

15 Cultural Heritage

15.1 Introduction

Indigenous and non-indigenous cultural heritage places and values have been recorded as part of cultural heritage investigations conducted between May and July 2008 by Hatte (2008) and representatives of the Barada / Barna / Kabelbara / Yetimarala (BBKY) people. The detailed report from these investigations is provided in **Appendix N**. This appendix also contains a full list of the field personnel involved in the survey.

There are two registered Native Title claims over the Project Site. The Barada / Barna / Kabelbara / Yetimarala (BBKY) People 3 hold registered National Native Title Tribunal (NNTT) Claim QC01/013 filed on 21 March 2001. The Barada / Barna / Kabelbara / Yetimarala (BBKY) People 4 hold registered NNTT claim QC01/025 filed on 31 July 2001.

The Hatte (2008) surveys were conducted under the provisions of The *Aboriginal Cultural Heritage Act 2003* (ACH Act) (for pre-contact Indigenous cultural heritage) and The *Queensland Heritage Act 1992* (QH Act) (for non-Indigenous and post-contact Indigenous cultural heritage).

It is noted that a permit to survey is no longer required under The ACH Act. The requirement for a permit to survey operated under the provisions of the previous Act, *the Cultural Record (Landscapes Queensland and Queensland Estate) Act 1987*, but it has been replaced by agreement-based arrangements including Cultural Heritage Management Plans (CHMP) which may be formally reviewed by the State. Wherever an Environmental Impact Statement (EIS) is undertaken, a CHMP is mandatory. This means that high-impact developments can go ahead only when an effective CHMP has been agreed between the Proponent and native title parties, and the CHMP is registered with the State Authority.

The BBKY Traditional Owners have been involved in the Project from its inception. Consultation between BMA and Woorra Consulting (representatives for BBKY) has been ongoing throughout the project.

15.1.1 Legislation

15.1.1.1 State

Aboriginal Cultural Heritage Act 2003

Under the ACH Act, 'Cultural Heritage' is defined as anything that is:

- a) a significant Aboriginal area in Queensland; or
- b) a significant Aboriginal object; or
- c) of archaeological or historic significance, or evidence of Aboriginal occupation of an area of Queensland (Section 8).

Aboriginal Cultural Heritage includes:

- archaeological sites (such as artefact scatters, hearths, stone tool knapping areas, scarred trees and stone arrangements);
- places that have traditional stories or traditional knowledge associated with them;

- historically important places (such as old stockmen's' camps or tracks); and
- places that are important today (such as food or ochre-getting places or places used for recreational purposes).

The following principles are fundamental to its operation:

- recognition, protection and conservation of Aboriginal cultural heritage based on respect for Aboriginal, cultural and traditional practices;
- recognition of Aboriginal people as the primary guardians, keepers and knowledge holders of Aboriginal cultural heritage;
- respecting, preserving and maintaining knowledge, innovations and practices of Aboriginal communities and to promote understanding of Aboriginal cultural heritage;
- allowing Aboriginal people to reaffirm their obligations to "law and country" activities through activities involving recognition, protection and conservation of Aboriginal cultural heritage; and
- establishing timely and efficient processes for managing activities that may harm Aboriginal cultural heritage.

The ACH Act contains a general Duty of Care to take all reasonable and practical steps to be aware of, and to avoid harming, Aboriginal cultural heritage. Section 23(1) requires that a person must exercise due diligence and reasonable precaution before undertaking an activity that may harm Aboriginal heritage. Everyone has a responsibility to exercise Duty of Care. Duty of Care Guidelines attached to the Act set out key indicators of compliance which include, but are not limited to, the following:

- proof of consultation with the registered native title applicants,
- cultural heritage studies undertaken in association with the registered native title applicants,
- searches of cultural heritage information contained in the cultural heritage register and database held by the Cultural Heritage Coordination Unit within Department of Natural Resources and Water (DNRW),
- a CHMP or other agreement with the registered native title applicants.

Cultural Heritage Management Plan

The previous state permitting system for cultural heritage studies has been replaced by agreement-based arrangements including CHMPs which may be formally reviewed by the State. The CHMP is now a key tool in the process of cultural heritage management. CHMPs describe the heritage significance of a place and the policies, agreed by all parties, required to retain these values.

Wherever an EIS is undertaken, a CHMP is mandatory if the project requires some form of permit, approval or licence. This means that high-impact developments will be able to go ahead only when an effective CHMP (containing the results of a cultural heritage study) has been agreed between the proponent and native title parties, and the CHMP is registered with the State Authority.

Queensland Heritage Act 1992

The QH Act provides for the conservation and protection of places and items of non-indigenous origin and of indigenous origin that derive from the post-European contact history of Queensland. Under this

Act, places and items must be entered into a Queensland Heritage Register in order to be protected. Substantial penalties may apply for damage to a place or items that has been entered on the Register.

In order for a place to be entered onto the Queensland Heritage Register (Section 23 [1]) it must satisfy at least one of the following significance criteria:

- important in demonstrating the evolution or pattern of Queensland's history;
- important in demonstrating rare, uncommon or endangered aspects of Queensland's heritage;
- has potential to yield information that will contribute to an understanding of Queensland's history;
- important in demonstrating the principal characteristics of a particular class of cultural places;
- important in exhibiting particular aesthetic characteristics valued by the community or a particular cultural group;
- important in demonstrating a high degree of creative or technical achievement at a particular period;
- has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons; and
- the place has a special association with the life or work of a particular person, group or community of importance in Queensland's history.

15.1.1.2 Federal

Environment Conservation and Biodiversity Conservation Act 1999

Nationally important heritage values have legal protection under the *Environment Conservation and Biodiversity Conservation Act 1999* (EPBC Act).

Under the system, national heritage joins six other matters of national environmental significance (NES matters) already specifically protected under the EPBC Act. By law, no one can take any action that has, will have, or is likely to have, a significant impact on any of these matters without approval from the Australian Government Minister for the Environment and Heritage.

Australian Heritage Commission Act 1975-1990

This Act is comprehensive in its approach, covering a wide range of culturally significant places. Classes of items which might be placed on the Register of the National Estate include those of the historic environment (including buildings and structures, modified landscapes and archaeological sites); the natural environment; and items from the Aboriginal environment (both archaeological sites and unmodified natural features such as story places and sacred sites). Section 30 provisions protect items on the Register from unnecessary destruction by actions of Federal Government Departments, agencies and instrumentalities. State Governments and private developers are not constrained by the provisions of this Act unless Federal funding is involved. However, the Register provides guidance to the value of places.

Aboriginal and Torres Strait Islander Heritage Protection Act 1986

The purpose of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1986* is to preserve and protect areas and objects of particular significance to Aboriginal Australians from injury or desecration. This legislation can provide particular protection for sacred sites. Any steps necessary for the protection of a threatened place are outlined in a gazetted Ministerial Declaration (Sections 9

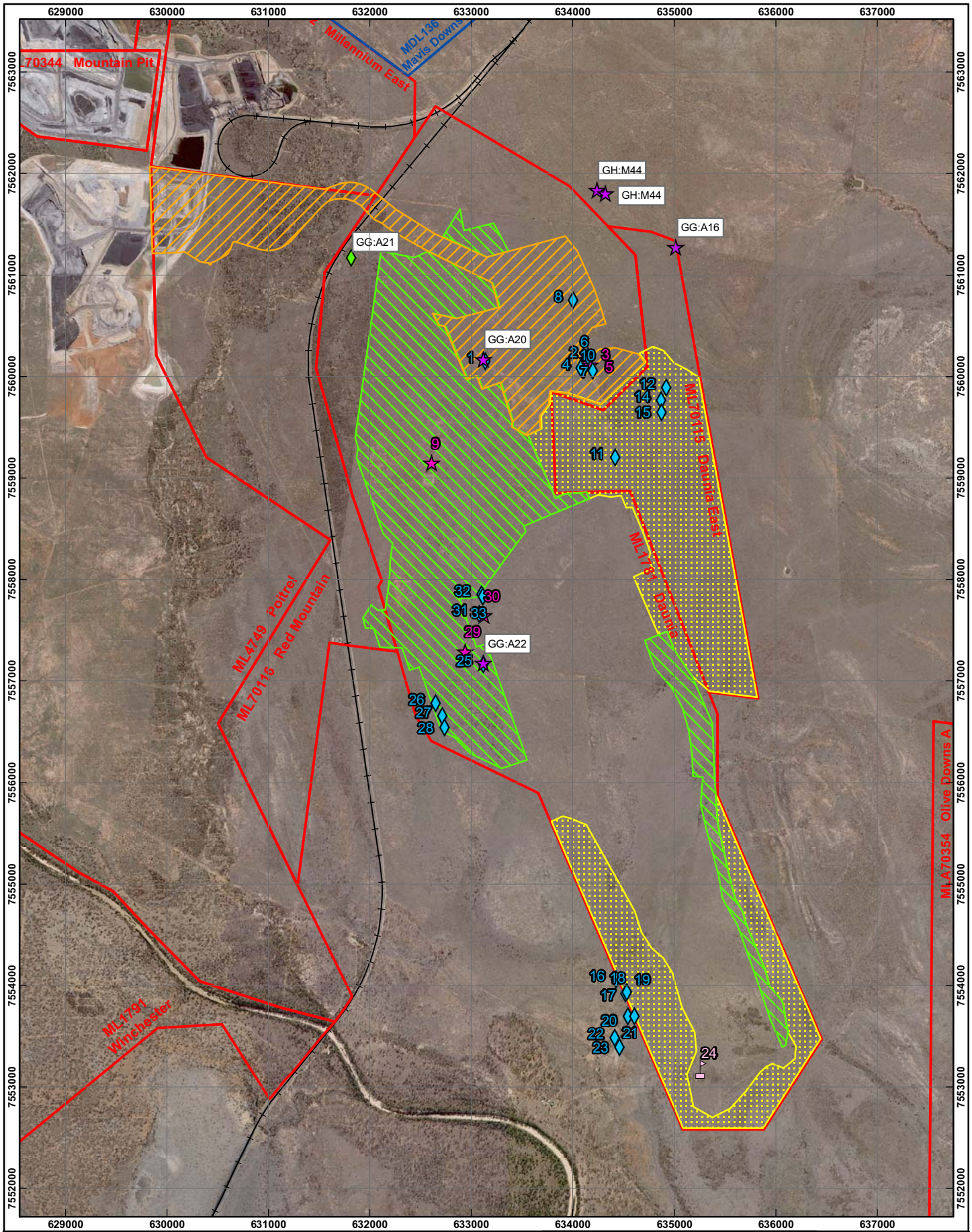
and 10), and this can include the prevention of development. As well as providing protection to areas, it can also protect objects by Declaration, and in particular Aboriginal skeletal remains (Section 12). Heavy penalties may be levied in the case of contravention of provisions of a Declaration (Section 22). Although this is a Federal Act, it can be invoked in a State if the State is unwilling or unable to provide protection for such sites or objects.

15.1.2 Survey Areas

Three areas were the focus of the initial Project Site surveys. These areas cover the initial footprint of the mine and collectively they constitute more than half of the total footprint area. These are shown in **Figure 15-1** and in more detail in **Figure 15-2** to **Figure 15-4**.

- **Area 1** consists of the northern section of ML1781 (Daunia) and some of ML70116 (Red Mountain) on which the infrastructure will be built;
- **Area 2** is ML70115 (Daunia East) and a U shaped section of the southern end of ML1781. Both of these areas are proposed out of pit spoil dumps; and
- **Area 3** is the north-western portion of ML1781 and a thin line in the south east. Both of these areas are part of the proposed open cut pit.

It is intended that areas not covered by this cultural heritage survey, will be surveyed in accordance with the CHMP prior to disturbance.



LEGEND

+	Existing Railway		Cultural Heritage Site		Clearance Areas
	Mining Lease		Non-Indigenous Historic site		Clearance Area 2
	Mineral Development License		Isolated Find		Clearance Area 3
			Low Density Artefact Scatter		
			DNRW Database Search		

FIGURE 15-1
DAUNIA COAL MINE EIS
CULTURAL HERITAGE SITES

0 0.5 1 1.5 2
 Kilometres

Scale 1:50,000 on A4
 Projection: Australian Map Grid - Zone 55 (AGD84)

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15.1.3 Methodology

The cultural heritage field survey of the Project Site was undertaken over a period of fourteen days between May and August 2008. The field team consisted of an average of five members: four Traditional Owner representatives from Woorra Consulting Pty Ltd, and the project archaeologist, Elizabeth Hatte of Northern Archaeological Consultancies Pty Ltd.

The highly disturbed nature of the Project Site, together with very thick ground cover, and consequent minimal ground surface visibility, required that all spots with some ground visibility be inspected.

An initial vehicle reconnaissance of the Project Site was undertaken to enable the team to view the landscape and plan logistical aspects of the foot survey (e.g. areas with some ground visibility, vehicle access points, distances between access points, length of transects, etc.). Existing vehicle tracks, drill lines, gully and drainage lines and animal pads were targeted as having some potential to see the ground and therefore assess cultural heritage potential. It has long been established that the availability of fresh water is a major determinant in the establishment of Aboriginal occupation in tropical or drought-prone regions. A particularly thorough inspection was thus undertaken in the vicinity of watercourses.

Cultural finds were recorded in conjunction with the Traditional Owner field officers. The location of each find was fixed with a GPS receiver. Background data was recorded on the topography, vegetation and disturbance in the immediate vicinity of the find.

Information on stone artefacts was recorded including type, dimensions, attributes, raw material, modification and use, special features such as use-wear and breakage, existing and expected impacts. The recording of artefact scatters included total counts and tallies of artefact types. Formal tool types e.g. axes, grindstones and mullers, hammerstones, anvil stones and blades were recorded separately. All cultural finds were numbered in order of discovery (see **Appendix N**). A photographic record was compiled of all cultural items and features.

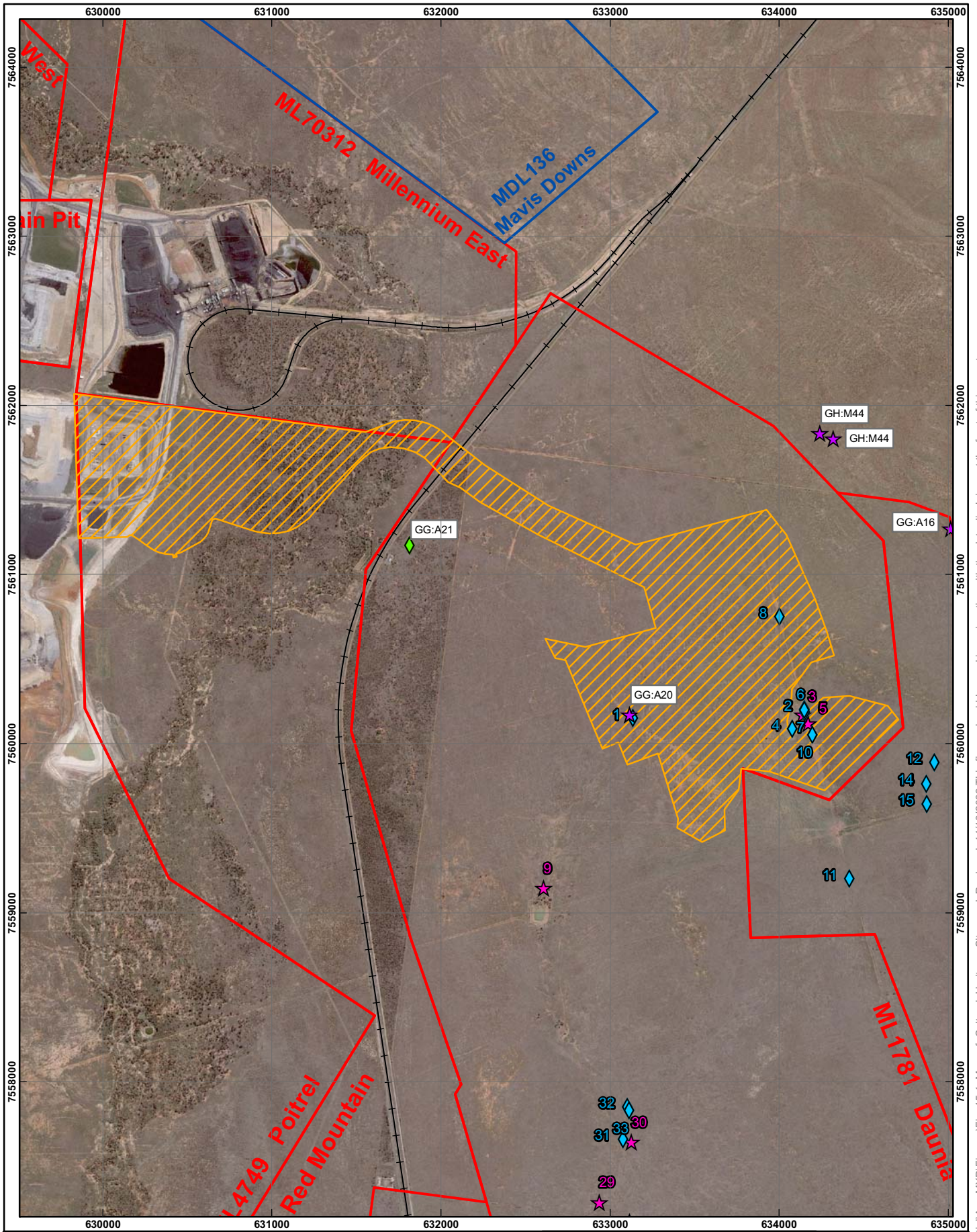
There were very few large mature trees remaining on the Project Site. There were generally more in the southern section and the downs, than in the northern end. All old trees were inspected for Aboriginal scarring. No scarred trees were found.

15.1.4 State Database Search

A search was conducted of the register and database in the DNRW for the Project Site (see **Appendix N**). The search identified six locations of artefacts, as detailed in **Table 15-1** below. The coordinates of these sites are also provided. These artefact scatters are thought to be those recorded in Hill's (1980) study. These consisted of isolated finds (IFs) and low density artefact scatters (LDAS), and their locations are shown on **Figure 15-1** to **Figure 15-4**. While two of these locations lie just outside the Project Site (both GG:M44), they may be inside the boundaries of the expanded mining operations. Efforts should be made to inspect these locations when the grass cover is less in an effort to relocate them.

Table 15-1 Location of Artefact Scatters found in DNRW Database Search

Mining Lease	Site ID	Latitude	Longitude	Attribute	Aboriginal Party
1781	GG:A20	-22.05809	148.29005	ARTEFACT	01/13, Woorra Consulting
	GG:A21	-22.04916	148.27737	Isolated Find	01/13, Woorra Consulting
	GG:A22	-22.08518	148.29030	ARTEFACT	01/13, Woorra Consulting
	GH:M44	-22.04299	148.30081	ARTEFACT	01/13, Woorra Consulting
	GH:M44	-22.04325	148.30159	ARTEFACT	01/13, Woorra Consulting
70115	GG:A16	-22.04801	148.30837	ARTEFACT	Woorra Consulting

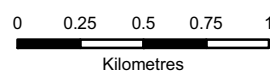


LEGEND

- Existing Railway
- ▭ Mining Lease
- ▭ Mineral Development License
- ▨ Clearance Area 1
- ▭ Cultural Heritage Site
- ▭ Non-Indigenous Historic site
- ◆ Isolated Find
- ★ Low Density Artefact Scatter
- ▭ DNRW Database Search

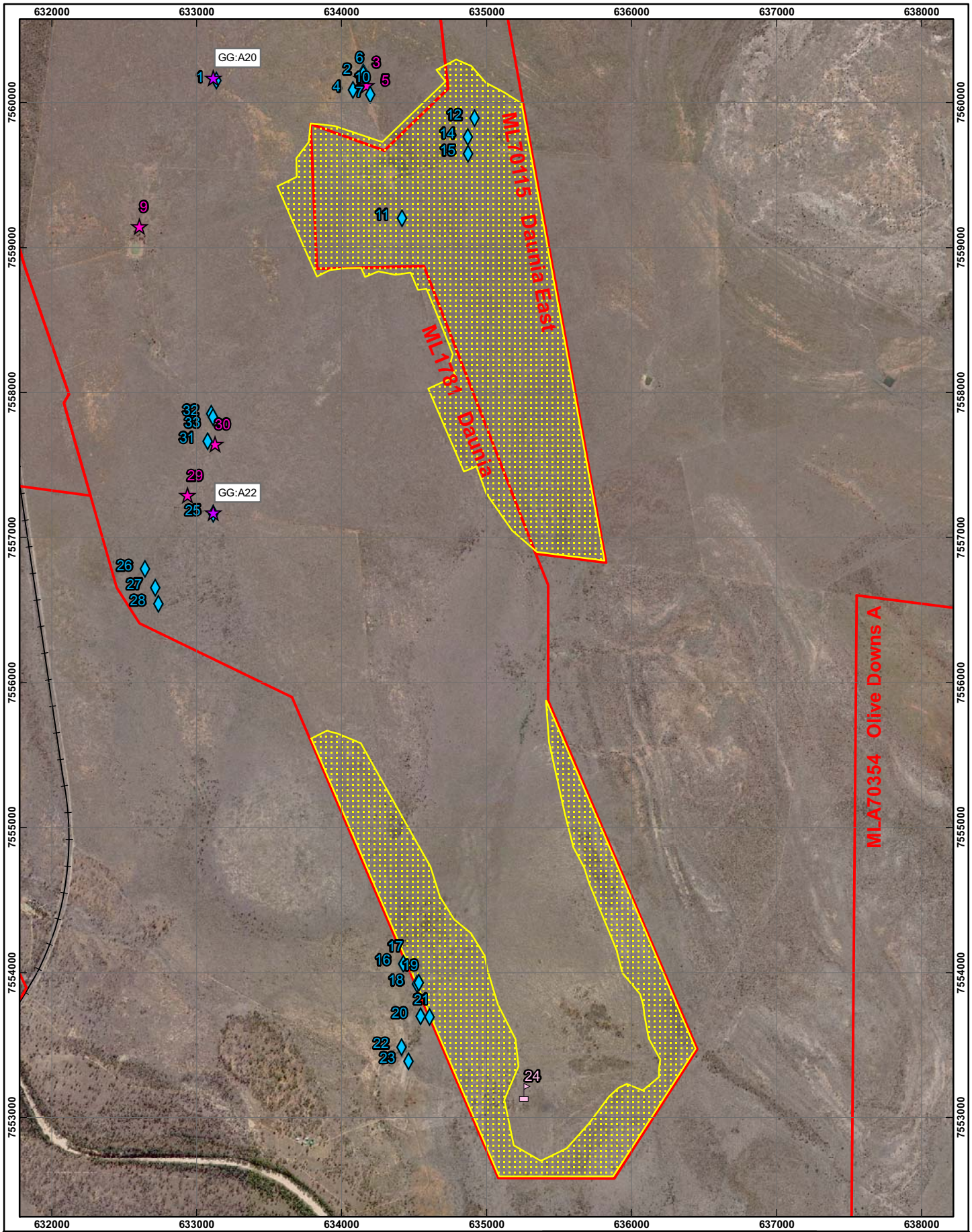


FIGURE 15-2
DAUNIA COAL MINE EIS
 CULTURAL HERITAGE
 CLEARANCE AREA 1



Scale 1:30,000 on A4
 Projection: Australian Map Grid - Zone 55 (AGD84)





LEGEND

+	Existing Railway	▴	Cultural Heritage Site Non-Indigenous Historic site
▭ (red)	Mining Lease	◆	Isolated Find
▭ (blue)	Mineral Development License	★	Low Density Artefact Scatter
▭ (yellow dotted)	Clearance Area 2	▭ (white)	DNRW Database Search

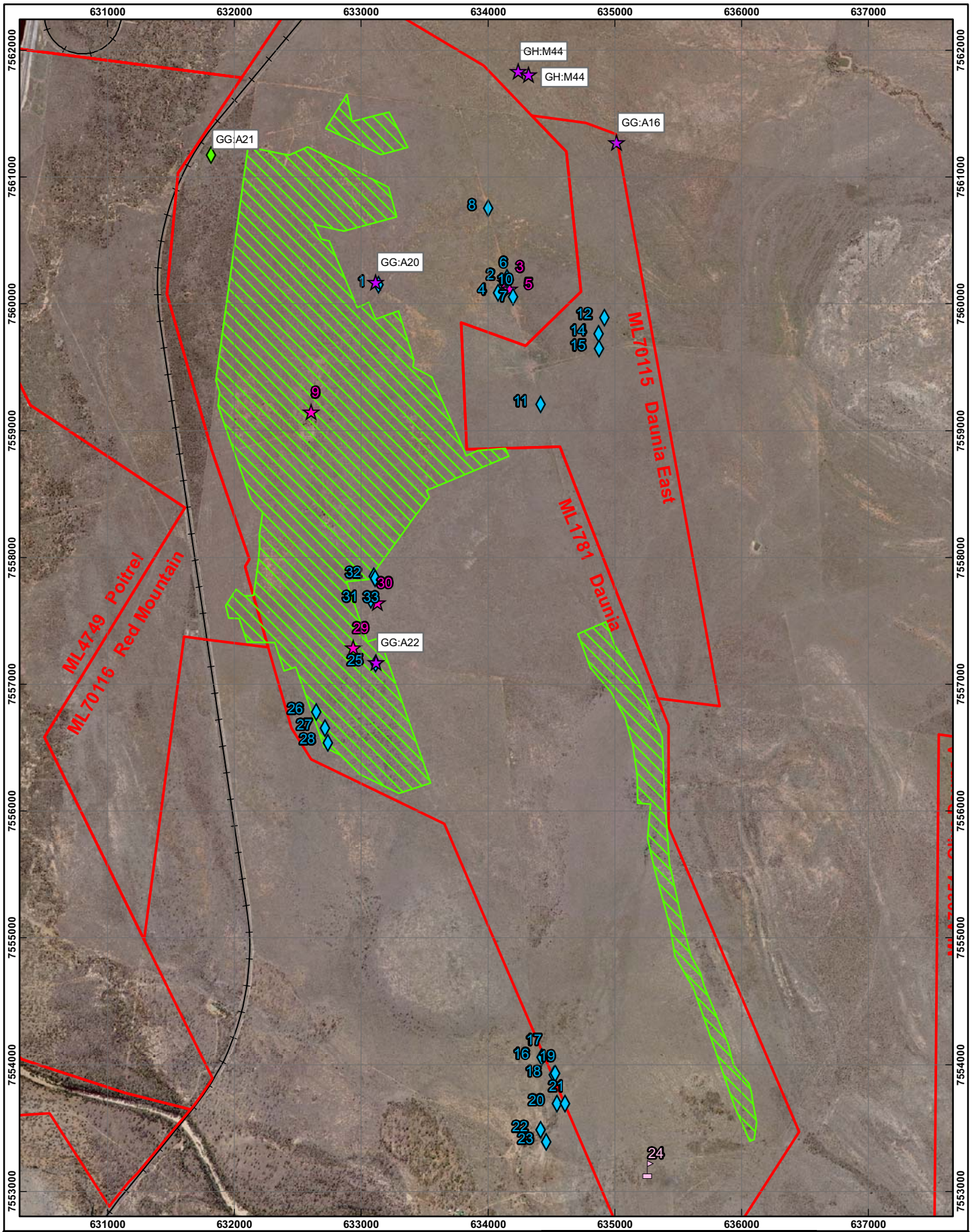
GG:A21

FIGURE 15-3
DAUNIA COAL MINE EIS
 CULTURAL HERITAGE
 CLEARANCE AREA 2

0 0.5 1 1.5
 Kilometres

Scale 1:35,000 on A4
 Projection: Australian Map Grid - Zone 55 (AGD84)

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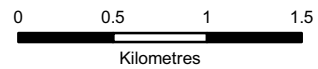


LEGEND

- Existing Railway
- ▭ Mining Lease
- ▭ Mineral Development License
- ▨ Clearance Area 3
- ▭ Cultural Heritage Site
 - ▭ Non-Indigenous Historic site
 - ◆ Isolated Find
 - ★ Low Density Artefact Scatter
 - ▭ DNRW Database Search



FIGURE 15-4
DAUNIA COAL MINE EIS
 CULTURAL HERITAGE
 CLEARANCE AREA 3



Scale 1:40,000 on A4
 Projection: Australian Map Grid - Zone 55 (AGD84)



15.2 Existing Values

15.2.1 Non-indigenous Cultural Heritage

This region has been devoted to pastoralism from the earliest days of European arrival, about 140 years and this continues to be the case with the entire Project Site devoted to the grazing of cattle.

During the survey carried out by Hatte (2008) a broken marble headstone with sandstone base was observed in the middle of a paddock (at E.635263/N.7553175, Datum AGD84). This headstone was previously recorded by Hill (1980) and noted in the files of the mining leaseholder. The location is shown as Site 24 on **Figure 15-5**.



Figure 15-5 Contextual view of broken headstone

When re-assembled, the gravestone stands approximately 150cm tall. In Hill's (1980) report, he noted that the then owner, John Neilson, was aware of the existence of the grave and stated that a descendent of the Beresfords, Graham Stuart, lived at Oxford Downs (Oxford Downs was sold several years ago and the Stuart family is no longer there). Hill (1980) reported that contact with Mr Stuart revealed a female descendant living at Yeppoon, and that the sergeant of police at Moranbah received advice from his superior that the grave should be exhumed prior to any mining disturbance and re-interred in the nearest cemetery.

The gravestone lies about 1 km east of Olive Downs homestead and several hundred metres south of an old stock route that runs in a north-easterly/south westerly direction. Recently a collection of old metal objects (horse shoe nails, a spur and other pieces) was found between the gravestone and the stock route by the manager of Olive Downs. The immediate area of the collection was searched thoroughly during the Project archaeological survey but could not be relocated. It is possible that this collection represents the remains of an old camp. It is not inconceivable that it may have been associated with the grave.

As an historic artefact the grave is protected under the provisions of QH Act. As a grave, it is protected under the provisions of *The Coroner's Act 2003*.

15.2.2 Indigenous Cultural Heritage

Hill (1980)

Hill (1980) carried out an archaeological survey of the Project area on behalf of Utah Development Company. Though Hill (1980) does not state the actual area involved it appears to include a far larger area than the Project Site. It extended to the riparian zone of the Isaac River and west to New Chum Creek and included:

- a central downs (savannah) zone;
- a flat wooded zone with extensive areas of gilgai country; and
- a steeply folded zone which consisted entirely of the access road to the Peak Downs Highway.

At that stage, apart from some areas of cleared Brigalow most of the native vegetation was intact, with the cleared areas covered in thick regrowth.

Hill (1980) found a light but ubiquitous scatter of lithic artefacts and waste flakes throughout the Brigalow area but only occasional flakes were found in the downs area.

Artefact types recorded included mainly scrapers of many kinds (core, pebble, convex, side, end, nosed, notched) points, blades, several bifacial axes, numerous cores and waste flakes. Hill (1980) noted that core scrapers were particularly abundant and were 'larger than usual'. He noted in particular, single examples of a backed blade and a possible Pirri point which are comparatively artefact types in this region. A total of 129 artefacts appear to have been salvaged by Hill and were with the (then) Department of Aboriginal and Islander Affairs (Hill 1980:8-10). He noted that apart from the examples noted above, the artefacts recovered from the Project area were of mediocre quality and indicate no unusual typologies (Hill 1980 p11). This statement illustrates a dated view of cultural heritage, one that appears to be oriented to 'museum quality' artefacts instead of looking to recreate something of the past. Hill (1980) found no evidence of fireplaces along the Isaac River or New Chum Creek.

Hatte (2008)

The field studies carried out by Hatte (2008) resulted in the identification of 48 stone artefacts of various types and raw materials in disturbed locations, as deflated LDAS and IF's (see **Table 15-2**).

The cultural materials were identified in association with the following landforms and features:

- gullies and drainage lines; and
- the cleared Acacia and Eucalypt dominant forests, in highly disturbed locations, particularly in rills beside cleared tracks.

A summary of the cultural heritage results are listed in **Appendix N**. The locations of all sites/features, recorded in this, and in previous studies within or near the Project Site are shown on **Figure 15-1** to **Figure 15-4**. Raw materials of flakes and cores are predominantly secrete (85%) with only occasional examples of other materials. Most grindstones are made from sandstone of varying degrees of

coarseness and three were observed to be of basalt. 16 flaked artefacts, including 12 different types of scrapers, show evidence of use-wear. An analysis of the use-wear patterns and microscopic study of any surviving residue would establish the use to which these artefacts had been put.

Table 15-2 Stone artefacts recorded in Project Site by material and type (Hatte 2008)

	Silcrete	Petrified wood	Chert	Quartzite	Sandstone	Mudstone	Total
Primary flake	9			1			10
Secondary	12		1				13
	3 (u/w)						3
Tertiary	2						2
	1 (u/w)						1
Core	7	1				1	9
Scraper	12		1				13
Blade			1				1
Adze	1						1
Blade	1						1
Grind stone/ muller					1		1
Hammerstone	3						3
Total	41	1	3	1	1	1	48

u/w = use wear

The finds made during the field surveys by Hatte (2008) were few in number and confined to limited areas in which the survey team could see the ground, due to the presence of dense Buffel grass cover at the time of the surveys. Nevertheless, these finds represent a cross section of tool types and hence activities in which traditional people engaged. Some objects found are shown in **Figure 15-6** to **Figure 15-9**. The seven cores consist of both single and multi-platform tools which represent several types of technology.

In spite of the lack of visibility and the disturbance across the area, there is still a marked contrast between this area and the neighbouring Poitrel Mine where in excess of 16,000 artefacts have now been salvaged from the area, mainly west of New Chum Creek. This contrast is so dramatic that it is hard to justify by lack of visibility alone, and it is suggested that New Chum Creek and its immediate environs were the focus of large numbers of people over a long period. By contrast, Daunia to the east and without a major waterway, may have been the setting for more minor activities.

There are several possible explanations for patterns of site distribution identified in cultural heritage studies in this region. The patterns may reflect the actual distribution of cultural materials or they may result from taphonomic changes to the landscape and the sites over time, as the Project site has been impacted by human activities as well as by natural weathering processes. On the other hand, patterns may reflect trends in archaeological survey, the direction of which has mainly been determined in this area by the development of the coal industry. It is possible that site types in association with more rugged, less developed locations such as the ranges may be under recorded.



Figure 15-6 Grinding pebble and point (ID.1)



Figure 15-7 Pebble hammerstone with pitting (ID.11)



Figure 15-8 Single platform silcrete core (ID. 23)



Figure 15-9 Petrified wood core with 3 platforms (ID.13)

Various cultural heritage studies in the Isaac catchment area mention the negative effects of vegetation clearing, cattle grazing and infrastructure construction on cultural heritage. They also note features such as gully and sheet erosion and sedimentation which are signs of land degradation. Although ethno-historic records make note of wooden and fibre artefacts, stone tools, marked trees, wells, etc., it is unlikely that organic materials (fibre, wood, skin, fur and feathers) would survive after prolonged exposure in open situations. Untended native wells are unlikely to have survived the impact of floods and erosion. In view of the extent of pastoral activities in the area (including land clearing), it is likely that many stone artefacts have been broken and/or scattered by machinery or cattle. Other material is likely to have been covered or moved as a result of various natural processes (floods, wind, etc).

15.2.2.1 Assessment of Significance

The identification and assessment of the significance of cultural heritage values is a necessary step in the process of management and conservation of cultural heritage values. All legislation protecting cultural heritage in Australia is derived from The International Council on Monuments and Sites (ICOMOS) Charter for the Conservation of Places of Cultural Significance (The Burra Charter) 1999. The Burra Charter defines 'significance' as 'aesthetic, historic, scientific or social value for past, present or future generations' (Guidelines to The Burra Charter Section 2.1).

The assessment of significance forms an integral part of cultural heritage assessment projects. According to Bowdler (1984:1) "...an assessment of the significance of a place or a site is necessary to decide what should be done with it, and if some form of conservation or protection is indicated, a clear statement of significance should indicate how that preservation should be carried out".

Significance assessment relies on the assessment of those four core elements of cultural significance - aesthetic, historic, scientific or social (including cultural). It is important to note that the concept of significance is multi-faceted, and any one cultural heritage site may have different kinds of significance at different times and to different interest groups.

In making an assessment of significance it is necessary to understand the nature of the 'fabric' or all the physical material of the place (Burra Charter 1999: Definitions, Article 1). It is almost always necessary to make a close, systematic examination of the fabric to understand its significance and this examination should ideally be supplemented by other information about the place.

An assessment of the Aboriginal cultural heritage finds relies on the assessment of the two core elements of Scientific (archaeological) and Social (Cultural) significance. These are discussed below.

Scientific (Archaeological) Significance

Scientific or archaeological significance refers to the ability of a place or an item to provide information on past human activities or past environmental conditions that may not be available in other sources. The Burra Charter (1999) defines scientific significance as follows:

The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information (The Burra Charter: Guidelines to the Burra Charter: Section 2.3).

The determination of a site's uniqueness, and/or its representativeness, helps to determine at a practical level its scientific significance. With regard to the former, the rarer a site, the greater its significance. Older sites, those that contain attributes or a mixture thereof, not found elsewhere or those in which the archaeological material is unusually well preserved would potentially fall within the category of unique.

'Representativeness' generally refers to the ability of one site or a sample of sites to represent as accurately as possible the range and frequency of site types in a particular area. The notion of representativeness also refers to the maintenance of site diversity. The scientific significance of a site generally increases as its potential to provide information increases. For any given place the

significance will be greater where evidence of its association or the event that created it survives in situ than where it has been changed or evidence of context does not survive.

Statement of Scientific (Archaeological) Significance

The Aboriginal cultural heritage items within the project area were low in number compared to that of records found within the adjoining Poitrel Mine lease, and in particular the New Chum Creek corridor. It is thought that the Project Site may have been a settling area for more minor activities due to the fact that there are no major waterways traversing the Project site.

Aboriginal Cultural Significance

The criteria used by Aboriginal people to assess site significance are generally quite different from that used to make assessments of scientific significance. Significance assessments by Aboriginal people may be based on traditional, historical, contemporary and other cultural values. Criteria such as rarity, uniqueness and representativeness are often not relevant in this type of assessment.

Places which contain no archaeological material may also be significant because of a past event, because of association with a story or because of an inherent spiritual quality associated with the place. The scientific significance assessment of a site is not necessarily consistent with Aboriginal people's perceptions and evaluations of a site but the Aboriginal cultural values of a site or place may override other forms of significance assessment. The assessment of Aboriginal cultural heritage values of the sites and items located in this study can be made only by the Traditional Owners.

Statement of Aboriginal Cultural Significance

Consultation with Senior Traditional Owner representatives has indicated that the Project Site has a limited cultural significance compared to that of New Chum Creek to the west. Much of the area along New Chum Creek is now within a conservation management area associated with the Poitrel Mine.

15.2.2.2 Vegetation

Vegetation is recorded as part of cultural heritage assessments as it is integral to the Aboriginal cultural landscape. Though it is emphasised that all trees and plants were probably used by Aboriginal people in the past, particular ones were targeted for medicines, food and a variety of tools and objects for everyday use (e.g. certain types of bark and grass for making string for bags, body ornaments, shelters etc.). Others had particular significance for individual people for other symbolic reasons. Though virtually all of the native forests in the Project Site have been cleared, there is sufficient evidence to know that it consisted predominantly of *E. populnea* (Poplar Box) forest, *A. harpophylla* (Brigalow) and *Eucalyptus crebra* (narrow leaved ironbark) with a variety of other species. Remnant examples (or regrowth) of many of these species which have documented or reported traditional uses were seen in the Project Site (see **Table 15-3** below for uses of species in region)

Table 15-3 List of vegetation species in the region with known traditional uses.

Botanical name	Local name	Traditional use/s
<i>Acacia harpophylla</i>	Brigalow	Implements, fire, medicine
<i>Acacia rhodoxylon</i>	Rosewood	Implements, medicine
<i>Acacia salicina</i>	Black wattle	Food, implements
<i>Archidendropsis basaltica</i>	Dead finish	implements
<i>Alphitonia excelsa</i>	White myrtle, soap tree	soap
<i>Bauhinia spp.</i>	Bauhinia	implements
<i>Brachychiton populneus</i>	kurrajong	food, water, implements, string
<i>Capparis cansecens</i>	Wild orange	food
<i>Capparis lasiantha</i>	Split Jack, wait a while	food
<i>Carissa ovata</i>	Native currant bush or 'burrum'	food
<i>Cassia brewsteri</i>	Leichhardt bean	medicine
<i>Cymbidium canaliculatum</i>	Black orchid or wild arrowroot	food, medicine
<i>Eremocitrus glauca</i>	Native limebush	food, medicine
<i>Eremophila mitchellii</i>	False sandalwood	fuel, medicine, ceremonial
<i>Erythroxylum australe</i>	Native cherry	Food, medicine
<i>Erythrophleum sp.</i>	Ironwood	implements
<i>Eucalyptus populnea</i>	Poplar box	implements
<i>Corymbia sp.</i>	Bloodwood	Implements, medicine
<i>Geijera parviflora</i>	Wilga	implements
<i>Grewia retusifolia</i>	Emu berries, dog balls	food
<i>Owenia acidula</i>	Emu apple	food, implements
<i>Petalostigma pubescens</i>	Quinine	Medicine, implements
<i>Santalum lanceolatum</i> (true sandalwood)	True or commercial sandalwood	Medicine
<i>Terminalia oblongata</i>	Yellow wood	implements
<i>Unknown</i>	Possum berry	food
<i>Enchylaena tomentosa</i>	Ruby saltbush	food
<i>Heteropogon sp.</i>	White spear grass	food

15.3 Potential Impacts and Mitigation Measures

15.3.1 Non-indigenous Cultural Heritage

The gravesite of Cristina Sutherland McKenzie is in an area that will be impacted by the mine and/or mine associated infrastructure. Whilst gravestones and remains are not unique in the area, there is potential for this site to provide additional information on the way of life of pastoral people, and may contribute to a greater understanding of Queensland's history. For this reason the grave site may be eligible for inclusion in the register under the QH Act.

BMA will discuss with any relatives, how the remains and the headstone should be removed. BMA propose that the remains will be reinterred at a nearby cemetery and that either the existing headstone or a new headstone will be placed with the remains.

The grave needs to be considered together with the collection of old metal nearby and the stock route in order to ascertain a fuller understanding of the fabric of the Project Site.

15.3.2 Indigenous Cultural Heritage

Due to the almost universal lack of ground surface visibility throughout the survey area, there is a possibility that previously unrecorded cultural material might not have been identified in the Project Site. It is recommended that Woora representatives monitor all initial ground exposure and disturbance associated with the development.

To facilitate this arrangement Hatte (2008) recommended that:

- salvages be undertaken of all removable items of cultural heritage that remain within the boundaries of the proposed impact areas;
- a comprehensive CHMP be developed cooperatively between BBKY and BMA; and
- scope of, any additional follow up cultural heritage work other than that referred to above should be agreed between Woora Consulting for the BBKY traditional Owners, and BMA.

In the event that unrecorded cultural heritage sites or materials are discovered in surface or sub-surface deposits during monitoring or other operations, all work in the immediate vicinity should cease to enable Woora monitors to salvage any exposed material and to ascertain the likelihood of more cultural finds. Depending on the cultural heritage significance of the finds, further management/mitigation options may need to be considered and implemented. It is noted that all items of indigenous cultural heritage in Queensland are protected under the provisions of the ACH Act (pre-contact) and the QH Act (post-contact).

As part of the Project, all personnel and contractors involved in construction and subsequent workings of the Daunia Project will undergo a cultural heritage awareness program. This program will be established in consultation with the BBKY Traditional Owners and provide locally relevant information on Aboriginal history and culture, the types of cultural heritage sites recorded within the Project Site, guidelines for the identification and protection of these sites and penalties for damage to cultural material. The awareness program will also give the participants an appraisal of the terms and conditions of the Cultural Heritage Management Plan for the Project.

In the highly unlikely event that skeletal material is discovered during the construction process, all operations within 100 metres of the skeletal material will cease immediately upon its discovery. The Cultural Heritage Unit, DNRW and senior BBKY personnel will be contacted immediately. The Queensland Police, DNRW and BBKY Traditional Owners have established policy and procedures to ensure that confirmed indigenous burials are treated in a manner consistent with Aboriginal traditions/practices.