		1.0		CH	CLAY - Dark grey, homogeneous, damp, hard, dense, medium - high plasticity					
		1.1								No Odour, Staining or Asbestos observed.
		1.2								
		1.3					TP102_1.2-1.3	0.8		
		1.4								
		1.5			Termination Depth at: 1.4 m.					
		1.6								
		1.7								
		1.8								
		1.9								
		2.0								
		2.1								


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,197.02
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,073.65
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations	
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Orange - brown, heterogeneous, damp, hard, firm, low - medium plasticity					
		0.2						TP103_0.2-0.3	0.3	No Odour, Staining or Asbestos observed.
		0.3		RWN	Fill - Re-Worked Natural - Silty CLAY - Dark brown, heterogeneous, damp - wet, soft, firm, low - medium plasticity					
		0.4						TP103_0.7-0.8	1	No Odour, Staining or Asbestos observed.
		0.5		CH	CLAY - Dark grey, homogeneous, damp, hard, dense, medium - high plasticity					
		0.6								
		0.7								
		0.8								
		0.9								
		1.0								
		1.1								
		1.2								
		1.3					TP103_1.2-1.3	0.3	No Odour, Staining or Asbestos observed.	
		1.4			Termination Depth at: 1.3 m.					
		1.5								
		1.6								
		1.7								
		1.8								
		1.9								
		2.0								
		2.1								



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,202.37
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,063.01
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Dark brown, heterogeneous, damp, soft, non - plastic - low plasticity		TP104_0-0.1	0.3	No Odour, Staining or Asbestos observed.
		0.2		CL			CLAY - Red, homogeneous, damp, hard, firm, low - medium plasticity		
		0.3					TP104_0.3-0.4	0.3	
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,105.41
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,797.32
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, grey / brown, heterogeneous, inclusions of plastic, tile, bitumen, sandstone, slag / charcoal, wire, metal pipe		TP105 0.0-1.0		10L AQ Visible ACM observed (0.0216 % w/w ACM)
		0.2					TP105 0.2-0.3	0.7	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP105 0.6-0.7	0.2	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0		CL-ML	Silty CLAY, orange / brown, heterogeneous, low to medium plasticity, hard, dry		TP105 1.0-1.1	0.2	No Odour, Staining or Asbestos
	1.1								
	1.2								
	1.3								
		1.4			Termination Depth at: 1.4 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,104.18
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,809.68
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clayey Silty SAND, pale brown / white, heterogeneous, inclusions of sandstone, clay casts, tile, concrete		TP105A 0.0-1.0		10L AQNo visible ACM observed
		0.2							
		0.3							
		0.4					TP105A 0.4-0.5	0.4	No Odour, Staining or Asbestos
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0							
		1.1		CL-ML	Silty CLAY, orange / brown, heterogeneous, medium plasticity, damp				
		1.2							
		1.3							
		1.4					TP105A 1.3-1.4	0.3	No Odour, Staining or Asbestos
		1.5			Termination Depth at: 1.4 m.				
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,107.49
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,833.96
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Clayey SILT, brown, heterogeneous, inclusions of metal pipe, star post, plastic, gravel, brick, tile, concrete		TP106 0.0-1.0		10L AQ Visible ACM observed (0.0366 % w/w ACM)
		0.2					TP106 0.2-0.3	0.2	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP106 0.6-0.7	1	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0							
		1.1		CL-ML	Silty CLAY, brown / orange, heterogeneous, low to medium plasticity, hard, dry				
		1.2							
		1.3					TP106 1.2-1.3	0.2	No Odour, Staining or Asbestos
		1.4			Termination Depth at: 1.3 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,105.8
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,820.84
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, grey / brown, heterogeneous, inclusions of plastic, sandstone, concrete, tile, insulation, terracotta		TP106A 0.0-1.0		10L AQ Visible ACM observed (0.0383 % w/w ACM)
		0.2					TP106A 0.2-0.3	0	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP106A 0.6-0.7	0.4	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0		CL-ML	Silty CLAY, orange / brown, heterogeneous, low to medium plasticity, hard, dry		TP106A 1.0-1.1	0.1	No Odour, Staining or Asbestos
		1.1							
		1.2							
		1.3			Termination Depth at: 1.3 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,102.28
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,843.38
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clayey Silty SAND, pale brown / white, heterogeneous, inclusions of sandstone, igneous rock, ash		TP107 0.0-1.0		10L AQNo visible ACM observed
		0.2					TP107 0.2-0.3	0.5	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP107 0.6-0.7	0.2	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0		CL-ML	Silty CLAY, brown / orange / red, heterogeneous, medium plasticity, hard		TP107 1.0-1.1	0.9	No Odour, Staining or Asbestos
		1.1							
		1.2							
		1.3							
		1.4							
		1.5					TP107 1.4-1.5	0.1	No Odour, Staining or Asbestos
		1.6			Termination Depth at: 1.5 m.				
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,099.54
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,851.05
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, brown, heterogeneous, inclusions of slag, concrete, metal, sandstone, shale		TP108 0.0-1.0		10L AQNo visible ACM observed
		0.2					TP108 0.2-0.3	0.6	No Odour, Staining or Asbestos
		0.3							
		0.4					TP108 0.6-0.7	0.8	No Odour, Staining or Asbestos
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0			Termination Depth at: 1.0 m.				
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,094.85
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,844.71
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Clayey Silt, brown, heterogeneous, inclusions of tile, fabric, metal, concrete, brick, plastic		TP108A 0.0-0.9		10L AQ Visible ACM observed (0.0133 % w/w ACM)
		0.2					TP108A 0.2-0.3	0.7	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP108A 0.6-0.7	0.3	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9		CL-ML	Silty CLAY, yellow / brown, heterogeneous, medium plasticity, hard, damp		TP108A 0.9-1.0	0.9	No Odour, Staining or Asbestos
		1.0			Termination Depth at: 1.0 m.				
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,103.74
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,856.72
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, brown, heterogeneous, inclusions of clay pipe, concrete slabs, shale, bitumen, plastic		TP109 0.0-1.0		10L AQ Visible ACM observed (0.0133 % w/w ACM) QAQC_03 taken at 10L AQ
		0.2					TP109 0.2-0.3	0.8	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP109 0.6-0.7	1	No Odour, Staining or Asbestos QAQC_04 taken at TP109_0.6-0.7
		0.7							
		0.8							
		0.9							
		1.0							
		1.1		CL-ML	Silty CLAY, yellow / brown, heterogeneous, medium plasticity, hard, damp				
		1.2					TP109 1.2-1.3	0.1	No Odour, Staining or Asbestos
		1.3							
		1.4							
		1.5			Termination Depth at: 1.5 m.				
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,090.31
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,870.41
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, brown, heterogeneous, inclusions of shale, concrete, charcoal, plastic, metal, bitumen		TP110 0.0-1.0		10L AQNo visible ACM observed
		0.2					TP110 0.2-0.3	0.7	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP110 0.6-0.7	0.7	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0		CL-ML	Silty CLAY, yellow / brown, heterogeneous, medium plasticity, hard, damp				
	1.1								
	1.2								
	1.3								
		1.4					TP110 1.4-1.5	0.2	No Odour, Staining or Asbestos
		1.5			Termination Depth at: 1.5 m.				
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,102.8
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,869.35
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, light brown / brown, heterogeneous, inclusions of sandstone, gravel, metal pipe, brick, bitumen, glass, yellow pvc pipe, shale		TP111 0.0-1.0		10L AQNo visible ACM observed
		0.2					TP111 0.2-0.3	0.1	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP111 0.6-0.7	0.9	Visible ACM conduit observed 10x30cm, No Staining or odour
		0.7							
		0.8							
		0.9							
		1.0		CL-ML	Silty CLAY, brown / red, heterogeneous, medium plasticity, hard, damp		TP111 1.0-1.1	1	No Odour, Staining or Asbestos
		1.1							
		1.2			Termination Depth at: 1.2 m.				
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,107.75
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,862.81
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations	
Test Pit		0.1	[Cross-hatched pattern]	Fill	Fill - Clayey Silty SAND, pale brown / white, heterogeneous, inclusions of stiff clay clasts, gravels and sandstone, ash		TP112 0.0-0.6		10L AQNo visible ACM observed	
		0.2					TP112 0.2-0.3	1	No Odour, Staining or Asbestos	
		0.3								
		0.4								
		0.5								
		0.6								
		0.7	[Cross-hatched pattern]	Fill	Fill - Gravelly Silty CLAY, brown, heterogeneous, inclusions of brick, sandstone, bitumen		TP112 0.6-0.7	0.5	No Odour, Staining or Asbestos	
						TP112 0.6-1.0		10L AQNo visible ACM observed		
		0.8								
		0.9								
		1.0								
		1.1	[Diagonal hatched pattern]	CL-ML	Silty CLAY, orange / brown, heterogeneous, medium plasticity, damp		TP112 1.0-1.1	0.5	No Odour, Staining or Asbestos	
		1.2								
		1.3								
		1.4								
		1.5			Termination Depth at: 1.4 m.					
		1.6								
		1.7								
		1.8								
		1.9								
		2.0								
		2.1								



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,108.56
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,829.96
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, light brown, heterogeneous, inclusions of pvc pipe, sandstone, concrete boulders, brick, pipe		TP113 0.0-1.0		10L AQNo visible ACM observed
		0.2					TP113 0.2-0.3	0.3	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6					TP113 0.6-0.7	0.6	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0		CL-ML	Silty CLAY, orange / brown, heterogeneous, medium plasticity, hard, damp		TP113 1.0-1.1	0.9	No Odour, Staining or Asbestos
		1.1							
		1.2							
		1.3			Termination Depth at: 1.3 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,110.94
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,829.45
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Silty CLAY, brown, heterogeneous, damp, inclusions of small bitumen gravel		TP114 0.0-1.0		10L AQNo visible ACM observed
		0.2					TP114 0.2-0.3	0.2	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0							
		1.1		CL-ML	Silty CLAY, orange / brown, heterogeneous, medium plasticity, damp, inclusions of roots				
		1.2							
		1.3							
		1.4			Termination Depth at: 1.4 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,111.07
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,817.77
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly SILT, grey / brown, heterogeneous, inclusions of sandstone, metal pipe, plastic conduit and terracotta pipe fragments		TP115 0.0-1.0		10L AQ No visible ACM observed.QA/QC_01
		0.2					TP115 0.2-0.3	0.1	No Odour, Staining or Asbestos.QA/QC_02
		0.3							
		0.4							
		0.5							
		0.6					TP115 0.6-0.7	1	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0							
		1.1		CL-ML	Silty CLAY, brown / orange, medium plasticity, soft				
		1.2					TP115 1.1-1.2	0.4	No Odour, Staining or Asbestos
		1.3			Termination Depth at: 1.2 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,109.09
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,804.42
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly CLAY, brown, heterogeneous, inclusions of concrete, asphalt, bitumen, clay pipe, bricks, plastic, glass		TP116 0.0-1.0		10L AQ No visible ACM observed
		0.2					TP116 0.5-0.6	0.1	No Odour, Staining or Asbestos
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0					TP116 0.9-1.0	0	No Odour, Staining or Asbestos
		1.1		CL-ML	Silty CLAY, light yellow / brown				
		1.2					TP116 1.1-1.2	1	No Odour, Staining or Asbestos
		1.3			Termination Depth at: 1.2 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							




<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,830.34
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,136.99
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, brown, heterogeneous, low plasticity, soft, dry to damp		TP117 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2							
		0.3		CL	CLAY, dark red, homogeneous, medium plasticity, hard, dense, damp				
		0.4							
		0.5					TP117 0.5-0.6	0.7	No Odour, Staining or Asbestos
		0.6							
		0.7			Termination Depth at: 0.7 m.				
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,842.92
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,254,063.53
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations		
Test Pit		0.1		Fill	Fill - Silty CLAY - brown, heterogeneous, soft, damp, low plasticity, inclusions of roots and rootlets		TP118 0.0-0.1	0.9	No Odour, Staining or Asbestos		
		0.2		Fill	Fill - Silty CLAY - yellow / brown, heterogeneous, firm, low to medium plasticity						
		0.4					TP118 0.4-0.5	0.9	No Odour, Staining or Asbestos		
		0.6									
		0.7		Fill	Fill - Silty CLAY - brown, heterogeneous, firm, low to medium plasticity		TP118 0.6-0.7	0.9	No Odour, Staining or Asbestos		
		0.8		CL	CLAY, red, homogeneous, hard, damp, medium plasticity						
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
					Termination Depth at: 1.3 m.						
		1.8									
		1.9									
		2.0									
		2.1									



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,806.62
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,254,067.03
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - brown, heterogeneous, soft, damp, low plasticity, inclusions of roots and rootlets		TP119 0.0-0.1	0.6	No Odour, Staining or Asbestos
		0.2		Fill	Fill - Silty CLAY - light brown, heterogeneous, soft, damp, low plasticity				
		0.3		Fill	Fill - Silty CLAY - dark brown, heterogeneous, firm, wet, low plasticity				
		0.4					TP119 0.4-0.5	0.8	No Odour, Staining or Asbestos
		0.5							
		0.6					TP119 0.6-0.7	0.6	No Odour, Staining or Asbestos
		0.7							
		0.8							
		0.9							
		1.0							
		1.1		CL	Silty CLAY, red, homogeneous, dry, hard, low to medium plasticity				
		1.2					TP119 1.2-1.3	0.1	No Odour, Staining or Asbestos
		1.3							
		1.4							
		1.5			Termination Depth at: 1.5 m.				
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							




<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,779.54
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,254,091.99
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - brown, heterogeneous, soft, damp, low plasticity, inclusions of roots and rootlets		TP120 0.0-0.1	0.6	No Odour, Staining or Asbestos
		0.2		RWN	Fill - Silty CLAY - reworked natural, dark brown, heterogeneous, firm, wet, low plasticity				
		0.5					TP120 0.5-0.0	0.7	No Odour, Staining or Asbestos
		0.8		CL	Silty CLAY, red / brown, homogeneous, hard, damp / wet, medium plasticity				
		1.0					TP120 1.0-1.1	0.2	No Odour, Staining or Asbestos
		1.2			Termination Depth at: 1.2 m.				
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							




<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,770.69
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,254,124.36
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - brown, heterogeneous, soft, damp, low plasticity, inclusions of roots and rootlets		TP121 0.0-0.1	1	No Odour, Staining or Asbestos
		0.2		RWN	Fill - Silty CLAY - reworked natural, dark brown, heterogeneous, firm, wet, low plasticity				
		0.5					TP121 0.5-0.6	0.6	No Odour, Staining or Asbestos
		0.9							
		1.0		CL	Silty CLAY, red / brown, homogeneous, hard, damp / wet, medium plasticity		TP121 1.0-1.1	1	No Odour, Staining or Asbestos
		1.3			Termination Depth at: 1.3 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							




<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,777.66
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,254,159.86
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - brown, heterogeneous, soft, damp, low plasticity, inclusions of roots and rootlets		TP122 0.0-0.1	0.1	No Odour, Staining or Asbestos
		0.2		RWN	Fill - Silty CLAY - reworked natural, dark brown, heterogeneous, firm, wet, low plasticity				
		0.5					TP122 0.5-0.6	0.2	No Odour, Staining or Asbestos
		0.9							
		1.0		CL	Silty CLAY, red / brown, homogeneous, hard, damp / wet, medium plasticity		TP122 1.0-1.1	0.3	No Odour, Staining or Asbestos
		1.3							
		1.3			Termination Depth at: 1.3 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,978.11
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,946.15
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - red / orange, heterogeneous, mottled, hard, damp, low to medium plasticity				
		0.2							
		0.3		Fill	Fill - Clayey SILT - light brown / brown, heterogeneous, soft, damp, non-plastic to low plasticity		TP123 0.4-0.5	0.3	No Odour, Staining or Asbestos
		0.4							
0.5									
0.6						TP123 0.6-0.7	1	No Odour, Staining or Asbestos	
0.7									
0.8									
0.9									
1.0				CL-ML	Silty CLAY, red /grey, mottled, damp, hard, low plasticity				
1.1									
1.2									
1.3						TP123 1.2-1.3	0.9	No Odour, Staining or Asbestos	
1.4									
1.5					Termination Depth at: 1.5 m.				
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,974.72
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,902.53
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY - reworked natural, light brown, heterogeneous, soft, dry, medium plasticity				
		0.2							
		0.3							
		0.4					TP124 0.4-0.5	0	No Odour, Staining or Asbestos
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0		CL-ML	Silty CLAY, orange / brown, heterogeneous, damp, hard, low to medium plasticity				
		1.1					TP124 1.0-1.1	0.9	No Odour, Staining or Asbestos
		1.2							
		1.3			Termination Depth at: 1.2 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> N/A
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> N/A
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY - reworked natural, light brown, heterogeneous, soft, dry, medium plasticity				
		0.2					TP124A 0.2-0.3	0	No Odour, Staining or Asbestos
		0.3		CL-ML	Silty CLAY, orange / brown, heterogeneous, damp, hard, low to medium plasticity				
		0.4			TP124A 0.4-0.5		0.7	No Odour, Staining or Asbestos	
		0.5							
		0.6			Termination Depth at: 0.6 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,985.33
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,864.03
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY - reworked natural, light brown, heterogeneous, soft, dry, medium plasticity				
		0.2							
		0.3							
		0.4					TP125 0.4-0.5	0.2	No Odour, Staining or Asbestos
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0							
		1.1		CL-ML	Silty CLAY, orange / brown, heterogeneous, damp, hard, low to medium plasticity				
		1.2							
		1.3							
		1.4			Termination Depth at: 1.3 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,034.83
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,857.19
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, light brown, heterogeneous, soft, dry, medium plasticity				
		0.2							
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8		CL-ML	Silty Clay, orange / brown, heterogeneous, damp, hard, low to medium plasticity				
		0.9							
		1.0							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5			Termination Depth at: 1.4 m.				
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,080.58
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,877.12
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty Clay, dark brown, heterogeneous, soft, damp, low plasticity				
		0.2							
		0.3							
		0.4							
		0.5					TP127 0.4-0.5	0.1	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8							
		0.9							
		1.0							
		1.1							
		1.2		CL-ML	Silty Clay, brown / orange: heterogeneous, damp, hard, low to medium plasticity		TP127 1.2-1.3	0.6	No Odour, Staining or Asbestos
		1.3							
		1.4			Termination Depth at: 1.4 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,092.51
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,236.69
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, non to low plasticity, soft, dry, inclusions of concrete, brick, glass, gravel, metal, plastic, rubbish		TP128 0.0-0.1	0.7	No Odour, Staining or Asbestos
		0.2					TP128 0.0-1.0		10L AQ/visible ACM observed TP128_Frag (0.010 %w/w ACM)QAQC_03 taken at 10L AQ 0-0.1
		0.3					TP128 0.5-0.6	0.1	No Odour, Staining or Asbestos
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1.0		CL	CLAY, red, homogeneous, low plasticity, stiff, dry				
		1.1							
		1.2					TP128 1.2-1.3	0.4	No Odour, Staining or Asbestos
		1.3							
		1.4			Termination Depth at: 1.4 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,075.28
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,923.14
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, light brown, heterogeneous, soft, dry, medium plasticity				No Odour, Staining or Asbestos
		0.2		CL-ML	Silty Clay, orange / brown, heterogeneous, damp, hard, low to medium plasticity				
		0.3							
		0.4					TP128 0.4-0.5	0.1	No Odour, Staining or Asbestos
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,923.34
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,255.24
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY, brown, heterogeneous, low plasticity, soft, damp, inclusions of gravels		TP129 0.0-0.1	0.3	No Odour, Staining or Asbestos
		0.2					TP129 0.0-0.6		10L AQNo visible ACM observed
		0.3							
		0.4							
		0.5							
0.6			CL	CLAY, red / grey mottled, heterogeneous, low to medium plasticity, stiff, dry, inclusion of shales	TP129 0.5-0.6	0.8	No Odour, Staining or Asbestos		
0.7									
0.8									
0.9									
1.0									
		1.0			Termination Depth at: 1.0 m.				
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							


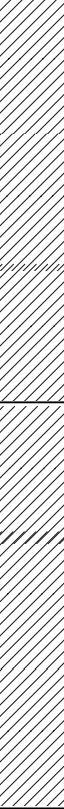
<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,016.44
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 16-Nov-20	<b>NORTHING</b> 6,253,952.28
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty Clay, reworked natural, light brown, heterogeneous, soft, dry, medium plasticity				
		0.2							
		0.3					TP129 0.2-0.3	0.8	No Odour, Staining or Asbestos
		0.4		CL-ML	Silty Clay, orange / brown, heterogeneous, damp, hard, low to medium plasticity				
		0.5							
		0.6			Termination Depth at: 0.6 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,003.72
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,218.97
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> CK

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations	
Test Pit		0.1			Fill - Black, malleable semi-solid (Hydrocarbon - base of leaching drum)				Metal drum leaching into underlying natural (atop sheet metal). Sample 'Drum 1' collected.	
		0.2		CL-ML	Silty CLAY - Red-brown, heterogeneous, damp, stiff, hard with inclusions of hydrocarbon veins infiltrating through cracks.		TP130_0.2-0.3	0.1		
		0.3			As above, grades to red - brown at 0.3mbgs					
		0.4								
		0.5						TP130_0.5-0.6	0.8	Grey staining observed at 0.5m bgs
		0.6								
		0.7			CL-ML	Silty CLAY - Light brown, heterogeneous, dry -damp, stiff, hard, low plasticity		TP130_0.7-0.8	0.8	Minor Staining, No Odour or Asbestos observed.
		0.8								
		0.9						TP130_0.9-1	0.6	No Odour, Staining or Asbestos observed at 0.1 m
		1.0								
		1.3			Termination Depth at: 1.3 m.					
		1.4								
		1.5								
		1.6								
		1.7								
		1.8								
		1.9								
		2.0								
		2.1								



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,975.74
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,251.34
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - SAND - Yellow, homogeneous, dry - damp, poorly graded, fine grained		TP131_0-0.1	0.1	10L AQ No visible ACM observed
		0.2		Fill	Fill - Silty CLAY - Brown, heterogeneous, dry, soft, non-plastic with inclusions of gravels		TP131_0.2-0.3	0.4	10L AQ No visible ACM. No Odour or Staining
		0.4		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		TP131_0.5-0.6	0.4	No Odour, Staining or Asbestos observed.
		0.7		Termination Depth at: 0.7 m.					
		0.8							
		0.9							
		1.0							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							

<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,979.2
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,255.89
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations	
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots and rootlets/ roadbase		TP131A_0-0.1	0.5	No Odour, Staining or Asbestos observed.	
		0.2			As above, increase in road base inclusions		TP131A_0-0.4	0.1	10L AQNo visible ACM observed	
		0.3								
		0.4		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity		TP131A_0.5-0.6	0.5	No Odour, Staining or Asbestos observed.	
		0.5								
		0.6			Termination Depth at: 0.6 m.					
		0.7								
		0.8								
		0.9								
		1								
		1.1								
		1.2								
		1.3								
		1.4								
		1.5								
		1.6								
		1.7								
		1.8								
		1.9								
		2								
		2.1								


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> JBS&G	<b>EASTING</b> 295,001.62
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 19-Nov-20	<b>NORTHING</b> 6,254,195.49
<b>CLIENT</b> Aliro	<b>DRILL RIG</b>	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Hand Auger	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> x m	<b>LOGGED BY</b> JZ

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry, soft, low plasticity with inclusions of roots		TP132_0-0.1	0.8	No Odour, Staining or Asbestos observed.
		0.2			Termination Depth at: 0.2 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,068.18
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,236.36
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry - damp, soft, low plasticity		TP133_0-0.1	0.5	No Odour, Staining or Asbestos observed.
		0.2		CL	CLAY - Silty CLAY - Orange -red - grey, heterogeneous, mottled, damp, firm -stiff, hard, low plasticity				
		0.3							
		0.4							
		0.5					TP133_0.5-0.6	0.3	No Odour, Staining or Asbestos observed.
		0.6			Termination Depth at: 0.6 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,043.25
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,240.39
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, dry - damp, soft, low plasticity		TP134_0-0.1	1	No Odour, Staining or Asbestos observed.
		0.2		CL	Silty CLAY - Orange -red - grey, heterogeneous, mottled, damp, firm -stiff, hard, low plasticity		TP134_0.5-0.6	0.5	No Odour, Staining or Asbestos observed.
		0.3							
		0.4							
		0.5							
		0.6							
		0.7			Termination Depth at: 0.7 m.				
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,024.55
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,243.82
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, damp, soft - firm, low plasticity		TP135_0-0.1	0.3	No Odour, Staining or Asbestos observed.
		0.2		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown - orange, heterogeneous, damp, firm, low - medium plasticity		TP135_0.2-0.3	0	No Odour, Staining or Asbestos observed.
		0.3		CL	Clay - Natural Silty CLAY - Orange -grey - brown, heterogeneous, dry - damp, firm -stiff, low plasticity		TP135_0.5-0.6	0.8	No Odour, Staining or Asbestos observed.
		0.4							
0.5									
		1			Termination Depth at: 1.0 m.				
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,019.52
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,235.18
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, damp, soft - firm, low plasticity		TP136_0-0.1	0.7	No Odour, Staining or Asbestos observed.
		0.2		RWN	Fill - Re-Worked Natural - Silty CLAY - Orange grey - brown, heterogeneous, damp, firm, low - medium plasticity		TP136_0.2-0.3	0	No Odour, Staining or Asbestos observed.
		0.5		CL	CLAY - Red, homogeneous, damp, firm, dense, medium plasticity		TP136_0.5-0.6	1	No Odour, Staining or Asbestos observed.
		0.9		Termination Depth at: 0.9 m.					
		1.0							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,058.72
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,231.21
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Re-Worked Natural - Silty CLAY - Brown, heterogeneous, damp - wet, soft, low plasticity		TP137_0-0.1	0.1	No Odour, Staining or Asbestos observed.
		0.2		CL	CLAY - Orange - brown, homogeneous, damp, hard, stiff, low - medium plasticity		TP137_0.2-0.3	0.8	No Odour, Staining or Asbestos observed.
		0.3							
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,990.32
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,248.67
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of large tree roots and rootlets		TP138_0-0.1	0.3	
		0.2					TP138_0-0.2	0.9	10L AQNo visible ACM observed
		0.3		CL	CLAY - Orange - red, homogeneous, damp, hard, dense, medium plasticity		TP138_0.3-0.4	0.8	No Odour, Staining or Asbestos observed.
		0.4							
		0.5			Termination Depth at: 0.5 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							



<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 295,002.49
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 18-Nov-20	<b>NORTHING</b> 6,254,242.36
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY - Brown, heterogeneous, damp, soft, non-plastic-low plasticity, with inclusions of roots and rootlets		TP138A_0-0.1	0.3	10L AQNo visible ACM observed
								TP138A_0-0.4	
		0.4		CL	CLAY - Red, homogeneous, damp, hard, dense, medium plasticity				No Odour, Staining or Asbestos observed.
		0.5							
		0.7			Termination Depth at: 0.7 m.				
		0.8							
		0.9							
		1.0							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							


<b>PROJECT NUMBER</b> 59884	<b>DRILLING COMPANY</b> Ken Coles	<b>EASTING</b> 294,704.16
<b>PROJECT NAME</b> Kemps Creek DSI	<b>DRILLING DATE</b> 17-Nov-20	<b>NORTHING</b> 6,254,050.26
<b>CLIENT</b> Aliro	<b>DRILL RIG</b> Bucket Excavation	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road, Kemps Creek, NSW	<b>DRILLING METHOD</b> Test Pit	<b>COORD SOURCE</b> Map Approximation
	<b>DIMENSIONS</b> 2 x 0.5 m	<b>LOGGED BY</b> EP

**COMMENTS**

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		RWN	Fill - Silty CLAY, reworked natural, brown, heterogeneous, non to low plasticity, soft, damp		TP197 0.0-0.1	0	No Odour, Staining or Asbestos
		0.2							
		0.3							
		0.4							
		0.5		CL-ML	Silty CLAY, brown / grey, heterogeneous, non plastic, soft, wet		TP197 0.5-0.6	0.4	No Odour, Staining or Asbestos
		0.6							
		0.7							
		0.8							
		0.9			Termination Depth at: 0.8 m.				
		1.0							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2.0							
		2.1							


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, dark brown, heterogeneous, moist, high plasticity, very soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown/orange, heterogeneous, moist, high plasticity, very soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - silty CLAY, brown/orange, heterogeneous, moist, high plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, dark brown, heterogeneous, moist, high plasticity, very soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey sandy SILT, dark brown, heterogeneous, damp, medium plasticity, soft, 10% inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown/red, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, dark brown, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown, heterogeneous, moist, high plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown, heterogeneous, moist, medium plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, dark brown, heterogeneous, moist, high plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown, heterogeneous, moist, high plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, dark brown, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown/orange, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown, heterogeneous, damp, medium plasticity, firm, 10% inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, dark brown, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - silty CLAY, brown/orange, heterogeneous, moist, high plasticity, soft, Trace inclusions of rootlets	DP	No odours, staining or asbestos. QA/QC20250825_P03 collected at 0-0.1.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown/orange, heterogeneous, damp, medium plasticity, soft, Trace inclusions of rootlets	DP	No odours, staining or asbestos. QA/QC20250825_P05 collected at 0-0.1.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, dark brown, heterogeneous, damp, medium plasticity, soft, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - clayey SILT, brown, heterogeneous, damp, high plasticity, soft, 10% inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - silty CLAY, dark brown/orange, heterogeneous, damp, medium plasticity, firm, 10% inclusions of rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, moist, medium plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, moist, medium plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - silty CLAY, orange/brown, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, moist, high plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos. QA/QC20250825_P02 collected at 0-0.1.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - silty CLAY, brown/orange, heterogeneous, moist, high plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos. QA/QC20250825_P04 collected at 0-0.1.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, brown/orange, heterogeneous, damp, medium plasticity, soft, Trace inclusions of rootlets	DP	No odours, staining or asbestos. QA/QC20250825_P01 collected at 0-0.1.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, moist, medium plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - silty CLAY, brown/orange, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, moist, medium plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, damp, medium plasticity, soft, 10% inclusions of rootlets	DP	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, moist, medium plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, dark brown, heterogeneous, moist, medium plasticity, soft, Trace inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05 0.1		Fill - clayey SILT, brown, heterogeneous, damp, low plasticity, firm, 10% inclusions of rootlets	DP	No odours, staining or asbestos.
	0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, brown/orange, heterogeneous, damp, high plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey sandy SILT, brown, heterogeneous, damp, medium plasticity, firm, 20% inclusions of sandstone cobbles/ gravels.	DP	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05 0.1		Fill - clayey SILT, brown, heterogeneous, moist, high plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos.
	0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, brown/orange, heterogeneous, moist, high plasticity, soft, 10% inclusions of rootlets	M	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - silty CLAY, brown/orange, heterogeneous, damp, medium plasticity, firm, Trace sandstone gravels and rootlets	DP	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				


<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 26 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.05		Fill - clayey SILT, brown, heterogeneous, damp, medium plasticity, firm, Trace inclusions of rootlets	DP	No odours, staining or asbestos.
	0.1		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.
	0.15				
	0.2				
	0.25				
	0.3				
	0.35				
	0.4				
	0.45				
	0.5				
	0.55				
	0.6				
	0.65				
	0.7				
	0.75				
	0.8				
	0.85				
	0.9				
	0.95				

<b>PROJECT NUMBER</b> 70548	<b>DRILLING COMPANY</b>	<b>EASTING</b>
<b>PROJECT NAME</b> Mamre Road Kemps Creek	<b>PLANT TYPE</b>	<b>NORTHING</b>
<b>CLIENT</b> Plan Project Management	<b>METHOD</b> Hand Excavation (shovel)	<b>COORD SYS</b> GDA94_MGA_zone_56
<b>ADDRESS</b> 706-752 Mamre Road	<b>TP LENGTH (m)</b> m	<b>TOTAL DEPTH</b> 0.10 m bgl
<b>DRILLING DATE</b> 25 Aug 2025	<b>TP WIDTH (m)</b> m	<b>LOGGED BY</b> AC

**COMMENTS**

Drilling Method	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Additional Observations
HE	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1		Fill - silty CLAY, brown/orange, heterogeneous, damp, medium plasticity, firm, Trace rootlets	DP	No odours, staining or asbestos.
	0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19		Termination Depth at: 0.10 m bgl		End of Hole at 0.1 m bgs. Programmed Depth.


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