Addendum (01) – Alliance Remediation Action Plan (RAP)

Westlink Stage 1 – 90-308 Aldington Road and 59-63 Abbotts Road, Kemps Creek, NSW, 2178

Prepared for: ESR Australia

EP3244.004_v1 | 12 September 2023

APPROVED COMPANY ISO 9001 Quality Management Systems QMS Certification Services

APPROVED COMPANY ISO 45001 Occupational Health & Safety Management Systems QMS Certification Services

APPROVED COMPANY ISO 14001 Environmental Management Systems QMS Certification Services

EP RISK

12 September 2023
Ref: EP3244.004_Addendum 01_v1

ESR Australia
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Via email: Jacob.dickson@esr.com

Attention: Jacob Dickson

Addendum (01) – Alliance Remediation Action Plan
Westlink Stage 1 – 90-308 Aldington Road and 59-63 Abbotts Road Kemps Creek, NSW, 2178

INTRODUCTION

ESR Australia (ESR) engaged EP Risk Management Pty Ltd (EP Risk) to prepare this Addendum (01) to the Alliance Geotechnical Pty Ltd (Alliance) Remediation Action Plan (RAP) (Alliance 2023[1]) to provide additional clarity and a methodology for assessment, treatment and validation for remedial works at the Westlink Stage 1 Project (Project) located at 290-308 Aldington Road and 59-63 Abbotts Road Kemps Creek NSW 2178 (the Site). The Site is legally described as Lots 11, 12 and 13 in Deposited Plan (DP) 253503, and covers an area of approximately 32 hectares (ha).

Note: Where there is contradiction to this Addendum (01) and the RAP (Alliance 2023), this Addendum (01) takes precedence.

BACKGROUND

ESR are developing the Site into a commercial warehouse precinct including the construction of multiple large-scale warehouse and associated office space, heavy vehicle access, parking and associate infrastructure including on-site stormwater detention basins and landscaping. As part of the due diligence of the State Significant Development (SSD) application process the following reports were completed:

- Douglas Partners (DP) (2019), *Preliminary Environmental Site Investigation with Limited intrusive Investigation*, Proposed Commercial / Industrial Subdivision 290-308 Aldington Road and 59-63 Abbotts Road Kemps Creek NSW, dated August 2019 (ref:92352.00).

  The PESI highlighted a number of potential contamination sources at the Site and recommended further assessment.

- Alliance (2019), *Stage 1 Preliminary Site Investigation (with Limited Sampling)*, 290-308 Aldington Road, Kemps Creek NSW Lot 13 in DP253503, dated 18 October 2019 (ref: 9687-ER-1-1).

  Alliance considered the Site was unlikely to pose a significant contamination risk which may limit the future development.

[1] Alliance (2023), *Remediation Action Plan, Proposed Commercial / Industrial Subdivision 290-308 Aldington Road and 59-63 Abbotts Road Kemps Creek NSW,* dated 21 June 2023 (ref:13546-ER-2-2_Rev2).

- Alliance (2021), Detailed Site Investigation and Dam Water & Sediment Assessment, 290-308 Aldington Road and 59-63 Abbotts Road Kemps Creek NSW, dated 1 December 2021 (ref: 1/12/2021).

  Contamination was identified at the Site which required further assessment, management and / or remediation. A number of data gaps were identified which required further assessment.

- An earlier version of the Alliance RAP (Alliance 2023) was prepared with a Sampling Analysis Quality Plan (SAQP) to close out identified data gaps.

- Alliance (2023a), *Supplementary Contamination Assessment Report,* 290-308 Aldington Road and 59-63 Abbotts Road Kemps Creek NSW, dated 20 April 2023 (ref: 13546-ER-2-3).

  The assessment delineated portions of previous identified contamination. Additional contamination was identified which required further assessment.

- Alliance (2023b), *Supplementary Contamination Assessment Report No. 2*, 290-308 Aldington Road and 59-63 Abbotts Road, Kemps Creek NSW, dated 06 June 2023 (ref: 13546-ER-2-4).

  The assessment delineated portions of previous identified contamination. Additional contamination was identified which required further assessment.

- Alliance (2023), *Remediation Action Plan, Proposed Commercial / Industrial Subdivision 290-308 Aldington Road and 59-63 Abbotts Road Kemps Creek NSW,* dated 21 June 2023 (ref:13546-ER-2-2_Rev2).

  A RAP was prepared to outline the remediation process at the Site to render the Site suitable for the proposed commercial development without ongoing management.

Based on a review of the previous environmental investigations (as summarised by Alliance (2023)), contamination was limited to a total of twenty (20) Areas of Environmental Concern (AECs) with the following contaminants of potential concern (CoPC):

- Asbestos as bonded (non-friable) asbestos-containing material (ACM) and friable asbestos as Asbestos Fines (AF) / Fibrous Asbestos (FA);
- Petroleum hydrocarbons;
- Polycyclic Aromatic Hydrocarbons (PAHs);
- Metals;
- Pathogens; and
- Aesthetics.

The RAP (Alliance 2023), outlined the remedial process at the Site which included off-site disposal and treatment of asbestos in soils (ASBINS) via mechanical raking and emu-picking (where appropriate), removal of septic tank systems and removal of concrete stockpiles. Alliance noted some areas required additional visual assessment for ASBINS due to heavy vegetation cover which obstructed the view of the ground surface in some areas. Where there is contradiction to this Addendum (01) and the RAP (Alliance 2023), this Addendum (01) takes precedence.

REVIEW

Following receipt of the latest RAP (Alliance 2023), ESR requested EP Risk undertake a high-level review of the remedial scope and assess whether there was an opportunity to reduce volumes of soil requiring off-site disposal, namely within AEC19a, which would be used as a 'test case' to inform this Addendum (01) for application of remedial methodologies across the remainder of the Site.

According to the RAP (Alliance 2023), AEC19a covers an area of approximately 5,700 m^2 with an anticipated volume of approximately 11,400 m^3 (in-situ). The preferred remedial strategy within the RAP (Alliance 2023) was off-site disposal at an appropriately licensed landfill facility, with a waste classification due to detections of "asbestos fines in surface and/or fill soils" by Alliance in previous investigation studies (2021, 2023, 2023a and 2023b).

It is understood an Onsite Detention Basin (OSD) was required to be constructed within AEC19a prior to earthworks commencing within the rest of the Site.

Review of the Alliance reports (2021, 2023, 2023a and 2023b) for AEC19a indicated the following:

- A total of 37 test pits were progressed across AEC19a.
- 101 field screens were conducted by screening a known 10L volume of soil through a 7mm sieve. This was at a rate of between 1 to 6 screens per test pit.
- 41 samples were submitted for asbestos gravimetric analysis at a National Association of Testing Authorities (NATA) accredited laboratory.

Further interrogation of the findings indicated bonded (non-friable) ACM (>7mm) was identified at concentrations greater than the adopted Health Screening Level (HSL) (0.05 % w/w) within five (5) field screening samples from four (4) test pits, and concentrations of asbestos as AF/FA were identified within four (4) samples with only one (1) sample exceeding (equal to) the adopted HSL (0.001 % w/w). Asbestos (as ACM) was also identified during soil investigations on the soil surface which was flagged as unsuitable for the proposed land use. A summary of Alliance's findings have been provided within **Table 1** below.

Table 1 - Summary of Bonded (non-friable) ACM > 7mm above HSL and AF/FA detections within AEC19a from Alliance (2021, 2023b) investigations only

Test Pit	Max Depth of Fill	Test Pit Termination Depth	Report	Result	Exceedance
Bonded ACM >7mm	**0.05 %w/w**				
DW23_0.5	No test pit logs		Alliance (2021)	0.117 %w/w	> HSL
TP246_0.0-0.1	1.1	1.3	Alliance (2023b)	0.089 %w/w	> HSL
TP246_0.1-1.0			Alliance (2023b)	0.051 %w/w	> HSL
TP248_1.6-1.9	1.9	2.2	Alliance (2023b)	0.179 %w/w	> HSL
TP256_0.1-0.6	0.9	1.2	Alliance (2023b)	0.05 %w/w	> HSL
AF/FA	**0.001 %w/w**				
TP242_0.0-0.6	0.6	0.9	Alliance (2023b)	0.00001 %w/w	< HSL
TP244_0.0-0.6	0.6	0.9	Alliance (2023b)	0.00007 %w/w	< HSL
TP247_1.5-2.5	3.0	3.3	Alliance (2023b)	0.001 %w/w	Detected above HSL (equal to)
TP250_0.0-0.8	0.8	1.1	Alliance (2023b)	0.0003 %w/w	<HSL

A summary provided to ESR is within **Attachment 1**.

Review Summary

EP Risk made the following conclusions in relation to AEC19a:

- Overall, within previous assessments, an appropriate sampling density was undertaken to characterise the material.
- Asbestos was largely identified as bonded (non-friable) ACM.
- Only one (1) sample collected by Alliance (2023b) was reported equal to the adopted HSL for AF/FA.
- Alliance (2023) identified surface ACM (<0.1 m BGL) impacts which only require remediation if the Site is not sealed.

In-light of the above findings and to reduce the volume of material required for off-site disposal, in-situ delineation sampling was undertaken by EP Risk at each of the nine (9) sample locations.

In-Situ Delineation Sampling

In-situ delineation sampling involved the progression of four (4) test pits in each lateral direction as well as one (1) test pit vertically for determination of depth. Lateral delineation sampling was undertaken in 2 m interval step outs. Vertical delineation samples were collected at 0.2 m below the maximum depth of progression recorded during Alliance's test pitting works.

The findings of the delineation sampling for AEC19a have been summarised in **Table 2** below and within **Attachment 2 – AEC19a Delineation Extent Map.** Associated laboratory reports will be provided in the final Validation Report for the Site.

Table 2 - AEC19a Delineation Extents

Test Pit	Lateral				Vertical	Approximate Surface Area	Approximate Volume
	N	S	E	W	Depth		
AF/FA – At or above the HSL							
TP247	4 m	4 m	5 m	4 m	To Natural / 3.7 m	8 m x 9 m 72 m^2	266.4 m^3
TP244[1]	2 m	2 m	6 m	2 m	1.1 m	4 m x 8 m 32 m^2	35.2 m^3
TP250[1]	2 m	2m	4 m	17 m *	1.3 m	4 m x 21 m 84 m^2	109.2 m^3
SUB TOTAL						**188 m^2**	**410.8 m^3**
AF/FA – Below the HSL							
TP242	2 m	4 m	2 m	2 m	1.1 m	6 m x 4 m 24 m^2	26.4 m^3
SUB TOTAL						**24 m^2**	**26.4 m^3**
Bonded ACM > 7mm – At or above the HSL							
DW23	4 m	2 m	2 m	2 m	2 m	6 m x 4 m 24m^2	48 m^3
TP246	14 m	14 m	8 m	6 m	1.5 m	28 m x 14 m 392 m^2	588 m^3
TP248	4 m	2 m	2 m	0 m	3 m	6m x 2m 12 m^2	36 m^3
TP256	2 m	2m	2 m	2 m	1.4 m	4 m x 4 m 16 m^2	22.4 m^3
SUB TOTAL						**444 m^2**	**694.4 m^3**
TOTAL						**656 m^2**	**1,131.6 m^3**

[1] TP244 and TP250 were originally classified as AF/FA below the HSL, however are now classified as AF/FA at or above the HSL based on the results of delineation sampling.
[2] At the request of ESR, the western extent of TP250 was delineated to the closest clean test pit (TP249) in lieu of additional step out samples due to time constraints associated with analytical testing.

Remediation Hierarchy

The following remediation hierarchy was developed for onsite categorisation and tracking purposes following the findings of delineation works described for AEC19a.

Table 3 - Remediation Hierarchy[2]

Category	B	F	O
	Bonded Asbestos	Friable Asbestos (AF/FA)	Other Impacted
1	B1: Suitable (No asbestos detected)	F1: Suitable (No asbestos detected)	O1: Suitable
2	B2: <0.05% Suitable to remain on-site subject to placement >0.1 m BGL and in areas where no services will be installed	F2: <0.001% Suitable to remain on-site subject to placement >0.1 m BGL and in areas where no services will be installed	O2: <NEPM Suitable to remain on-site.
3	B3: >0.05% Not suitable. Suitable subject to mechanical raking and emu picking treatment as per RAP. Validation and visual inspections to be undertaken as per RAP. If successfully validated, material downgraded to B2. If ACM is identified, re-treat the material again until the material can be successfully validated.	F3: >0.001% Not suitable. Excavate and stockpile on-site. Dispose off-site with a Waste Classification or place within an on-site containment cell with a Long-Term Management Plan (LTEMP)	O3: >NEPM Not suitable. Subject to additional assessment and/or management.

REMEDIATION WORKS

Following the provision of interim results by EP Risk, AEC19a and other AECs have been progressively excavated for treatment, sampled or remediated in accordance with the Alliance RAP (2023) and preliminary temporary validation correspondence provided, subject to preparation of a final Validation report by EP Risk.

It is understood the following volumes remain stockpiled at the Site which require ongoing management and / or remediation in accordance with the RAP (Alliance 2023) and this Addendum (01). A breakdown of the remediation categories is provided within **Table 3**.

- B2: Approximately 6,000 m^3;
- B3: Approximately 2,000 m^3;

[2] Subject to appropriate WHS controls. To be read in conjunction with requirements within RAP (Alliance 2023).

- F2: Approximately 500 m^3; and
- F3: Approximately 1,500 m^3.

The remedial strategy for additional delineation of AECs, unexpected finds and remediation / management of stockpiled soils is provided below. Where there is contradiction to this Addendum (01) and the RAP (Alliance 2023), this Addendum (01) takes precedence.

REMEDIAL STRATEGY AMENDMENTS

The following amendments are provided in general accordance with procedures identified within the RAP (Alliance 2023).

Scope of Remaining Remedial Works

At the time of writing, the following remediation scope items remain at the Site:

- Removal of remaining concrete stockpiles by the Earthworks Contractor for off-site disposal or placement at depth:
    - SP1, SP3, SP4 which are currently stockpiled at AEC23.
    - SP5 which is currently stockpiled at AEC15.
- Management and removal of septic tank concrete waste by the Remediation Contractor for off-site disposal.
- Remediation via emu-picking of stockpiled B3 material by the Remediation Contractor.
- Verification of emu-picking works by the Occupational Hygienist, including a visual clearance inspection and validation sampling (1x 10 L sieve per 10 m^3 of treated material and 1x 500 mL Gravimetric Analysis per 100 m^3 of treated material)
- Placement of B2, F2 and O2 stockpiled soils within a designated location.
- Subject to assessment of final volumes of F3 ASBINS impacted soils:
    - Designation and / or excavation of a burial pit.
    - Transport of F3 soil to burial pit.
    - Placement of a high visibility geotextile marker layer.
    - Placement of ENM / VENM or site-won B1, F1 and O1 soil.
- Validation sampling by the Validation Consultant of the footprint of the former stockpile / treatment pad.
- Preparation of an Asbestos Management Plan (AMP) for the Site.
- Preparation of a Validation Report,
- Preparation if a Long-Term Environmental Management Plan (LTEMP) where required.

Further details for scope items are provided herein.

Roles and Responsibilities

In addition to the roles identified within the RAP (Alliance 2023), the following roles and responsibilities are refined for remaining remedial works at the Site.

Table 4 – Roles and Responsibilities

Role	Party	Responsibilities
Principal/Owner	ESR	To engage the Consultants and Contractors. If ongoing management is required for the Site: • Include a reference to an LTEMP onto the Section 10.7 certificate. • Ensure the LTEMP is legally enforceable preferably via a public positive covenant on land (which run with the land) under Section 88E of the Conveyancing Act 1919. Review of proposal to amend or end ongoing management requirements. • Final review / acceptance of any changes to LTEMP.
Earthworks Contractor	J K Williams	Responsible for removing/managing cleared concrete and/or concrete stockpiles.
Remediation Contractor	TBC[3]	To carry out the on-site treatment, remediation excavation and off-site disposal work in accordance with the RAP and Addendum (01). Conduct all works in accordance with SafeWork NSW and WHS requirements. Hold the relevant SafeWork NSW Class A (friable) and Class B (non-friable) licenses (where appropriate). Conduct all works in accordance with the RAP (Alliance 2023) and this Addendum (01). Engage suitably licensed SafeWork NSW Asbestos Removal Contractor (ARC) and independent occupational hygienist / SafeWork NSW Licensed Asbestos Assessor (LAA) for asbestos works.
Validation Consultant	EP Risk	Oversee implementation of RAP and Addendum (01). In-situ waste classification sampling of fill material required for off-site disposal (if required). Assess unexpected finds. Perform validation sampling and inspections. To prepare a validation report. The validation consultant is to have a Certified Environmental Practitioner (Site Contamination) recognised by one of the certifying bodies recognised by the NSW EPA. Any reports prepared should be written or reviewed and approved by the individual Certified Environmental Practitioner (Site Contamination).

[3] To be confirmed.

Table 4 – Roles and Responsibilities		
Role	**Party**	**Responsibilities**
Occupational Hygienist	TBC	Supervise stockpile remediation works (where required). Conduct check sampling during emu picking works in accordance with the Alliance RAP (2023) and this Addendum (01). Conduct asbestos air monitoring in accordance with **Section 14.12** of the RAP (Alliance 2023). Prepare a stockpile remediation and treatment summary interim validation letter for submission to the Validation Consultant.

Delineation Sampling

Based on the findings of delineation works within AEC19a, where appropriate, additional delineation sampling may be undertaken in accordance with National Environment Protection Council (NEPC) 2013, National Environment Protection (Assessment of Site Contamination) Measure 1999 (April 2013), Canberra (ASC NEPM, 2013).

Delineation sampling can be done in-situ via 'step-out' sampling in each cardinal direction and at the base of the identified AEC or test pit locations, or via sampling the base and walls following excavation by the Remediation Contractor. Sample density is a minimum of one (1) sample for each direction and one (1) sample at the base or as per the density described in the RAP (Alliance 2023), whichever is greater.

The findings of additional delineation sampling must be presented within the final validation report for the Site by the Validation Consultant.

Remediation of Existing Stockpiled Material and Additional AECs / Unexpected Finds

Construction of a stockpiling area and treatment pad

The Remediation Contractor is responsible for the construction of a stockpiling area and treatment pad on a hard surface to avoid sub-soil mixing. The hard surface can be site won, where required, compacted, natural materials. Bonded (non-friable) and friable (AF/FA) stockpiles should be separately placed with no mixing and stored based on source location and category.

Bonded (non-friable) asbestos below HSL (B2)

For all B2 material proposed to be retained on-site, the following methodology is recommended to supplement the information provided within the RAP (Alliance 2023):

- Where B2 material has been detected (i.e. anything outside the B3, F2 and F3 hotspots but within the boundary of the asbestos AEC), this material will be excavated under asbestos controls to its delineated extent, stockpiled into one B2 stockpile for that asbestos AEC.
- The Remediation Contractor is responsible for materials tracking and for placing treated materials (B2) on-site due to the potential presence of asbestos within the material. Asbestos controls must be maintained and complied with.

- B2 soil must be placed in a designated location and preferentially placed at depth at >0.1 m BGL and in areas where no services will be installed.
- The location and extent of the B2 soil must be surveyed and included within the final Validation report for the Site.

Bonded (non-friable) asbestos above HSL (B3)

For all B3 material proposed to be treated and retained on-site, the following treatment methodology is recommended to supplement the information provided within the RAP (Alliance 2023):

- Where B3 material has been detected, this material will be excavated under asbestos control conditions to its delineated extent (Section 14.12, Alliance 2023), stockpiled and tracked within a designated B3 stockpiling and treatment pad area by the Remediation Contractor. Stockpiling of B3 material for treatment must be segregated into manageable stockpiles and separated by source areas (AECs) where appropriate. All B3 stockpiles will be wetted and covered daily with geotextile. The treatment methodology should involve the below:
    - Using an excavator, the Remediation Contractor is to spread approximately 10 m^3 of material, ideally in a 10 x 10 grid, at no greater than 100 mm thickness using an excavator with a tooth bucket.
    - The excavator is to rake soils in one direction.
    - Following the rake, the Remediation Contractor is to undertake a systematic inspection of the spread area and hand pick visible ACM fragments.
    - The excavator is then to rake the soils in a direction 90° perpendicular to the first raking direction.
    - Following the second rake, the Remediation Contractor is to undertake a systematic inspection of the spread area and hand pick visible ACM fragments.
    - ACM fragments will be disposed of as asbestos waste to a suitably licensed waste facility by the Remediation Contractor.
    - Validation of each 10 m x 10 m by 100 mm pad (approx. 10 m^3) of raked (treated) material will be undertaken by the Occupational Hygienist comprising of a visual clearance inspection and validation sampling (10 L on-site field screening through 7 mm sieve) to confirm bonded (non-friable) ASBINS is below the HSL (<0.05 %w/w)
    - Once each 10 m x 10 m by 100 mm (approx. 10 m^3) pad has been successfully visually cleared and screened, it can be combined as one B2 stockpile.
    - Failed on-site visual clearances for non-friable ACM will require re-treatment as per above until no additional bonded (non-friable) ACM is observed.
    - For every 10 treated stockpiles (100 m^3), the Occupational Hygienist in addition to field screening will collect a sample for Asbestos Gravimetric Analysis at a NATA Accredited laboratory. These sampled stockpiles should be kept separate until laboratory results are received. If no asbestos is detected, the stockpiles can be combined within similar validated B2 material for future placement on-site (as described by B2 above).

  - If AF/FA is detected via gravimetric analysis, the said stockpile is to be stockpiled in the friable stockpiling area as F2 or F3 material. Additional analysis of the remaining nine (9) stockpiles may be required in consultation with the Occupational Hygienist and Validation Consultant.

- The Remediation Contractor is responsible for materials tracking and for placing treated materials (B2) on-site due to the potential presence of asbestos within the material. Asbestos controls must be maintained and complied with.
- The location and extent of former B3, now B2 material must be surveyed and included within the final Validation report for the Site.

Friable asbestos (AF/FA) below (F2) and above HSL (F3)

For all F2 and F3 material, the following methodology is recommended in addition to the RAP (Alliance 2023).

- Where F2 material has been detected, this material will be excavated under asbestos control conditions to its delineated extent (Section 14.12, Alliance 2023), stockpiled and tracked within a designated F2 stockpile area by the Remediation Contractor. Materials are suitable to remain onsite, however must be placed >0.1 m BGL and in areas where no services or construction works will occur.
- The location and extent of F2 placed material must be surveyed and included within the final Validation report for the Site.
- Where F3 material has been detected, this material will be excavated under friable asbestos control conditions to its delineated extent (Section 14.12, Alliance 2023), stockpiled and tracked within a designated F3 stockpile area. Materials will either be managed in accordance with the RAP (Alliance 2023), that is, waste classification and offsite disposal or an onsite containment cell constructed with a LTEMP.
- All F2 and F3 stockpiles will be covered daily with geotextile.
- Where an onsite containment cell is proposed for F3 materials, this Addendum (01) must be followed as it was not considered within the RAP (Alliance 2023). Further details for containment and ongoing management are provided below.

ASBINS Remediation Summary Letter

Following remediation of stockpiled B3 material and placement of B2, F2 and F3 material, the Occupational Hygienist is to provide an ASBINS Remediation Summary Letter. At a minimum, the letter must:

- Provide the details of the Remediation Contractor, Occupational Hygienist / LAA and SafeWork notification.
- Summarise the remedial works undertaken;
- Summarise the field screening, visual assessment and laboratory findings;
- Summarise air monitoring results undertaken (where required);
- Provide tracking details and volumes; and
- Comment on the suitability of the material to remain on-site.

On-Site Containment (if required)

It is understood ESR will determine the appropriate remedial steps for remaining B3 and F3 soil following completion of civil, and delineation works associated with identified AECs (Alliance 2023) and Unexpected Finds. Based on the overall volume of soil, if B3 and F3 soil (including O3 if applicable) is to remain on-site a containment/encapsulation cell will be constructed. Encapsulation must include the following as a minimum:

- Tracking of each soil category from source area, to stockpile to final placement location by the Remediation Contractor;
- Designation of a containment / encapsulation area by ESR in consultation with the Principal Contractor. Preference for containment cell location will be evaluated by:
    - Areas with no or minimal future proposed intrusive works;
    - Soils to be placed at a minimum depth of 0.5 m BGL, however greater depths preferred.
    - Close to current treatment and stockpiling areas to reduce disturbance times.
    - Final land use restrictions must be considered (i.e implications of future road reserves etc).
- The base and proposed extent should be surveyed by a registered surveyor prior to placement.
- All disturbance works must be undertaken by a suitably qualified Remediation Contractor in accordance with the RAP (Alliance 2023) and SafeWork NSW requirements.
- The base and walls must be covered with a high visibility geotextile marker layer.
- Asbestos air monitoring must be undertaken as per the RAP (Alliance 2023) and SafeWork NSW requirements.
- An asbestos clearance certificate must be provided by the Occupational Hygienist / Licensed Asbestos Assessor (friable works) following placement of the final placement of the geotextile marker layer.

- A survey of the final geotextile marker layer must be undertaken by a registered surveyor.
- The containment cell must be covered with a minimum 0.5 m of site-won suitable material, ENM, VENM or suitable material subject to consultation with the Validation Consultant or RAP (Alliance 2023).
- The location and extent of the Containment Cell must be included within the Validation report and Long-term Environmental Management Plan (LTEMP) as detailed below.

Validation Report

In addition to Section 13 of the RAP (Alliance 2023), the following must be included within the Validation Report to be completed by the Validation Consultant:

- Summary of the delineation works undertaken by Validation Consultant.
- Summary of the remediation process for stockpiled soil addressed within this Addendum (01).
- Summary of the Occupational Hygienist ASBINS Remediation Summary Letter.
- Summary of containment cell, where required.
- Recommendations for ongoing management, namely a LTEMP (if required).

Long-term Environmental Management Plan (if applicable)

A long-term Environmental Management Plan (LTEMP) will need to be prepared for the management of impacted soils that will remain on site. The LTEMP must detail the monitoring and maintenance requirements for the containment cell cap. It must also outline the administrative controls on any future activity with the capacity to potentially expose the ACM impacted soil beneath.

The LTEMP as a minimum must include the following items:

- Periodic inspection of the capping layer, including potential seal by an impermeable capping layer (e.g. concrete slab) and associated structures.
- Management strategies required during any proposed intrusive excavation / construction works at the Site.
- This should include the management procedures for the in-situ asbestos impacted soils remaining on-site.

Should the proposed land use of the Site be altered at any point that is not encompassed under the scope of the RAP or LTEMP, a review and assessment of remediation and management procedures is required.

The LTEMP requires to be legally enforceable registered on Title. This will be achieved by the following:

- Placement of a public positive covenant on the land under Section 88D or 88E of the Conveyancing Act 1919 by Local Council, with Landowner consent, enables public notification and legal enforcement of the LTEMP. A land covenant on title raises awareness of an existing EMP on the land to potential purchases, detailing the obligations for the land and assisting in legal enforcement. The authority executing the covenant (and therefore the LTEMP

requirements), can enforce its requirements though the Supreme Court, either through corrective actions or active actions and cost recovery.

- Advice from planning authorities, including local councils or the EPA on the appropriateness of the plan, where these authorities are actively involved in the Site.
- Reference to the LTEMP will be added to the planning certificate by Penrith City Council enabling notification under Section 10.7(5) of the EP&A Act. While addition to the planning certificate provides further public notification to Land Covenants, its standalone notification does not make the LTEMP legally enforceable.

CLOSURE

This summary letter has been prepared by Alex Thomson, a Certified Environmental Practitioner (CEnvP) of EP Risk Management Pty Ltd. Please feel free to contact the undersigned on 0433 309 328 should you have any queries.

Yours sincerely,

Alex Thomson
Senior Environmental Scientist
Certified Environmental Practitioner (1403)
EP Risk Management Pty Ltd
ABN: 81 147 147 591

Attachments:

Attachment 1 – Email Correspondence
Attachment 2 – AEC19a Delineation Extent Map

QUALITY CONTROL

Version	Author	Date	Reviewer	Date	Quality Review	Date
v1	A. Thomson	12.09.2023	K. Guenther (CEnvP-SC)	12.09.2023	J. Shao	12.09.2023

DOCUMENT CONTROL

Version	Date	Reference	Submitted to
v1	*12.09.2023*	*EP3244.004_ESR_RAP Addendum 01_v1*	*ESR Australia*

LIMITATIONS

This Addendum (01) to the Alliance Remediation Action Plan was conducted on the behalf of ESR Australia for the purpose/s stated above.

EP Risk has prepared this document in good faith, but is unable to provide certification outside of areas over which EP Risk had some control or were reasonably able to check. The report also relies upon information provided by third parties. EP Risk has undertaken all practical steps to confirm the reliability of the information provided by third parties and do not accept any liability for false or misleading information provided by these parties.

It is not possible in an Addendum (01) to present all data, which could be of interest to all readers of this report. Readers are referred to any referenced investigation reports for further data.

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Attachment 1 – Email Correspondence

Jenny Shao

From: Jenny Shao
Sent: Tuesday, 4 July 2023 3:34 PM
To: Jacob Dickson
Cc: Alex Thomson; Kellie Guenther; Daniel Galea
Subject: RE: EP16982 Proposal AEC19a - Kemps Ck - Revised RAP

Hi Jacob,

Please find below a summary of our scope for tomorrow.

AEC19a comprises of a surface area of 0.55 ha. In accordance with the NSW *Environmental Protection Authority (EPA) (2022) Contaminated Land Guidelines: Sampling Design Part 1 – Application*, a 100% sampling density for a Site with a surface area of 0.6 ha, a minimum of fifteen (15) sampling locations (test pits) are required to be progressed. As asbestos was identified as a likely contaminant of potential concern (CoPC) at the Site, a 200% sampling density is however required for the assessment of asbestos in accordance with the WA Department of Water and Regulation (DWER) (2019) *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia*. Therefore, a minimum of thirty (30) sampling locations (test pits) are required to be progressed within AEC19a.

Based on a review of previous environmental investigations within AEC19a, a total of thirty-seven (37) test pits have been progressed within the boundary of AEC19a for the CoPC of asbestos, which satisfies sampling density requirements. Moreover, test pits appear to have sufficient lateral and vertical coverage across AEC19a. A summary of the sampling program for each listed report has been summarised in **Table 1** below.

Table 1: Previous Environmental Investigations Sampling Summary

	Alliance (2021) DSI	Alliance (2023a) SCA (summarised in Alliance 2023 RAP)	Alliance (2023b) SCA (summarised in Alliance 2023 RAP)	Total
Number of test pits	6 DW22, DW23, SP3, DR15, DR16, DR17	12 TP175, TP176, TP180, TP181, TP186, TP187, TP188, TP189, TP190, TP191, Trench1A, Trench 1B	19 TP241, TP242, TP243, TP244, TP245, TP246, TP247, TP248, TP249, TP250, TP251, TP252, TP253, TP254, TP255, TP256, TP283, TP284, TP285	37
Number of field screening sieving tests for bonded asbestos-containing material (ACM) (>7mm)	7 total sieving tests At least 1 sieve per test pit	29 total sieving tests At least 1 sieve per test pit, between 1 – 5 sieves per test pit.	65 total sieving tests At least 1 sieve per test pit, between 1 – 6 sieves per test pit.	101
Number of samples submitted to a National Association of Testing Authorities (NATA) accredited laboratory for gravimetric analysis for asbestos fines (AF) / fibrous asbestos (FA) (non-NATA test)	0 samples submitted.	0 samples submitted.	41 samples submitted. At least 1 sample per test pit.	41

As such, the focus of the Asbestos in Soils (ASBINS) Assessment tomorrow will focus on laterally and vertically delineating the locations which were considered unsuitable to remain on-site within AEC19a due to the following reasons:

- Friable asbestos in the form of AF/FA detected via gravimetric analysis in any concentrations.
- Bonded (non-friable) asbestos detected via field screening sieving above the health screening level (HSL).

A summary of these locations is provided in **Table 2** below.

Table 2: Summary of bonded ACM > 7mm above HSL and AF/FA detections within AEC19a

Test Pit	Maximum Depth of Fill	Test Pit Termination Depth	Report	Result	Exceedance
AF/FA	**0.001 %w/w**				
TP242_0.0-0.6	0.6	0.9	Alliance (2023b) SCA	0.00001 %w/w	Detected, but below HSL
TP244_0.0-0.6	0.6	0.9	Alliance (2023b) SCA	0.00007 %w/w	Detected, but below HSL
TP247_1.5-2.5	3.0	3.3	Alliance (2023b) SCA	0.001 %w/w	Detected above HSL
TP250_0.0-0.8	0.8	1.1	Alliance (2023b) SCA	0.0003 %w/w	Detected, but below HSL
Bonded ACM >7mm	**0.05 %w/w**				
DW23_0.5	No test pit logs		Alliance (2021) DSI	0.117 %w/w	Detected above HSL
TP246_0.0-0.1	1.1	1.3	Alliance (2023b) SCA	0.089 %w/w	Detected above HSL
TP246_0.1-1.0			Alliance (2023b) SCA	0.051 %w/w	Detected above HSL
TP248_1.6-1.9	1.9	2.2	Alliance (2023b) SCA	0.179 %w/w	Detected above HSL
TP256_0.1-0.6	0.9	1.2	Alliance (2023b) SCA	0.05 %w/w	Detected above HSL

The delineation works will involve progressing test pits and collecting samples laterally (north, south, east and west) and vertically (within natural) to confirm / validate the extent of asbestos contamination as per **Table 3**. Where AF/FA has been identified, EP Risk will undertake field screening sieving tests for bonded ACM (>7mm) and submit a 500 mL sample to a NATA accredited laboratory for gravimetric asbestos analysis (1 per wall, 1 per base, total 5 per test pit). Where bonded (non-friable) asbestos above the HSL has been identified, EP Risk will undertake field screening for bonded ACM (>7mm) collect a 500 mL sample to be placed on hold (with the exception of two (2) samples) to a NATA accredited laboratory (1 per wall, 1 per base, total 5 per test pit). The results of the delineation sampling should be used to inform future excavation works within these locations for off-site disposal.

Note: this Assessment does not provide ESR with a Waste Classification Report. Previous existing chemical data from the Site should be reviewed to determine whether additional samples are required from a waste perspective. At minimum, the waste from these locations will be classified as Special Waste (Asbestos).

Table 3: Additional ASBINS Assessment by EP Risk

Location / Purpose	Number of Test Pits	Field screening sieving tests for bonded ACM (>7mm)	500 mL sample submitted for gravimetric analysis for AF/FA
AF/FA			
TP242_0.0-0.6	5 (1 vertical, 4 walls)	5	5
TP244_0.0-0.6	5 (1 vertical, 4 walls)	5	5

TP247_1.5-2.5	5 (1 vertical, 4 walls)	5	5
TP250_0.0-0.8	5 (1 vertical, 4 walls)	5	5
Sub total	**20**	**20**	**20**
Bonded ACM > 7mm			
DW23_0.5	5 (1 vertical, 4 walls)	5	Collect but place on hold (a total of 2 to be submitted)
TP246_0.0-0.1	5 (1 vertical, 4 walls)	5	
TP246_0.1-1.0	5 (1 vertical, 4 walls)	5	
TP248_1.6-1.9	5 (1 vertical, 4 walls)	5	
TP256_0.1-0.6	5 (1 vertical, 4 walls)	5	
Sub total	**25**	**25**	**2**
Total	**45**	**45**	**22**

Please note as we are sampling in an area with known friable asbestos, the excavator should be operating with a closed cabin, have a HEPA filter and recycle air on. I will be in a disposable Tyvek coveralls + half face P3 respirator during sampling works.

Following sampling works, test pits should be backfilled by the excavator.

If you have any questions, please let me know.

Kind regards,

Jenny Shao
Occupational Hygiene Consultant
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From: Jacob Dickson <Jacob.Dickson@esr.com>
Sent: Tuesday, July 4, 2023 2:55 PM
To: Jenny Shao <jenny.shao@eprisk.com.au>
Cc: Alex Thomson <alex.thomson@eprisk.com.au>; Kellie Guenther <kel.guenther@eprisk.com.au>; Daniel Galea <daniel.galea@esr.com>
Subject: RE: EP16982 Proposal AEC19a - Kemps Ck - Revised RAP

Hi Jenny,

Confirming it is in JKW scope to locate services.

Regards

Jacob Dickson | Project Manager - Infrastructure

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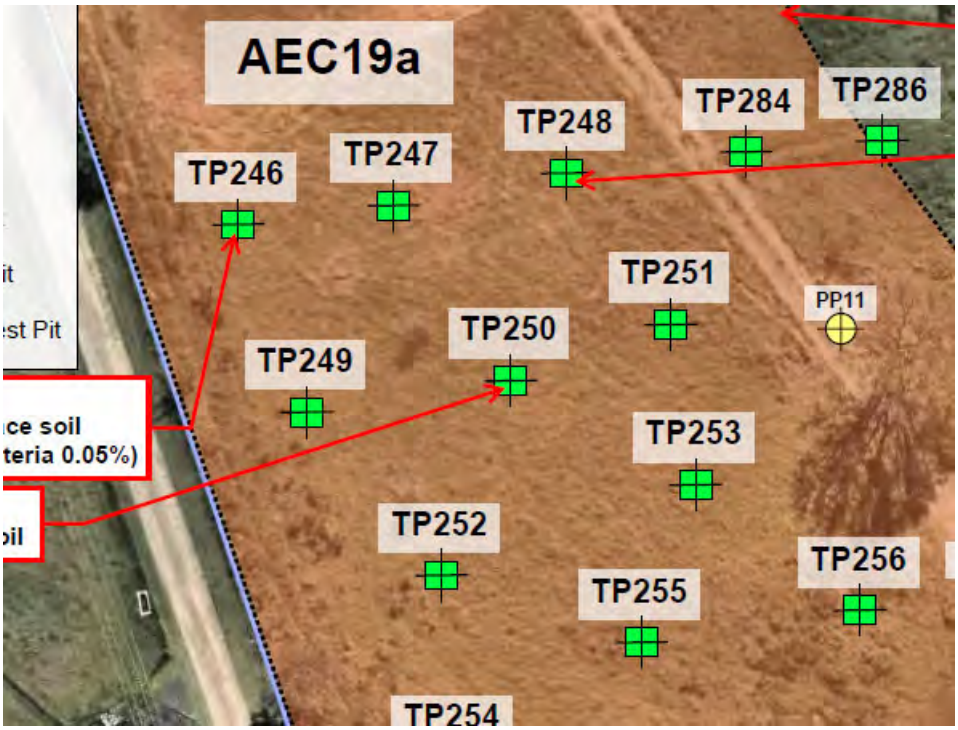
Jenny Shao

From: Jenny Shao
Sent: Friday, 14 July 2023 10:11 AM
To: 'Jacob Dickson'
Cc: Alex Thomson
Subject: RE: AEC19a - Updated Delineation as of 13/07/2023.

Hi Jacob,

As discussed, I have reviewed the existing data to see what the next cleanest sample is westward of TP250 in lieu of us taking another 2 m step out and waiting for laboratory results.



TP249 is the closest west testpit and there was no asbestos detects within samples collected within this test pit.

TP249-0.0-0.1	17/05/2023	0.001%	0.05%	No visible asbestos	-	-	-
TP249-0.1-0.8	17/05/2023	0.001%	0.05%	-	-	-	-
TP249-0.0-0.8	17/05/2023	0.001%	0.05%	-	Not Detected	Not Detected	-

I will extrapolate this testpit location on GIS / google maps and will mark out where that is for TCE to adjust their boundary for TP250.

This means all B3, F2, F3 'hotspots' have now been delineated. Remaining footprint within AEC19a, excluding these 'hotspots' is classified as B2.

Kind regards,

Jenny Shao
Occupational Hygiene Consultant
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From: Jenny Shao
Sent: Thursday, July 13, 2023 4:31 PM
To: Jacob Dickson <Jacob.Dickson@esr.com>
Cc: Alex Thomson <alex.thomson@eprisk.com.au>
Subject: AEC19a - Updated Delineation as of 13/07/2023.

Hi Jacob,

We have received the lab results for the batch submitted on Tuesday arvo.

Based on the results, TP246, TP247 and TP248 have been appropriately delineated.

I will just have to get TCE to reflag these above areas based on the new delineations first thing tomorrow.

There was however a FA detect in TP250, westwards (marked by * below). We will arrange for a resample at 6m tomorrow.

Table 1: AEC19a Delineation Extents

Test Pit	N	S	E	W	V	Approximate Surface Area	Approximate Volume
AF/FA – At or above the HSL							
TP247	4 m	4 m	5 m	4 m	To Natural / 3.7 m	8 m x 9 m 72 m^2	266.4 m^3
TP244	2 m	2 m	6 m	2 m	1.1 m	4 m x 8 m 32 m^2	35.2 m^3
TP250	2 m	2m	4 m	4 m*	1.3 m	4 m x 8 m 32 m^2	41.6 m^3
SUB TOTAL						**136 m^2**	**343.2 m^3**
AF/FA – Below the HSL							
TP242	2 m	4 m	2 m	2 m	1.1 m	6 m x 4 m 24 m^2	26.4 m^3
SUB TOTAL						**24 m^2**	**26.4 m^3**
Bonded ACM > 7mm – At or above the HSL							
DW23	4 m	2 m	2 m	2 m	2 m	6 m x 4 m 24m^2	48 m^3
TP246	14 m	14 m	8 m	6 m	1.5 m	28 m x 14 m 392 m^2	588 m^3
TP248	4 m	2 m	2 m	0 m	3 m	6m x 2m 12 m^2	36 m^3
TP256	2 m	2m	2 m	2 m	1.4 m	4 m x 4 m 16 m^2	22.4 m^3
SUB TOTAL						**444 m^2**	**694.4 m^3**
TOTAL						**604 m^2**	**1064 m^3**

Kind regards,

Jenny Shao
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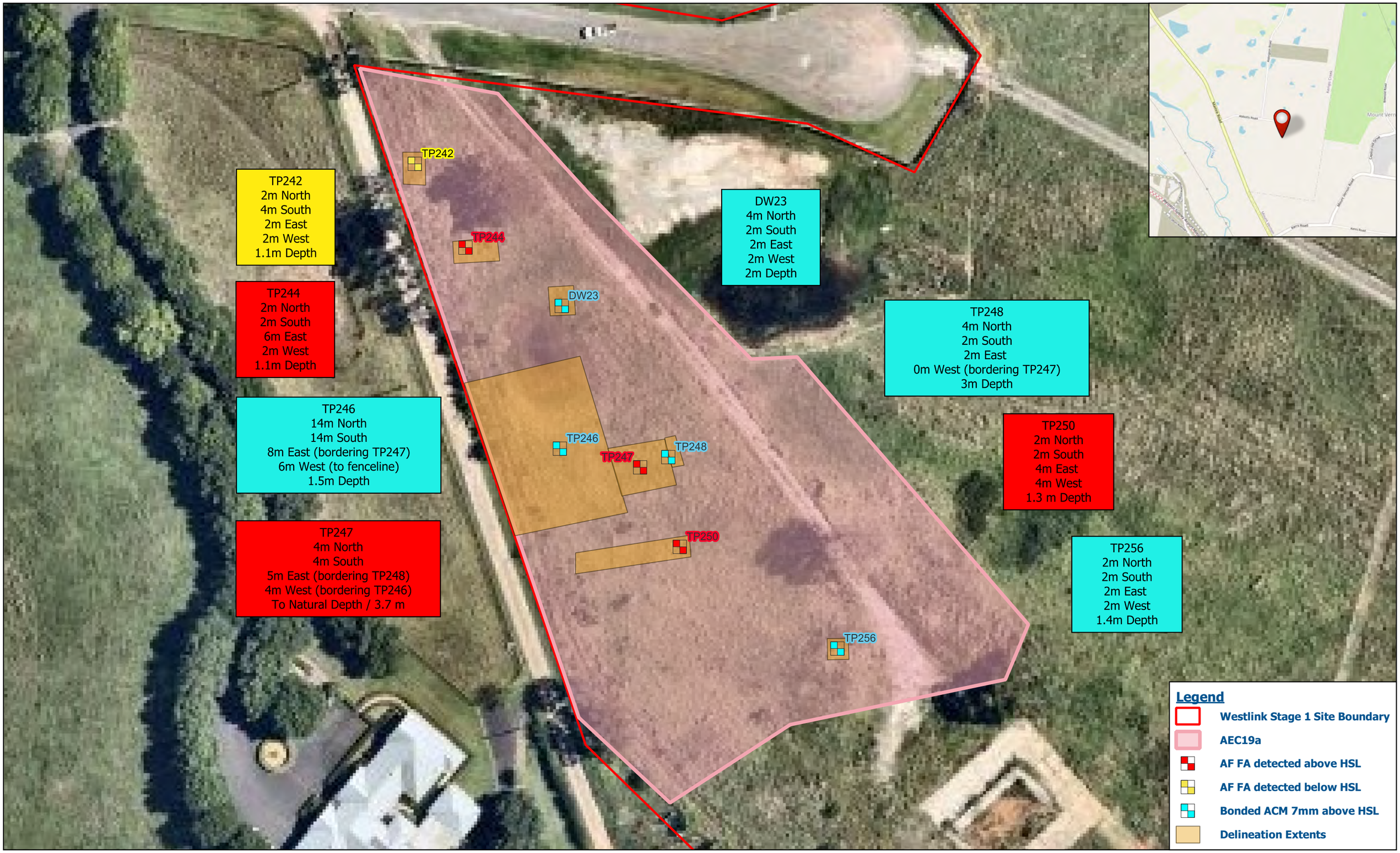
Attachment 2 – AEC19a Delineation Extent Map



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AEC19a - Asbestos Delineation Sampling
Westlink Stage 1 - Aldington Road, Abbotts Road & Mamre Road, Kemps Creek, NSW, 2178

Figure 1 - AEC19a Approx Delineation Extents

Job No: EP3244
Date: 01/09/2023
Drawing Ref: EP3244.004 Fig. 1
Version No: v1

N

0 10 20 30 40 m

Approximate Scale Only

Coordinate System: WGS 84
Drawn by: JS Checked by: AT
Scale of regional map not shown
Source: Nearmap / OpenStreetMap

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