



**AUSTRALIAN STRATEGIC MATERIALS LTD**

(A wholly owned subsidiary of Alkane Resources Ltd)

ABN 51 091 489 511

# Dubbo Project

## Heritage Management Plan





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# FOREWORD

*This Heritage Management Plan (“the Plan”) for the Dubbo Project (DP) (formerly identified as the Dubbo Zirconia Project) has been prepared by R.W. Corkery & Co. Pty. Limited (RWC) and OzArk Environment & Heritage Management on behalf of Australian Strategic Materials Ltd (ASML), a subsidiary of Alkane Resources Ltd (Alkane). The DP, approved as SSD-5251 by the NSW Planning Assessment Commission (PAC) on 28 May 2015, comprises a small scale open cut mine supplying ore containing rare metals (zirconium, niobium, hafnium and tantalum) and rare earth elements (REEs) to a processing plant near the village of Toongi, approximately 25km south of Dubbo. Waste residues produced by the processing operations will be managed in residue storage facilities, designed to contained and encapsulate these residues.*

*The DP also includes the construction of a water pipeline between the processing plant and the Macquarie River, a pipeline to carry natural gas between Dubbo and the DP Site, and the upgrades of the following linear infrastructure;*

- *Toongi Road;*
- *Obley Road; and*
- *the Toongi-Dubbo section of the currently disused Dubbo-Molong Rail Line.*

*Collectively, these are referred to as the DP linear infrastructure.*



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# 1 INTRODUCTION

## 1.1 SCOPE

The Dubbo Project (DP) Heritage Management Plan (“the Plan”) has been prepared as a tool to give consideration to and to manage Aboriginal heritage related issues during the construction and operation of the DP. It will be used by Australian Strategic Materials Ltd (ASML) personnel as the first point of reference for Aboriginal cultural heritage related issues.

The plan synthesises the recommendations made during the preparation of an Environmental Impact Statement (EIS) for the Dubbo Zirconia Project<sup>1</sup>, and subsequent assessment and approval of SSD-5251. It is a practical guide for management of Aboriginal heritage values and sites within defined Aboriginal heritage management areas on and surrounding the DP Site. The following defines the terms Aboriginal heritage values, sites and management areas that are central to the Plan.

### Aboriginal Heritage Values

The Aboriginal heritage values contained within and surrounding the DP Site have been identified in the Aboriginal Cultural Heritage Impact Assessment prepared for the DP, November 2013 (OzArk, 2013a).

### Aboriginal Sites

An Aboriginal site is defined as the location of Aboriginal objects<sup>2</sup>. In practice, OzArk (2013a) has used the term “Aboriginal site” to refer to the extent of Aboriginal objects visible on the surface of the ground, potential subsurface deposits or isolated incidences such as culturally modified trees and isolated artefacts.

### Aboriginal Heritage Management Areas

Aboriginal heritage management areas include those areas of land where SSD -5251 provide consent for disturbance and those areas, including the Biodiversity Offset Area (BOA), where cultural values will not be impacted.

The Plan aims to ensure:

- identified Aboriginal sites are appropriately protected or salvaged, in accordance with the wishes of the Aboriginal community;
- any new sites identified are appropriately managed;
- consultation and engagement with the local Aboriginal community is maintained with respect to the management of Aboriginal heritage values; and

<sup>1</sup> The Dubbo Project was originally assessed and determined as the Dubbo Zirconia Project.

<sup>2</sup> The terminology derives from the *National Parks and Wildlife Act 1974* (NPW Act). “Aboriginal object” is defined in section 5 of the NPW Act as:

*“any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.”*

- government and other land management agencies, the local Aboriginal community, landholders (where relevant) and community groups (where relevant) work together in the management of Aboriginal heritage values.

The Plan is applicable to all areas owned and managed by ASML, as well as the linear infrastructure noted in the foreword.

Collectively, these areas which are identified on **Figure 1** are identified as the ACHMP Area.

## 1.2 PURPOSE

The primary purpose of the Plan is to define management of Aboriginal heritage values in accordance with the Development Consent (refer to Section 3 and **Table 1**). In order to achieve this, the Plan:

- details the management procedures for Aboriginal heritage to ensure within the area of coverage;
- details reporting requirements;
- outlines and describes ongoing Aboriginal consultation;
- outlines the obligations of DP personnel to protect Aboriginal sites;
- describes the roles and responsibilities of project staff in managing Aboriginal heritage sites before and after salvage works; and
- provides for continuous improvement through auditing and modification of the Plan.

## 1.3 PROJECT OVERVIEW

The DP, approved as SSD-5251 by the NSW Planning Assessment Commission (PAC) on 28 May 2015, comprises a small scale open cut mine supplying ore containing rare metals (zirconium, niobium, hafnium and tantalum) and rare earth elements (REEs) to a processing plant near the village of Toongi, approximately 25km south of Dubbo (see **Figure 1**). Waste residues produced by the processing operations will be managed in residue storage facilities, designed to contain and encapsulate these residues.

**Figure 2** provides the approved layout of the DP Site and the following provides an overview of the various activities to be undertaken.

- Ore will be mined by standard drill and blast, load and haul methods from a shallow Open Cut developed to a maximum depth of 32m below natural ground level (355m AHD) (remaining above the groundwater table).
- Waste rock from the margins of the ore body will be transferred to a small Waste Rock Emplacement (WRE) to the southwest of the open cut.

- The ore will be hauled to a Run-of-Mine (ROM) Pad where it would be crushed and ground before being transferred to the processing operations of the Processing Plant Area for the separation of the rare metals and REEs.
- A rail siding may be constructed as a spur from the Toongi-Dubbo Rail Line along with a Rail Container Laydown and Storage Area for the unloading and temporary storage of reagents and loading of products for despatch. Construction of the rail siding will be contingent on further feasibility review and assessment following commencement of operations.
- Solid residues produced by the processing of the ore will be neutralised with crushed limestone and transported on a conveyor to a Solid Residue Storage Facility (SRSF).
- Water used in the processing operations, which cannot be recycled, will be pumped to a Liquid Residue Storage Facility (LRSF), comprising a series of terraced salt crystallization cells within four separate areas of the DP Site.
- Salt which accumulates within the LRSF will be periodically excavated from the salt crystallization cells and disposed of within a series of Salt Encapsulation Cells adjoining the WRE and SRSF.
- Other features of the DP Site illustrated in **Figure 2** and critical to the development and operation of the DP include:
  - DP Site Administration Area;
  - Mine Haul Road;
  - contractor management area; and
  - soil stockpile areas.

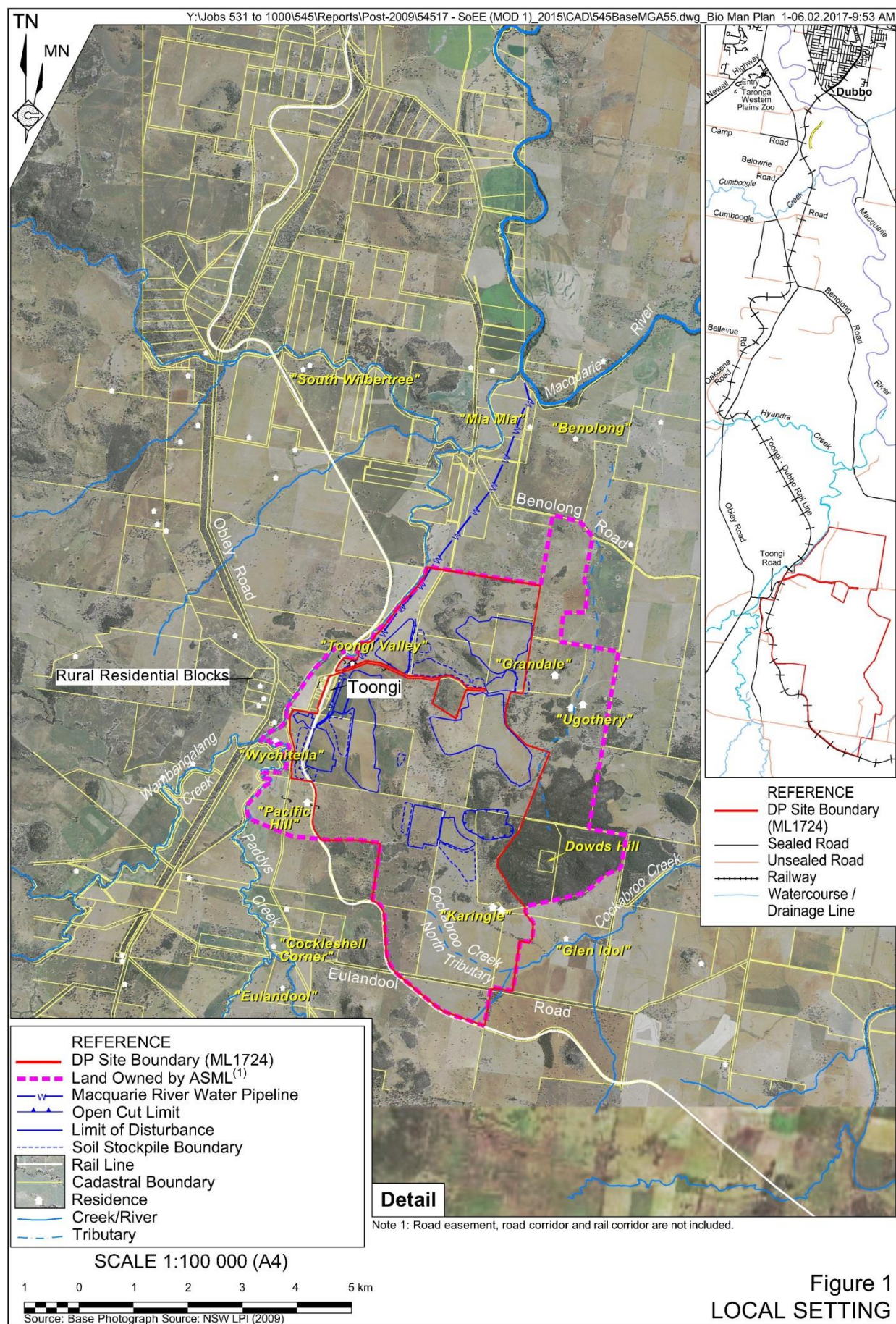
As components of the DP are completed or no longer required, they will be rehabilitated in accordance with a *Rehabilitation Management Plan* (prepared as a Mining Operations Plan) in accordance with *Condition 3(59)* of SSD-5251.

## 1.4 RELATIONSHIP TO OTHER PLANS AND PROGRAMS

The management of cultural heritage on the DP Site as presented in the Plan forms part of the overall environmental management system of the DP. This environmental management system provides for the integration and inter-relationship of the Plan with several other management plans (see **Figure 3**).









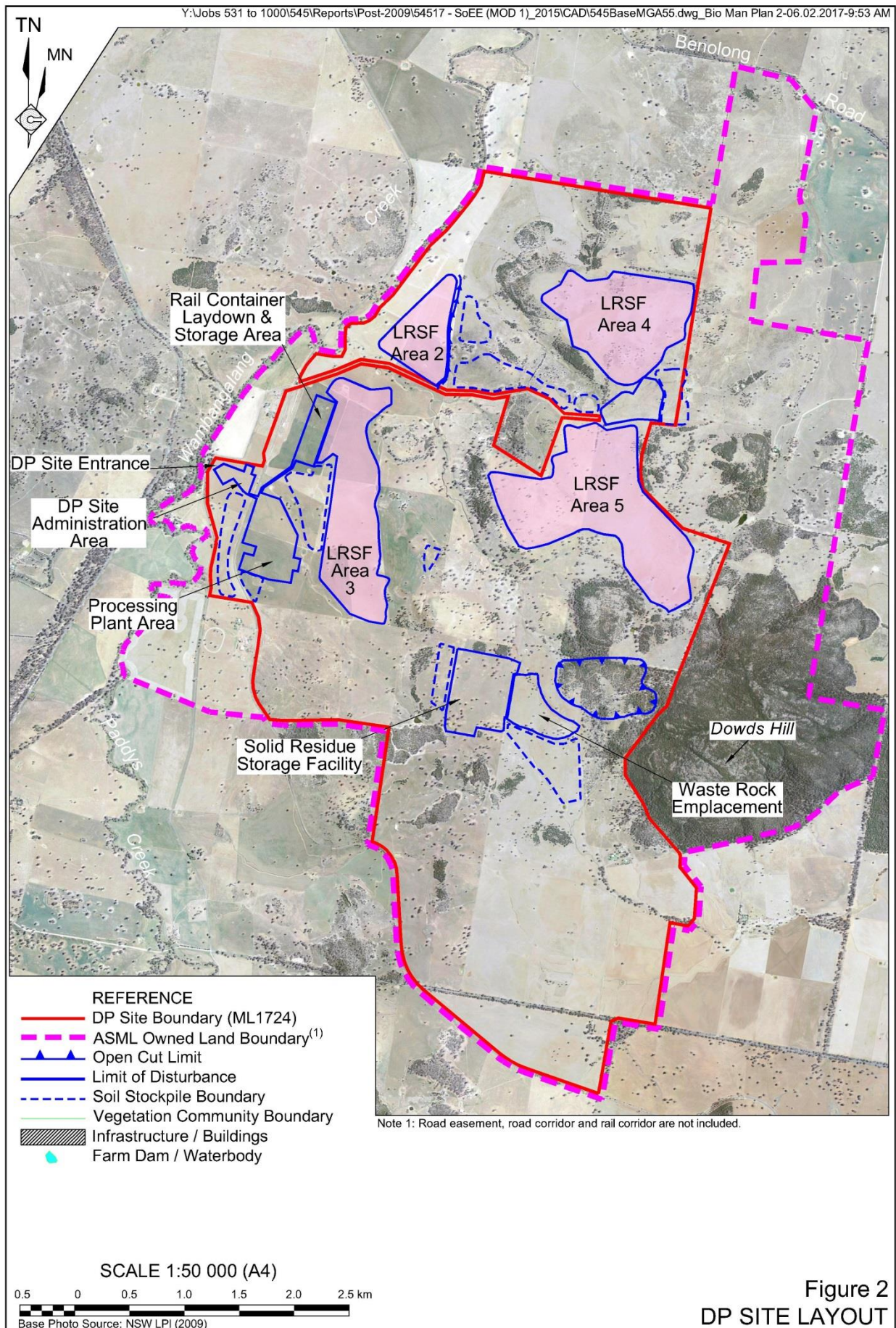
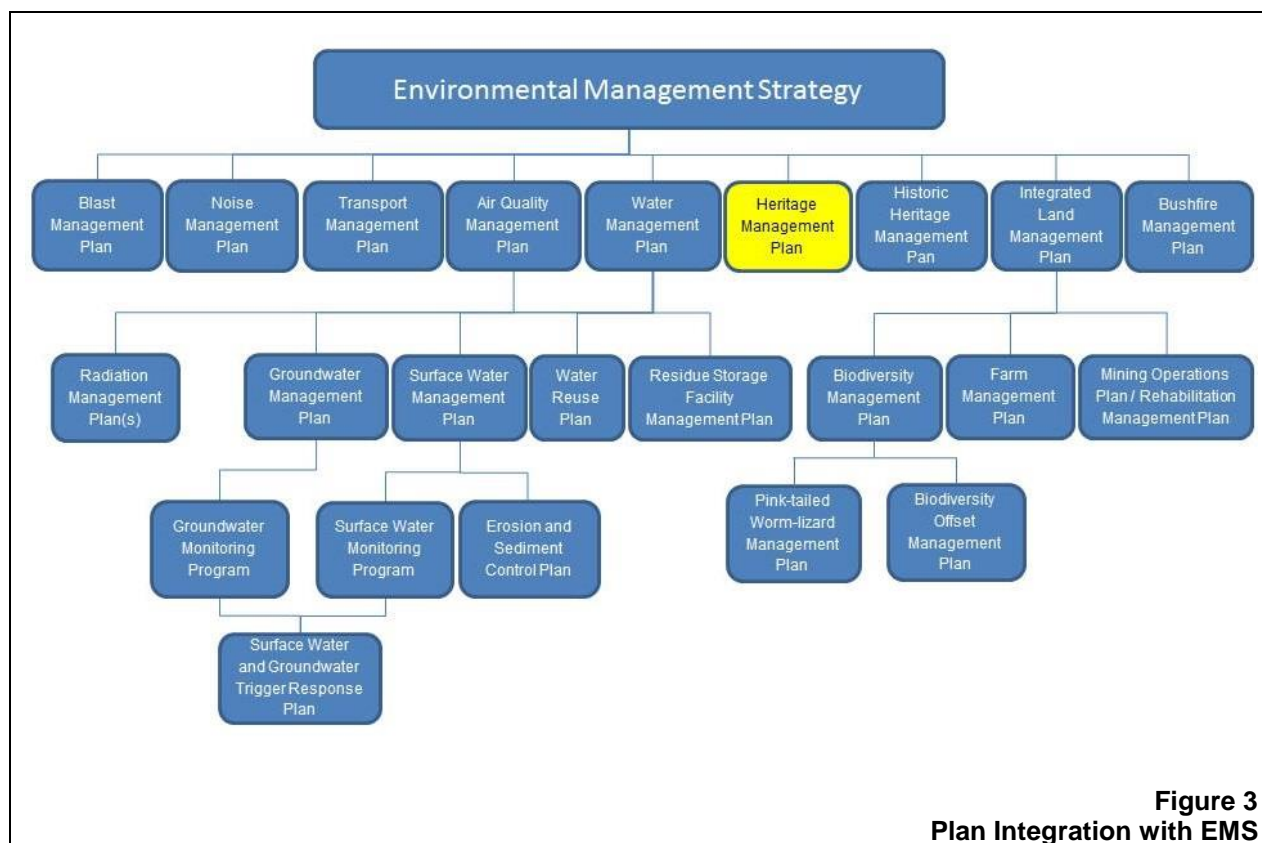


Figure 2  
DP SITE LAYOUT



## 2 CONSULTATION

### 2.1 GOVERNMENT CONSULTATION

This Plan was developed in consultation with the NSW Office of Environment and Heritage (OEH).

Preliminary email advice concerning Aboriginal community consultation regarding this Plan was received from Phillip Purcell (OEH archaeologist) on 12 August 2016.

### 2.2 ABORIGINAL COMMUNITY CONSULTATION

#### 2.2.1 Aboriginal Parties Consulted

Details of Aboriginal community consultation undertaken for the 2011–2013 Aboriginal Cultural Heritage assessment is detailed in OzArk 2013a (Volume 8 of the EIS). The assessment followed the guidelines contained in the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010b). In summary, the following four Registered Aboriginal Parties (RAPs) were identified, involved in field survey and consulted with respect to proposed management of Aboriginal sites.

- Binjang Wellington Wiradjuri Heritage Survey (BWWHS);
- Wirrimbah Direct Descendants (WDD);



- Diane Stewart; and
- Dubbo Local Aboriginal Land Council (DLALC).

### 2.2.2 Consultation in Developing this Plan

ASML, both directly and through its archaeological consultants, has maintained an ongoing dialogue with local Aboriginal community representatives through additional field surveys for the purpose of proposed power and water pipelines, a Community Consultative Committee and ad hoc / opportunistic discussions regarding opportunities for ongoing Aboriginal involvement at the DP.

Each of the RAPs identified in Section 2.2.1 has been specifically consulted in the preparation of this Plan. A draft copy of this Plan was provided to each on 14 September 2016 with a request for confirmation of the proposed management measures to be submitted by 30 September 2016. **Appendix 2** sets out the consultation undertaken for this Plan.

As of 4 October 2016, no responses from the RAPs concerning the draft of this Plan were received.

### 2.2.3 Ongoing Consultation Protocols

Aboriginal parties will be kept informed with respect to activities and operations which may impact on Aboriginal heritage management.

An annual consultation meeting will be held including representatives from all the RAPs. This meeting may include a site visit.

Items discussed at the meetings will include the following

- Monitoring and management of known sites.
- Management of the BOA (for relocation of salvaged Aboriginal sites).
- Management of salvaged and stored sites (if not placed within the BOA).

Notification within a reasonably prompt timeframe will be issued to all Aboriginal parties where:

- significant changes to the DP may have implications for Aboriginal heritage management;
- there is a significant discovery in the course of development e.g. Aboriginal ancestral remains or archaeological features; or
- significant land management actions are required in Aboriginal site protection areas not envisaged by this plan.

Urgent issues requiring the attention of Aboriginal parties will be communicated no later than one week of the issue arising. Feedback from Aboriginal parties should be received by DP



preferably within two weeks and no later than four weeks from the date correspondence is issued by DP.

Issues raised by Aboriginal parties in conversations whether by telephone or in person in the course of ongoing consultation will be documented in writing by the person raising the issue. Only documented issues will be followed up by DP.

Aboriginal parties will be consulted as part of any formal review of the Plan (refer to Section 13.4).

## 2.2.4 Access to Aboriginal Sites and Stored Aboriginal Objects

Local Aboriginal community access to Aboriginal sites and stored Aboriginal objects (if applicable) will be made available by DP subject to reasonable safety and security measures. These could include the location of mining operations and availability of DP assistance as per standard mine procedures.

A request to visit will require two weeks prior notification which can be lodged using one of the following methods.

- A 24-hour, 7 day per week Community Information Line (to be advertised).
- A dedicated email address (dzp@alkane.com.au).
- A portal on the Company web site (www.alkane.com.au).

Once notice has been provided, DP will respond within five working days to confirm access arrangements and conditions.

Access to stored Aboriginal objects salvaged for safekeeping will be managed through an OEH Care Agreement, subject to Aboriginal consultation (refer also to Section 7.9). For security purposes, the Aboriginal objects must not be removed from their storage location, however, adequate inspection table space will be available for those wishing to view the material (subject to requirements of the OEH Care Agreement for the object(s)).

## 3 LEGAL AND OTHER REGULATORY REQUIREMENTS

The DP is State Significant Development and an EIS (RWC, 2013) was completed in accordance with Schedule 2, Part 3 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to assess the environmental impacts (including Aboriginal heritage) of the DP.

Development Consent SSD-5251 was granted by the NSW Planning Assessment Commission (PAC) on 28 May 2015, with *Condition 8* (of Schedule 3) requiring the preparation of a Heritage Management Plan. More general requirements for the preparation of management plans are also provided by *Condition 3* of Schedule 5. **Table 1** identifies the conditional requirements of both conditions and identified where in the Plan individual requirements have been addressed.

**Appendix 1** includes a copy of the ‘relevant conditions’ for which the Plan provides measures to ensure compliance, namely *Condition 35* of Schedule 3, and *Condition 3* of Schedule 5.

## 4 OBJECTIVES AND OUTCOMES

**Table 2** details the objectives and outcomes with respect to Aboriginal heritage management of the DP.

**Table 1**  
**Conditional Requirements of SSD-5251 for a Heritage Management Plan**

Page 1 of 2

Condition	Section
<b>Schedule 3</b>	
35. The Applicant shall prepare and implement a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:	
(a) be prepared in consultation with OEH and relevant Aboriginal stakeholders, and be submitted to the Secretary for approval prior to any development under this consent, unless the Secretary agrees otherwise;	2
(b) include a program/procedures for:	
• the salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits with the project disturbance area;	9
• the assessment and removal of scarred trees;	9.3.2
• the protection and monitoring of Aboriginal sites outside the project disturbance area;	7.8
• managing the discovery of any new Aboriginal objects or skeletal remains during the development;	8.2
• maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and	2.2.4
• ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site; and	2.2.3
(c) include a program to monitor and report on the effectiveness of the management measures carried out under the plan.	13.2
<b>Schedule 5</b>	
3. The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	
(a) detailed baseline data;	5
(b) a description of:	
• the relevant statutory requirements (including any relevant approval, licence or lease conditions);	3
• any relevant limits or performance measures/criteria;	13.2
• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	
(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	
(d) a program to monitor and report on the:	13.4
• impacts and environmental performance of the development;	
• effectiveness of any management measures (see c above);	
(e) a contingency plan to manage any unpredicted impacts and their consequences;	11
(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	13.2
(g) a protocol for managing and reporting any:	



**Table 1 (Cont'd)**  
**Conditional Requirements of SSD-5251 for a Heritage Management Plan**

Page 2 of 2

<ul style="list-style-type: none"> <li>incidents;</li> <li>complaints;</li> <li>non-compliances with statutory requirements; and</li> <li>exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul>	11.3
(h) a protocol for periodic review of the plan.	12
	11.3
	N/A
	13.4

**Table 2**  
**Objectives and Outcomes**

Objectives	Outcomes
(a) To ensure compliance with the criteria of SSD--5251 and the reasonable expectations of the local Aboriginal community.	(i) Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.
(b) To implement appropriate salvage, excavation and management for identified Aboriginal sites (including scarred trees) and potential archaeological deposits.	(ii) All nominated measures implemented.
(c) To prevent disturbance or damage to Aboriginal sites located beyond the DP disturbance footprint.	(iii) No direct or indirect impacts on Aboriginal sites other than those identified in the Plan
(d) To provide a protocol for Aboriginal community access to Aboriginal sites.	(iv) Continued satisfaction of the local Aboriginal community with respect to cultural heritage management.
(e) To ensure ongoing consultation and involvement of relevant Aboriginal stakeholders.	
(f) To implement an appropriate monitoring program to establish compliance or otherwise with relevant criteria during all stages of the Project.	(v) All identified monitoring undertaken in accordance with the Plan.
(g) To implement an appropriate complaints handling and response protocol.	(vi) Complaints (if any) handled and responded to in an appropriate manner. (vii) All complaints recorded and reported in accordance with annual reporting requirements.
(h) To implement appropriate corrective and preventative actions, if required.	(viii) Corrective and preventative actions implemented, if required.
(i) To implement an appropriate incident reporting program, if required.	(ix) Incidents (if any) reported in an appropriate manner.

## 5 ABORIGINAL CULTURAL HERITAGE VALUES

### 5.1 SOCIO-CULTURAL VALUES

#### 5.1.1 Value of Aboriginal sites

The ACHMP Area is located within the traditional country of the Wiradjuri people. The physical evidence of Aboriginal life throughout this country is pervasive. Cycles of life, interaction, ceremony and death are all represented in a range of sites throughout the Central West and beyond.

A prevailing view throughout the Aboriginal consultation for the EIS was the importance of all physical evidence of Aboriginal life to current Aboriginal communities. Aboriginal sites provide a tangible connection to pre-European Aboriginal land use. Aboriginal sites are valuable in sustaining contemporary Aboriginal identity through opportunities for teaching and engagement with heritage in field investigations.

### 5.1.2 Previous Archaeological Investigations

#### **Nolan 2000. Aboriginal / Archaeological Sites Investigation for Resource Drilling Area Toongi, south of Dubbo, NSW.**

In 2000, Lloyd Nolan undertook a survey of 6ha which overlaps the impact footprint of the open cut. Two Aboriginal sites were recorded during this assessment, TS-IF-01 and TS-GG-01, an isolated artefact and a grinding groove site respectively. TS-IF-01 consists of a single modified, primary flake made from chert. TS-GG-01 consists of five grinding grooves of various sizes. They are located as one group of four grooves on one sandstone slab and a single groove about 12m further north along the creek bed.

#### **Nolan 2002. Dubbo Zirconia Project (DZP) Toongi, south of Dubbo, NSW an Aboriginal / Archaeological Sites Investigation of Residue Storage Facility, Processing Plant Site, Waste Rock Emplacement, Open Cut, Haul Road and Water Supply Pipeline Routes**

In 2002, Nolan completed an Aboriginal archaeological assessment for the proposed residue storage facility; processing plant site; waste rock emplacement; open cut; haul road and water supply pipeline routes associated with the DP. A total of 22 Aboriginal sites were recorded during the assessment including 11 scarred trees, six artefact scatters, three grinding groove sites and two isolated finds. Results from the assessment indicate that larger sites are located in close proximity to a reliable water source, with grinding groove sites occurring where suitable sandstone is available. Scarred trees are located on all landforms. Nolan noted that five of the six artefact scatters were identified on vehicle tracks and as a result have been highly disturbed.

#### **OzArk 2013a. Aboriginal Heritage Assessment: Dubbo Zirconia Project.**

An Aboriginal archaeological assessment was completed by OzArk between May 2012 and February 2013 for the DP which included the Mine Site; the Toongi-Dubbo Rail Line and Natural Gas Pipeline Corridor; the Macquarie River Water Pipeline; and the public road network (Toongi Road and Obley Road Alignment). The surveyed area encompassed 2,864ha which comprised four generalised landforms: hilly landforms; gently undulating landforms, floodplains and creeks or waterways.

34 new Aboriginal sites were recorded during the assessment including 15 artefact scatters; 13 isolated finds; three scarred trees, one ochre processing site and one potential archaeological deposit (PAD). Sites within creek lines consist of two grinding groove sites and a scarred tree. Artefacts were only identified within the bounds of creeks in one instance. Sites identified in floodplains were largely comprised of artefact scatters and isolated lithic artefacts. Scarred trees and one set of grinding grooves were also located in floodplain landforms. Floodplain landforms had the proportionally highest number of sites and artefacts, which supports the settlement pattern of Aboriginal people camping near water. Most of the Aboriginal scarred trees were recorded in gently undulating landforms, as were smaller artefact scatters. The low number of artefacts/features in comparison to the number of sites recorded was attributed to the



domination of isolated artefact sites and scarred trees over open artefact scatters. It is clear from the results that Aboriginal people were using these areas which are more distant from water, but were not frequently making them the location of camps. No sites were identified in hilly landforms which were distant from major waterways.

Artefacts identified over the course of this study were mostly flakes, while some waste flakes from creating stone tools and others modified and/or used as tools themselves. Many cores, a stone axe, and a hand-held grinding stone were also identified in the area. Lithic materials identified consisted of chert and other fine-grained siliceous (FGS) material, quartz, mudstone, rhyolite, and sandstone, as well as several unidentified materials.

### **OzArk 2013b. Archaeological Test Excavation: TS-OS-03 with PAD and TS-OS-05 with PAD, Dubbo Zirconia Project.**

In 2013 OzArk completed test excavations at two PADs associated with previously identified sites (TS-OS-03 with PAD and TS-OS-05 with PAD: recorded by Nolan in 2002) in order to inform management recommendations for the proposed Macquarie River water pipeline. The excavation area consisted of two discreet areas on the 'Mia Mia' property situated within the Macquarie River floodplain. TS-OS-03 with PAD is located over 100m to the east of Wambangalang Creek with the eastern portion of the site located on a gentle slope that levels out toward the west of the site. TS-OS-05 with PAD is situated on a low terrace overlooking a floodplain that is adjacent to Wambangalang Creek. There had been extensive disturbance from agricultural activities at the location of the PADs.

Site TS-OS-03 with PAD was excavated at 10m intervals along the transect, while TS-OS-05 with PAD was excavated at 20m intervals along the intercepting transect (due to a lack of findings). Each pit was excavated manually until culturally sterile levels were reached. Five artefacts were recorded at site TS-OS-03 with PAD during the test excavation including quartz, quartzite, chert and volcanic flakes and flaked pieces. All artefacts were located within 20cm of the surface. No subsurface artefacts were recorded at TS-OS-05 with PAD. It was concluded that sites TS-OS-03 with PAD and TS-OS-05 with PAD are surface sites only without any associated subsurface archaeological deposits.

### **5.1.3 Cultural Values Assessment**

To gain an understanding of the importance or the cultural significance of the DP area to Aboriginal people, Aboriginal stakeholders were invited to participate in a cultural values assessment process as part the EIS which commenced in 2011, as well as a focus group meetings held on 10 August 2012, 29 May 2013 and 13 August 2013. The four identified RAPs (see Section 2.2.1) have been identified as holding knowledge of the area in which the DP is located.

Cultural values expressed by the RAPs are detailed in the EIS and are summarised here.

- The high cultural significance of The Springs site was noted, as well as certain RAPs association with this area.
- The sites recorded in the DP area are reflective of the widespread use of the land by Aboriginal people over time.
- The sites provide a tangible, continued cultural connection with the land.



- The sites have elevated importance due to the diminishing knowledge of Aboriginal culture since white settlement.
- The sites demonstrate the widespread nature of the use of the land in terms of area, but also in terms of types of use as the variety of site types present reflect the range of ways the landscape was used by Aboriginal people.
- Scarred trees could act as markers for boundaries or burials, or could represent the use of the bark itself as a functional item such as a coolamon.

## 5.2 ABORIGINAL SITES

A total of 53 Aboriginal sites have been recorded within the area covered by this Plan<sup>3</sup>. 34 of these sites were recorded as part of the 2012 OzArk assessment and 19 were previously recorded. **Table 3** lists the Aboriginal site types known to exist within the ACHMP Area and **Table 4** provides details of the 53 sites within the ACHMP Area. **Figures 4** and **5** show the location of all known Aboriginal sites within the ACHMP Area.

**Table 3**  
**Aboriginal Site Types**

Site type	Number	Percentage of total (% rounded)
Isolated finds	15	28
Artefact scatters	12	23
Scarred trees	12	23
Artefact scatters with PAD	8	15
Grinding grooves	2	4
Grinding grooves with PAD	1	2
Ochre processing site	1	2
PAD	1	2
Scarred tree with associated artefact scatter	1	2

<sup>3</sup> 52 of these sites have been registered with the *Aboriginal Heritage Information Management System* (AHIMS) and one, K-OP1, has not been registered.

**Table 4**  
**Recorded Aboriginal Sites**

Page 1 of 4

ID	Reference <sup>1</sup>	Site Name	Site Type	Site Description (& coordinates) <sup>2</sup> .
1	36-1-0120	H2 with PAD	Scarred tree and artefact scatter	Artefact scatter consisting of 24 artefacts from mudstone, silcrete, quartz and fine-grained siliceous (FGS). Box scarred tree with one scar measuring 70cm in length orientated SSW. The PAD associated with this site has been joined with that of OR-AS1. 647872E 6415317N
2	36-1-0313	TS-IF-01	Isolated find	Originally consisted of a tan chert flake. Original artefact could not be located in 2013, however, a pink chert piece of flake shatter was found in the vicinity. 653040E 6406810N
3	36-1-0314	TS-GG-01	Grinding grooves	Site consists of a number of grinding grooves within a creek bed, with five originally recorded (by Nolan) and six more identified in 2013, bringing the total to 11. 653127E 6406427N
4	36-1-0356	TS-OS-03	Artefact scatter	Artefact scatter extending 60m x 9m and consisting of 13 artefacts and a burnt patch of clay (possible hearth). 652078E 6411926N
5	36-1-0357	TS-OS-01 with PAD	Artefact scatter with PAD	Artefact scatter extending 20m x 10m on the eroding edge of a creek bank. Consists of four artefacts: three volcanic flakes and one silcrete core. 652057E 6407786N
6	36-1-0358	TS-OS-02	Artefact scatter	Artefact scatter consisting of four artefacts, a core and three flakes, located along an access track. Quartz debitage is also located within the site. 651440E 6410150N
7	36-1-0360	TS-GG-03	Grinding grooves	Site consists of two grinding grooves on a transportable sized sandstone rock. Located on the southern edge of an unsealed access track. 652066E 6407360N
8	36-1-0361	TS-GG-02 with PAD	Grinding grooves with PAD	Consists of three groups of grinding grooves over a distance of 60m x 10m at the time of initial recording. New grooves identified in 2013 including six vertical grooves on a partially buried rock and five grooves on a broken rock overlooking the drainage. An orange chalcedony flake fragment is located nearby. 652133E 6407859N
9	36-1-0362	TS-IF-02	Isolated find	Chert flake located 200m north of Wychitella shearing shed. Original artefact could not be located in 2013, however, an orange chalcedony flake was found in the vicinity. 651393E 6409601N
10	36-1-0364	TS-OS-05	Artefact scatter	Low density artefact scatter extending 250m x 10m and consisting of approximately 50 artefacts. Recorded artefacts are located along an access track and the site is located 150m south of Wambangalang Creek. 653217E 6413743N
11	36-1-0365	TS-OS-04	Artefact scatter	Large, medium-density artefact scatter. A total of 25 artefacts were recorded, actual number estimated at >100. The width of the site, based on visible artefacts is a maximum 40m with a minimum of 10m. 652456E 6413555N
12	36-1-0366	TS-ST-05	Scarred tree	Scarred box tree with an elongated scar, located 654m east of an ephemeral drainage feature. The tree is alive but rotting. 650619E 6408376N
13	36-1-0367	TS-ST-06	Scarred tree	Scarred box tree with an elongated scar with no associated artefacts. 650355E 6408167N
14	36-1-0368	TS-ST-07	Scarred tree	Scarred box tree with an elongated scar, located approximately 200m west of the base of Dowds Hill. 652331E 6407540N
15	36-1-0372	TS-ST-02	Scarred tree	Scarred box tree with a small coolamon shaped scar at its base. The scar has almost completely grown over. 650739E 6409277N



**Table 4 (Cont'd)**  
**Recorded Aboriginal Sites**

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ID	Reference <sup>1</sup>	Site Name	Site Type	Site Description (& coordinates) <sup>2</sup>
6	36-1-0358	TS-OS-02	Artefact scatter	Artefact scatter consisting of four artefacts, a core and three flakes, located along an access track. Quartz debitage is also located within the site. 651440E 6410150N
16	36-1-0373	TS-ST-03	Scarred tree	Gum tree with an elongated scar. The scar on this tree has closed up since its initial recording. 650019E 6408565N
17	36-1-0374	TS-ST-01	Scarred tree	Box tree with a narrow, elongated scar. The scar has almost completely grown over. 650844E 6409385N
18	36-1-0375	TS-ST-04	Scarred tree	Box tree with a triangular shaped scar with no associated artefacts. Located 644m east of an ephemeral drainage feature. 649885E 6408415N.
19	36-1-0432	ORWM-ST1	Scarred tree	Scarred grey box tree with a narrow, elongated scar located on the western side of Obley Road and 80m south of the turnoff to Camp Road. 650552E 6425580N
20	36-1-0433	ORWM-ST2	Scarred tree	Scarred grey box tree with an elongated, narrow and hollow scar located on the western side of Obley Road, and 180m south of the turnoff to Camp Road. 650533E 6425729N
21	36-1-0631	GI-AS1	Artefact scatter	Artefact scatter consisting of two artefacts 10m apart situated on a rise above a third order waterway. Artefacts include a grey mudstone flake and a banded dark grey FGS flake shatter. 652761E 6406650N
22	36-1-0632	GI-AS2	Artefact scatter	Artefact scatter consisting of a flake shatter of a coarse red-brown material and a quartz cobble. Located on a small rise of partially exposed bedrock. 653003E 6406694N
23	36-1-0633	G-IF1	Isolated find	Quartz flake 100m east of an ephemeral drainage and on the southern side of Benolong Road. 654630E, 6412306N
24	36-1-0634	K-AS1 with PAD	Artefact scatter with PAD	Small artefact scatter comprised of ten lithic artefacts on an elevated terrace 20m from a creek on the north side. The artefacts cover an area approximately 15m x 10m. 653494E 6404781N
25	36-1-0635	K-AS2 with PAD	Artefact scatter with PAD	Located 500m north of the "Karingle" homestead a creek line. The PAD is 400m x 70m. Site consists of several flakes of various materials were recorded within and adjacent to the bank of the creek line. 652632E 6405846N
26	36-1-0636	K-IF1	Isolated find	Silcrete flake located on the edge of a dry creek bed. 652642E 6405350N
27	36-1-0637	MM-AS1	Artefact scatter	Moderate density artefact scatter located on an access track 40m east of Wambangalang Creek. Artefacts include grey mudstone: 1 secondary flake and 2 pieces of flake shatter; mottled chert: 1 tertiary flake and 1 piece of flake shatter; grey FGS: 1 piece flake shatter; and quartz: 3 tertiary flakes and 2 pieces of flake shatter. 653239E 6413941N
28	36-1-0638	MM-AS2	Artefact scatter	Artefact scatter comprising four artefacts on the banks of Wambangalang Creek. The artefacts are located approximately 40m from each other. 651663E 6411405N
29	36-1-0639	MM-IF1	Isolated find	Grey-green FGS tested cobble or lightly used core: 70mm. 651266E 6410925N
30	36-1-0640	MM-IF2	Isolated find	Grey FGS core: 55mm. 651012E 6410597N
31	36-1-0641	OR-AS1 with PAD	Artefact scatter with PAD	Located approximately 15m east of Obley Road and north of Hyandra Creek 40m to 50m along an access track. Site is a sparse lithic scatter comprised of three artefacts within one metre of each other. 647874E 6415464N



**Table 4 (Cont'd)**  
**Recorded Aboriginal Sites**

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ID	Reference <sup>1</sup>	Site Name	Site Type	Site Description (& coordinates) <sup>2</sup>
32	36-1-0642	OR-ST1	Scarred tree	The site consists of a single elongated scarred tree on an Inland Grey Box. Located approximately 12m west of Obley Road and approximately 0.7km north of Belmont Road. 649529E 6423523N
33	36-1-0643	PH-IF1	Isolated find	Chert flake shatter located along a dirt road and on the northern bank of an ephemeral creek. 650695E 6407055N
34	36-1-0644	TV-AS1	Artefact scatter	Site consists of a quartz core and a piece of quartz shatter within a metre of each other. Located 100m from an unnamed tributary of Wambangalang Creek. 652009E 6408159N
35	36-1-0645	TV-AS2 with PAD	Artefact scatter with PAD	Site is a sparse lithic scatter along an access track on the banks of Wambangalang Creek. Six artefacts were recorded including a grey mudstone scraper. 650740E 6410316N
36	36-1-0646	TV-AS3 with PAD	Artefact scatter with PAD	Site is an extensive open lithic artefact scatter on the southern bank of a 2nd order waterway of Wambangalang Creek. Artefacts consist of lithic debitage, modified flakes, and ground stone. 651625E 6408100N
37	36-1-0647	TV-IF1	Isolated find	Grey FGS tertiary flake: 87mm. 652253E 6408305N
38	36-1-0648	PAD 12	PAD	PAD roughly follows a creek line and one of its branches. 652500E 6405600N
39	36-1-0649	UG-ST1	Scarred tree	A live box tree with a single oblong shaped scar located 100m west of a small creek. 653454E 6407774N
40	36-1-0650	UG-ST2	Scarred tree	Single Aboriginal scarred box tree with an elongated scar. A large, ephemeral 2nd order drainage is located 50m from the tree. 654645E 6409715N
41	36-1-0651	UG-IF7	Isolated find	Quartz, tertiary flake located 10m north of a 1st order drainage feature. 654892E 6408139N
42	36-1-0652	UG-AS1	Artefact scatter	Sparse artefact scatter including a coarse grained tested cobble, a piece of chalcedony flake shatter, a chert flaked piece and possible grinding grooves. Located south of a farm dam. 653276E 6408524N
43	36-1-0653	UG-AS2	Artefact scatter	Artefact scatter extending 50m x 5m consisting of four artefacts: a chalcedony flake, mudstone flake, and two rhyolite flakes. 655142E 6409706N
44	36-1-0654	UG-AS3	Artefact scatter	Artefact scatter extending 80m x 5-10m, 470m west of a 2nd order ephemeral creek. Artefacts consist of a broken axe head, a hammerstone, a quartz flake, and two flakes of unknown material. 654868E 6408931N
45	36-1-0655	UG-AS4 with PAD	Artefact scatter with PAD	Small lithic scatter located on the banks of a 2nd order creek measuring 45m x 10m. Artefacts consist of a basalt core, two mudstone flakes (one is backed and exhibits use-wear), and at least five quartz flakes. Adjacent areas are likely to contain shallow archaeological deposits with no stratigraphy, but the horizontal distribution of artefacts is likely to be relatively intact. 654444E 6408809N
46	36-1-0656	UG-IF1	Isolated find	Tertiary flake (tan coloured patination with a grey interior): 94mm. 653058E 6407827N
47	36-1-0657	UG-IF2	Isolated find	Isolated, retouched flake (possibly rhyolite). 654142E 6410222N
48	36-1-0658	UG-IF3	Isolated find	Grey river cobble hammerstone with bashing evident on one end. Located 100m east of a 2nd order stream. 654921E 6409431N
49	36-1-0659	UG-IF4	Isolated find	Basalt flake with possible retouch. 654636E 6408490N

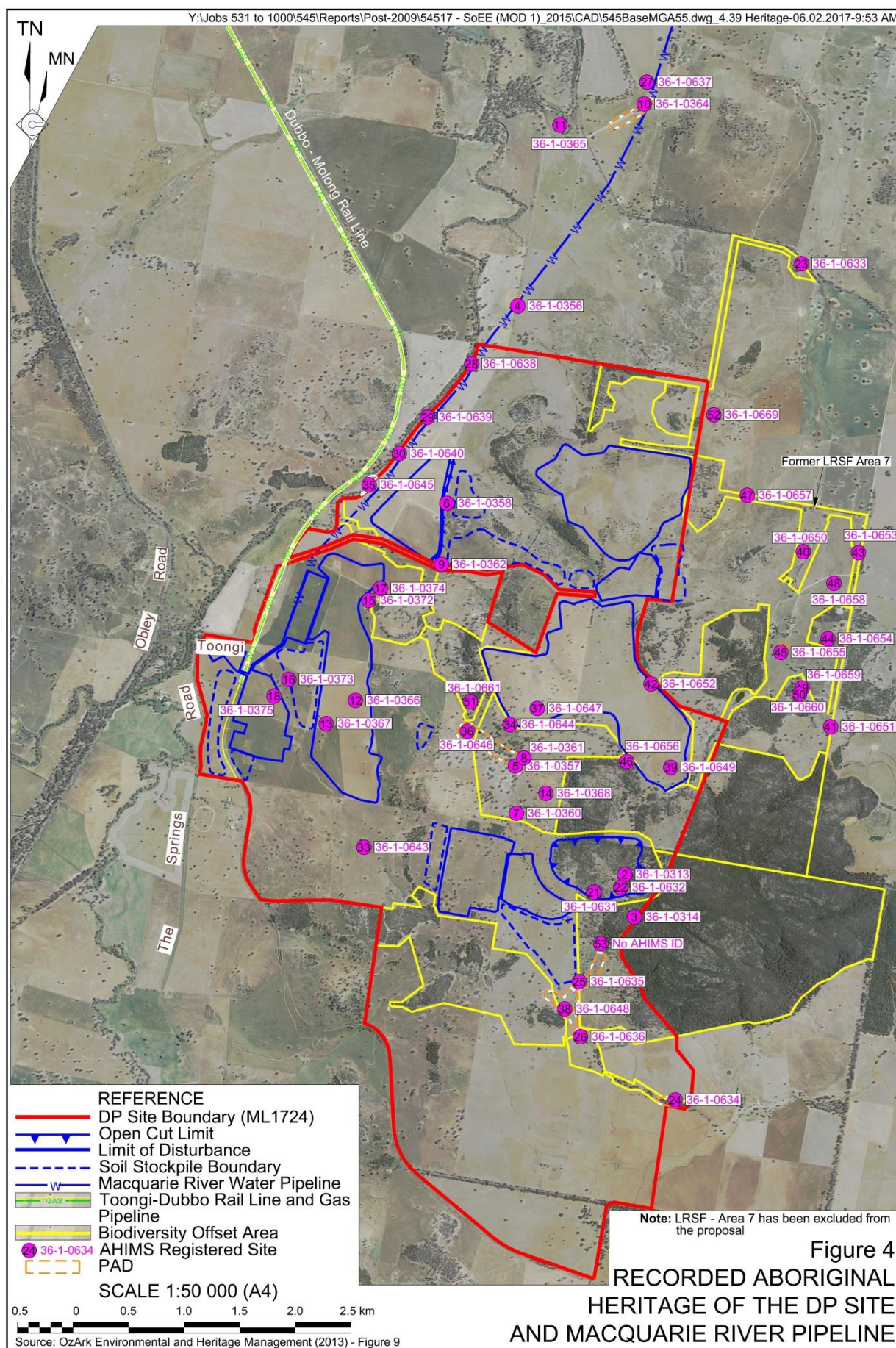
**Table 4 (Cont'd)**  
**Recorded Aboriginal Sites**

Page 4 of 4

ID	Reference <sup>1</sup>	Site Name	Site Type	Site Description (& coordinates) <sup>2</sup> .
50	36-1-0660	UG-IF5	Isolated find	Quartz flaked piece within a 3m x 3m area of exposure 654611E 6408432N
51	36-1-0661	UG-IF6	Isolated find	Tertiary, mudstone flake with use-wear and backing (thumbnail scraper). 651651E 6408365N
52	36-1-0669	G-AS1	Artefact scatter	Two artefacts located on a lower slope landform within an area of exposure measuring 20m x 10m. Artefacts consist of a cobble with flakes removed along one edge and an angular rock with flakes removed along one edge. 653841E 6410946N
53	No AHIMS ID	K-OP1	Ochre processing site	The site is located between the northwest bank of the creek line in this area and a dirt track which crosses the creek to the south. The site is a small mound of multi-coloured pigmented clay, measuring roughly 1m by 1m in area. 652826E 6406187N
Note 1: AHIMS reference number				
Note 2: All coordinates are GDA Zone 55				

Five further locations (possible scarred trees) were initially recorded in the field but on review these possible scarred trees were deemed to not have met the relevant criteria to be registered as an Aboriginal site (OzArk 2013a).











### 5.3 MANAGEMENT AREAS WITHIN THE ACHMP AREA

Several defined areas occur within the ACHMP Area where specific management measures will be implemented for the protection of Aboriginal sites. Three management areas have been identified and are referenced throughout the Plan.

- The Project Disturbance Area (hereafter ‘impact areas’). This includes:
  - the DP Site.
  - auxiliary areas that are liable to be impacted by the project but are not located on land owned or managed by ASML.
- Non-impact Areas. This includes all areas outside of impact areas but within the ACHMP Area that will not be impacted by the DP.
- Biodiversity Offset Area (BOA). This incorporates the land owned by ASML to be conserved and protected for the purposes of offsetting disturbance to biodiversity in accordance with Condition 3(31) of SSD-5251.

The common management measures for these areas, including ongoing Aboriginal community access, are described in Section 2.2.4.

## 6 MANAGEMENT STRATEGY

### 6.1 IDENTIFYING ABORIGINAL HERITAGE IMPACTS

Project impacts will occur to Aboriginal objects both at Aboriginal sites where objects are visible, as well as below the ground surface where they are not readily apparent. The impacts to Aboriginal sites through the development of the proposed open cut mine and associated mine infrastructure were identified and assessed as part EIS which supported the development application for the DP (RWC, 2013). However, not all parts of the ACHMP Area will be affected and therefore many Aboriginal sites will not be impacted.

Aboriginal site investigations undertaken to support RWC (2013), confirm that Aboriginal stone artefacts additional to those originally recorded may continue to be found in low numbers across the landscape as exposure conditions change (OzArk, 2013a). These findings confirm that Aboriginal stone artefacts are broadly distributed within the soil across the ACHMP Area and that vegetation cover and soil exposure conditions can change to reveal previously obscured artefacts. Such exposed artefacts are referred to as “sites” which means the site where Aboriginal objects may be observed in the present. Similarly changing environmental conditions can obscure previously visible Aboriginal objects. The phenomenon of previously recorded “sites” not being discoverable at a later time is also common.

The management strategy addresses the recorded sites of Aboriginal objects, as well as the inferred broad distributions of Aboriginal stone artefacts reflecting past Aboriginal activity in all parts of the landscape. Because Aboriginal objects occur within the topsoil in parts of the ACHMP Area, impacts to undiscovered Aboriginal objects may occur. The management strategy is provided as mitigation of all Aboriginal heritage impacts, including impacts to those

Aboriginal objects that have been recorded and Aboriginal objects which may occur unrecorded within the topsoil.

## 6.2 OBLIGATION TO PROTECT ABORIGINAL CULTURAL HERITAGE

### 6.2.1 Obligation to Avoid Harm

All employees, contractors, sub-contractors and visitors to the ACHMP Area have an obligation to avoid harming Aboriginal heritage unless engaged in approved development activity in an area where Aboriginal salvage obligations have been met as described in this plan.

The definition of harm used in this plan stems from the definition in Section 5 of the *National Parks and Wildlife Act 1974* (NPW Act). The examples used below are for illustrative purposes and are not exhaustive.

Harm to an Aboriginal object or Aboriginal site means:

- Moving or collecting stone artefacts (although picking up artefacts and inspecting them is acceptable as long as they are immediately returned to their original location.
- Disturbing the earth where stone artefacts are located, e.g. by earthworks for drains, roads, etc.
- Breaking stone artefacts, e.g. by running over them in a vehicle.
- Causing damage to a grinding groove sandstone platform by creating or exacerbating cracks.
- Cutting down, disturbing or otherwise marking scarred trees.

Trivial or negligible impacts to Aboriginal objects are not regarded as harm.

### 6.2.2 Obligation to Protect

Mine personnel, contractors and subcontractors having responsibility for land management or construction have an obligation to protect Aboriginal heritage within their area of work responsibility.

Protection means active recognition of known Aboriginal heritage and active measures to avoid Aboriginal heritage. This may include fencing, mitigation of erosion effects and modification of work plans to avoid Aboriginal heritage such as changing vehicular access routes.

### 6.2.3 Obligation to Implement Impact Management Measures

Mining personnel, contractors and subcontractors have a responsibility to ensure that the appropriate Aboriginal heritage salvage has been conducted prior to or in association with their activities which impact Aboriginal objects.



#### 6.2.4 Aboriginal Heritage Induction and Permitting Process

All employees, contractors, sub-contractors and visitors to the ACHMP Area will be made aware of the obligation to avoid harm to Aboriginal heritage through an Aboriginal heritage component of a general site induction and DP's permitting process.

The induction will include the following points expressed in plain language.

- Aboriginal sites occur extensively across the ACHMP Area.
- Aboriginal sites are of great significance to the Aboriginal community, are important to the wider community and will be treated with respect.
- Aboriginal sites are protected by law. The Development Consent for the mine includes conditions allowing impact to certain specified Aboriginal sites described in the EIS and this Plan.
- Aboriginal sites include stone tool sites, grinding groove sites and scarred trees.
- Aboriginal sites can be hard to recognise, so refer to the DP environmental database to determine site locations.
- Many Aboriginal artefacts are hidden within the topsoil and are not readily visible. The apparent absence of a site does not mean it is no longer in existence.

### 6.3 GENERAL STRATEGIES

All management measures will be implemented with participation of the Aboriginal parties.

Aboriginal sites within the ACHMP Area but outside of impact areas, such as those within the BOA, will not be impacted. The following management strategies apply to these sites:

- Previously recorded Aboriginal sites not impacted by development will be protected by fencing and signage on a needs basis (refer to Section 7.2), and will be subject to monitoring (refer to Section 7.8).
- Protected Aboriginal sites within the ACHMP Area (see **Figures 3 and 4**), including partially protected sites where impacts will be restricted to only a portion of the site, will be managed to prevent deterioration (refer to Section 9.3).

Any sites within impact areas are likely to be impacted. All known sites within impact areas will be salvaged under the terms of this ACHMP (refer to Section 9). However, before an area is impacted by approved mining activities, a previously unknown site may be noted. The following management strategy relates to new discoveries within impact areas:

- Information, such as location and photographs, should first be sent to an archaeologist to gain a preliminary determination of whether the discovery is an Aboriginal site.
- If it is determined to be an Aboriginal site, the site should be recorded and assessed by an archaeologist to determine the management group of the site.
- Any Aboriginal sites identified within impact areas will be salvaged following the methodology set out in Section 9.
- All findings will be described in a technical report (refer to Sections 9.6 and 10.2).



## 7 ABORIGINAL HERITAGE PROTECTION

### 7.1 MEASURES TO PROTECT ABORIGINAL SITES

Measures to protect and manage Aboriginal sites and Aboriginal heritage management areas not impacted by development activities include fencing, land management, recording, interpretation, and monitoring. The common measures for all sites and areas are described below.

### 7.2 FENCING

#### 7.2.1 Fencing of Newly Discovered Sites within Impact Areas

Any newly identified Aboriginal sites identified within impact areas will be temporarily fenced<sup>4</sup> as quickly as possible. Signage on the fencing will state that the area is subject to environmental protection, that no ground disturbance is allowed and should include relevant contact details for DP staff. The minor impact to the ground surface during installation of fence posts is permissible on condition that no soil is removed off site.

#### 7.2.2 Fencing of Sites within the BOA

Fencing of individual sites in the BOA will not be undertaken.

Aboriginal sites within the BOA will be secured by fencing around the perimeter of the BOA. Access to the BOA will be via secured (lockable) gates with signage including DP contact numbers provided on the gates and perimeter fence. Signage shall include text to the effect of the area being a “protected environmental area” and that access is restricted. The contact details of the Environment and Community Manager (or equivalent position), who is responsible for controlling access, should be provided. Sites within the BOA are listed below.

- 36-1-0314;
- 36-1-0357;
- 36-1-0360;
- 36-1-0361;
- 36-1-0368;
- 36-1-0633;
- 36-1-0634 (part);
- 36-1-0635;
- 36-1-0636;
- 36-1-0650;
- 36-1-0651;
- 36-1-0653;
- 36-1-0654;
- 36-1-0656;
- 36-1-0657;
- 36-1-0659;
- 36-1-0660;
- 36-1-0661; and
- K-OP1.

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<sup>4</sup> A temporary fence will consist of 3-4 star pickets with caution tape strung between the star pickets.

### 7.2.3 Fencing of Sites Outside of the BOA

17 Aboriginal sites occur within the DP Site or on land owned by ASML, beyond impact areas and outside of the BOA. These sites, as identified on **Figure 4**, are as follows.

- 36-1-0358;
- 36-1-0362;
- 36-1-0373;
- 36-1-0374;
- 36-1-0634 (part);
- 36-1-0638;
- 36-1-0639;
- 36-1-0640;
- 36-1-0643;
- 36-1-0644;
- 36-1-0645;
- 36-1-0646;
- 36-1-0648;
- 36-1-0655;
- 36-1-0657;
- 36-1-0658; and
- 36-1-0669.

Individual fencing at these sites will be considered on a case by case basis with the desired outcome being the long-term preservation of the site.

Fencing at these sites, if required, shall constitute at a minimum star pickets placed outside the limits of observable Aboriginal objects and connected by a strand of high visibility cord. Where there is doubt over the extent of surface artefacts a competent person will be involved in an inspection to identify the extent of visible Aboriginal objects (usually stone artefacts) on the surface. Where grazing by stock poses a risk to a site, more substantial, stock proof fencing will be utilised.

Where there has been partial impact on an Aboriginal site the remaining portion shall be fenced.

The alignment of the fencing at any individual site shall be recorded by GPS and the records stored in association with the Plan.

Fencing at any individual sites shall be maintained for both site presentation as well as being a visible impact deterrent.

Fencing may be omitted or removed if it brings undesired attention to the site from vandals or otherwise increases risk of damage to the site. If fencing is omitted or removed, other management options to protect the site will be considered on a case by case basis in consultation with DP RAPs. Other management options may include reburial or relocation of artefacts, salvage and storage of artefacts in accordance with this plan, or strategic revegetation to protect an exposed site.

### 7.2.4 Fencing of Sites Outside of ASML Owned Land

Sites located outside of land owned by ASML will not be actively managed by ASML. The seven sites in this category will not be fenced (**Figures 4 and 5**).

- 36-1-0120;
- 36-1-0365;
- 36-1-0432;
- 36-1-0433;
- 36-1-0637;
- 36-1-0641; and
- 36-1-0642.

## 7.3 LAND MANAGEMENT WITHIN THE BOA

### 7.3.1 Erosion control

Erosion control measures will be implemented at Aboriginal sites where there is a direct erosion threat. Erosion control actions may be undertaken in a manner that avoids disturbance to Aboriginal objects where possible. Minor movement of individual artefacts is permissible on the condition that artefacts are returned to their original location immediately after the erosion control management action. Before and after photographs will record erosion control actions. Such records will be retained in association with the Plan.

### 7.3.2 Bushfire Hazard Reduction

Clearing of excess fuel load will be undertaken in a manner that minimises ground disturbance (and in accordance with the *DZP Biodiversity Management Plan*, RWC/AZL (2016)). Preferred methods of hazard reduction include manual brush cutting and grass slashing with the slasher set at a minimum of 150mm to avoid impacting surface Aboriginal stone artefacts.

### 7.3.3 Exclusion of Stock

Strategic and managed grazing will be undertaken in accordance with the DP Biodiversity Management Plan, with stock excluded from the BOA at other times to avoid impact to identified Aboriginal heritage values.

### 7.3.4 Weed Control

Noxious weed control may occur within the BOA provided that where physical weed removal is necessary, weeds are cut above ground level and not ripped from the ground so as to avoid ground disturbance. Where root balls have been inadvertently pulled from the surface, the soil shall be promptly returned to its original location and methods amended to avoid reoccurrence.

## 7.4 INTERPRETATIVE PANELS

ASML will consider placing interpretation panels at a suitable location to acknowledge the Wiradjuri people and to advise visitors of the cultural significance and fragile nature of sites in the area.

Design plans and wording of any interpretive signage will be presented at the annual RAP meeting for RAP consideration.

## 7.5 PROTECTION MEASURES FOR STONE ARTEFACT SITES

### 7.5.1 Newly Identified Sites

See Section 8.2 for protection measures regarding newly recorded sites.



## 7.5.2 Previously Recorded Sites

### 7.5.2.1 Sites within the BOA

The perimeter of the BOA is to be fenced (see Section 7.2.2). The BOA will have controlled access and appropriate signage at access points informing staff and authorised visitors of the presence of Aboriginal cultural heritage sites within the perimeter and prohibiting the following activities:

- Driving off formed tracks.
- Any form of ground disturbance.
- Vegetation clearance beyond weed management.

Land management actions are permissible within Aboriginal site boundaries as long as ground impact is avoided where possible and minimized where unavoidable. Ground impacts should be limited to the addition of materials for land management purposes, e.g. sediment control fences, erosion and sediment control materials over ground or addition of topsoil and planting materials.

All sites will be shown on the DP environmental database and the database will be referred to prior to issuing any ground disturbance permits to ensure that the sites are not impacted.

### 7.5.2.2 Sites within Other Non-Impact Areas

ASML will undertake to conserve sites located within non-impact areas, but which are located outside the BOA (refer to Section 7.5.2.1).

As a matter of priority, those sites not included in Management Group 2c (Section 9.3.3), will be the focus of the initial monitoring program (Section 7.8). One of the aims of the monitoring program will be to determine if the sites require fencing and/or signage to ensure their protection. However, as discussed in Section 7.2.3, maintaining the sites in as natural condition as possible without fencing is preferred option and sites should only be fenced if there is a risk of inadvertent impact.

All sites will be shown on the DP environmental database and the database will be referred to prior to issuing any ground disturbance permits to ensure that the sites are not impacted.

## 7.6 SCARRED TREE MANAGEMENT

Five scarred trees have been recorded within the ACHMP Area (see **Table 5** and **Figure 4**). All scarred trees have been assessed as having low archaeological values as the origin of the scars is inconclusive and natural origins cannot be ruled out. As such it is not an archaeological recommendation that the scar trees be moved for safe-keeping as the effort in doing so cannot be justified scientifically.

Previous consultation with RAPs indicates a preference for the scarred portions of the trees be removed to a place of safe-keeping. Noting further consultation will be undertaken prior to confirmation of final management, the following procedure will be followed.

- Prior to any impacts to the trees, ASML should convene a RAP site meeting to specifically discuss and/or inspect the five scarred trees.
- Should there remain a difference of opinion regarding the origin of the scars, a suitably qualified arborist should be engaged by ASML to complete an assessment regarding the origins of the scars.
- Should the arborist conclude that some, or all, of the scars are unlikely to have a cultural origin, a suitable recommendation is that those scars are not removed but rather recorded (photographically/plaster casts).
- Should the arborist conclude that the scars may have a cultural origin, ASML will investigate the feasibility of removing the scarred portion of the tree to a place of safe-keeping.
- The scarred portions of such trees should be placed under shelter within the BOA.

## **7.7 SALVAGE MEASURES**

There will be a single program of salvage employing archaeological techniques conducted by a salvage team including Aboriginal stakeholders and persons with formal archaeological training.

All salvage activities will be professionally recorded, artefacts catalogued and results reported in a way that allows future generations to understand where Aboriginal sites were salvaged, what they included and how they contribute to the story of past Aboriginal life.

All recorded Aboriginal sites occurring within impact areas will be salvaged through a collection of all surface artefacts.

The Aboriginal site collection and salvage procedures are described in Sections 9 and 10.

## **7.8 SITE MONITORING**

### **7.8.1 Introduction**

Monitoring of non-impacted sites will take two forms.

- Photographic monitoring shall be undertaken at up to 10 representative sites with more than 10 artefacts within non-impact areas.
- Site condition monitoring shall be undertaken at a roster of representative sites within non-impact areas susceptible to natural deterioration.



A site included in the photographic monitoring group could also be in the site condition monitoring group if it is assessed that annual visits would be advantageous to maintain the site's condition.

Should any site included in either monitoring program be assessed as not requiring further monitoring, it can be substituted for another site.

### 7.8.2 Photographic Monitoring

Photographic monitoring: will consist of photographic monitoring every three years at a representative sample of up to 10 Aboriginal sites with more than 10 artefacts.

The objectives of photographic monitoring are to:

- document land condition prior to management measures;
- measure effects of erosion;
- measure efficacy of land management measures to mitigate erosion; and
- document Aboriginal site condition over time.

Photographic monitoring will entail the following.

- Taking photographs from at least two fixed locations at each site at least every three years.
- Placing permanent photo points (such as a star picket with signage) at all photographic monitoring sites.
- All photographs will include a range pole placed 20m from the camera in order to create a scaled reference point. If topography or vegetation does not allow the range pole to be placed 20m from the camera, a shorter distance can be used but this will be noted in the report and replicated during the next photographic monitoring program.
- Photographs will be taken in high definition with a digital SLR camera with images stored in digital form at the DP in association with this plan.
- The results and recommendations of the photographic monitoring shall be presented in a monitoring report.
- Colour printouts will be available to interested Aboriginal parties on request for review as to the efficacy of land management measures in relation to Aboriginal heritage.

### 7.8.3 Site Condition Monitoring

Site condition monitoring: will consist of RAPs or their representatives, as well as a suitably qualified archaeologist, inspecting a roster of Aboriginal sites on an annual basis.

The objectives of site condition monitoring are to:

- measure efficacy of land management measures to mitigate erosion; and
- document Aboriginal site condition over time.

The site condition monitoring program will entail the following.

- Visiting a roster of sites annually to identify impacts, recommend mechanisms to avoid impact and/or maintain, where appropriate, any preventive erosion mechanisms at the site.
- Assessing the efficacy of any erosion control measures.
- Maintaining a photographic and written record of each site and presenting the results and recommendations in a monitoring report.

The Environment and Community Manager (or equivalent position) will be responsible for ensuring that recommendations made during the monitoring program are followed. Completed actions arising from recommendations from a monitoring program will be reported and evaluated in the subsequent monitoring report.

## **7.9 INTERIM ARTEFACT STORAGE FACILITY**

### **7.9.1 Care and Control Permit**

Following discussions with the RAPs during 2012-2013 (OzArk, 2013a), it was determined that artefacts collected as part of the DP salvage program (see Section 9) be transferred to the custody of the RAPs in accordance with an OEH Care Agreement under Section 85 of NPW Act.

During the 2012-2013 consultations, potential management options were discussed such as reburial, holding the artefacts in a keeping place for educational purposes, reserving some artefacts for public display, or a combination of any of these options. Through consultation with the RAPs, the preferred option for each artefact will be confirmed. This will be included as part of the OEH Care Agreement in accordance with which the salvaged Aboriginal object(s) will be managed.

Until such time as an OEH Care Agreement is finalised, an interim artefact storage facility to house salvaged artefacts and documentation will be instigated.

### **7.9.2 What is an Interim Artefact Storage Facility?**

An interim artefact storage facility is a designated secure area with the purpose of storage and curation of Aboriginal cultural materials and their associated documentation.

### **7.9.3 Location and Security**

An interim artefact storage facility will be maintained within the DP Site. All materials are to be held in locked cabinets with access managed by the Environment and Community Manager (or equivalent position) or other nominated senior staff member. The cabinet is to be clearly





labelled with the contents, conditions for access and requirements for the material to be transferred on completion of the DP.

Access will be granted to Aboriginal parties and bona fide researchers.

#### 7.9.4 All Aboriginal Objects and Records

The interim artefact storage facility will store all Aboriginal stone artefacts collected and excavated as part of the project. Copies of all associated reports and associated records in bound hard copy and digital form will be stored in the same location as the artefacts.

Where objects are too large for inside storage, such as scarred trees, they will be kept in a suitable area such as the BOA, as agreed following consultation with the RAPs. Consultation concerning such objects will include whether the objects should be protected from the weather beneath a colorbond shelter at the relocation site.

All materials are to be packaged and labelled generally in accordance with Australian Museum standards<sup>5</sup>.

#### 7.9.5 Duration of Care

The materials will be retained at the interim artefact storage facility for the life of the DP unless otherwise approved by OEHL in a Section 85 Care and Control Permit (NPW Act).

At completion of the DP, the materials are to be transferred to a facility nominated by the RAPs subject to approval by OEHL in a Section 85 Care and Control Permit (NPW Act). Where an agreed facility cannot be nominated, consideration will be given to lodging the material with either the Australian Museum (subject to its acceptance), a local Aboriginal cultural centre (if one is present) or a local heritage museum that can provide secure ongoing storage and curation. Where no facility can be identified, the material may be reburied within the DP Site in a secure manner that allows later retrieval. The location must be chosen following consultation with all DP RAPs and be notified to the OEHL in the designated manner.

## 8 DETAILED PROCEDURES

### 8.1 DISCOVERY OF ABORIGINAL ANCESTRAL REMAINS

In the event known or suspected Aboriginal skeletal remains are encountered during the course of development the following procedure will be followed:

- All work close to the find will cease immediately and an area of 10m radius around the find will be cordoned off with temporary construction fencing.
- The find will be immediately reported to the work supervisor who will immediately advise the Environment and Community Manager (or equivalent position) or other nominated senior staff member.

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<sup>5</sup> <http://australianmuseum.net.au/document/Archaeological-Collection-Deposition-Policy>



- ASML will promptly notify the police (as required for all human remains discoveries).
- ASML will contact OEH for advice on identification of the skeletal material as Aboriginal and management of the material.
- If the remains are Aboriginal ancestral remains, the RAPs will be contacted within two working days and consultative arrangements will be made to discuss ongoing care of the remains, including advice on recommended forensic anthropologists.

## 8.2 DISCOVERY OF NEW ABORIGINAL SITES

### 8.2.1 Initial Procedure

In the event of discovery of new Aboriginal sites which are more than 50m from previously recorded boundaries of Aboriginal sites, all work close to the discovery will cease and an area of 10m around the site fenced with temporary construction fencing. An archaeologist will be contacted to determine the veracity of the Aboriginal object(s) present. If determined to be a new site, the location will be visited by an archaeologist and members of the RAPs to record the site and to determine its significance. New sites will be registered in the AHIMS database (see Section 10.3.1) with management undertaken in accordance with Sections 8.2.2 and 8.2.3 depending on proximity of the site to the impact area.

### 8.2.2 New Sites within Impact Areas

If a newly discovered site is in an impact area, the site will be temporarily fenced (see Section 7.2.1) and the Aboriginal objects will be salvaged in accordance with the procedures set out in Sections 9 and 10. On the completion of salvage at such sites, an *AHIMS Aboriginal Site Impact Recording form* (ASIRf) will be completed (see Section 10.3.3). Copies of the forms will be archived. Digital copies will be submitted to the OEH AHIMS Registrar soon after completion of salvage fieldwork. The form will be lodged within a reasonable time of fieldwork completion and certainly within six months.

### 8.2.3 New Sites within Non-Impact Areas

The location of any new site will be entered into the DP environmental database to ensure its long-term preservation and a site card will be submitted to AHIMS within 21 days of the site's recording.

If the site is within the BOA there is no requirement to fence the site. If the site is outside of the fenced perimeter of the BOA, fencing of the site following the procedure set out in Section 7.2.3 should be undertaken.

If the site contains Aboriginal objects of interest such as a large number of artefacts or rare features such as a hearth that is located in an area of active and destructive erosion, the site may be subject to limited salvage excavation in accordance with the methodology set out in Section 9.4. The aim of any salvage undertaken in this instance would be to prevent the loss of



information from ongoing erosion and will only be undertaken in extreme and obvious circumstances with the full consultation and participation of the RAPs.

On the completion of salvage at such sites, an AHIMS ASIRf will be completed (see Section 10.3.3). Copies of the forms will be archived. Digital copies will be submitted to the OEH AHIMS Registrar soon after completion of salvage fieldwork. The form will be lodged within a reasonable time of fieldwork completion and certainly within six months.

Proposed impact by mining or related activities to any site within non-impact areas, other than the rescue salvage described above, will require an Aboriginal Heritage Impact Permit to be obtained from the OEH.

## 9 SALVAGE AND MANAGEMENT OF ABORIGINAL SITES

### 9.1 MANAGEMENT GROUPS

Based on the approved disturbance footprint of the DP, 14 sites (nine artefact scatters and five scarred trees) are completely or partially within impact areas. 39 sites occur in non-impact areas although some require additional management to ensure that they are not impacted. Management of these sites falls under three management groups, namely:

- Group 1: Avoidance. These sites occur within the BOA or are at no direct risk of harm from the DP.
- Group 2: Sites Requiring Management. This group includes sites directly within or adjacent to impact areas where cultural material was identified but where sub-surface archaeological deposits are considered unlikely. This group is further categorised depending on the significance of artefacts and/or risk of disturbance / damage.
  - 2a: Surface artefact collection.
  - 2b: Potential relocation of cultural heritage items.
  - 2c: Avoidance with management.
  - 2d: Avoidance with monitoring.
- Group 3: Limited Salvage Excavation. The purpose of a limited salvage excavation program is to determine the extent of archaeological deposit and to identify suitable areas for expansion to retrieve large artefact assemblages efficiently.

**Table 5** identifies all sites and nominates the management group to which each is assigned (locations are shown in **Figures 4** and **5**). The following sub-sections describe the specific salvage and management measures to be applied to the sites within each group.

**Table 5**  
**Management of Aboriginal Sites within the ACHMP Area**

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No.	Reference <sup>1</sup>	Site Name	Site Type	Significance <sup>2</sup>	Archaeological Management
<b>Group 1. Avoidance</b>					
5	36-1-0357	TS-OS-01 with PAD	Artefact scatter with PAD	Moderate - High	This site is within the BOA.
7	36-1-0360	TS-GG-03	Grinding grooves	Moderate	This site is within the BOA.
8	36-1-0361	TS-GG-02 with PAD	Grinding grooves with PAD	Moderate - High	This site is within the BOA.
11	36-1-0365	TS-OS-04	Artefact scatter with PAD	Low	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
14	36-1-0368	TS-ST-07	Scarred tree	Low	This site is within the BOA.
17	36-1-0374	TS-ST-01	Scarred tree	Low	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
19	36-1-0432	ORWM-ST1	Scarred tree	Low	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
23	36-1-0633	G-IF1	Isolated find	Low	This site is within the BOA.
24	36-1-0634	K-AS1 with PAD	Artefact scatter with PAD	Moderate	This site is partially within the BOA. The portion of the site outside of the BOA will be marked on mine plans to prevent accidental impact from mine-related works.
25	36-1-0635	K-AS2 with PAD	Artefact scatter with PAD	Moderate	This site is within the BOA.
26	36-1-0636	K-IF1	Isolated find	Low	This site is within the BOA.
33	36-1-0643	PH-IF1	Isolated find	Low	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
35	36-1-0645	TV-AS2 with PAD	Artefact scatter with PAD	Moderate	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
36	36-1-0646	TV-AS3 with PAD	Artefact scatter with PAD	Moderate	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.



**Table 5 (Cont'd)**  
**Management of Aboriginal Sites within the ACHMP Area**

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No.	Reference <sup>1</sup>	Site Name	Site Type	Significance <sup>2</sup>	Archaeological Management
<b>Group 1. Avoidance (Cont'd)</b>					
38	36-1-0648	PAD 12	PAD	Moderate	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
40	36-1-0650	UG-ST2	Scarred tree	Low	This site is within the BOA.
41	36-1-0651	UG-IF7	Isolated find	Low	This site is within the BOA.
43	36-1-0653	UG-AS2	Artefact scatter	Low	This site is within the BOA.
44	36-1-0654	UG-AS3	Artefact scatter	Low	This site is within the BOA.
45	36-1-0655	UG-AS4 with PAD	Artefact scatter with PAD	Low - Moderate	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
46	36-1-0656	UG-IF1	Isolated find	Low	This site is within the BOA.
47	36-1-0657	UG-IF2	Isolated find	Low	This site is within the BOA. Site will be marked on mine plans to prevent accidental impact from mine-related works.
48	36-1-0658	UG-IF3	Isolated find	Low	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
49	36-1-0659	UG-IF4	Isolated find	Low	This site within the BOA.
50	36-1-0660	UG-IF5	Isolated find	Low	This site within the BOA.
51	36-1-0661	UG-IF6	Isolated find	Low	This site within the BOA.
52	36-1-0669	G-AS1	Artefact scatter	Low	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
53	None	K-OP1	Ochre processing site	Low - Moderate	Avoidance: This site is within the BOA.
<b>Group 2a. Salvage / Storage</b>					
2	36-1-0313	TS-IF-01	Isolated find	Low	This site is within the impact footprint of the open cut by 15m. Detailed recording and collection of the artefact is recommended.
4	36-1-0356	TS-OS-03	Artefact scatter	Low - Moderate	This site occurs within the water pipeline corridor. Detailed recording and collection of artefacts is recommended. The pipeline corridor where it intersects with the site will be temporarily fenced.

**Table 5 (Cont'd)**  
**Management of Aboriginal Sites within the ACHMP Area**

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No.	Reference <sup>1</sup>	Site Name	Site Type	Significance <sup>2</sup>	Archaeological Management
<b>Group 2a. Salvage / Storage (Cont'd)</b>					
21	36-1-0631	GI-AS1	Artefact scatter	Low	This site is within the impact footprint of the open cut by 50m. Detailed recording and collection of artefacts is recommended.
22	36-1-0632	GI-AS2	Artefact scatter	Low	This site is within the impact footprint of the open cut by 50m. Detailed recording and collection of artefacts is recommended.
37	36-1-0647	TV-IF1	Isolated find	Low	This site is to be harmed by the project. Detailed recording and collection of artefact is recommended
42	36-1-0652	UG-AS1	Artefact scatter	Low - Moderate	This site is to be harmed by the project. Detailed recording and collection of artefacts is recommended.
<b>Group 2b. Salvage / Relocation</b>					
12	36-1-0366	TS-ST-05	Scarred tree	Low	This site is to be harmed by the project. Detailed recording and consultation with Aboriginal community about possible relocation and storage of the tree is recommended.
13	36-1-0367	TS-ST-06	Scarred tree	Low	This site is to be harmed by the project. Detailed recording and consultation with Aboriginal community about possible relocation and storage of the tree is recommended.
18	36-1-0375	TS-ST-04	Scarred tree	Low	Site is located in a non-impact area. Site will be marked on mine plans to prevent accidental impact from mine-related works.
39	36-1-0649	UG-ST1	Scarred tree	Low	This site is to be harmed by the project. Detailed recording and consultation with Aboriginal community about possible relocation and storage of the tree is recommended.
<b>Group 2c. Avoidance with Management</b>					
1	36-1-0120	H2 with PAD	Scarred tree and artefact scatter	Moderate	This site falls near the Obley Road Alignment works, but may be avoidable, in which case the site should be marked off to avoid inadvertent impacts. If it is not avoidable limited test excavation (Group 3) within the impact footprint is recommended to determine the significance of the site.



**Table 5 (Cont'd)**  
**Management of Aboriginal Sites within the ACHMP Area**

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No.	Reference <sup>1</sup>	Site Name	Site Type	Significance <sup>2</sup>	Archaeological Management
<b>Group 2c. Avoidance with Management (Cont'd)</b>					
10	36-1-0364	TS-OS-05	Artefact scatter	Low - Moderate	This site occurs within the water pipeline corridor. Detailed recording and collection of artefacts is recommended. The pipeline corridor where it intersects with the site will be temporarily fenced.
6	36-1-0358	TS-OS-02	Artefact scatter	Low	This site is outside the impact footprint of the open cut by only 15m. It is recommended that the location be marked to avoid inadvertent impacts to the site. If avoidance is not possible then salvage is recommended (Management Group 2a).
9	36-1-0362	TS-IF-02	Isolated find	Low	This site is outside the impact footprint of the open cut by only 30m. It is recommended that the location be marked to avoid inadvertent impacts to the site. If avoidance is not possible then salvage is recommended (Management Group 2a).
15	36-1-0372	TS-ST-02	Scarred tree	Low	This site adjacent to the impact area. However, the site should be marked to avoid inadvertent impacts.
16	36-1-0373	TS-ST-03	Scarred tree	Low	This site is 25m outside the impact footprint. However, the site should be marked to avoid inadvertent impacts.
20	36-1-0433	ORWM-ST2	Scarred tree	Low	The site should be marked off to avoid inadvertent impacts as it falls close to the impact footprint for the Obley Road Alignment.
27	36-1-0637	MM-AS1	Artefact scatter	Low	This site is located nearby to the Macquarie Water Pipeline, but will not be impacted by the pipeline. However, the site should be marked to avoid inadvertent impacts.
28	36-1-0638	MM-AS2	Artefact scatter	Low	This site is located within 20m of the Macquarie Water Pipeline, but will not be impacted by the pipeline. However, the site should be marked to avoid inadvertent impacts.
29	36-1-0639	MM-IF1	Isolated find	Low	This site is located within 20m of the Macquarie Water Pipeline, but will not be impacted by the pipeline. However, the site should be marked to avoid inadvertent impacts.
30	36-1-0640	MM-IF2	Isolated find	Low	This site is located within 30m of the Macquarie Water Pipeline, but will not be impacted by the pipeline. However, the site should be marked to avoid inadvertent impacts.

**Table 5 (Cont'd)**  
**Management of Aboriginal Sites within the ACHMP Area**

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No.	Reference <sup>1</sup>	Site Name	Site Type	Significance <sup>2</sup>	Archaeological Management
<b>Group 2c. Avoidance with Management (Cont'd)</b>					
31	36-1-0641	OR-AS1 with PAD	Artefact scatter with PAD	Moderate	This site falls near the proposed Obley Road Alignment, but may be avoidable, in which case it should be marked off to avoid inadvertent impacts. If it is not avoidable limited test excavation (Group 3) within the impact footprint is recommended to determine the significance of the site.
32	36-1-0642	OR-ST1	Scarred tree	Low	The site should be marked off to avoid inadvertent impacts as it falls close to the impact footprint for the Obley Road Alignment.
34	36-1-0644	TV-AS1	Artefact scatter	Low	The site should be marked off to avoid inadvertent impacts as it falls close to the impact footprint.
<b>Group 2d Avoidance with Monitoring</b>					
3	36-1-0314	TS-GG-01	Grinding grooves	Moderate	This site is within the BOA, however, the site could suffer over time from modification of the drainage coming from the proposed open cut. Once the eastern half of the open cut has begun the site should be included in the site condition monitoring program.
Note 1: AHIMS reference number					
Note 2: Assessed Scientific Significance (OzArk, 2013a)					

It is noted that until such time as disturbance is required of a site within Group 2 or 3, they will be managed in accordance with measures described for Group 1.

All salvage procedures listed in the following sub-sections shall be carried out with the assistance and advice of RAPs.

## 9.2 GROUP 1: AVOIDANCE.

This group currently includes 28 sites which occur outside the impact area and are at no direct risk of harm from the project. 17 of these sites are located in the BOA and are listed below.

- 36-1-0357;
- 36-1-0360;
- 36-1-0361;
- 36-1-0368;
- 36-1-0633;
- 36-1-0635;
- 36-1-0636;
- 36-1-0650;
- 36-1-0651;
- 36-1-0653;
- 36-1-0654;
- 36-1-0656;
- 36-1-0657;
- 36-1-0659;
- 36-1-0660;
- 36-1-0661; and
- K-OP1.

The remaining 11 sites in Group 1 are listed below. These sites are outside of impact areas and the BOA.

- 36-1-0365;
- 36-1-0374;
- 36-1-0432;
- 36-1-0634 (part)<sup>6</sup>
- 36-1-0643;
- 36-1-0645;
- 36-1-0646;
- 36-1-0648;
- 36-1-0655;
- 36-1-0658; and
- 36-1-0669.

Included in the Group 1 sites are some sites that are not located on ASML owned land and are not able to be directly managed by ASML on an on-going basis.

- 36-1-0365; and
- 36-1-0432.

Sites to be avoided will be clearly marked on mine plans and the areas avoided by all activities associated with the construction and operation of the mine and related infrastructure. These sites will be taken into consideration during future land use/management practises such as bush fire or weed control (see Section 7.3).

### 9.3 GROUP 2: SITES REQUIRING MANAGEMENT

#### 9.3.1 Group 2a: Surface Artefact Collection

##### 9.3.1.1 Sites

Seven sites currently fall into this group:

- 36-1-0313;
- 36-1-0356;
- 36-1-0364;
- 36-1-0631;
- 36-1-0632;
- 36-1-0647; and
- 36-1-0652.

Detailed recording and collection of surface artefacts will be the primary management approach for sites in this category. All but one site (36-1-0652: UG-AS1) have been assigned a low scientific value and only limited further investigation is considered necessary.

With the exception of Site 36-1-0652 (UG-AS1), where sites partially overlap with the impact footprint, surface collection will be confined to the impact footprint with a 5m buffer. The remainder of the site will be fenced off during construction to avoid incidental impacts. Site 36-1-0652 (UG-AS1) is almost entirely within the impact footprint with the remainder of the site adjacent to activities which will be ongoing for the life of the DP. There is therefore little value in fencing off and conserving the small section of the site outside of the impact footprint and so total salvage of the site will occur.

<sup>6</sup> 36-1-0634 is also partially within the BOA.

### 9.3.1.2 Surface Artefact Collection Methodology

The following methodology will apply to all Group 2a sites:

- All visible artefacts at a site will be flagged in the field.
- The site will be photographed after flagging and before recording.
- All artefacts will have the following artefact information entered directly into a GPS unit, albeit one set up with all variable fields already entered to make the field recording job more efficient.
  - Location.
  - Artefact Type.
  - Size.
  - Reduction level.
  - Raw Material.
  - Notes.
- A selection of indicative and / or unusual artefacts from each site will be photographed.
- Once all recording is complete, the artefacts will be collected and relocated to the interim artefact storage facility (see Section 7.9).
- Should a human burial be encountered, all work will cease in the area and advice from the police (in the first instance) and RAPs (should the remains be Aboriginal) sought (see Section 8.1).
- The recording of the artefacts recovered will largely be completed in the field and this data would be incorporated into a report to be produced in a timely manner subsequent to the surface collection.
- The supervising archaeologist would be responsible for submitting an ASIRf to the AHIMS to update the register with the results of the salvage works.

### 9.3.2 Group 2b: Potential Relocation of Cultural Heritage Items

This group includes four Aboriginal scarred trees, namely sites:

- 36-1-0366;
- 36-1-0367;
- 36-1-0375; and
- 36-1-0649.

All scars are deemed to be of low scientific significance and the preservation of the scarred trunk portions is not an archaeological recommendation. This is due to the low level of archaeological/scientific significance of these scarred trees on the basis that they are not outstanding examples of this site type and in many cases are doubtful in origin. It should be noted that 36-1-0372 (TS-ST-02) was deemed unlikely to be cultural in origin by the consultant

archaeologist (of OzArk) and RAP representatives during a recent reassessment of this previously recorded scarred tree.

Site 36-1-0366 (TS-ST-05) is the best example of a scar from an archaeological perspective and possibly only this example should be considered for relocation.

In relation to these sites, ASML will implement the following management measures.

- Continue consultation with the RAPs to determine the best management and fate of the scarred portions of these trees.
- Compile a photographic record of the trees and their scars, and/or plaster casts of the scars, to be sufficient mitigation against the loss of these heritage items.
- Consider the wishes of the RAPs that the scarred portions of the trees to be relocated. If portions are relocated, they should be placed in the BOA under a shelter.

### 9.3.3 Group 2c: Avoidance with management

Thirteen sites are located adjacent to impact areas and face possible indirect impacts, namely:

- 36-1-0120;
- 36-1-0358;
- 36-1-0362;
- 36-1-0372;
- 36-1-0373;
- 36-1-0433;
- 36-1-0637;
- 36-1-0638;
- 36-1-0639;
- 36-1-0640;
- 36-1-0641;
- 36-1-0642; and
- 36-1-0644.

Five of the Group 2c sites are not located on ASML owned land. As such, they will not be able to be managed by ASML post-construction. Any protective fencing at these sites will be removed post-construction.

- 36-1-0120;
- 36-1-0433;
- 36-1-0637;
- 36-1-0641; and
- 36-1-0642.

These specific sites will be managed as follows.

- Sites will be revisited by a suitably qualified archaeologist before construction and the sites located so that their extent can be temporarily fenced.
- DP personnel will be alerted to their location and the location of the sites will be shown on mine plans.
- Work crews in the vicinity of any of these sites will be informed by way of an induction as to the site's location and its legislative protection under the NPW Act.
- All work crews will be informed that the fenced area remains a no-go area for the duration of the works.



- If at the time of construction it becomes obvious that a site in this category will be harmed by the proposed works, the site will be managed in accordance with Group 2a (collection of surface artefacts) (refer to Section 9.3.1). This determination will be made following the site visit by a suitably qualified archaeologist.

### 9.3.4 Group 2d: Avoidance with Monitoring

One site, 36-1-0314 (TS-GG-01), could suffer over time from modification of the drainage resultant from the development of the open cut. Once the eastern half of the open cut has begun, the site will be included in the site condition monitoring program (Section 7.8.3) to ensure that any changes to the site are noted and management regimes instigated to ensure the long-term preservation of the site.

- 36-1-0314.

## 9.4 GROUP 3: LIMITED SALVAGE EXCAVATION

### 9.4.1 Purpose

There are currently no sites designated as Group 3. However, as shown in **Table 5**, two sites, 36-1-0120 and 36-1-0641, may require Group 3 management if they cannot be avoided during the approved works. In addition, as set out in Section 8.2.3, in rare cases where a significant site is at risk of destruction, Group 3 management may be applied to the site.

The purpose of the limited salvage excavation program is to determine the extent of archaeological deposit and to identify suitable areas for expansion to retrieve large artefact assemblages efficiently.

Limited salvage excavation will be undertaken by manual means.

### 9.4.2 Limited Salvage Excavation Methodology

The following procedure will be followed:

- A research design applicable to the site being excavated will be devised<sup>7</sup>.
- One or more transects will be established crossing over the centre of the original surface scatter of artefacts.
- Excavation pits will be 1m<sup>2</sup> excavated at 20m intervals in at least 10cm spits to the base of the topsoil which is typically around 20–30cm deep.

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<sup>7</sup> A sample research design could be to investigate whether the site agrees with a commonly accepted artefact distribution pattern as set out below:

1. Continuous wide-extent distribution along arterial watercourses and major creeks.
2. Continuous low-density limited-extent distribution along minor watercourses.
3. Discontinuous distribution of low-density scatters away from the above contexts.



- A maximum of 20 excavation pits will be excavated at any one site.
- If there is no discernible difference in soil layers, excavation may be undertaken in a single unit or larger spits.
- GDA coordinates of each pit will be recorded and a field map produced of the excavation pit layout.
- Excavation pits will be labelled according to a logical system such as Transect 1, Square 1 (TR1 SQ1).
- All soil will be sieved through 5mm and 3mm nested screens.
- All artefacts for each spit in each square will be collected together into a zip lock plastic bag labelled as follows.
  - “DP Salvage Excavation”.
  - Site Name.
  - Transect Name, Square Name, Spit Number.
  - Date.
  - “BAG x of x”, e.g. Bag 1 of 3 – if there is more than one bag from the same spit.
- A soil sample will be collected from each discernible soil layer within one excavation pit and collection of additional soil samples will be at the discretion of the supervising archaeologist and dependent on whether the sample contributes to essential understanding of the site.
- A running total of artefacts and important features from each pit will be kept in the field on a physical recording form as a basis for deciding where excavation may be expanded (see Section 9.4.3).

### 9.4.3 Expanded Open Area Excavation

The purpose of expanded open area excavation is to recover a large and coherent stone artefact assemblage suitable for describing the full range of raw materials, technological strategies and tool types in each key landscape context. Excavations may be expanded during the limited salvage excavation based on the presence of more than 30 artefacts greater than 15mm in size in one square metre or the presence of significant archaeological features such as a hearth. Expanded excavation will occur from one excavation pit where artefacts of greater interest and greater density have been discovered. The expanded excavation area shall be at least four square metres unless the paucity of artefacts renders such work unfruitful. Expansion beyond four square metres may be warranted if significant knapping floors, features or artefact concentrations are encountered. No more than 50m<sup>2</sup> will be excavated.

The expanded areas will be excavated in one single unit to the base of the artefact-bearing topsoil unless the limited salvage excavation results show that excavation in spits is warranted. The decision to expand the excavation will be made by the project team based on the capacity of the potential expansion to contribute meaningful knowledge not already provided by the excavated sample. This decision will be documented.

## 9.5 ANALYSIS

This section relates to procedures for analysis of all Aboriginal objects salvaged.

All collected and excavated Aboriginal stone artefacts will be subject to basic recording of a limited number of descriptive attributes listed below for the purpose of creating a catalogue. A small proportion of archaeologically salvaged material will be subject to more extensive recording for the purpose of more detailed scientific analysis. Approximately 5% and no more than 10% of the total assemblage will be subject to more extensive recording. The actual proportion will be determined according to the research potential of the archaeologically recovered assemblages as determined by an expert stone artefact analyst and according to the questions raised in the research design. All salvaged Aboriginal stone artefacts will be subject to the following processes:

- Initial sorting and cleaning of excavated material.
- Establishment of a computer database (e.g. ACCESS or comparable relational database) to record all provenance and artefact locations.
- Basic descriptive cataloguing of all artefacts with provenance and basic attributes:
  - Technological type.
  - Implement type (if applicable).
  - Raw material.
  - Size measured in maximum possible length to nearest 1mm.
  - Comments on features such as use wear.

The detailed analysis of technological attributes will also include additional background studies where necessary to interpret the salvaged material including:

- Conjoin analysis of suitable samples where there is a clear potential for technological insight through refitting.
- Use wear and residue analysis where significant samples (e.g. a backed artefact with hafting resin or grindstone with visible residue) are identified.
- Statistical analysis of data to explore questions raised in the research design.

## 9.6 REPORT

A salvage report will be produced addressing the standards of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010) within four months of fieldwork completion.

This report will be provided to all RAPs for their information.



## 10 RECORD KEEPING AND REPORTING REQUIREMENTS

### 10.1 SALVAGE RECORDS

Copies of all records relevant to salvaged or relocated Aboriginal objects will be kept in the interim artefact storage facility.

Project records include:

- This Plan.
- Field recording forms;
- Maps showing site locations.
- Excavation plans.
- Aboriginal site salvage database files in digital and hard copy form.
- Reports.

### 10.2 SALVAGE REPORTS

A technical report will be prepared documenting the results of the Aboriginal site salvage in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010).

Until the final salvage report is completed a yearly interim report will be prepared listing the locations, dates and extent of salvaged sites and associated excavations and the status of associated documentation, analysis and reporting. The report shall be prepared by December of each calendar year until the final technical report is completed.

### 10.3 REPORTING REQUIREMENTS

#### 10.3.1 Discovery of Aboriginal Objects

Under s89A of the NPW Act, it is a requirement that OEH is notified of the existence of Aboriginal objects as soon as practicable after they are first identified. This is usually done through the completion of an OEH Aboriginal Site Card which is submitted to the Registrar of the AHIMS for inclusion on the Aboriginal sites database. Information regarding AHIMS and site recording forms can be downloaded from the OEH website<sup>8</sup>.

#### 10.3.2 Care and Control Permit Application

Under s85A of the NPW Act, Aboriginal objects remain the property, and under the protection of, the Crown until formal transfer to an Aboriginal owner or Aboriginal owners occurs. An

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<sup>8</sup> <http://www.environment.nsw.gov.au/licences/DECCAHISSiteRecordingForm.htm>

application for a Care and Control Agreement will be made to OEH. Care and Control Agreement Application forms can be downloaded from the OEH website<sup>9</sup>.

### 10.3.3 Reporting Impact to Aboriginal Sites

Although not strictly required by the NPW Act, OEH expects that information on authorised impacts to Aboriginal sites be reported to them on the ASIRf which can be downloaded from the OEH website<sup>10</sup>.

## 11 CONTINGENCY MANAGEMENT

### 11.1 INCIDENT IDENTIFICATION

SSD-5251 defines an incident as “a set of circumstances that:

- causes or threatens to cause material harm to the environment; and/or
- breaches or exceeds the limits or performance measures/criteria.”

In the case of Aboriginal heritage, an incident may reflect:

- disturbance or damage to an identified Aboriginal artefact or site without approval;
- salvage, excavation or management of Aboriginal artefacts approved for disturbance but not in accordance with the protocols or procedures of the Plan (Section 9);
- failure to consult appropriately (in accordance with the Plan) with relevant Aboriginal stakeholders; and/or
- failure to report or respond to complaints or other incidents in accordance with the Plan.

### 11.2 INCIDENT MANAGEMENT AND NOTIFICATION

An incident will be managed and notifications made in accordance with *Section 9.3* of the DP *Environmental Management Strategy*.

### 11.3 INCIDENT REPORTING

Should any Aboriginal cultural heritage site or area be impacted by works not authorised as described in the Plan, ASML will report the incident to the Department of Planning and Environment and OEH as soon as practicable after identification.

<sup>9</sup> <http://www.environment.nsw.gov.au/licences/CareAgreements.htm>

<sup>10</sup> <http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf>





Following implementation and review of the corrective measures, a short report documenting the incident, actions taken and results of the corrective actions will be compiled by the Environment and Community Manager (or equivalent position). This report will be provided to the regulatory authorities as nominated above within a timeframe agreed at the time of initial notification. The regulatory authorities may require, or ASML may choose to, report the incident to the RAPs.

A summary of all incidents, including dates of occurrence, corrective measures taken and success of these measures will be compiled and reported in the Annual Environmental Management Report to the Department of Planning and Environment and Annual Return to the Environmental Protection Agency.

## 12 COMPLAINTS HANDLING AND RESPONSE

Complaints may be received either via one of the following methods.

- Directly via an email or a telephone call
- Directly via the Project web site.
- Indirectly via the relevant government agencies.

The handling of complaints will be in accordance with *Section 10.1* of the *DZP Environmental Management Strategy*. In summary:

- i) Complaints will be recorded and investigated by the Environment and Community Manager, or their delegate.
  - ii) Initial response to the complainant will be made as soon as practicable by the Environment and Community Manager or their delegate.
  - iii) Follow up correspondence with the complainant will be made explaining the outcome of complaint investigations.
  - iv) If required, the investigation will involve:
    - Receipt of complaint and details of the complaint will be recorded.
    - Investigation of the complaint and recording of details into an actions tracking database.
    - Responding to the complaint as soon as practicable following receipt and investigation.
    - Corrective action and implementation of training, where applicable.
- In the event that the complainant remains unsatisfied with the outcomes following this process, dispute resolution will be undertaken in accordance with *Section 10.2* of the *DZP Environmental Management Strategy*.

## 13 PLAN IMPLEMENTATION

### 13.1 IMPLEMENTATION OF THIS PLAN

The responsibilities for implementing the Plan are provided in **Table 6**.

**Table 6**  
**Roles and Responsibilities for Aboriginal Heritage Management**

Role	Responsibilities
Operations Manager	<ul style="list-style-type: none"><li>Ensure that adequate financial and personnel resources are made available for the implementation of the plan</li></ul>
Environment and Community Manager	<ul style="list-style-type: none"><li>The person responsible for managing the overall implementation of the plan.</li><li>Include any actions under the plan in the Annual Review.</li><li>Coordinate relevant specialist personnel to conduct salvage as specified in the plan.</li><li>Ensure inclusion of Aboriginal heritage in worker inductions through delivery or input to induction documents.</li><li>Distribute copies of this plan as required.</li><li>Maintain records of Aboriginal consultation and past plans.</li><li>Arrange for review of the plan under the circumstances set out in Section 13.4.</li></ul>
The Manager (Construction or Mining Operations)	<ul style="list-style-type: none"><li>Identify locations of known Aboriginal sites in relation to planned disturbance.</li><li>Identify limits of disturbance and provide clear instruction to operators.</li><li>Ensure appropriate protocols with respect to salvage, excavation or other management have been established for sites to be disturbed (consult with Environment and Community Manager).</li><li>Ensure disturbance is restricted to the areas nominated for each campaign.</li></ul>
Mobile Equipment Operators	<ul style="list-style-type: none"><li>Ensure clearing / disturbance is restricted to the areas nominated by the Manager.</li><li>Report identification of artefacts of potential Aboriginal cultural heritage to direct supervisor, the Manager of Environment and Community Manager.</li></ul>
All Personnel	<ul style="list-style-type: none"><li>Follow any instructions provided by the Environment and Community Manager or the Manager.</li><li>Report identification of artefacts of potential Aboriginal cultural heritage to direct supervisor, the Manager of Environment and Community Manager.</li><li>Demonstrate respect for Aboriginal cultural heritage in approach to work and others.</li></ul>

As the document owner, the Environment and Community Manager (or equivalent position) is the contact point for any person that does not understand this plan or its requirements, and will provide guidance and training to any person that requires additional training regarding this plan.



## 13.2 MEASURING PERFORMANCE

Actions undertaken under the plan will be reported as part of the DP Annual Review report to the Department of Planning and Environment.

Compliance with the Plan will be measured as part of a three yearly independent environmental audit required by *Condition 5(9)* of SSD-5251.

The audit will include an assessment of compliance against the objectives and outcomes nominated in the Plan, with specific emphasis placed upon the implementation of the following measures:

- The efficacy of the DP salvage program.
- The continuation of consultation with Aboriginal stakeholders.
- Introduction of inductions including Aboriginal heritage points.
- Development of the interim artefact storage facility and the condition of stored artefacts.
- New archaeological finds and existing sites being correctly managed.

## 13.3 COMPETENCE TRAINING AND AWARENESS

All personnel working on DP undergo a project induction. This induction includes information on the management of Aboriginal heritage while working on or travelling to the DP Site and associated linear infrastructure.

After completing the induction workers will sign a statement of attendance and records of this are kept in the site office.

## 13.4 REVIEW (AND CONTINUAL IMPROVEMENT PROTOCOL)

The Plan will be reviewed annually from the commencement of construction activities. This will include a review of performance as noted in Section 13.2 and consideration of ongoing consultation. This will ensure the adequacy of the Plan and allow for opportunities of adaptive management and continual improvement.

Changes may be made to the plan in the following circumstances:

- Where new Aboriginal sites are discovered which require specific management approaches proportionate to their cultural significance and which are not otherwise covered in this plan.
- Where approved modifications to the project introduce new impacts on Aboriginal heritage which are not generally covered by this plan.
- Where approved changes to the project change or remove previously planned impacts on Aboriginal heritage where mitigation was proposed in the plan but is no longer required.

Where changes are made to the plan, a draft of the modified plan will be subject to Aboriginal consultation in accordance with the Plan. Matters raised in consultation which are specific to the changes in the plan may be acknowledged and addressed in the modified plan.

All historical versions will also be available electronically and held at the DP. Printed versions will not be considered controlled documents as they may not show recent amendments.

## 14 REFERENCES

- DECCW 2010. *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*.
- DECCW 201b. *Aboriginal cultural heritage consultation requirements for proponents 2010*.
- Nolan 2000. *Aboriginal / Archaeological Sites Investigation for Resource Drilling Area Toongi, south of Dubbo, NSW*. Report for Alkane Exploration NL.
- Nolan 2002. *Dubbo Zirconia Project (DZP) Toongi, south of Dubbo, NSW an Aboriginal / Archaeological Sites Investigation of Residue Storage Facility, Processing Plant Site, Waste Rock Emplacement, Open Cut, Haul Road and Water Supply Pipeline Routes*. Report to Australian Zirconia Limited.
- OzArk 2013a. *Aboriginal Heritage Assessment: Dubbo Zirconia Project*. Prepared for R.W. Corkery & Co. Pty Ltd on behalf of Australian Zirconia Ltd.
- OzArk 2013b. *Archaeological Test Excavation: TS-OS-03 with PAD and TS-OS-05 with PAD, Dubbo Zirconia Project*. Prepared for R.W. Corkery & Co. Pty Ltd on behalf of Australian Zirconia Ltd.
- R.W. Corkery & Co. Pty Limited (RWC) (2013). *Environmental Impact Statement for the Dubbo Zirconia Project, September 2013*. Prepared on behalf of Australian Zirconia Limited.



# Appendix 1

## Aboriginal Heritage-related Conditions of SSD-5251

Schedule 3, Condition 35 and  
Schedule 5, Condition 3

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- measures to mitigate and manage the identified impacts on Pink-tailed Worm-lizard, including:
    - progressive clearing in the project disturbance area; and
    - a detailed translocation procedures prepared generally in accordance with the *NPWS Policy and Procedure Statement No. 9 – Policy for the Translocation of Threatened Fauna in NSW*;
  - include a program to monitor:
    - resident Pink-tailed Worm-lizard, distribution and population size on site and in the biodiversity offset areas;
    - translocated Pink-tailed Worm lizard distribution and population size; and
    - existing and revegetated potential distribution and population size habitat; and
- (h) include details of who would be responsible for monitoring, reviewing, and implementing this plan.

#### Conservation Bond

34. Within 6 months of the approval of the Biodiversity Management Plan, the Applicant shall lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.

The sum of the bond shall be determined by:

- (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.

The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to lodgement of the final bond.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

#### Notes:

- *Alternative funding arrangements for long term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate (or any other mechanism agreed with OEH) can be used to reduce the liability of the conservation bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the biodiversity offset strategy or the completion of major milestones within the approved plan.*

#### HERITAGE

##### Heritage Management Plan

35. The Applicant shall prepare and implement a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH and the relevant Aboriginal stakeholders, and be submitted to the Secretary for approval prior to carrying out any development under this consent, unless the Secretary agrees otherwise;
  - (b) include a program/procedures for:
    - the salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area;
    - the assessment and removal of scarred trees;
    - the protection and monitoring of Aboriginal sites outside the project disturbance area;
    - managing the discovery of any new Aboriginal objects or skeletal remains during the development;
    - maintaining and managing access to archaeological sites by the relevant Aboriginal stakeholders; and
    - ongoing consultation and involvement of the relevant Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on the site; and
  - (c) include a program to monitor and report on the effectiveness of the management measures carried out under the plan.

## SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

### ENVIRONMENTAL MANAGEMENT

#### Environmental Management Strategy

1. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval prior to the commencement of an activity associated with the development;
  - (b) provide the strategic framework for environmental management of the development;
  - (c) identify the statutory approvals that apply to the development;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the development;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this consent; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.

#### Adaptive Management

2. The Applicant shall assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.

#### Management Plan Requirements

3. The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
  - (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria;
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the development;
    - effectiveness of any management measures (see c above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences;
  - (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and
  - (h) a protocol for periodic review of the plan.

# Appendix 2

## Consultation Log

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Sample RAP letter inviting comment on this Plan.



OzArk Environmental & Heritage Management Pty Ltd  
ABN: 59 104 582 354

14 September 2016

Xxx  
Xxx  
Xxx  
Xxx

**Aboriginal Cultural Heritage Management Plan for the Dubbo Zirconia Project**

Dear xxx,

This Aboriginal Cultural Heritage Management Plan (Heritage Management Plan) for the Dubbo Zirconia Project (DZP) has been prepared by OzArk Environment & Heritage Management Pty. Limited and R.W. Corkery & Co. Pty. Limited and on behalf of Australian Zirconia Limited, a subsidiary of Alkane Resources Ltd.

The DZP, approved as SSD-5251 by the NSW Planning Assessment Commission on 28 May 2015, comprises a small scale open cut mine supplying ore containing rare metals and rare earth elements to a processing plant near the village of Toongi, approximately 25km south of Dubbo.

As a Registered Aboriginal Party (RAP) to the DZP, we would like to invite you to review and comment on this draft Heritage Management Plan to ensure that it clearly sets out the policies for the conservation of Aboriginal cultural heritage wherever possible or, where impacts are approved, to appropriately manage Aboriginal cultural heritage.

As a RAP, much of what is in this document should be familiar as the DZP has undertaken community consultation over a number of years and many of the initiatives in this plan stem from views placed at consultation meetings in the past.

Please take your time to read the document carefully as all Aboriginal cultural heritage shall be managed under the terms of this plan across the entire DZP site into the future.

Should you have any questions or comments, please address them to Sheridan Baker (OzArk Consultation Officer) at the contacts listed below or by email to [sheridan@ozarkehm.com.au](mailto:sheridan@ozarkehm.com.au).

We would encourage you to get all comments on this document to Sheridan before close of business on **Friday 30 September 2016**. After this date this plan will be finalised and submitted to the Department of Planning and Environment for approval.

We thank you for your interest in this project and your interest in the meaningful conservation and management of Aboriginal cultural heritage at the DZP site.

Ben Churcher  
OzArk Principal Archaeologist

Queanbeyan | Dubbo | Brisbane  
HEAD OFFICE: 145 Wingewarra St/PO Box 2069 DUBBO NSW 2830  
ph 02 6882 0118 | [enquiry@ozarkehm.com.au](mailto:enquiry@ozarkehm.com.au) | [www.ozarkehm.com.au](http://www.ozarkehm.com.au)

Log of Aboriginal community consultation on this Plan.

<b>Date</b>	<b>RAP</b>	<b>Contact</b>	<b>Action</b>	<b>Method</b>
14.9.16	Wirrimbah Direct Descendants	Members: Wirrimbah Direct Descendants Aboriginal Corporation TubbaGah Aboriginal Corporation	Sheridan Baker (SB) sent cover letter and ACHMP with feedback closing date of the 30.9.16	email
14.9.16	Binjang Wellington Wiradjuri Heritage Survey	Members: BWWHS	SB sent cover letter and ACHMP with feedback closing date of the 30.9.16	email
14.9.16	Mrs Diane Stewart (individual)	Mrs Diane Stewart	SB sent cover letter and ACHMP with feedback closing date of the 30.9.16	mail
14.9.16	Dubbo LALC	Dubbo LALC	SB sent cover letter and ACHMP with feedback closing date of the 30.9.16	email