

L | Non Indigenous Cultural Heritage



Non-Indigenous Cultural Heritage Survey Report

Alpha Coal Project

Hancock Prospecting Pty Ltd

2010



Converge Heritage + Community undertook this cultural heritage assessment and prepared this report.

Contact details are:

Benjamin Gall

Converge Heritage + Community Pty. Ltd.

ABN: 71 366 535 889

Po Box 333, The Gap, Queensland, 4061

Tel: (07) 3366 8488

Fax: (07) 3366 0255

Email: bgall@convergehc.com.au

This report is Copyright © 2010.

DOCUMENT VERIFICATION

Converge Project:

ALPHA Hancock Coal

Document Title:

I0042C ALPHA Hancock Coal Technical Report

Client:

Hancock Prospecting Pty Ltd

Project Number:

I0042C

File location:

C:\Shared Data\Projects\I0042C ALPHA
Hancock Coal\Reporting

Revision	Date	Nature of revision	Prepared by	Authorised by
00	26/07/2010	Draft Report for comments	CB/EF	BG
01	16/08/2010	Final Draft Report	EF	BG
02	10/09/2010	Final Report	CB	AW

Table of Contents

1.0	Introduction.....	4
1.1	Project Initiation and Background	4
1.2	Site Location	4
1.3	Purpose of the Study	5
1.4	Organisation of the Report.....	6
1.6	Dates and Duration of the Work.....	6
1.7	Personnel.....	7
2.0	Statutory Context.....	8
2.1	Preamble.....	8
2.2	Statutory Framework	8
2.2.1	National Legislation.....	8
2.2.2	The Queensland Heritage Act 1992.....	8
2.2.3	Local Legislation.....	9
2.3	Non-Statutory Framework	9
2.4	Register Searches	10
3.0	Historical Context	11
3.1	Introduction.....	11
3.2	Exploration.....	11
3.3	Early Settlement.....	12
3.4	Frontier Conflict.....	17
3.5	Consolidation	18
3.6	Difficult Country.....	21
3.7	Mining.....	26
4.0	Survey Design and Methodology.....	28
4.1	Survey Aims.....	28
4.2	Predictive Modelling.....	28
4.2.2	Archaeological Survey Target Areas	29
4.2.3	Survey and Recording.....	31

5.0	Field Survey Results	32
5.1	Introduction.....	32
5.2.	Limitations and Constraints of the Survey.....	32
5.2.1	Access to Properties	32
5.2.2	Landform and Disturbance.....	33
5.2.3	Ground Surface Visibility	33
5.3	Survey Findings.....	38
5.4	Analysis of Survey Results	40
5.4.1	Cultural Landscapes vs. Cultural Routes	42
5.4.2	Coach Routes in Queensland: A Brief Comparative Analysis	43
5.4.4	Archaeological Potential	45
5.5	Conclusion	46
6.0	Significance Assessment	48
6.1	Introduction.....	48
6.2	Determining Cultural Heritage Significance.....	48
6.2.3	Queensland Heritage Council Guidelines	50
6.3	Applying the Queensland Heritage Assessment Criteria	50
6.3.1	Historic Values	51
6.3.5	Aesthetic Characteristics	53
6.4	Grading of Significance for Individual Sites	53
6.4.1	Grading System	54
6.4.2	Schedule of Individual Sites and their Significance.....	54
6.5	Assessing Archaeological Values	55
6.6	Conclusions	57
7.0	Proposed Development.....	61
7.1	Nature of Development.....	61
7.2	Potential Impacts on Cultural Heritage.....	61
7.3	Project Impact on Sites and Places of Cultural Heritage Significance.....	64
7.4	Project Impact on Potential Sites and Places of Cultural Heritage Significance	64

8.0	Management Measures	66
8.1	Recommendation 1 – Avoidance of Sites	66
8.2	Recommendation 2 – Further Assessment of the Nineteenth Century Coach Route.....	66
8.3	Recommendation 3 – Protection of Archaeological Places of State Significance (A-5 Hotel Site)	67
8.4	Recommendation 4 - Mitigation of Site A-7 & A-11 (Wendouree Homestead and Murdering Lagoon)	68
8.5	Recommendation 5 – Unexpected Finds	68
8.6	Recommendation 6 – Archaeologist “On-Call”	69
8.7	Recommendation 7 – Regular Monitoring.....	69
9.0	Bibliography	70
10.0	Appendices	73
	Appendix A -Site Recording Forms (Site Inventory)	73

1.0 Introduction

1.1 Project Initiation and Background

Converge Heritage + Community Pty Ltd has been engaged by Hancock Prospecting Pty Ltd (HPPL) to undertake a Non-Indigenous Cultural Heritage Survey for the Alpha Coal Project - a thermal coal deposit within the Galilee Basin, Queensland, Australia. The deposit has massive resources of thermal coal in the premium location of the Basin. Described as the jewel in the crown of the Galilee, the Alpha Coal Project will be a 30 million metric tonnes per annum (Mtpa) open-cut coal mine, with the potential for the future development of significant underground reserves. An Environmental Impact Statement (EIS) for the abovementioned project is currently underway, in which historical cultural heritage assessment is required.

HPPL has also prepared an Environmental Management Plan (EM Plan) to cover the activities of the proposed Alpha Coal Bulk Sample Project, which is located inside the Study area. The EM Plan is prepared in accordance with the Department of Environment and Resource Management (DERM) *Guideline – Preparing an EMOS for Non-standard Mining Projects, Guideline 10 – Preparing and EM Plan for Non-Standard Exploration Permit or MDL* and section 203 of the *Environmental Protection Act 1994*. The cultural heritage assessment was also required as part of the EM Plan.

1.2 Site Location

The Study area for the Alpha Coal Project is located within the Galilee Basin, Alpha, Queensland, approximately 450km west of Rockhampton (Figures 1 and 2). The area is approximately 80,000ha in area.

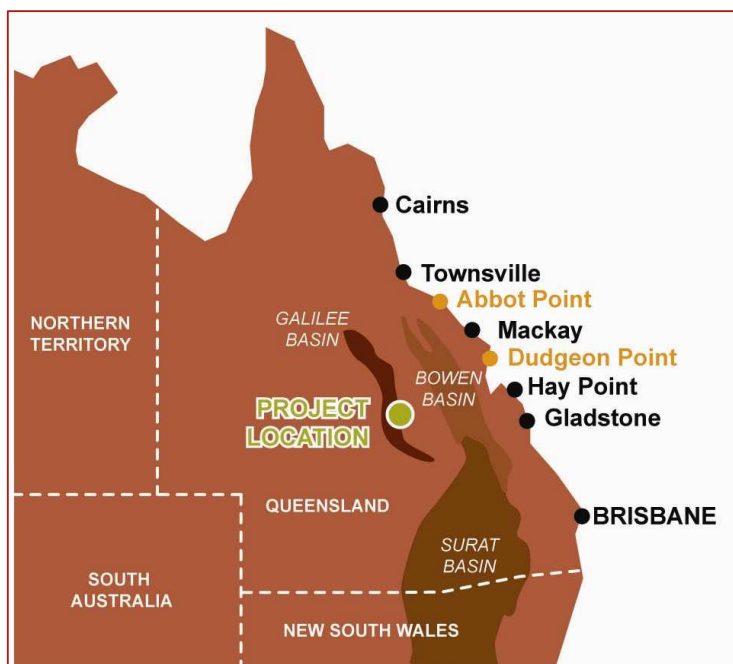


Figure 1: The Alpha Coal Project location (HPPL 2009).

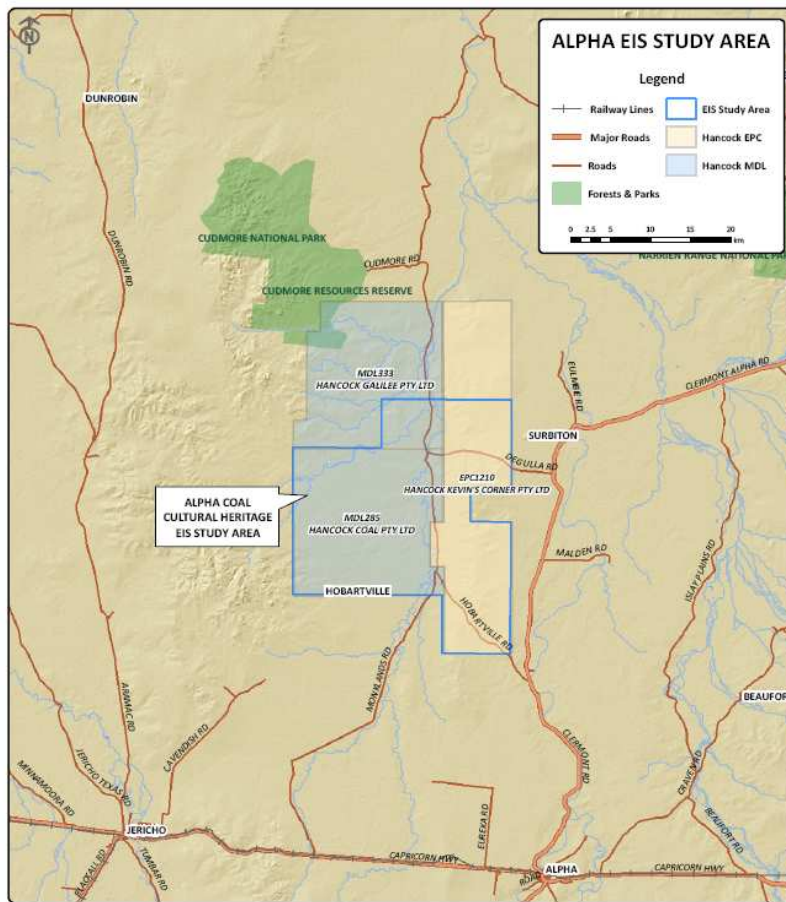


Figure 2: Alpha Coal Project Environmental Impact Statement (EIS) study area (HPPL 2010).

1.3 Purpose of the Study

A two-stage approach was undertaken for the assessment and management of historical heritage for the Alpha Coal Project. The stages consisted of:

- Stage One – Desktop Analysis; and
- Stage Two – Field Survey, Technical Report and EIS.

The Desktop Analysis consisted of a background history of the study area and consultation of relevant statutory and non-statutory heritage registers and local historical societies, which defined all known historical sites and the potential for further historical heritage sites to exist within the study area. The desktop analysis was completed in June 2010. The purpose of the following assessment of the non-Indigenous (historical) cultural heritage is to meet the Project Terms of Reference (TOR) for the EIS Study. The scope of works included the following tasks:

- Undertake a field survey of the study area;
- Identify sites and places of cultural heritage significance within the study area;
- Determine the level of cultural heritage significance of those sites and places; and
- Provide recommendations for the management of the heritage values of those sites and places and any other potential areas of cultural heritage significance.

I.4 Organisation of the Report

This report presents the results of the Stage One desktop analysis and Stage Two field survey. It includes:

- The results of consultation of relevant statutory and non-statutory heritage registers and local historical societies;
- A summary of the history and environment of the Alpha Coal Project;
- The results of the cultural heritage field assessment;
- The nature of cultural heritage significance within the Alpha Coal Project and the potential impacts of the Project on that significance; and
- Specific management recommendations for the protection of identified and potential cultural heritage significance.

I.5 Previous Reports

Limited previous reports exist for the study area. The following reports were located and reviewed:

- Janice Cooper, 2005, Sufficient for living: a history of pastoral industries in the Alpha district, Alpha, Alpha Historical Society; and
- Isabel Hoch, 1984, Alpha Jericho: a history 1846-1984, Jericho, Jericho Shire Council.

I.6 Dates and Duration of the Work

The Stage One Desktop Study was undertaken by Converge in December 2009. Stage Two was undertaken in June and July 2010.

I.7 Personnel

Craig Barrett, Historian and Heritage Consultant, undertook the preliminary desktop assessment of the Study area during Stage One. Geoff Doherty, Historian, conducted historical research for the desktop assessment.

Erin Finnegan, Archaeologist and Heritage Consultant, and Craig Barrett undertook the preliminary field survey of the Alpha Coal Study area for Stage Two. Erin Finnegan prepared a draft of this report with the assistance of Craig Barrett and Benjamin Gall, Director.

2.0 Statutory Context

2.1 Preamble

The study area is affected by a number of statutory controls which must be considered prior to site development. Knowledge of cultural heritage legislation is essential when assessing sites, places or items of cultural heritage significance.

Searches of relevant statutory registers associated with national, state and local legislation were undertaken as part of this study. Places included on these registers possess an established level of significance. It is important to note, however, that the absence of a place on these registers does not mean it has no heritage significance. Not all places of heritage significance in Australia have been identified and/or listed as yet, particularly places of archaeological significance. Moreover, values can change and evolve, and places may take on new or different heritage significance according to these values, or the passage of time.

2.2 Statutory Framework

2.2.1 National Legislation

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the key national heritage legislation and is administered by the Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA). The EPBC Act provides a number of statutory controls for heritage places. Places of national heritage value and those owned or managed by the Commonwealth are located on the National Heritage List and Commonwealth Heritage List respectively.

In addition, the Australian Heritage Council manages the Register of the National Estate. The Register was frozen in 2007, meaning no new items can be added to it. However, the Register remains a statutory register until 2012 and must therefore be considered by the Minister for Environment, Water, Heritage and the Arts under the EPBC Act.

Sites and places entered on the National Heritage List, the Commonwealth Heritage List and the former Register of the National Estate are located on the Australian Heritage Place Inventory.

2.2.2 The Queensland Heritage Act 1992

Places of state heritage significance in Queensland are managed under the *Queensland Heritage Act 1992*. The Act provides for the establishment of the Queensland Heritage Council and the

Queensland Heritage Register (QHR), which lists places of cultural heritage significance to Queensland, and regulates development of registered places. Under the provisions of the Act, any development of a place listed on the QHR must be carried out in accordance with the Act. A place may also be entered in the register if it satisfies one or more of the assessment criteria under Section 35 (1) of this Act.

The Act also applies to potential archaeological places:

- Under section 60, a place may be considered to be an 'archaeological place' if not registered as a State heritage place and demonstrates 'potential to contain an archaeological artefact that is an important source of information about Queensland's history' (s. 60 (b)). Archaeological places can be entered onto the QHR if they meet those criteria.
- Section 89 requires a person to advise the Chief Executive Officer of the Department of the Environment and Resource Management (DERM) of an archaeological artefact that is an important source of information about an aspect of Queensland's history. This advice must be given as soon as practicable after the person discovers the item.
- Section 90 stipulates that it is an offence to interfere with an archaeological artefact once notice has been given of the artefact to the Chief Executive Officer.

The QHR was consulted for this report.

2.2.3 Local Legislation

Local heritage places are managed under local planning schemes and the *Sustainable Planning Act 2009* (which replaces the *Integrated Planning Act 1997*). The study area falls within the former Jericho Shire Council, which is now a part of the Barcaldine Regional Council. The Jericho Shire Council Planning Scheme remains effective at present and was consulted for this report.

2.3 Non-Statutory Framework

There are other sources of heritage places or historic sites that are not listed on statutory registers. Places identified during these searches contribute to a better understanding of the study area and often identify places that require further investigation under the *Queensland Heritage Act 1992*.

2.3.1 Queensland National Trust Register

The Queensland National Trust maintains a heritage register which was consulted for this report.

2.3.2 Interactive Resource Tenure Map (IRTM)

The Queensland Department of Energy and Mines (DME) maintains the Interactive Resource Tenure Map (IRTM). The IRTM enables the user to search and display mining tenure and exploration information. In particular, it is possible to search and display historic mining leases. The information is generally limited to the last 100 years and therefore excludes mining activity in the nineteenth century. However, it provides some ability to determine the location of historic mining leases and potential mines that are located in the Study Area.

The IRTM was consulted in relation to the proposed mine site and any sites within the Study Area were noted. No sites of historical mining significance were noted during the review.

2.4 Register Searches

In addition to contextual research and field survey, this report has completed a series of register and database searches for the Study area, including consultation with:

- The Australian Heritage Places Inventory, including the National Heritage List, Commonwealth Heritage List and former Register of the National Estate;
- The Barcaldine Regional Council Heritage Register, including the previous Jericho Shire Council Planning Scheme;
- The Interactive Resource Tenure Map (IRTM);
- The Queensland Heritage Register; and
- The Queensland National Trust Register.

No known places of cultural heritage listed on statutory or non-statutory registers were found within the Study area.

Nonetheless, this report considers that there are a number of places that may be impacted by the Project in the study area, including places of potential historical heritage and/or archaeological potential, requiring further assessment under the provisions of the *Queensland Heritage Act 1992*.

3.0 Historical Context

The following historical discussion is not intended to be a complete history of the study area. It is based on a period of library and archival research and is intended to provide a contextual background for the identification and assessment of cultural heritage sites, places and features relevant to the study area.

3.1 Introduction

The Alpha district was first settled in the 1860s. Pastoral runs were taken up in the vicinity of the study area in the late 1870s and early 1880s and stocked primarily with sheep, as well as cattle. Transport infrastructure was located in the study area from as early as the 1860s. By the 1880s the majority of the runs in the area were consolidated into large holdings. The study area is located in an area historically included within the consolidated runs of Hobartville, Charlemont and Surbiton.

Following the consolidation of the runs, the government resumed large sections of land to encourage closer settlement. The government opened up the resumed land to settlers as grazing selections (smaller than a typical pastoral holding) and most of these selections were taken up in the late 1890s and early 1900s, some of which are located in the study area. The lessees of the grazing selections tended to run sheep, cattle and horses.

The towns of Alpha and Jericho, to the south of the study area, were created following the construction of the Central Railway in the 1880s. The runs and selections historically located in the Study area were only used for pastoral purposes since European settlement.

3.2 Exploration

The first European to pass through the region in which the study area is located was the explorer Thomas Mitchell. In 1845, he and an exploration party set off from Sydney to discover an overland route to Port Essington, a small settlement that was located near present-day Darwin. Mitchell was not the first to attempt such an expedition; Ludwig Leichhardt set off from Brisbane in 1844 for the same reason and successfully reached the port in December 1845. In 1846, Mitchell explored the Belyando River, naming it and several other notable landmarks in the Alpha district, including Mt Mudge and Mt Beaufort. Mitchell did not find a route to Port Essington; he and his party were eventually forced to turn back due to short supplies and conflict with Aborigines.

The area was explored on at least two other occasions prior to settlement. Nat Buchanan and William Landsborough crossed the Belyando River in 1859 whilst looking for grazing land. Frederick Walker also passed through the area in 1861 whilst attempting to locate the ill-fated

Burke and Wills expedition, although he too was seeking grazing land on behalf of friends (Hoch 1984: 7). Much of the detailed exploration of the country in and around the study area was carried out by the early landowners following settlement (Cooper 2005: 8).

3.3 Early Settlement

The first wave of European settlers in the region appeared in the late 1850s and early 1860s with the establishment of pastoral holdings, or 'runs'. The runs were located in the South Kennedy pastoral district and were typically stocked with sheep, as well as cattle. The first run, 'Carry Coates', was established in 1861. By 1863, runs were established across approximately 750 square miles of land located by the Belyando River and its southern tributaries and Native Companion and Alpha Creeks. The most important of the early runs was 'Beaufort' (the County in which the Study area is located is named after the run). The number of runs continued to increase during the 1860s and 1870s. Examples located in the study area (or in close proximity) in this period included Surbiton (Surbiton I was established in 1865) and Charlemont (1879). The closest town at the time was Clermont, which was established in 1862 following the discovery of gold in the area the previous year. Clermont is located to the east of the study area.

The early settlers experienced considerable hardship and isolation. For example, Cooper (2005) refers to seven men and two young children who died at Beaufort Station, located to the southeast of the Study area, in the late 1860s and early 1870s, all of who were buried at the Station (Cooper 2005: 3). The isolation was alleviated by the establishment of a network of roads and tracks between stations and larger settlements. A route was opened up between Clermont and Aramac in 1863 and it appears to have passed through the study area (see, for example, DERM entry for Place ID: 602010). A *Queenslander* article dated 21 September 1867 refers to the "newly-surveyed road between Surbiton and Aramac" (*Queenslander* 21 September 1867: 7). Mail runs were established in 1866, including the Clermont to Aramac route and between Clermont and Beaufort Station. It is also possible that many of the early tracks and roads established in the area utilised Aboriginal pathways, particularly as the early settlers followed "the best ground and [wandered]...from one waterhole to another" (Hoch 1984: 12).

Despite the advent of transport infrastructure, almost half of the land licensed as runs was forfeited by the leaseholders by the end of the 1860s (Cooper 2005: 5). The forfeitures were probably motivated by the effects of the 1866 depression and a severe drought, so much so that across Queensland the "vast pastoral advance was checked and, until 1870, began to recede, as the brute realities of a mortgaged economy and an intractable environment were painfully registered" (Evans 2007: 87).

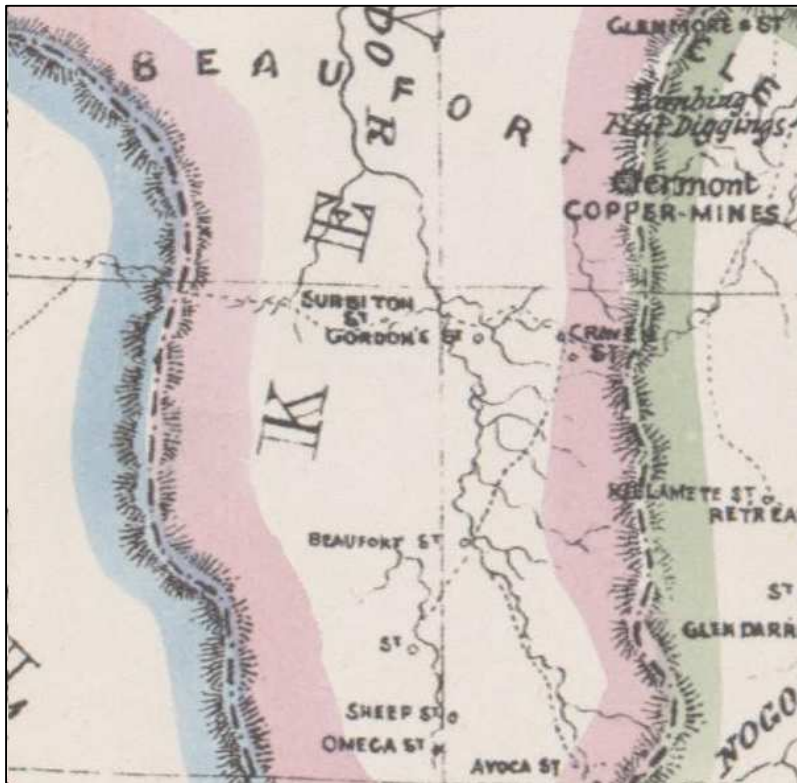


Figure 3: 1874 map showing Surbiton Station (middle). The route from Clermont to Aramac (dotted line running from left to right) runs through Surbiton Station (Map of Queensland, 1874, Gibbs, Shallard & Co, National Library of Australia).

The fortunes of the district's pastoral leaseholders improved in the 1870s. Leaseholders began making improvements on their runs, including the construction of fences and dams (Cooper 2005: 7). The colonial government also contributed to road construction. According to Hoch, the road between Clermont and Aramac was "opened" in 1877 (Hoch 1984: 12). This statement appears to suggest that the road established in 1863 had been improved or re-surveyed. The maps from the period are not particularly detailed and it is difficult to determine precisely what changes in route alignment may have occurred. A reference to the realignment of the route in one section is noted below and a section of the route near Surbiton was clearly in the period after 1919 (see also below).

A Cobb & Co service was also established between Clermont and Aramac in 1878 (Tranter 1990: 125). The route utilised the road opened in 1877 and the coach service ran once a week. One early settler described the journey from Clermont to Aramac:

Many a trip I took on Cobb's coach when it wasn't convenient to take my own buggy. These trips were often wet or dry; in the former case we had to walk over long distances of boggy ground, every now and then having to lever out the coach that had sunk to its

axes. The shades of evening sometimes overtook us, and an impromptu camp had to be made without food and with many a mosquito as companion (quoted in Tranter 1990: 39).

The condition of the road described above suggests it had not been improved a great deal in 1877! The Cobb & Co service relied on changing stations along the route or 'mail change' (see Cook & Pullar 2008: 75). The mail changes were typically hotels (also referred to as 'inns') or homesteads. According to Tranter (1990), the mail changes along the Clermont to Aramac were Clermont, Red Rock, Banchory, Surbiton, Doonan's Hotel and Spring's Hotel (Tranter 1990: 125).

The proprietors of Doonan's Hotel were Patrick Doonan and his wife Kate. An 1885 map (see Figure 4) shows 'Doolan's' at the junction of Sandy and Lagoon Creeks, west of Surbiton. This is a misspelling and it is in fact Doonan's. According to O'Donnell (1989) the Cobb & Co coach "stopped for the night at Doonan's on the return trip from Aramac (O'Donnell 1989: 145). The Cobb & Co service continued to operate until 1884. The hotel appears to have been located close to the bank of Sandy Creek. A general description of the site was provided in a *Brisbane Courier* article in 1880: "Mr. Doonan has a capital stand, all open country, well watered; and now the new line is surveyed and meets three miles from his place he should do a real good thing" (*Brisbane Courier* 28 April 1880: 6). Doonan also successfully grew "Hill-paddy" rice. A journalist from the *Queenslander* remarked:

It seems rather strange that, out of the great number of trials made with this seed, Mr. Doonan should be the only one who has succeeded in getting it to grow. Most probably, however, it is due to the fact of the cultivation having been left by Mr. Doonan in the hands of the Chinese (*Queenslander* 13 July 1878: 469).

There is no further reference to the hotel or its management, but the presence of Chinese immigrants may indicate other agricultural activities in the vicinity, such as market gardens, and infrastructure for water movement and storage. Kate Doonan is buried in the general vicinity of the former hotel (see Figure 5).



Figure 4: 1885 run map. 'Doolan's' is located at the junction of Sandy and Lagoon Creeks left of centre of the image. The road from Clermont to Aramac is represented by the dotted line running across the map (South Kennedy Pastoral District 1885, Museum of Lands, Mapping and Surveying).



Figure 5: Photo of Kate Doonan's grave site, of Doonan's Hotel (from Cottam 1990).

Hotels other than those frequented by the Cobb & Co service were also built along the route. One in particular was located on a tributary of Little Sandy Creek in the northwest section of the study area (part of the Charlemont pastoral run). The hotel appears on an 1888 map and is referred to as the Burgess Hotel (see Figure 6). It is unclear when the hotel was constructed. O'Donnell refers to a hotel at Lagoon Creek owned by "Mr. Baillie" on the route between Clermont and Aramac and he claims the hotel was not used by Cobb & Co (O'Donnell 1989: 145). An 1878 *Queenslander* article refers instead to 'Mr. Bayly'. Surprisingly, Bayly's hotel was located next to Doonan's. The *Queenslander* journalist, who was travelling along the Clermont to Aramac

route, wrote that he was “astonished to find two hotels”. The journalist asked Mr. Bayly how it came to be that there were two hotels. Bayly replied:

You see I had a tidy bit of money on me when I came here. Well, I got on the *booze*, and while in that state my neighbour sold to me the frame of this house – just four posts and a wall-plate – for £150. I tried to back out of it, but he had the money and would not give it me again. But I am a sawyer, so I and my boy set about and cut all the slabs you see in the wall. We put up the house, working fully two months at it; then offered it back to Mr. Doolan, my neighbour [note the spelling], for £200 – just asking wages for the work we had done and my own money back; but he refused, and built just beside me as you see. But I am a blacksmith as well as a sawyer; and now I have made up my mind to build a shop, and with the help of my trade to make a living (*Queenslander*, 2 November 1878: 140).

No other historical references to Bayly’s hotel were located. It is unclear just how close Bayly’s hotel was to Doonan’s, but it was on Lagoon Creek. It is also unclear how long Bayly’s enterprise lasted for: it may have soon collapsed due to the proximity of Doonan’s, which was used by Cobb & Co; or, alternatively, it may have serviced clientele who did not use the Cobb & Co. service.

It is unclear how substantial the hotels were. According to Hoch, the “stopovers...varied from flea ridden grog shanties to fairly substantial hotels” (Hoch 1984: 13). Figure 7 shows the Redrock Hotel, one of the stopovers for the Cobb & Co coach on the Clermont to Aramac route. Given that Doonan’s was utilised by Cobb & Co it is possible the hotel was of a similar construction and therefore ‘substantial’. It is unclear how substantial the Burgess Hotel was, although it appears to have been used later as an outstation for the Hobartville run.



Figure 6: An undated run map (probably 1891) clearly shows the Burgess Hotel on the road from Aramac to Clermont. The junction of Lagoon and Sandy creeks is to the right of the map (Queensland State Archives Item ID27600 Hobartville Pt 1).

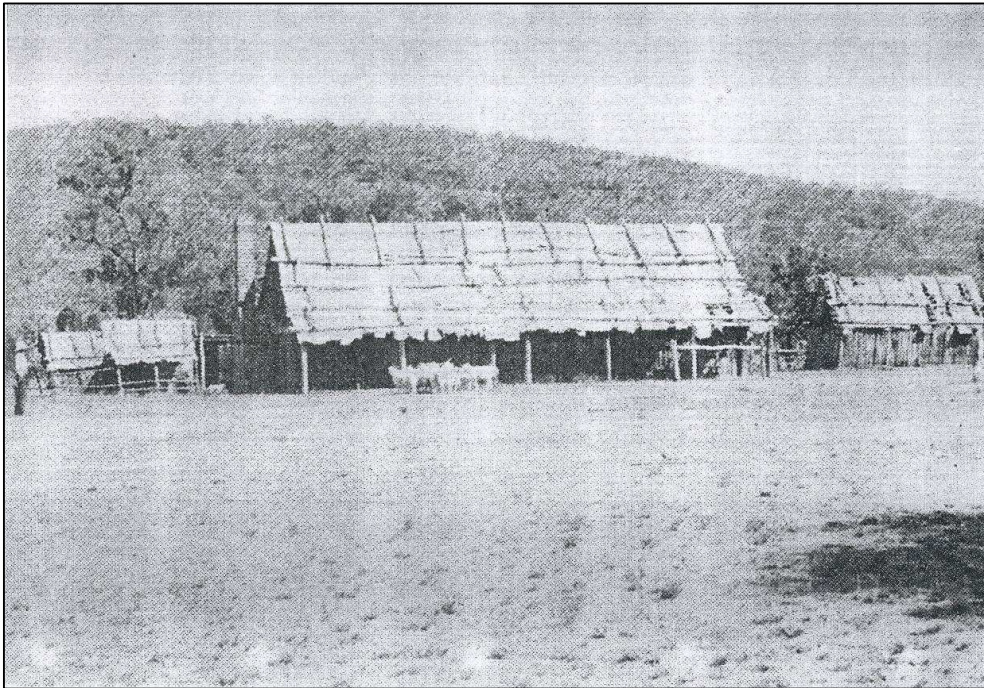


Figure 7: The Redrock Hotel, one of the hotels used by the Cobb & Co coach service between Aramac and Clermont (from O'Donnell 1988: 147).

3.4 Frontier Conflict

European exploration and settlement brought about conflict with Aboriginal groups in the district. Mitchell recorded a number of instances of contact during his expedition along the Belyando River, including one confrontation (Hoch 1984: 5). Buchanan and Landsborough noted the presence of large numbers of Aborigines in 1859 and Walker is reputed to have been inclined toward violence during his expedition in 1861 (Hoch 1984: 7).

There does not appear to be any official record of conflict between the first settlers and the local Aboriginal people (Hoch 1984: 8). Nonetheless, the appropriation of vast swathes of land by squatters did not go uncontested by the local Aboriginal population. In particular, the stocking of the land with sheep or cattle displaced traditional hunting grounds and the settlers' animals were considered appropriate compensation (French 1989: 94-5). Hoch claims one settler left his run due to the loss of sheep under these circumstances (Hoch 1984: 10). Relations soon descended into violence: "early oral history of Alpha tells of shepherds killed by natives south of Banchory. Their deaths are said to have been avenged by a shoot-out of twenty-one natives at a place called Rifle Creek" (Hoch 1984: 8). Rifle Creek is fed by the Belyando River and is located approximately 30 kilometres southeast of Hobartville Station.

A Native Mounted Police barracks was established on the Belyando River at Banchory in 1863 (located to the east of the study area). Native Mounted Police were used to patrol and police the frontier against Aboriginal attacks. The massacres of Europeans by Aborigines at Hornet Bank station on the Dawson River in 1857 and at Cullin-la-Ringo, near Springsure, in 1861 created an environment of fear amongst the new settlers as the frontier expanded north. It is claimed the barracks was established in response to the Cullin-la-Ringo attack (O'Donnell 1989: 9). The presence of the Native Mounted Police (and potential retaliatory raids by local landowners) appears to have wiped out Aboriginal resistance by the 1880s. According to Hoch, “survivors of the early conflict camped on waterholes near station homesteads and on town fringes” (Hoch 1984: 26-7). It was the conclusion to a process played out in other parts of the colony: as Evans pointed out, the 1860s and 1870s “mark the high point of white territorial advance in Queensland, with Aboriginal resistance in many local settings ceding gradually to overwhelming numbers, unfamiliar imported diseases and concentrated firepower” (Evans 2008: 92). Some Aborigines were employed on the stations, primarily for domestic labour and stock handling.

3.5 Consolidation

The pastoral fortunes of the district improved in the late 1870s and 1880s. An indication of the increasing settlement of the region was the establishment of the Belyando Divisional Board in 1879. The Board was based in Clermont, but incorporated land on the Belyando River and its tributaries, including the study area. The Board was principally concerned with roads and communication, particularly for carriers and stock.

The road network in and around the study area was developed further in the period from the 1880s through to the early twentieth century. For example, the road from Clermont to Aramac originally passed through the Surbiton homestead on the north side of Surbiton Hill. However, sometime in the twentieth century the road was altered so that it passed to the *south* of Surbiton Hill. Another example: the Aramac to Pine Hill road, which originally appears to have deviated from the Clermont-Aramac road west of Sandy Creek, instead deviates from the southwest of Surbiton Hill.

It appears that the majority of the roads in the study area were designated stock routes in the nineteenth and twentieth centuries. The most prominent route is the Clermont-Aramac road, which was originally the coach route in the 1860s-1880s. However, given the economic activity of the area, most of the roads became stock routes, including the road on which Hobartville is located (travelling south-north) and the section of the Aramac-Pine Hill road to the east of the study area (see Figure 8). As with the coach route, the location of creeks and waterholes undoubtedly played an important role in the selection and designation of stock routes. Waterholes and substantial creek crossings would also have probably been used as camp sites since the nineteenth century, particularly for drovers guiding sheep and cattle to the Central Railway stations of Alpha and Jericho (see below). Some stock routes fell into decline with the shift to road trains from the 1960s onward, but in many places remain in use.

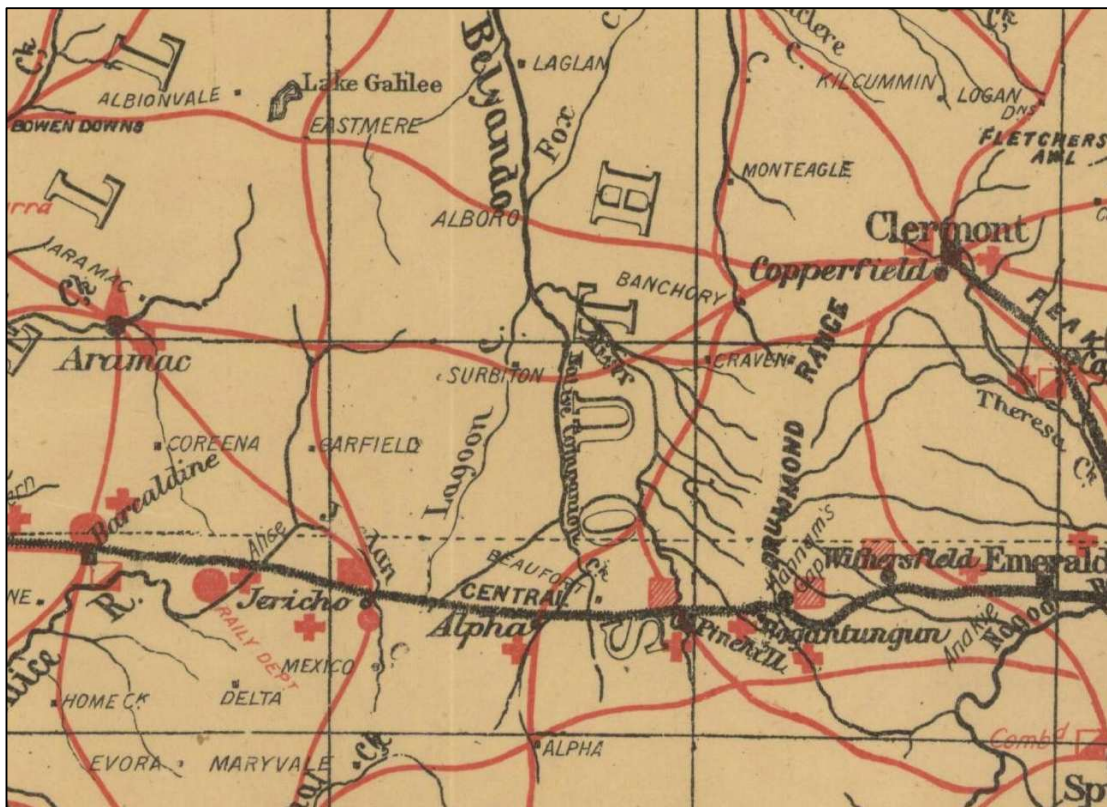


Figure 8: A section from an 1897 map showing Queensland stock routes. Surbiton is located in the centre of the image; as with many maps the route is not precise, but it does appear to follow the same alignment as the coach route (Queensland in 1892, *Illustrating Stock Routes, Main Roads, Railway Lines and Artesian Bores and Tanks*, 45 miles to the inch, Survey Office & Railway Commissioner, Brisbane. Courtesy of John Oxley Library, Item ID 629983).

The construction of a railway extending from Rockhampton to Longreach provided a further boost to the region. The line was built in stages, beginning from Westwood (west of Rockhampton) in 1873 and is referred to as the Central Railway. The towns of Alpha and Jericho were initially created as stations for the line (Kerr 1998: 34). Alpha was established in September 1884 and Jericho in June 1885. The line reached Longreach in 1892. Barcaldine is also located on the line, west of Jericho. It is famous as the 'birthplace' of the Australian labour movement and was a prominent wool centre.

A large number of the runs were consolidated in the 1880s as a result of the *Crown Lands Act 1884*. There were a number of runs located in the study area, most of which were established in the early 1880s (although Charlemont was created in 1879). The *Crown Lands Act 1884* allowed leaseholders to 'consolidate' adjoining leases. The consolidated runs were broken into two parts; one part leased by the pastoralist and the other resumed by the government to encourage closer settlement (as 'grazing selections', described below). The two principal runs established as a result of consolidation in the Study area were Hobartville and Surbiton. Nineteen runs were consolidated in 1884 to form Surbiton (Cooper 2005: 10-11). William J Forrester, Henry Newcomen and William Holland, all from the Hawkesbury district of New South Wales, consolidated fourteen runs between 1884 and 1891 to create Hobartville (the consolidation included Charlemont). The amount of land resumed by the government was determined in 1891: 22.5% was taken from Hobartville and 24% from Surbiton (Cooper 2005: 15). Further resumptions occurred in the early 1900s. The Charlemont run re-emerged out of a section of land forfeited from Hobartville in 1909 (Cooper 2005: 35).

The runs were centred on homestead complexes (also referred to as 'head stations'). The Hobartville run was centred around the homestead complex located on the former Lagoonville run. In the early 1890s the complex consisted of "a slab/iron house, slab bark huts, a sapling/bark stable and outbuildings worth £160" (Cooper 2005: 17). Outstations were also established, consisting of "a house or hut" for overseers as well as stockmen (Cooper 2005: 17). One such outstation can be identified in the Charlemont run and appears to be located on the site of the Burgess Hotel; it is therefore likely that the hotel buildings were reused for the outstation (see Figure 9). According to Cooper, official reports written in the late 1880s and early 1890s indicate that there were few improvements on Hobartville (Cooper 2005: 17). The homestead complex of Surbiton was located at the base of Surbiton Hill, to the east of the current study area. It does not appear that there were any other homestead complexes in addition to Surbiton at the time of consolidation in 1884. In contrast to Hobartville, there was a substantial line of fencing on the run consisting primarily of "3-wire or rail and wire fences" dating from, or before, the 1890s, as well as other improvements

such as wells and windmills (Cooper 2005: 17). It is unclear whether there was a homestead complex associated with Charlemont; if so, it was not located in the current study area.

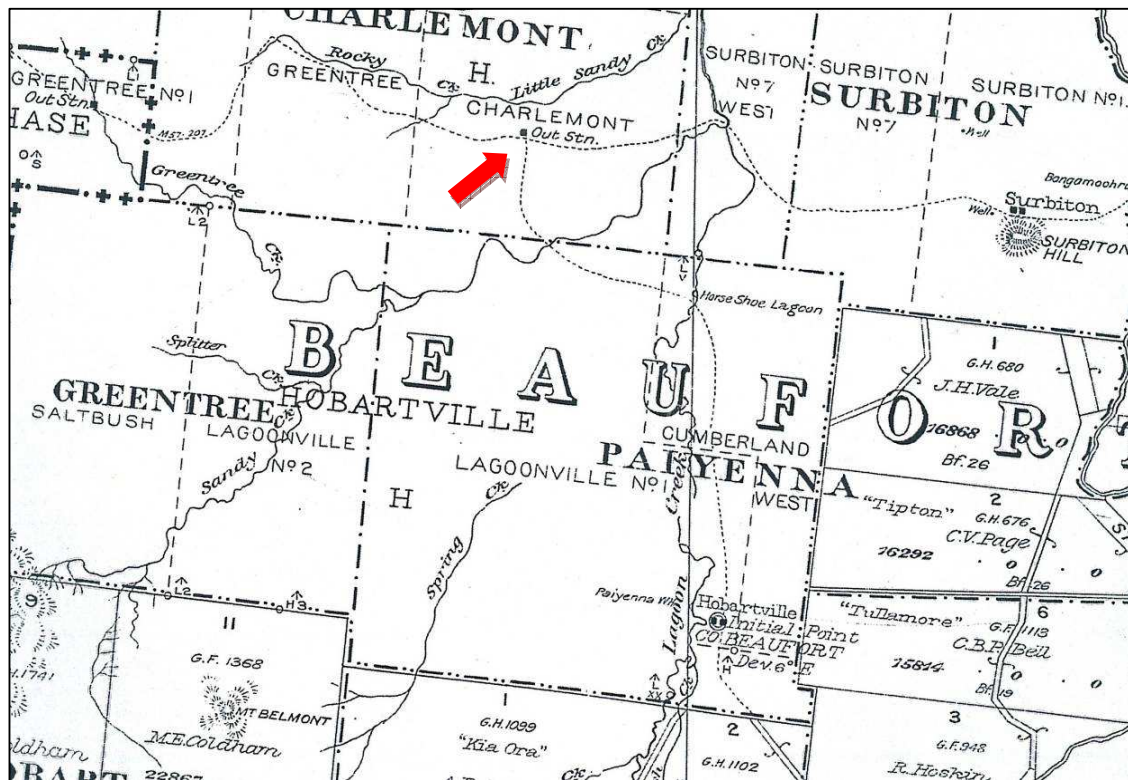


Figure 9: Surbiton, Hobartville and Charlemont in 1919. The site of the Burgess Hotel is now an Outstation in the Charlemont run (Queensland Four Mile Map Sheet 10b 1919, Museum of Lands, Mapping and Surveying).

3.6 Difficult Country

The land resumed by the government following consolidation of pastoral holdings in the mid-1880s was thrown open to selection in the late 1890s. A number of blocks were located in the Study area and were referred to as either 'Grazing Farms' or 'Grazing Homesteads' (noted as 'G.H.' and 'G.F.' on maps from that period and typically referred to as 'grazing selections' – see Figure 10 below). These selections were much smaller than the large pastoral holdings in the district. The legislative basis for the selections was contained in the 1884 Land Act (described earlier), but the colonial government did not immediately move to lease the sections of consolidated runs it had resumed due to various economic constraints (Johnston 1982: 55). At least one grazing selection was leased in the resumed section of Surbiton in 1898 (Cooper 2005: 27). However, interest in the selections was once more affected by external factors, this time a severe drought affecting Australia (lasting from 1895-1903). This situation changed after the drought had ended: "From 1907 to 1914, almost all the remaining land resumed from Alpha, Hobartville, Surbiton and Avoca in 1891, together with some of the fringing areas under occupational license was selected" (Cooper 2005: 29).

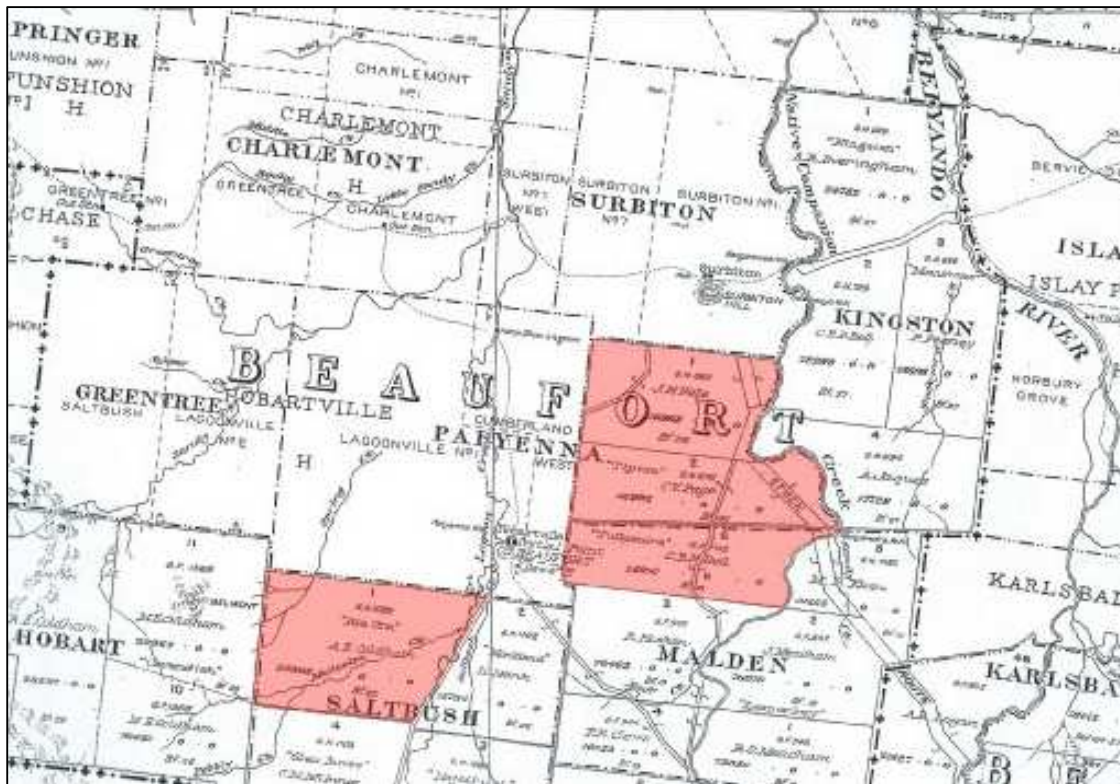


Figure 10: The grazing selections with files available from the Queensland State Archives consulted for this report are highlighted in red. (Queensland Four Mile Map Sheet 10b 1919, Museum of Lands, Mapping and Surveying).

The selections, as with the larger pastoral holdings, were stocked with both sheep and cattle; the latter became increasingly important during and after World War I (WWI) (1914-1918; Cooper 2005: 38). The major improvements to most of the selections consisted of fencing and stock yards. The predominant fencing type appeared to be 6 wire, as well as 2 barb wire fencing. Several of the selections located within the study area also included wells, windmills and bores.

In many cases, the lease holders did not actually live on the selection and therefore there were no substantial homes or homestead complexes built on the properties (although a rough iron or bark hut may have been built in some cases to satisfy the conditions of the lease – see Cooper 2005: 28). Some selectors did, however, settle on their selections. At least two of the grazing selections adjoining Hobartville and Surbiton (and partially within the Study area) included houses and associated buildings. A house is noted on a plan of G.H. 680, to the east of Horseshoe Lagoon, in the 1910s. A more substantial complex was located on G. H. 1099, known as 'Kia Ora'. The selection was located at the southern boundary of Hobartville and was taken up in 1910. A camp site was initially established on the bank of Spring Creek, which ran through the northwest section of the selection. A homestead and other improvements, including a horse paddock and well, were constructed by 1912 (see Figure 11 below). The selection was stocked with 3,000 sheep as well as horses. A 1925 land ranger's inspection report described the house in detail: "House 28 X 24 ft

with verandahs back and front detached kitchen, accommodation hut, and buggy shed” (Queensland State Archives, Dead Farm Files, Item ID70575 Springsure: 1099, 1105-1107). Other improvements included boundary fencing, subdivision fencing, horse, cattle and sheep yards and several bores, windmills and tanks.

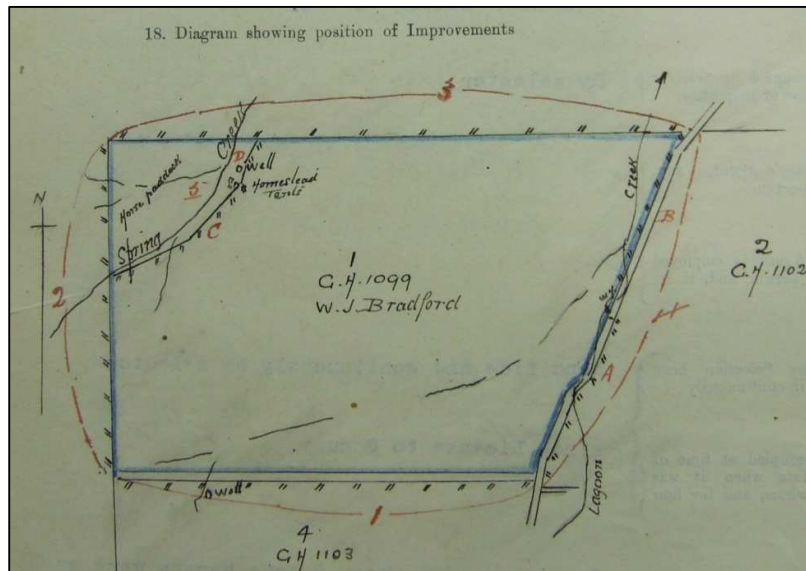


Figure 11: The above figure shows the Grazing Homestead (G.H.) 1099, named 'Kia Ora'. The homestead and other improvements are noted in the top left of the selection. The report from which the diagram is taken is dated 1912 (Queensland State Archives Item Dead Farm Files, ID70575 Springsure: 1099, 1105-1107).

The optimism of selectors following the breaking of the drought was tempered by the relative harshness of the country in and around the study area. The land remained dry and was infested by large swathes of poison bush (fatal to livestock) and spear grass. The lease holder of G.H. 680, J. H. Vale, wrote to the Land Administration Board on several occasions in the late 1920s and early 1930s seeking extensions on payment of his rent. His letters give some indication of the conditions of the land. For example, in 1932 Vale wrote:

I have not been able to sell a beast for over two years, & what I got for my last sales I have had to spend the most of it in trying to keep my cattle alive. Last year, I had three men falling scrub for five months for the cattle thinking it would keep them alive until [sic] rain came but I lost a lot of cattle before any rain came, & what we did get was not enough to make grass that would last any time, so it soon went off leaving us worse off this year than last year (J.H. Vale to Land Administration Board, September 24 1932, Queensland State Archives Dead Farm Files, Item ID68482 Clermont: 676, 680, 682).

'Kia Ora' was absorbed into the Cavendish Pastoral Holding in 1929 and the new venture only survived two years before the lease was forfeited. Hobartville and Charlemont, leased by the Northampton Pastoral Company in 1913, were used as relief country for sheep typically held on other runs (Queensland State Archives Item ID27600 Hobartville Pt 1). According to the Company, the runs were "only suitable for dry sheep, and for these only during certain seasons

when the grass-seed has fallen. It is quite unsuitable for continuous occupation owing to spear grass and poison areas" (Queensland State Archives Item ID27600 Hobartville Pt 1).

The state government attempted to provide some relief for lease holders with the passage of the *Land Acts Amendments Act* in 1927. The amendments were intended to provide relief from drought conditions and encourage pastoral development by providing concessions to leaseholders if they developed their holdings (Cooper 2005: 54). The conditions of the new lease (referred to as a 'Pastoral Development Lease') included ringbarking significant portions of the runs and selections and erection of marsupial fencing (largely to prevent dingo attacks on livestock). The lessees of all of the runs and selections in the Study area sought relief as a result of the Act. In the case of Hobartville and Charlemont, the conditions of development were 15,000 acres to be ringbarked – 500 acres in the first year and the remaining 14,500 within seven years – and at least half of the holding enclosed with marsupial-proof fencing. The Company was successful in its application (made in 1929) and was granted a lease until 1959. Figure 12 below shows the extent of these improvements in 1936.

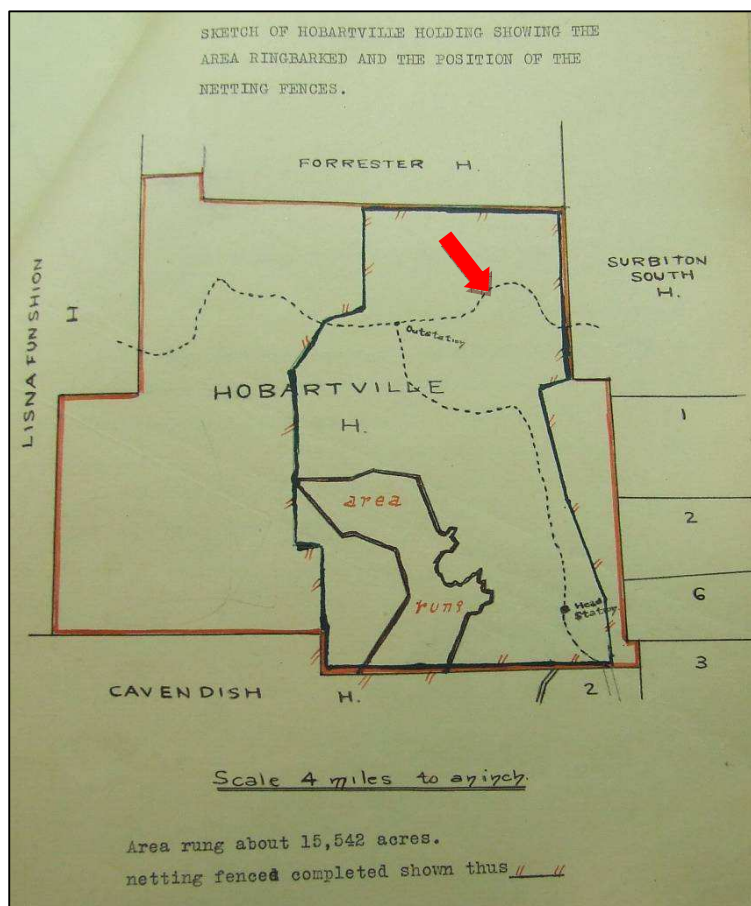


Figure 12: The Hobartville Holding in 1936, showing the extent of fencing and the area ringbarked under the conditions of the lease obtained in 1929. Note the former coach route, now a stock route, and the shape of the route marked by the red arrow: this does not appear on other maps of the route in this section, possibly because this plan is more detailed (Queensland State Archives Item ID1306319 Hobartville Pt 2).

Hobartville and Charlemont were evaluated at the expiration of the lease and the review provides a snapshot of improvements carried out over a thirty year period (Queensland State Archives Item ID1306319 Hobartville Pt 2). At this time Hobartville was held by the Barcaldine Downs Pastoral Company. 140 square miles of the holding was considered “useless”; 176 square miles had been fenced with netting, but was “useful only for sheep as drought relief”, the purpose to which it had been put for the previous 46 years. The report stated that the conditions of the original lease – fencing and ringbarking – had been met. The improvements present on the property included five water tanks, a dam and lagoon, five bores, 60 miles of netting fencing, 64 miles of internal fencing and two cattle yards. Buildings on the property consisted of a house, men’s quarters, a hut at Horseshoe Lagoon (new as of 1950 – see Figure 13 below), electric light shed and plan and a refrigeration room. It was proposed that a number of other improvements would be carried out at the time, including new fencing and the construction of a Recreation Hut for employees. (Queensland State Archives Item ID1306319 Hobartville Pt 2). The Company renewed their lease in 1961.

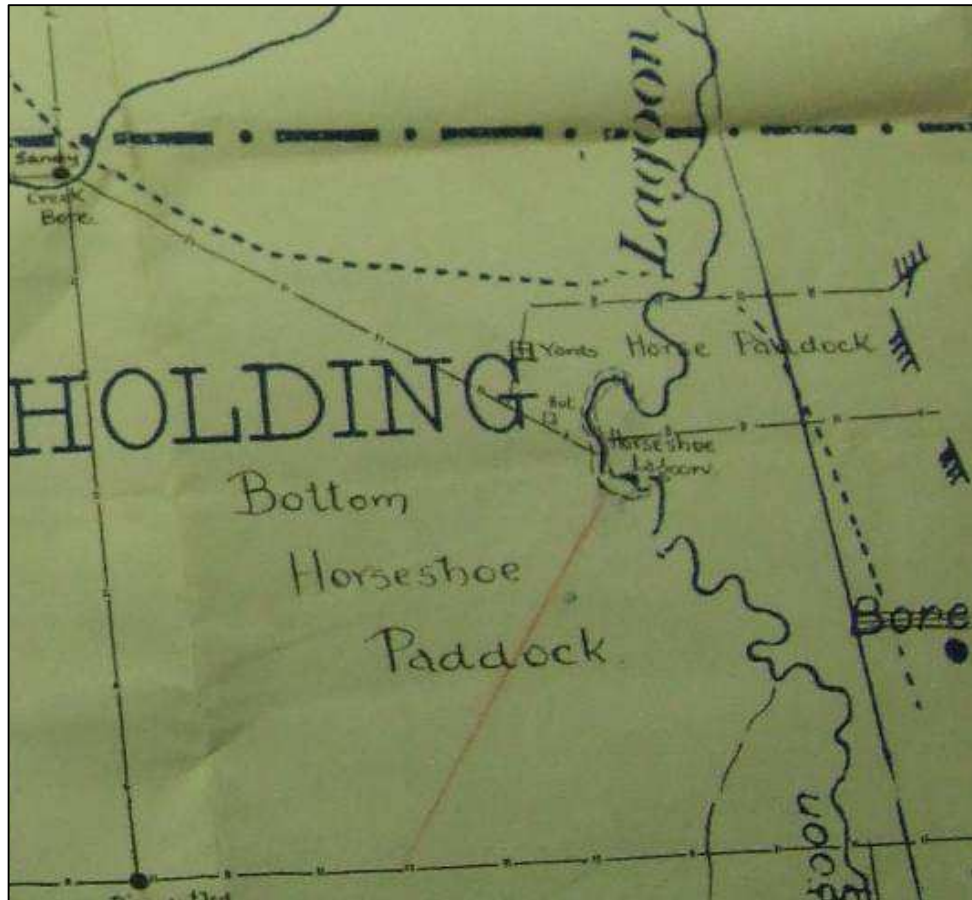


Figure 13: The Horseshoe Lagoon is located in the middle right of the image (Queensland State Archives Item ID1306319 Hobartville Pt 2).

The only new development in the study area from the 1950s onward was the creation of Wendouree Station. Wendouree was created out of the northern section of Hobartville (including Charlemont) in 1963. Susan Cottam, an Englishwoman who spent time at Wendouree as a jillaroo (a female station hand, the same as a jackaroo), provided a photo (refer to Figure 14) and description of the homestead: “a modern, prefabricated building, completely gauzed in with flyproof netting and designed to catch every breeze” (Cottam 1990: 26). The homestead was established close to Horseshoe Lagoon and the hut and yards built during the 1950s for Hobartville (these were demolished by the owners of Wendouree in the 1960s: pers. comm. Betty Carruthers, 30 June 2010).

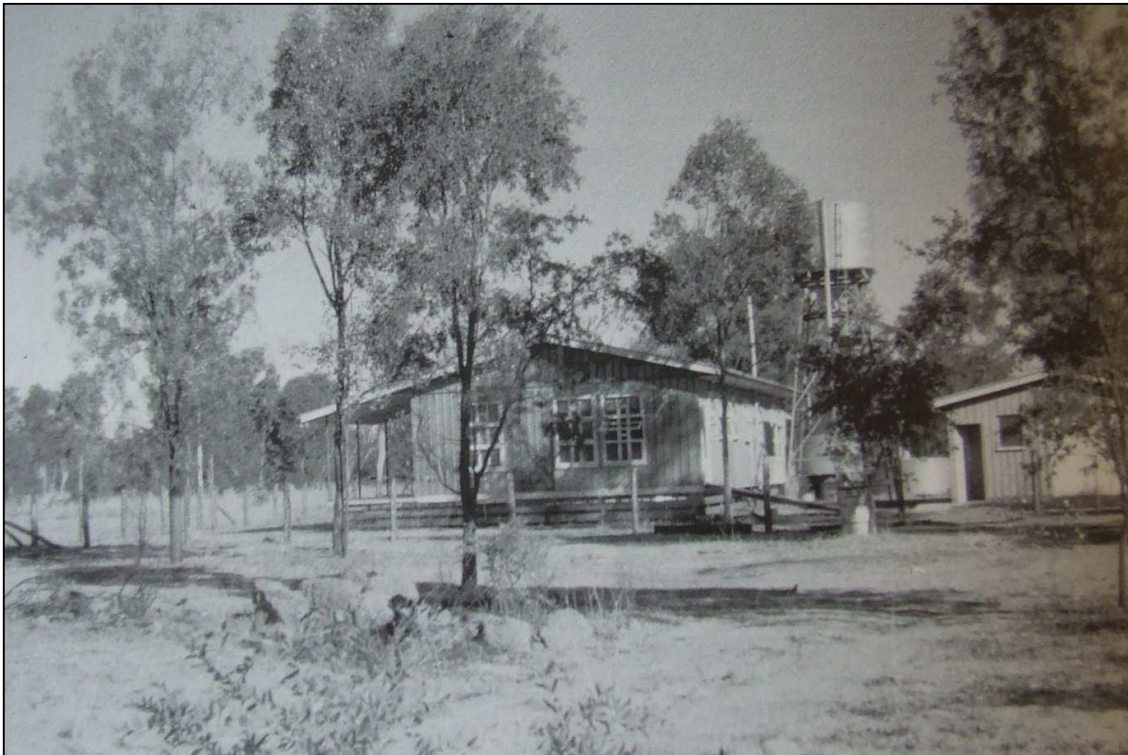


Figure 14: Wendouree homestead in the 1960s (Cottam 1990).

3.7 Mining

The pastoral industry defined the history of land use in the Alpha district (Cooper 2005: 70). The towns of Alpha and Jericho largely existed to support the pastoral industry. However, mining has come to play an important role in the region. Mining occurred around Clermont and Copperfield in the nineteenth century and later extended to places such as Blair Athol (a former pastoral property in Belyando Shire), but has only recently impacted the Alpha district. In 1978, Lang Hancock leased a large area northwest of Alpha, which takes in the current study area. Hancock undertook exploration for coal, but did not develop the site at the time (Hoch 1984: 84).

Coal mining boomed in Queensland from the 1960s onward, particularly open-cut mining in the Bowen Basin (in which the Alpha project is located). Indeed, by 1976 “coal had surpassed wool as Queensland’s leading export”, a significant fact in the context of economic activities historically carried out in the Alpha district (Fitzgerald 1984: 323). Other mining interests also explored the area in this period. Mining is now an important industry in an area historically dominated by pastoralism.

4.0 Survey Design and Methodology

4.1 Survey Aims

The field survey aimed to identify, locate and evaluate non-Indigenous (historical) cultural heritage resources within the study area. The field survey was preceded by a desktop based report which defined all known historical sites and the potential for further historical heritage sites to exist within the study area. This first stage of research facilitated the development of a predictive model for the study area by providing guidance as to the types and possible locations of heritage remains likely to be encountered across the study area.

4.2 Predictive Modelling

The most effective survey methodology can be informed by a predictive model. Sampling strategies (where to look) can be either *purposive*, where specific areas are targeted (for whatever reason), as is done with predictive modelling; or *probabilistic*, where decisions are made to survey without any prior knowledge or predictive model of what heritage resources might exist in the landscape to be surveyed. Archaeological survey strategies usually involve transects across the Study area chosen at random (probabilistic) to avoid possible bias in the results; transects within areas (purposive) known to be historically significant; or those designated areas specifically earmarked for development. For this particular survey a purposive sampling strategy was generally employed.

The identification of the potential non-Indigenous cultural heritage resource within the subject site was based on historical research (Section 3), an analysis of historical plans, aerial photographs, review of heritage listings, and consultation with a number of local landowners and residents. This enabled an initial assessment of the study area known to be of historical interest.

4.2.1 Consultation

4.2.1.1 Local Historical Societies

Consultation with the following local historical societies was conducted as part of the research and methodology development for this assessment. Their assistance is acknowledged with gratitude:

- Clermont & District Historical Society Museum; and
- Alpha Historical Society.

Key historical themes were confirmed during consultation. No additional historical themes were identified. No specific sites or places of potential heritage significance were identified in addition to those noted in the register searches and described further in the sections below.

4.2.1.2 Landowners

Consultation with the following local community residents was conducted as part of the research and methodology development for this assessment. Their assistance and contribution to this report is acknowledged with gratitude:

- Doug, Sharon and Betty Carruthers (Landowners, Wendouree)
- Steve Kimber (Resident and Manager, Hobartville)
- Andrew Donaldson (Landowner, Surbiton South)

Consultation provided additional information on historical remains across three properties which form part of the study area and clarified the nature of sites in proximity to Doonan's Hotel site (Wendouree), early twentieth century pastoral-related built remains (sheep trough and borehole – Wendouree, Greentree Dam and yards - Hobartville), early homestead sites (Wendouree and Hobartville) and additional coach route hotel sites (Wendouree and Surbiton South).

4.2.2 Archaeological Survey Target Areas

The review of primary and secondary source material flagged target areas across the study area that have potential for non-Indigenous heritage remains. These areas are described in Table 4.1 below.

Table 4.1: Potential Non-Indigenous Cultural Heritage in Alpha Hancock Coal EIS Area

Potential historical cultural heritage remains within the proposed Alpha Hancock Coal EIS area	Date	Processes likely affecting their Survival	Likelihood of Survival
Evidence of the early Clermont-Aramac Coach route	Possibly to c1863, used by Cobb Co 1878-1884	Pastoral activities and improvements (clearing, ploughing, grazing) and related environmental impacts (erosion) are likely to have removed sections of road. Other sections may have been 'recycled' as internal vehicular tracks which would have impacted on any <i>in situ</i> cart ruts or associated artefactual material along the alignment.	Moderate to High
Evidence of other coach routes	c1860s – 1890s	Same as above	Moderate

Coach route crossings: Corduroy roads/crossings or stone pitched crossings.	c1860s – early twentieth century	Coach-route related crossings would not have been maintained once the coach networks became obsolete. Some crossings may have been incorporated into the internal vehicular access system for the runs or utilised as part of stock routes, and these may have been upgraded. Other crossings would have been washed away by flood episodes.	Low to Moderate
Doonan's Hotel site	c1870s	Pastoral activities (clearing, grazing) and environmental impacts (fires, floods) are likely to have impacted on above-ground structural features. Sub-surface features and deposits such as postholes, dumps, foundations/footings, and domestic deposits may remain <i>in situ</i> . Potential scavenging of artefactual assemblage by relic collectors.	Moderate
Grave site of one of the owners of the Doonan's hotel (Kate Doonan)	c1880	Potential environmental pressures on headstone (subsistence, weathering). High potential for intact grave shaft and skeletal remains.	High
Burgess Hotel Site and/or outstation site	Hotel site – c1870s Outstation – c1890s	Pastoral activities and improvements (clearing, ploughing, grazing) and environmental impacts (fires, flood, erosion) are likely to have impacted on above-ground structural features. Sub-surface features and deposits such as postholes, dumps, foundations/footings, and domestic deposits may remain <i>in situ</i> . Potential scavenging of artefactual assemblage by relic collectors.	Moderate
Additional hotel/inn coach route stopover sites	From c1860s	Same as above.	Moderate
Marked or unmarked graves	From c1860s	Natural elements (fire, flood) and/or human agency (removal) may have impacted on headstones or markers. Subsurface remains may have been impacted by clearing and ploughing.	Moderate
Stock routes and associated bush camp sites	From c1860s	Pastoral activities and improvements (clearing, ploughing, grazing) and environmental impacts (fires, flood, erosion) are likely to have impacted on artefact scatter or any <i>in situ</i> ground features. Potential scavenging of artefactual assemblage by relic collectors.	Moderate
Marked or unmarked graves	From c1860s	Natural elements (fire, flood) and/or human agency (removal) may have impacted on headstones or markers. Subsurface remains may have been impacted by clearing and ploughing.	Moderate
Stock routes and associated bush camp sites	From c1860s	Pastoral activities and improvements (clearing, ploughing, grazing) and environmental impacts (fires, flood, erosion) are likely to have impacted on artefact scatter or any <i>in situ</i> ground features. Potential scavenging of artefactual assemblage by relic collectors.	Moderate

Early homestead sites	c1870s – c1900	Natural elements (fire, flood) and/or human agency (removal, lack of maintenance/upkeep) are likely to have disturbed structural remains of original houses and outbuildings. However, it is possible that deeper subsurface features have survived, such as bottle dumps, wells, and privies. Potential scavenging of artefactual assemblage by relic collectors.	Low to Moderate
Pastoral activity-related built heritage: yards, woolsheds, dips and presses, fences, windmills, dams or bores (and associated infrastructure)	c1900	Whilst natural elements (fire, flood) and/or human agency (removal, lack of maintenance/upkeep) may have impacted fences or other timber structures, however other features such as dams, windmills are likely to remain.	High
Survey trees	Late 19 th c – early 20 th c	Natural elements (fire, flood) or human agency (clearing) likely to have disturbed older trees.	Low
Telegraph alignments	C1880s	Natural elements (fire, flood) and/or human agency (removal) may have impacted upon integrity of alignment.	High

4.2.3 Survey and Recording

The study area was surveyed by Erin Finnegan and Craig Barrett of Converge Heritage and Community from 28 June – 2 July 2010. The survey methodology adopted for this study incorporated a vehicular and pedestrian survey initially targeting those sites identified in Table 4.1. Owing to the high number of sites that were identified on the Wendouree property, this area was surveyed first on 28 – 30 June 2010, and revisited on the 02 July 2010. Hobartville was surveyed on the 01 July, 2010, with the eastern part of Surbiton South surveyed on 2nd July, 2010. It is estimated that approximately 40% of the Study area was surveyed.

All assessment data was recorded on field recording sheets and locations of any items or places of historical cultural heritage significance were captured via a hand held global positioning system (GPS) receiver, accurate to ±5 meters using datum WGS 84/AGD94. This information was then used to create maps identifying the location of sites and features noted during the assessment. Where access was not possible the general location of the site in relation to the nearest road access was identified by GPS. Areas of interest were photographed using a digital camera (Canon PowerShot A650 IS) with 12.1 effective mega-pixels. Upon completion of the report, these photographs are stored on disk (CD) in the Converge Brisbane office.

5.0 Field Survey Results

5.1 Introduction

This section presents the findings of the field survey, constraints and limitations, and analysis of the survey results. A brief comparative analysis of coach routes in Queensland is discussed, which is most relevant to this study. This section also discusses non-Indigenous cultural heritage and archaeological potential.

5.2. Limitations and Constraints of the Survey

The results of this field survey must be considered within the context of the following limitations: access to properties, and landform and disturbance which affected ground visibility and site integrity.

5.2.1 Access to Properties

Requests were made to visit all properties comprising the study area (Wendouree, Hobartville, Surbiton South, Burtle, Tressilian, Monklands and Spring Creek, and Kia Ora) during the scheduled field survey (Figure 15). Access to several properties along the eastern and southern margins of the EIS area was not considered appropriate at this time due to sensitivities around mining lease negotiations.

The properties of Burtle, Tressilian, Monklands, Spring Creek and Kia Ora were not surveyed on foot. However the landowners of Burtle, Tressilian, and Kia Ora were consulted via phone. No areas of heritage interest were flagged by landowners during these conversations, and it was stated by other landowners (A. Donaldson, Surbiton South, pers. comm.) that these areas were non-productive, 'poison country' and had no heritage remains. Furthermore, no areas of heritage potential were flagged through the desktop study, and the properties did not yield any sites of interest visible from the public road.

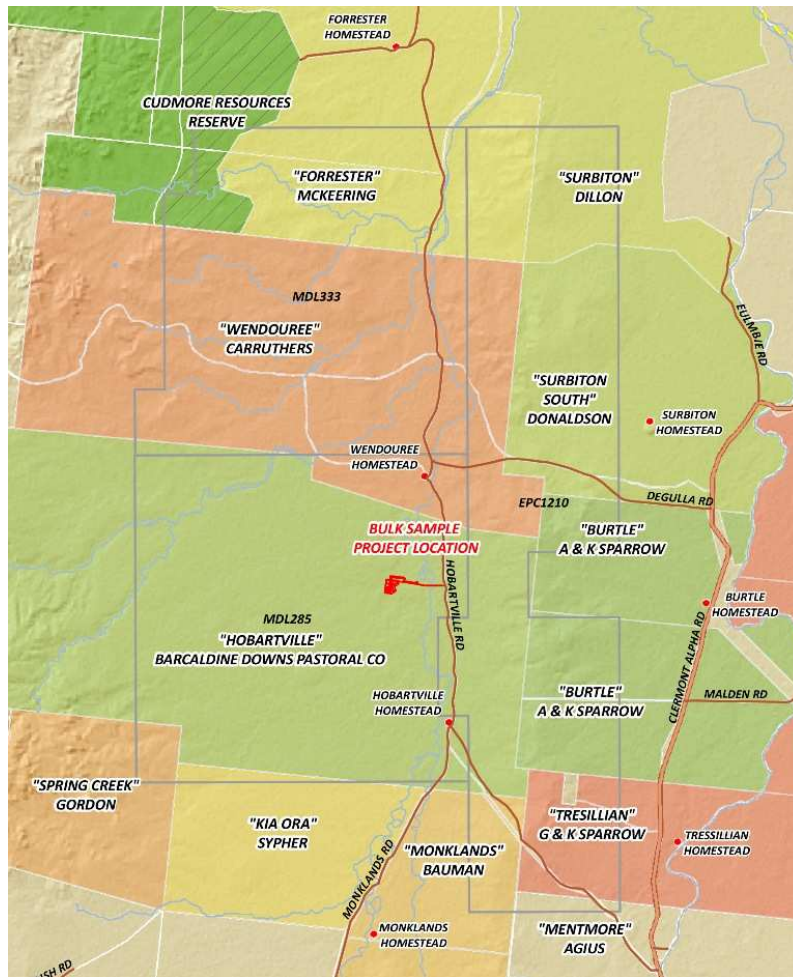


Figure 15: Alpha Coal Project General Location Map, showing properties and homesteads. (Source: HPPL 2010).

5.2.2 Landform and Disturbance

The entire study area has been subject to varying levels of disturbance, from vegetation clearing, agricultural activities and erosion, medium-scale landform modification resulting from road construction, levelling for pastoral-related complexes (homestead sites), and water management systems (stock dams, boreholes, irrigation). Extensive areas have been subject to clearing, blade-ploughing and stock grazing over the years.

5.2.3 Ground Surface Visibility



Assessments of ground surface visibility (GSV) provide an indication of how much of the ground surface can actually be seen. Ground surface visibility is most commonly inhibited by vegetation but other inhibitors may include gravel and bitumen. Levels of ground surface visibility were determined using a percentage scale in that 0% represents zero visibility and 100% represents

maximum visibility (bare ground). Therefore: **Zero - 0%; Poor - 1-25%; Moderate - 26-50 %; Fair - 51-75 %; Good - 76-85%; Excellent - 86-100%**. The better the visibility, the more potential there is for locating historical/archaeological material.

Whilst the field survey revealed the study site to have variable GSV across the area, much of the study area demonstrated low ground surface visibility, largely as a result of dense grass cover in most locations (see Table 5.1). For this reason it is possible that elements of certain sites may have been obscured and not located during the current survey. The field inspections focused largely on areas where ground surface was exposed. These areas comprised: areas of cleared ground, riparian erosion zones, vehicular tracks, stock paths, and fence lines.

Table 5.1 presents an overview of the six main land use zones encountered within the study area.

Table 5.1: Land forms and zones identified within the study area.

Grazing Land (0 - 15% GSV)		
Extent and current usage	Description of visibility	Indicative Image
<p>This land use form extended across the majority of the study area, with varying degrees of disturbance from pastoral activities. Paddocks have been subject to clearing, blade-ploughing, and cattle trampling. High diversity of introduced grasses and native grasses was evident across the study area.</p>	<p>Visibility in these areas was affected by thick grass coverage and was generally very poor.</p>	
Water Courses (0 – 40% GSV)		
Extent and current usage	Description of visibility	Indicative Image
<p>The study area was traversed by numerous riparian corridors. These corridors include the land immediately alongside small creeks and rivers, including the river bank itself, gullies and dips and floodplains which interact with the river in times of flood. Some of the creeks and their tributaries investigated for this survey include: Sandy, Lagoon, Rocky, and Charlemont Creeks.</p>	<p>Sections of four creeks were investigated, and all varied greatly in their water capacity and quality (most were dry), bank vegetation and evidence of erosion.</p>	

Vegetation and Scrub (0 – 50% GSV)

Extent and current usage

This zone extended across large sections of the Study area and included primarily regrowth vegetation some original vegetation areas.

Description of visibility

Vegetation zones were a combination of some remnant native bushland and scrub, and regrowth of varying age. Understorey coverage varied, but generally impacted on GSV.

Indicative Image



Dams (0 – 75 % GSV)

Extent and current usage

This land form occurred in isolated sites across the Study area and comprised bodies of water and associated bunds of varying height, width and length. Dams were often in association with water management infrastructure (piping, holding tanks, windmills) or functional pastoral structures such as troughs and holding yards.

Description of visibility

Ground exposure varied across dam sites, with older dams, such as Greentree Dam, having a higher degree of grass coverage and regrowth than more recently-constructed dams.

Indicative Image



Pastoral Station (Homestead) Complex (0 – 90% GSV)

Extent and current usage

Original landform would have been modified through clearing and cut and levelling activities. Rural homesteads complexes are extensive in nature, with component areas for livestock and land management, as well as residential precincts.

Description of visibility

Surface visibility generally fair to good around buildings and structures.

Indicative Image



Internal vehicle tracks (60 – 90% GSV)

Extent and current usage

Many internal vehicular access tracks traversed the study area— some of which are reused sections of old coach routes, while the majority have been put in place by former and current landowners. These alignments would have been subject to clearing and levelling activities

Description of visibility

Relatively good visibility along tracks, although introduced gravels on some, and overgrown areas along others, hindered GSV.

Indicative Image



5.3 Survey Findings

Eleven [11] non-Indigenous cultural heritage sites were identified during the field survey.

A summary of field survey results is presented in Table 5.2 and are discussed in the subsections that follow. Furthermore, full details of each site are provided in Appendix A.

Table 5.2: Summary table of field survey results for Alpha Coal Project non-Indigenous cultural heritage assessment

ALPHA HANCOCK COAL PROJECT: NON-INDIGENOUS HERITAGE SURVEY RESULTS				
Site No.	Name	Location (WGS84 Zone 55K)		Description
		Easting	Northing	
A-1	Lagoon Creek Bush Camp	██████	██████	High concentration of artefacts, likely a stock route camp, although in proximity to coach route and hotel site
A-2	Kate Doonan's Grave	██████	██████	Gravesite of the wife of proprietor of Doonan's Hotel (1885)
A-3	Bottle Dump	██████	██████	Likely dates to late 19 th c, likely association with Doonan's Hotel or another inn site on coach route
A-4	Old Paddock Fence line	██████	██████	Remnant split post, three (or four?) barb fence, although no wire remains. Posts approximately 110 cm high. Landowner identified fence on site, apparently old paddock, likely to have been associated with Doonan's Hotel.
A-5	Hotel Site	██████	██████	High concentration of 19 th c artefacts, as well as and structural remains, likely a traveller's inn site along coach route. High degree of site integrity.
A-6	Cart ruts	██████	██████	<i>In situ</i> remnant wagon/cart ruts along nineteenth century coach route
A-7	Wendouree Homestead	██████	██████	Homestead complex c.1960.
A-8	Hobartville Homestead	██████	██████	House (c1895) relocated from Mt. Morgan, original complex features remaining include gravesites (1884), artefact scatter
A-9	Greentree Dam	██████	██████	Improvement feature, evidence of pastoral activity, Hobartville, c. 1902
A-10	Marsupial Fence	██████	██████	Improvement and condition of lease, early twentieth century. Varying degrees of integrity.
A-11	Murdering Lagoon	██████	██████	Water management feature, Hobartville, early twentieth century.

Five sites have been assessed as having direct association with the late nineteenth century coach route network. The identified sites include a travellers' inn/hotel site (an as-yet-unidentified hotel, A-5), a bottle dump (A-3), Kate Doonan's gravesite (A-2), a fence line (old paddock likely related to Doonan's or an adjacent hotel site (A-4) and *in situ* cart ruts (A-6). One bush camp (A-1) was identified near a known coach route, but has been assessed as having an indirect association, as the bush camp was more likely a stop along the stock route network and frequented by stockmen.

Sites evidencing pastoral-related improvements and settlement took the form of dams, yards, and fences (A-9, A-10 and A-11). The Wendouree and Hobartville homesteads (A-7 and A-8) are also included in this category, although no remnant heritage elements remain at Wendouree from original station settlement. It is noted that not all stock dams, fence lines and other 'cultural landscape features' were recorded during this survey, only those which were identified through research or consultation as having some age (primarily twentieth century) or a unique quality. Greentree dam, on the Hobartville property, for example was recorded as a result of it being one of the earliest dams constructed on the run.

A surface scatter, anecdotal evidence of a bottle dump, and gravesites are the only known features relating to original settlement at Hobartville. The house, which may date to 1895, was reported by the owners to have been relocated from Mt. Morgan eighty years ago to replace the original house which may have burnt down (pers. comm. S. Kimber, 01 July 2010).

No sites of historical mining heritage were located during the field survey.

Site locations are indicated on Figures 16 and 17, and again in relation to the proposed mine development in Figure 18 (Section 7).

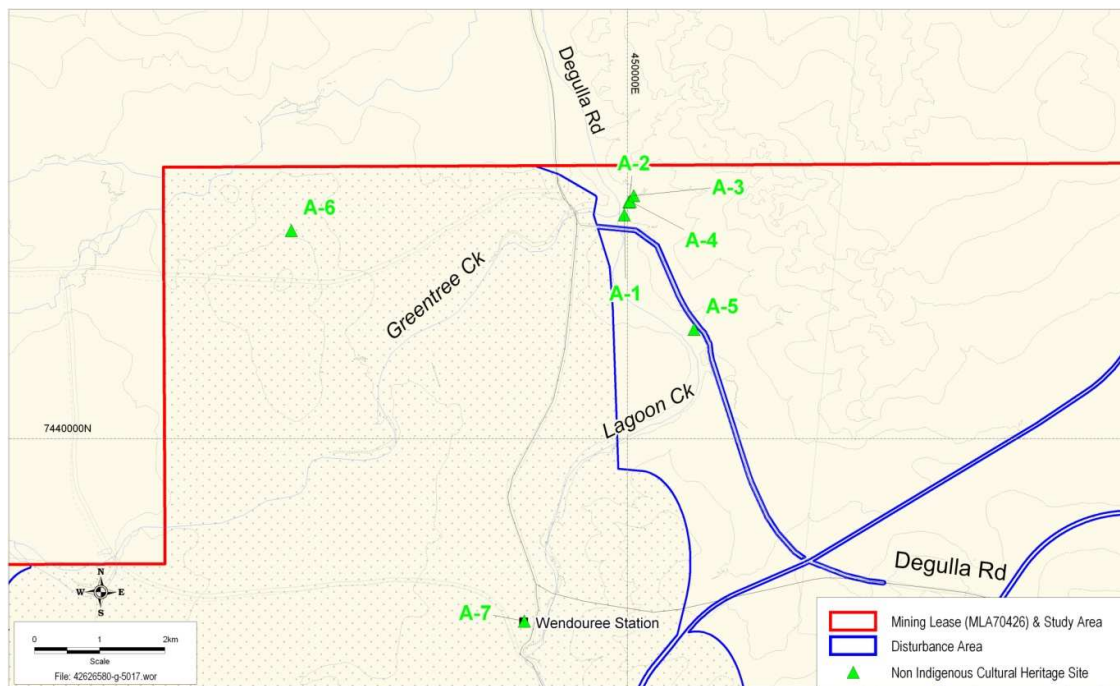


Figure 16: Site locations on Wendouree property (A-1 – A7) (URS 2010).

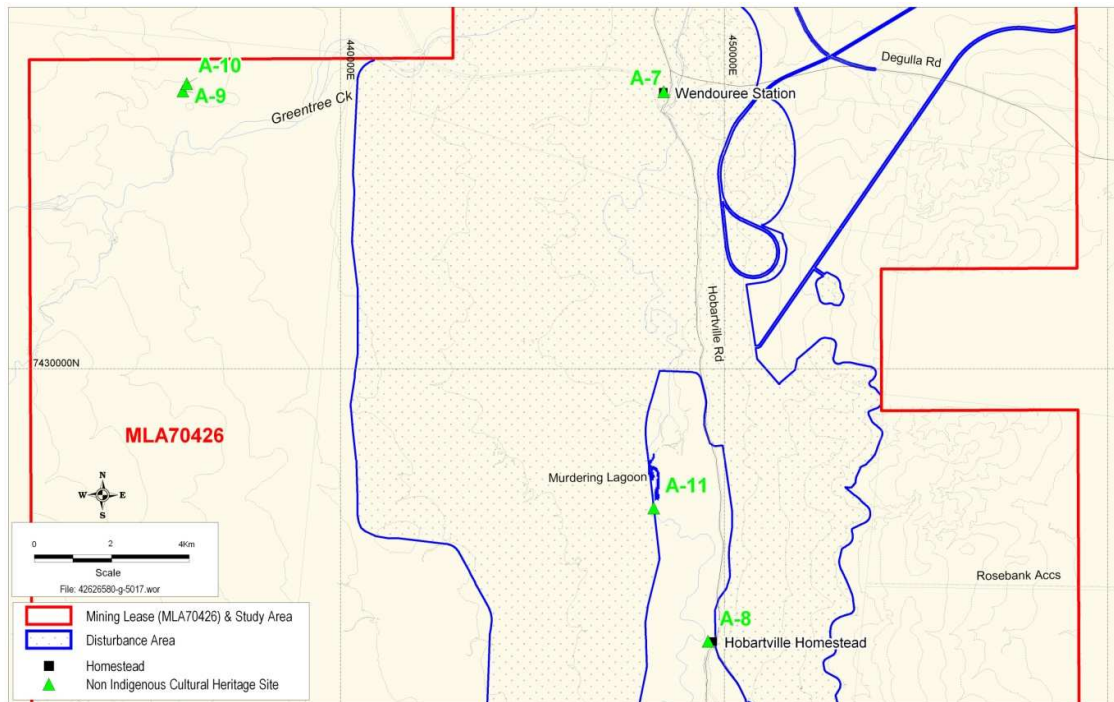


Figure 17: Site locations on Hobartville property (A-8 – A-11) (Source: URS 2010).

5.4 Analysis of Survey Results

At approximately 80,000 ha, the Alpha Coal EIS Study area is vast and, as anticipated in such a marginal landscape, the number of heritage sites identified [11] was not substantial. That said, many of the sites relate to a coach route, which was a significant conduit for early settlement and movement into and across the central Queensland region. In any area of the state, this cultural route would be of historical interest, but perhaps directly owing to the scarcity of known non-Indigenous heritage sites within this particular landscape, those places, features and items associated with the coach route network may take on an even higher level of cultural significance.

The eleven identified sites can be considered temporally and thematically within three categories, as follows:

- Five [5] sites directly associated with the late nineteenth century coach route network;
- Two [2] sites indirectly associated with the late nineteenth century coach route network and one likely to be associated with the late 19th and early twentieth century stock route network; and

- Four [4] sites relating to twentieth century pastoral activity and improvements, with no identified association with the coach route network.

The five sites identified as having direct association with the late nineteenth century coach route network, including the Clermont – Aramac road used by Cobb & Co. from 1878 – 1884, are predominantly archaeological in nature. These include a potential hotel site, a bottle dump, a grave, fence line and cart ruts. Remnant fencing and a possible hearth are the only remaining built heritage features.

The fence line suggests the location of an old paddock which may have been related to Doonan's Hotel. The location of Kate Doonan's grave, as well as the bottle dump are further indicators of what has been recorded on contemporary maps as a travellers' inn site. No remains or features suggesting the location of the hotel structure were identified during the survey. Further research has indicated that a second inn site may in fact be located immediately adjacent to the former location of Doonan's hotel, though like Doonan's Hotel, no remains or features indicating its location were identified during the survey.

Of the five coach route-related sites, A-5 is of greatest interest. Whilst Doonan's Hotel (and Burgess Hotel, just outside the study area) is shown on sourced historical maps, A-5 is not. The site was described by the landowner as a 'camp site' but upon site investigation it was determined to be a previously unknown hotel site along the coach route. Constrained by time restrictions on last day of field survey, a basic site recording and analysis of A-5 was undertaken. The density, extent and nature of artefacts and structural features suggest a greater level of site integrity than the Doonan Hotel (the bottle dump) site. A-5 represents the best example of an 'intact' hotel site yet identified in the study area. The frequency of complete artefacts indicates that it has not been rigorously pilfered by relic-collectors.

The bush camp identified as having indirect association with the coach route, although likely associated with the stock route, may have been selected *in response to* the coach route in that particular location. Moreover, Hobartville homestead site would also have benefited from the coach route.

Stock routes and trails have traversed the study area since the 1860s and bush camps would be expected along these routes. However, the development of hotels and inns along an evolving coach route network may have affected bush camp selection sites – a nearby pub or the possibility of a wagon en route may have proved too great a temptation for stockmen. The artefactual material at A-1, which includes metal remnants of harnesses, a camp stove and shot shells, suggests a stock

route bush camp; however, the diversity of glass and ceramics (including 'luxury' items such as condiments and liniments) may indicate a different economic and social dynamic than the 'typical' bush camp. The proximity of Doonan's Hotel (and perhaps a second inn) to A-1 may account for this. It is impossible without further research and analysis to determine (and indeed may never be conclusively established) whether the bush camp site was frequented during the period the hotels were in operation, or was taken up after the Doonan hotel site was abandoned.

The Hobartville homestead complex (A-8) has also been identified as having indirect association with the coach route, as it was not a fundamental component of the route (i.e. not a traveller's inn, nor staging post). However, the residents of Hobartville from its establishment in the 1880s (and any earlier settlement) would have depended on the coach route network for the delivery of news, goods, and visitors. Wendouree homestead does not have a similar association, as it was only established in the mid-twentieth century, and prior to that was comprised of a hut and cattle yard for Hobartville due to the proximity of Horseshoe Lagoon.

Little is known about the original homestead complex at Hobartville, but the presence of subsurface remains (a bottle dump, pers. comm. S. Kimber, 01 July 2010) and gravesites have flagged it as having high archaeological potential.

Four sites (Greentree Dam, Murdering Lagoon, marsupial fencing, and Wendouree station) are related to twentieth century pastoral activities and improvement. Whilst these sites are representative elements of a rural cultural landscape, they represent common built features and have little heritage value at present.

5.4.1 Cultural Landscapes vs. Cultural Routes

Cultural landscapes are scenes of interactions between people and their surrounds resulting in layered patterns of evidence as well as sensory experiences inscribed upon the landscape. Cultural landscapes are ever-changing. While certain elements within the landscape may *represent* a slice of time, the landscape as an entity is in a state of constant regeneration.¹

¹ 'There is a balance between change and continuity in all cultural resources. Change is inherent in cultural landscapes; it results from both natural processes and human activities. Sometimes that change is subtle, barely perceptible as with the geomorphological effects on landform. At other times, it is strikingly obvious, as with vegetation, either in the cyclical changes of growth and reproduction or the progressive changes of plant competition and succession. This dynamic quality of all cultural landscapes is balanced by the continuity of distinctive characteristics retained over time. For, in spite of a landscape's constant change (or perhaps because of it), a property can still exhibit continuity of form, order, use, features, or materials. Preservation and rehabilitation treatments seek to secure and emphasize continuity while acknowledging change.' National Park Service, Guidelines for the Treatment of Cultural Landscapes: Factors to Consider when selecting a treatment. http://www.nps.gov/history/HPS/hli/landscape_guidelines/factors.htm.

A cultural landscape is imbued with connections between people, spaces and resonant history. The linking of tangible values—in the form of archaeological remains or evocative landscape features—and the intangible values one holds for a particular place can produce ‘a sense of attachment to our world’ (Suarez-Inclan, 2002).

As a concept, it is also considered to be more ‘static’ and ‘restricted’ than a ‘cultural route’ – that is, a cultural route is considered to be a different scientific concept and is defined by its mobility and involves spatial dynamics not possessed by a cultural landscape.

Whilst the Alpha Coal Study area can be considered an historic vernacular or rural cultural landscape evolved through use by the people whose activities or occupancy shaped it, the study area also contains extensive evidence of a significant cultural route – the Clermont to Aramac coach route. A suite of sites has been identified within the study area which, when considered together (and in conjunction with other possible related sites outside of the study area), may be unique in Queensland as a ‘complex’ of constituent elements which would amplify the significance of such a route. Travellers’ inns sites, artefactual material, cart ruts, and a gravesite are tangible evidence of the movement of people and goods along these routes.

5.4.2 Coach Routes in Queensland: A Brief Comparative Analysis

A comparative analysis is an examination of a site in relation to similar sites that typically have an established level of significance (i.e. entered on a heritage register). The analysis provides a clearer understanding of the rarity and representativeness of the site/s and therefore assists in the determination of cultural heritage significance.

This section compares the important aspects of the history and physical evidence of the coach route in the Study area with former coach routes and associated sites entered on the Queensland Heritage Register (QHR). The QHR lists three sites of State significance that are relevant to this analysis as shown in Table 5.3 below.

Each of these sites was selected because they are comprised of elements similar to those located on the coach route in the Alpha Coal Study area.

Table 5.3 *Comparative Sites to the Coach route, taken from the Queensland Heritage Register (QHR) that are listed as State Significant*

Site Name	Queensland Heritage Register I.D.
Quartz Hill Coach Change Station Site and Cemetery	602232
Stone House	601626
Laura to Maytown Coach Road	600427

5.4.2.1 Quartz Hill Coach Change Station Site and Cemetery

A coach change station was established at Quartz Hill, near Mt Surprise in North Queensland, in 1888 for a Cobb & Co service. The coach route ran from the east coast to the west and was one of a number of change stations. The route serviced pastoral stations (which appeared from the 1860s onward) as well as mining enterprises. The change station effectively operated as a hotel and postal receiving office. The hotel was described in 1895 as a “fairly good hut” (QHR Place ID: 602232). The Cobb & Co service continued until 1908 and it appears the hotel ceased operating the following year.

The Change Station is significant under Criteria A and C and is classified as an archaeological place. The site is considered significant because it demonstrates the necessity of transport routes in the development of the pastoral and mining industries in North Queensland in the nineteenth century. The elements of the site – a cemetery, stone foundations of the hotel, a large bottle dump, metal artefact scatter, part of an old road marked by a blazed tree and several cleared areas and unknown stone formations – also demonstrate the functional arrangement of change station/hotel sites on coach routes. In particular, it is noted in the statement of significance that the remains of the Change Station “have the potential to provide new information about construction methods in rural North Queensland during the late nineteenth century”, including the results of analysis of the infrastructure, artefactual remains, cemetery and the overall spatial arrangement of the features (“including the proximity of this remnant evidence to water”) in relation to each other and the coach route.

5.4.2.2 Stonehouse

Stonehouse consists of the remains of an inn and homestead constructed in the 1870s as part of the Esk to Nanango coach route. The Stonehouse Hotel was officially licensed in 1880. The route was

in use until the early 1900s. The complex of buildings remained in use throughout the first half of the twentieth century, but by 1960 the buggy shed, workshop and other associated homestead infrastructure were demolished. The current highway between Moore and Nanango, on which Stonehouse is located, follows the alignment of the coach route.

The Stonehouse complex is significant under Criteria A, B, C, D, E and H of the *Queensland Heritage Act 1992* (see Section 6.2) and is classified as a built and archaeological place. In particular, the complex is significant because it demonstrates the importance of inns along coach routes.

5.4.2.3 *Laura to Maytown Coach Road*

The Laura to Maytown Coach Road was utilised from the late 1870s through to the 1890s during the peak of the gold rush on the Palmer River in North Queensland. The road to Maytown was in use by 1877 and following improvements to the road undertaken by the local Divisional Board, Cobb & Co began a regular coach service in 1880. The gold yields from the Palmer River goldfield steadily declined, however, and by the 1890s the towns – and the roads that serviced them – had also fell into decline.

The Laura to Maytown Coach Road is significant under Criteria A, B, D, E and F and is classified as a built and archaeological place. In particular, it is significant for its association with Cobb & Co, the associated historical sites located along its route (including several hotel sites, staging posts, Chinese gardens and mine workings) and significant examples of road construction in rocky terrain and in an area of high rainfall.

5.4.3 Archaeological Potential

The term ‘archaeological potential’ is defined as the likelihood that a site may contain physical evidence related to an earlier phase of occupation, activity or development. This term is differentiated from ‘archaeological significance’ and ‘archaeological research potential’, which are more subjective statements on the value of the archaeological resource and are discussed in more detail in Section 6.

There is a generally high potential for archaeological remains to exist across the majority of the identified sites within the Alpha Coal study area, as follows:

Table 5.4 Archaeological potential within the Alpha Coal study area

Site No.	Name	Archaeological Potential
A-1	Lagoon Creek Bush Camp	High potential - surface scatter
A-2	Kate Doonan's Grave	High potential – human remains, possible grave goods.
A-3	Bottle Dump	High potential – surface scatter as well as subsurface remains
A-5	Hotel Site	High potential – surface scatter, structural remains, subsurface remains
A-6	Cart ruts	Moderate
A-8	Hobartville Homestead	High potential – human remains and potential grave goods, surface scatter, subsurface remains such as postholes, dumps, wells, privies

Furthermore, there is high potential for archaeological remains in the form of artefactual surface scatter and possible 'rest stop' areas between hotel sites to exist along the entire coach route alignment(s).

5.5 Conclusion

Eleven non-Indigenous cultural heritage sites were identified across the study area. The sites have been considered and assessed in terms of their apparent association with nineteenth century coach routes, stock routes, or twentieth century pastoral activity.

Five sites have been identified as being component elements of a 'cultural route' – part of the late nineteenth century coach route network, specifically the Aramac to Surbiton stretch of road.

The comparative analysis enables a determination of the rarity and representativeness of the coach route. In the case of *rarity*, the coach route and associated sites located in the study area may be said to be rare in terms of Criterion (b) of the *Queensland Heritage Act 1992* (see Section 6.3.2 Uncommon, Rare or Endangered Aspects). Only two out of the three QHR places noted above include remnants of an actual coach route; in the case of the third, the alignment remains but it consists of a bitumen highway. Only one of the sites shows evidence of coach use. At least one section of the study area retains a section of the former coach route (where the ruts are exposed) and it is possible there are other sections of the study area where the road and coach use is also visible. Moreover, whilst each of the listed places includes remnant material, including artefactual scatters and grave sites, in two cases these are confined to a single location. The only place in which this is not the case is the Laura to Maytown Coach Road; this is located in North Queensland and there are no similar places listed in either central or southern Queensland. The potential for the presence of further archaeological material at various sites along the coach route in the study

area would increase the rarity of the route and related sites, as would the possibility of further sites located outside of the current Study area, but structurally part of the original coach route.

The coach route in the Study area can also be described *as representative*, in terms of Criterion (d) of the *Queensland Heritage Act 1992* (see Section 6.3.4 Demonstrating the Principal Characteristics of a Class). The camp sites, former hotel sites (including a hearth site, bottle dumps and artefactual scatters), exposed wheel ruts, grave site and proximity to water sources demonstrate that the route is representative of coach routes in this period. The fact that the route was established to provide communications between remote settlements, including pastoral stations, also reinforces the fact that the route is representative of a process that occurred throughout Queensland (and Australia) in the nineteenth and early twentieth centuries.

The majority of the sites identified in the Alpha Coal study area are archaeological in nature, and eight sites have moderate to high potential for archaeological remains.

6.0 Significance Assessment

6.1 Introduction

The study area has a layered history reflected in a variety of physical and intangible elements and embodies a range of values which vary in their levels of significance. Section 6.0 assesses the heritage values and significance of the site at a number of levels in order to establish a baseline for the Project to manage those values.

The first step in the assessment process (Sections 6.2–6.5) is to assess the heritage values of the site as a whole. This is achieved by:

- Identifying the heritage criteria relevant to the assessment of the heritage values of the Study area (Section 6.2 & 6.3);
- Determining the significance levels of individual sites and the contribution each makes to the overall significance of the Study area (Section 6.4); and
- Assessing archaeological value (Section 6.5).

6.2 Determining Cultural Heritage Significance

Assessing cultural heritage significance against set criteria is a widely recognised method of achieving consistent, rational and unbiased assessments. A range of standards and criteria are available to assist with determining cultural heritage significance. The following sections discuss *The Burra Charter: The Australia ICOMOS Charter for the Places of Cultural Significance 1999* and incorporate aspects from the recognised legislative frameworks, such as the *QHA (and subsequent amendments)*.

6.2.1 The Burra Charter

The Burra Charter guides cultural heritage management in Australia. First adopted in 1979 by Australia ICOMOS (International Council on Monuments and Sites), the charter was initially designed for the conservation and management of historic heritage. However, after the addition of further guidelines that defined cultural significance and conservation policy, use of the charter was extended to Indigenous studies.

The charter defines conservation as ‘the processes of looking after a place so as to retain its cultural significance’ (Article 1.4). A place is considered significant if it possesses aesthetic, historic,

scientific or social value for past, present or future generations (Article 1.2). The definition given for each of these values is as follows (Articles 2.2 to 2.5).

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the place and its use.

Historic value encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

Scientific 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.

Social value embraces the qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group.

Additionally, Article 26 of the Charter notes that other categories of cultural significance may become apparent during the course of assessment of particular sites, places or precincts.

6.2.2 State Heritage Criteria

The *Queensland Heritage Act 1992* provides the framework for the following assessment and statement of significance for considering items and places of cultural heritage values, based on the Burra Charter. Under Section 35 (1) of this Act, a place may be entered in the register if it satisfies one or more of the following criteria:

- (a) *If the place is important in demonstrating the evolution or pattern of Queensland's history;*
- (b) *If the place demonstrates rare, uncommon or endangered aspects of Queensland's cultural heritage;*
- (c) *If the place has potential to yield information that will contribute to an understanding of Queensland's history;*
- (d) *If the place is important in demonstrating the principal characteristics of a particular class of cultural places;*
- (e) *If the place is important because of its aesthetic significance;*

- (f) *If the place is important in demonstrating a high degree of creative or technical achievement at a particular period;*
- (g) *If the place has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;*
- (h) *If the place has a special association with the life or work of a particular person, group or organisation of importance in Queensland's history.*

In addition, under section 60 of this Act a place may be entered in the Queensland Heritage Register as an Archaeological Place if the place:

- (a) *is not a State heritage place; and*
- (b) *has potential to contain an archaeological artefact that is an important source of information about Queensland's history.*

In applying the assessment criteria, both the nature and degree of significance of the place need to be identified, with items varying in the extent to which they embody or reflect key values and the relative importance of their evidence or associations.

The assessment also needs to relate the item's values to its relevant geographical and social context, usually identified as either local or state contexts. Items may have both local and State significance for similar or different values/criteria.

Statutory protection of heritage places (i.e. by local and/or state governments) is usually related to the identified level of significance. Items of State significance may be considered by Department of Environmental Resource Management for inclusion on the Queensland Heritage Register.

6.2.3 Queensland Heritage Council Guidelines

The Queensland Heritage Council provides guidelines to assist in assessing which level of cultural heritage significance is applicable to a site. These guidelines provide the following definitions:

A place is of local cultural heritage significance if its heritage values are of a purely localised nature and do not contribute significantly to our understanding of the wider pattern and evolution of Queensland's history and heritage...

A place is of state cultural heritage significance if its heritage values contribute to our understanding of the wider pattern and evolution of Queensland's history and heritage. This includes places that contribute.

6.3 Applying the Queensland Heritage Assessment Criteria

This section sets out an assessment of the heritage significance of the site in accordance with the standard criteria identified in the *Queensland Heritage Act 1992* and Queensland Heritage Council

Guidelines. The discussion under each criterion concludes with an assessment of the site's significance as a whole.

6.3.1 Historic Values

Criterion (a)—The place is important in demonstrating the evolution or pattern of Queensland's history;

The study area is important in the course or pattern of Queensland's history, being a place associated with pastoral expansion and early settlement in difficult country, when sometimes faltering attempts were made at the introduction and development of pastoralism in previously unsettled and only recently explored areas.

The coach route network in central Queensland was of historic importance as it facilitated the critical flow of people, goods, and information from population centres to rural outstations. These physical roads were a dynamic system of continuous and reciprocal exchanges of goods, news, ideas and knowledge. Whilst these networks were at their zenith during the last decades of the nineteenth century, and diminished in importance after the development of the railway and introduction of the motor car, they should be viewed as the means by which the state was first settled.

Remnant features of the coach route cultural route which exist within the Study area provide a variety of site types, such as: sites of 'exchange' in the form of travellers' inns (hotel sites), discard sites (bottle dumps), gravesites, and evidence of transportation (cart rut sites). There is high archaeological potential for further components of this cultural complex to be identified – including stone creek crossings, bridges, further inn sites, surface scatters, etc.

The study area is therefore found to demonstrate this criterion at State level in relation to the abovementioned values.

6.3.2 Uncommon, Rare or Endangered Aspects

Criterion (b)—If the place demonstrates rare, uncommon or endangered aspects of Queensland's cultural heritage;

A number of coach-route related sites have been heritage-listed in Queensland (see Section 5.3.2). However, the majority of these sites are specifically 'place-based' and except in the case of the Laura to Maytown Coach Road, do not represent the fundamental dynamic nature of a cultural route. The Laura to Maytown Coach Road in Far North Queensland is the only heritage-listed

stretch of coach road with a diverse complex of associated historical places which reflect the essence of movement, and lists travellers' inns, staging posts, Chinese gardens and mining workings as component elements.

The coach route cultural route network identified within the Study area would be considered a rare heritage resource for Central Queensland (and would make a strong comparative linear site for the Laura to Maytown cultural route) uncommon in terms of an intact (not scavenged by relic-collectors) coach route hotel site and *in situ* cart ruts. All of the remnant cultural route features are considered endangered.

The study area is therefore found to demonstrate this criterion at State level in relation to the abovementioned values.

6.3.3 Potential to Yield Information

Criterion (c)—If the place has potential to yield information that will contribute to an understanding of Queensland's history;

The study area has considerable potential to yield information that will contribute to an understanding of how the site developed, which in turn has the potential to inform research about the settlement of the central Queensland region. This potential derives in part from the nature of the remnant coach road cultural routes that traverse the site, and principally derives from the known and potential archaeological resource associated with the coach route network.

The heritage significance of archaeological remains will vary according to their ability to contribute to our understanding of the culture and history of the state and local area, and the site itself. On the whole, more intact deposits and archaeological resources that can be used to address important research questions, or which can reveal information about little known aspects of history, will have the highest heritage significance. Further research would be needed before any level of the significance of the archaeological resource could be determined.

The study area is therefore found to demonstrate this criterion at State level in relation to the abovementioned values.

6.3.4 Demonstrating the Principal Characteristics of a Class

Criterion (d)—If the place is important in demonstrating the principal characteristics of a particular class of cultural places;

The coach route represents a class of transportation networks, and the predominant means by which people, good, ideas, news and knowledge moved across vast transects of the country. The coach route network represents a particular class of 'linear sites' or cultural routes that facilitated early settlement and development of Queensland.

The study area is therefore found to demonstrate this criterion at Local and potentially State level to the abovementioned values.

6.3.5 Aesthetic Characteristics

Criterion (e)—If the place is important because of its aesthetic significance;

The study area is unlikely to meet this criterion.

6.3.6 Creative or Technical Achievement

Criterion (f)—If the place is important in demonstrating a high degree of creative or technical achievement at a particular period;

The study area is unlikely to meet this criterion.

6.3.7 Social, Cultural or Spiritual Associations

Criterion (g)—If the place has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;

The study area is unlikely to meet this criterion.

6.3.8 Special Associations with Person or Group

Criterion (h)—If the place has a special association with the life or work of a particular person, group or organisation of importance in Queensland's history.

The study area is unlikely to meet this criterion.

6.4 Grading of Significance for Individual Sites

Grading reflects the contribution an individual element or site makes to the overall significance of the Study area and the degree to which the significance of the area would be diminished if the component were removed or altered. For example, a site could be assessed as having a relatively low 'stand-alone' level of significance, but when considered as a 'suite' of related sites, the level of significance might be raised.

6.4.1 Grading System

A standard five-grade system has been applied to assess the individual contribution of each element to the overall significance of the item. This system is a valuable planning tool and assists in the development of a consistent approach to the treatment of different elements. The various grades of significance generate different requirements for retention and conservation of individual spaces and the various elements. The grading criteria of significance are discussed in Table 6.1 below.

Table 6.1 Grading Criteria of Heritage Significance (Converge 2010).

Grading	Justification	Status
Exceptional	Rare or outstanding element exhibiting a high degree of intactness or other such quality and is interpretable to a high degree, although alteration or degradation may be evident	Fulfil criteria for local, State or potentially National listing
High	Featuring a high degree of original or early fabric or demonstrative of a key part of the element's significance, with a degree of alteration which does not detract from that significance	Fulfil criteria for local and State listing
Moderate	Includes elements and relationships that are supportive of the overall significance of the item and have some heritage value but do not make an important or key contribution to that significance. Includes altered and modified elements.	Fulfil criteria for local listing and may fulfil criteria for State listing
Low	Elements assessed as being of Low significance are generally not regarded as essential to the major aspects of significance of a place, often fulfilling a functional role	May fulfil criteria for local listing and does not fulfil criteria for State listing
Intrusive	Damaging the element's heritage significance	Does not fulfil criteria for local or State listing

6.4.2 Schedule of Individual Sites and their Significance

The following grades of significance apply to identified sites of non-Indigenous cultural heritage across the Alpha Coal Study area (refer to Table 6-2).

Table 6.2: Alpha Coal Project Individual Sites and Significance Grading.

Site No.	Name	Individual Site Significance Grading
A-1	Lagoon Creek Bush Camp	Moderate
A-2	Kate Doonan's Grave	Low - Moderate
A-3	Bottle Dump	Low - Moderate
A-4	Old Paddock Fence line	Low
A-5	Hotel Site	Moderate - High*
A-6	Cart ruts	Low - Moderate
A-7	Wendouree Homestead complex	Low
A-8	Hobartville Homestead complex	Moderate
A-9	Greentree Dam	Low
A-10	Marsupial Fence	Low
A-11	Murdering Lagoon	Low

* Site A5 has been assessed as having the potential to satisfy entry onto the Queensland Heritage Register as an 'Archaeological Place' under section 60 of the *Queensland Heritage Act 1992*, as it has been found to contain an archaeological artefact that is an important source of information about Queensland's history.

Whilst the sites in Table 6.2 are graded on their individual level of contribution to overall site significance, sites have also been considered in terms of their potential association with the 19th Century coach route network in addition to this summary:

- Sites A-2 – A-6 form a suite of sites that may be considered a linear site complex or a 'Cultural Route' as discussed in Section 5.3.2.

A holistic consideration of this grouping as a cultural route raises the significance level of each of these six sites from their 'stand-alone' grading above, to a higher grading of significance. The coach route network is assessed as having moderate to high heritage significance.

6.5 Assessing Archaeological Values

6.5.1 Research Potential of Archaeological Heritage Remains

The heritage significance of archaeological relics will vary according to their ability to contribute to our understanding of the culture and history of the nation, state and local area, and the site itself. On the whole, more intact deposits and archaeological resources that can be used to address important research questions, or which can reveal information about little known aspects of history, will have the highest heritage significance.

This is a matter that has been considered in an influential paper by Bickford and Sullivan (1984). They note that archaeological significance has long been accepted elsewhere in the world as being linked directly to scientific research value:

A site or resource is said to be scientifically significant when its further study may be expected to help answer questions. That is scientific significance is defined as research potential.

This is a concept that has been extended by Bickford and Sullivan in the context of Australian archaeology and refined to the following three questions which can be used as a guide for assessing the significance of an archaeological site or resource within a relative framework:

1. *Can the site contribute knowledge which no other resource can?*
2. *Can the site contribute knowledge which no other site can?*
3. *Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?*

6.5.2 Assessment of Archaeological Heritage Potential of Study Area

The study area has potential to contain a rare and endangered archaeological resource associated with the nineteenth century coach route network that may shed light on the area's settlement and the history of the wider region and state. It has the potential to contribute to knowledge concerning the nature of early settlement, including the means by which people, goods, ideas and knowledge moved into and across central Queensland. The archaeological resource has high potential to contribute to knowledge concerning the diet and ways of life of early travellers and settlers.

The archaeological resource also has potential to contribute to research into the ongoing settlement of the area through the mid-to-late nineteenth century into the early twentieth century. The archaeology may contribute to research into the changing nature of the rural community, including technological change and innovation (in terms of pastoral activity) reflecting a response to environment.

In answer to the Bickford and Sullivan questions presented above:

Can the Site Contribute Knowledge that No Other Site Can?

The archaeological relics contained within the study area, particularly those relating to the coach route network, would be potentially unique to the region and rare and endangered in the State. The archaeological remains of particular sites may be entirely unique, for example the gravesites and intact archaeological deposits relating to the inn sites.

Can the Site Contribute Knowledge that No Other Resource Can?

The archaeological resource within the Study area would augment knowledge obtainable from other sources of information (such as journals, letters, historic government documents etc) and in some cases (specifically A-5, Hotel site) may provide information which has not been previously unidentified through documentary research. The archaeological remains could serve as an excellent complementary resource as a dataset that may be used to test the written sources.

Is this Knowledge Relevant to General Questions About Human History or Other Substantive Questions Relating to Australian History, or Does it Contribute to Other Major Research Questions?

The information that the archaeological resource of the study area could contribute would be relevant to highly important questions around early settlement patterns and expansion into the Queensland interior, transport and communication routes, and ways of life in a challenging environment.

6.6 Conclusions

The following conclusions have been made in respect to the study area and non-Indigenous cultural heritage significance:

6.6.1 Significance Levels of Individual Sites

The sites and places in Table 6.3 have been identified within the study area by this Assessment to have the following levels of cultural heritage significance, (including archaeological significance):

Table 6.3: *Significance levels of individual sites*

Site No.	Name	Individual Site Significance Grading ²	Revised Associative Significance ³
A-1	Lagoon Creek Bush Camp	Moderate	-
A-2	Kate Doonan's Grave	Low - Moderate	Moderate – High
A-3	Bottle Dump	Low - Moderate	Moderate – High
A-4	Old Paddock Fence line	Low	Moderate – High
A-5	Hotel Site	Moderate - High	Moderate – High
A-6	Cart ruts	Low - Moderate	Moderate - High
A-7	Wendouree Homestead complex	Low	-
A-8	Hobartville Homestead complex	Moderate	-
A-9	Greentree Dam	Low	-
A-10	Marsupial Fence	Low	-
A-11	Murdering Lagoon	Low	-

Site A5 has been assessed as having the potential to satisfy entry onto the Queensland Heritage Register as an 'Archaeological Place' under section 60 of the *Queensland Heritage Act 1992*, as it has been found to contain an archaeological artefact that is an important source of information about Queensland's history. Obligations arising from these provisions are outlined in Section 8.

² Utilising significance grades outlined in Table 6.1

³ Sites A2-A5 have 'direct' association with the nineteenth century coach route network form a 'suite' or complex of sites assessed in Section 6.3 as having Historic Value, Uncommon, Rare or Endangered Aspects, Potential to Yield Information (High Archaeological Potential), and Representative Value - all at a local, and/or potentially State, level of significance. Their level of individual significance has been subsequently revised to represent the 'Associative Significance' relating to the coach route.

6.6.2 Assessment of Heritage Values for the Study Area

The following assessment of heritage values across the entire study area has been completed in Table 6.4 utilising criteria provided in Section 35 of the *Queensland Heritage Act 1992*:

Table 6.4: Summary table of heritage values of study area, through application of the *Queensland Heritage Act 1992* significance criteria.

Queensland Heritage Act 1992 Criteria.	Supportive information	Conclusion
Criterion (a) —The place is important in demonstrating the evolution or pattern of Queensland's history	<p>The Alpha Coal study area is important in the course or pattern of Queensland's history, being a place associated with pastoral expansion and early settlement in difficult country, when sometimes faltering attempts were made at the introduction and development of pastoralism in previously unsettled and only recently explored areas.</p> <p>The coach route network in central Queensland was of historic importance as it facilitated the critical flow of people, goods, and information from population centres to rural outstations. These physical roads were a dynamic system of continuous and reciprocal exchanges of goods, news, ideas and knowledge. Whilst these networks were at their zenith during the last decades of the nineteenth century, and diminished in importance after the development of the railway and introduction of the motor car, they should be viewed as the means by which the state was first settled.</p> <p>Remnant features of the coach route cultural route which exist within the study area provide a variety of site types, such as: sites of 'exchange' in the form of travellers' inns (hotel sites), discard sites (bottle dumps), gravesites, and evidence of transportation (cart rut sites). There is high archaeological potential for further components of this cultural complex to be identified – including stone creek crossings, bridges, further inn sites, surface scatters, etc.</p>	Specified aspects of the study area are considered to demonstrate this criterion at State level.
Criterion (b) — the place demonstrates rare, uncommon or endangered aspects of Queensland's cultural heritage	<p>A number of coach-route related sites have been heritage-listed in Queensland (see Section 5.3.2). However, the majority of these sites are specifically 'place-based' and except in the case of the Laura to Maytown Coach Road, do not represent the fundamental dynamic nature of a cultural route. The Laura to Maytown Coach Road in Far North Queensland is the only heritage-listed stretch of coach road with a diverse complex of associated historical places which reflect the essence of movement, and lists travellers' inns, staging posts, Chinese gardens and mining workings as component elements.</p> <p>The coach road cultural route network identified within the Study area would be considered a rare heritage resource for Central Queensland (and would make a strong comparative linear site for the Laura to Maytown cultural route) uncommon in terms of an intact (not scavenged by relic-collectors) coach route hotel site and in situ cart ruts. All of the remnant cultural route features are considered endangered.</p>	Specified aspects of the study area are considered to demonstrate this criterion at State level.

Queensland Heritage Act 1992 Criteria.	Supportive information	Conclusion
Criterion (c) —the place has potential to yield information that will contribute to an understanding of Queensland's history	<p>The study area has considerable potential to yield information that will contribute to an understanding of how the site developed, which in turn has the potential to inform research about the settlement of the central Queensland region. This potential derives in part from the nature of the remnant coach route cultural routes that traverse the site, and principally derives from the known and potential archaeological resource associated with the coach route network.</p> <p>The heritage significance of archaeological remains will vary according to their ability to contribute to our understanding of the culture and history of the state and local area, and the site itself. On the whole, more intact deposits and archaeological resources that can be used to address important research questions, or which can reveal information about little known aspects of history, will have the highest heritage significance. Further research would be needed before any level of the significance of the archaeological resource could be determined.</p>	Specified aspects of the study area are considered to demonstrate this criterion at State level.
Criterion (d) — the place is important in demonstrating the principal characteristics of a particular class of cultural places	The coach route represents a class of transportation networks, and the predominant means by which people, goods, ideas, news and knowledge moved across vast transects of the country. The coach route network represents a particular class of 'linear sites' or cultural routes that facilitated early settlement and development of Queensland.	Specified aspects of the study area are considered to demonstrate this criterion at a local and potentially State level.
Criterion (e) — the place is important because of its aesthetic significance	No information provided	The study area was not considered to contain elements representing this criterion at a local or State level.
Criterion (f) — the place is important in demonstrating a high degree of creative or technical achievement at a particular period;	No information provided	The study area was not considered to contain elements representing this criterion at a local or State level.
Criterion (g) — the place has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;	No information provided	The study area was not considered to contain elements representing this criterion at a local or State level.
Criterion (h) —If the place has a special association with the life or work of a particular person, group or organisation of importance in Queensland's history.	No information provided	The study area was not considered to contain elements representing this criterion at a local or State level.

6.6.3 Archaeological Values for the Study Area

6.6.3.1 Identified Archaeological Values

The majority of the sites identified in the study area (Table 6.3) are archaeological in nature, and eight sites have moderate to high potential for archaeological remains. Sites A2-A6 have direct association with the nineteenth century coach route network form a 'suite' or complex of sites. The coach route network is assessed as having moderate to high heritage significance.

Site A5 (Hotel site) has been assessed as having the potential to satisfy entry onto the Queensland Heritage Register as an 'Archaeological Place' under section 60 of the *Queensland Heritage Act 1992*, as it has been found to contain an archaeological artefact that is an important source of information about Queensland's history. Obligations arising from these provisions are outlined in Section 8.

6.6.3.2 Potential for Further Archaeological Finds

This assessment has concluded that the study area has high potential to contain further sites and places of archaeological significance relating to the settlement of the area through the mid-to-late nineteenth century into the early twentieth century. Highest potential is the location of rare and endangered archaeological resource associated with the nineteenth century coach route network within the study area. Obligations arising from this potential are outlined in Section 8.

7.0 Proposed Development

7.1 Nature of Development

HPPL proposes to establish a mine in the Galilee Coal Basin, approximately 440km west of Rockhampton, in central Queensland. . Described as the jewel in the crown of the Galilee, the Alpha Coal Project will be a 30 million metric tonnes per annum (Mtpa) open-cut coal mine, with the potential for the future development of significant underground reserves. The project comprises a number of open-cut pits, varying in area and depth that will be mined using dragline, trucks and shovels. The coal will be crushed, processed and blended on site before being transported by rail to the expanded Abbott Point Coal Terminal for export. A mine life is currently proposed of thirty years.

7.2 Potential Impacts on Cultural Heritage

Potential impact on recognised and potential cultural heritage sites by the project will generally be in the nature of removal of the ground surface and sub-surface disturbance, vegetation clearance related to the mine's expansion and the development of associated infrastructure, and the consequent destruction and/or removal of the structures/features which form the non-Indigenous cultural heritage of the area.

This report has considered the impact on environmental values of all exploration and mining activities relating to the development and operation of the mine site and associated infrastructure and utilities. The current development layout for the mine indicates that several sites are likely to be directly impacted by the proposed project, whilst many remain outside of the disturbance area (see Figure 18):

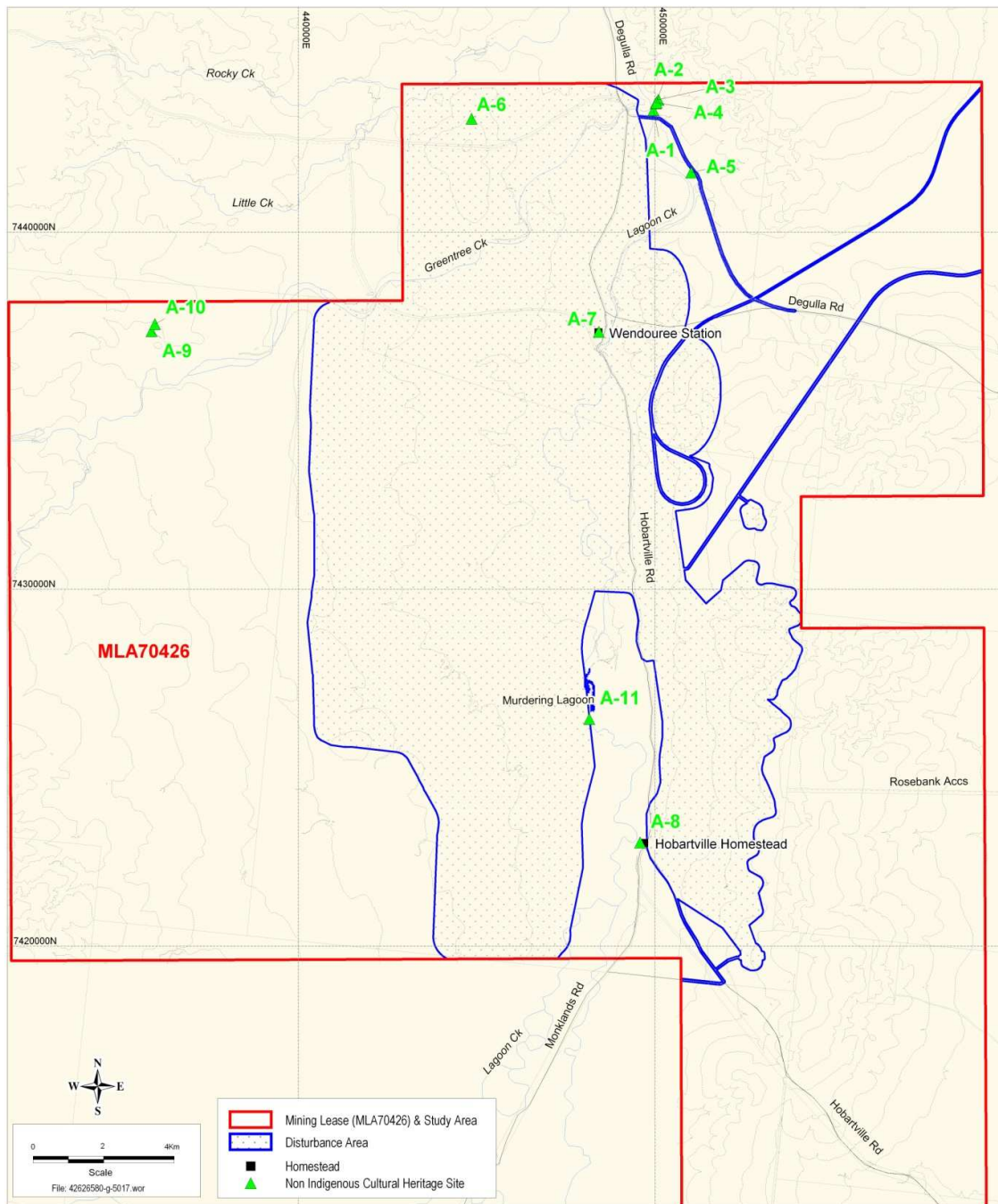
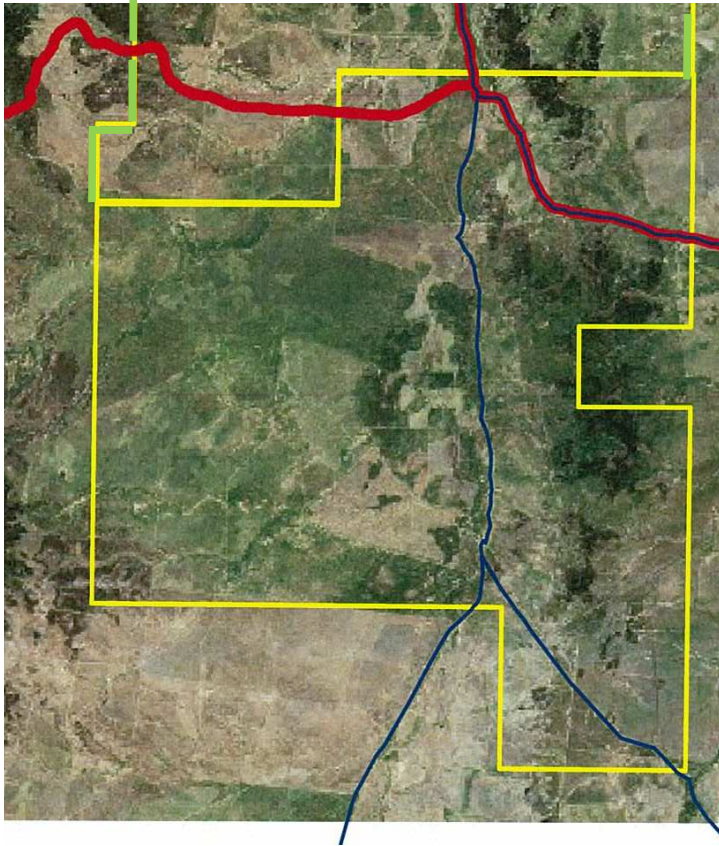


Figure 18: Location of non-Indigenous cultural heritage sites within the study area.

Figure 19: Location of the nineteenth century coach route (outlined in red) within the study area (outlined in yellow).



7.3 Project Impact on Sites and Places of Cultural Heritage Significance

Following analysis of the proposed project's nature, the following conclusions are provided in relation to known sites of non-Indigenous cultural heritage (impacted sites highlighted in bold):

Table 7.1: Project Impact on Sites and Places of Cultural Heritage Significance within the Study Area.

Site No.	Name	Significance Grading ⁴	Impact Assessment
A-1	Lagoon Creek Bush Camp	Moderate	Not impacted
A-2	Kate Doonan's Grave	Moderate – High	Not impacted
A-3	Bottle Dump	Moderate – High	Not impacted
A-4	Old Paddock Fence line	Moderate – High	Not impacted
A-5	Hotel Site	Moderate – High	<i>Not impacted – (but in close proximity to disturbed area)</i>
A-6	Cart ruts	Moderate – High	Directly impacted
A-7	Wendouree Homestead complex	Low	Directly impacted
A-8	Hobartville Homestead complex	Moderate	<i>Not impacted – (but in close proximity to disturbed area)</i>
A-9	Greentree Dam	Low	Not impacted
A-10	Marsupial Fence	Low	Not impacted
A-11	Murdering Lagoon	Low	Directly impacted

Sites A2-A6 have direct association with the nineteenth century coach route network form a 'suite' or complex of sites. The coach route network is assessed as having moderate to high heritage significance, which will need to be managed with due regard to their associative significance.

7.4 Project Impact on Potential Sites and Places of Cultural Heritage Significance

This assessment has concluded that the study area has high potential for archaeological remains to exist across the majority of the identified sites within the study area. Highest potential is the location of rare and endangered archaeological resource associated with the nineteenth century coach route network in the form of artefactual surface scatter and possible 'rest stop' areas between hotel sites to exist along the entire coach route alignment(s) outlined in Figure 18.

⁴ Utilising applied associative significance outlined in Table 6.3

These are likely to be further sites also relating to pastoral and settlement activities; including homesteads, remote graves, camps, holding yards, dams, historic survey trees, and remnant boundary fence lines, which are potentially impacted by the project. Recommendations to mitigate project impacts on potential sites of non-Indigenous cultural heritage are provided in Section 8.

8.0 Management Measures

This assessment has identified eleven cultural heritage sites of which three are directly impacted by the project, along with the likelihood for further potential sites of cultural heritage significance to exist within the study area. This section provides specific recommendations in relation to these sites and general mitigation recommendations to manage unknown and unexpected historic cultural heritage sites located within the study area that may potentially be impacted.

Assuming the recommendations below are suitably implemented, this report finds the nature and level of impact by the project can become acceptable.

8.1 Recommendation 1 – Avoidance of Sites

The best form of cultural heritage management is to avoid impact on sites and places of significance. It is recommended that the design of the study area take into account each of the heritage sites and places discussed in this report, and, where possible, avoids impacting on these sites, or if this is not possible, implements the relevant mitigation measures as recommended in this report.

8.2 Recommendation 2 – Further Assessment of the Nineteenth Century Coach Route

The coach route network is assessed as having high potential for further sites and archaeological remains associated with its historic nature to exist within its proximity. One archaeological place (A-5 Hotel site) directly associated with the coach route has been assessed by this report to be potentially of State significance.

Due to the size of the study area and nature of the project brief, it was neither possible nor practical to provide a comprehensive survey of the coach route within the study area. This assessment therefore recommends the development of a Cultural Heritage Management Plan (CHMP) for the coach route network prior to any ground disturbing activities taking place in the vicinity. The CHMP should include:

- Further and focussed contextual research of the coach route between Clermont-Aramac, to identify further potential for sites and places to exist within the study area;
- Further comparative research to determine other examples of coach route networks which might survive within Central Queensland, so that further conclusions can be made in respect to the exact nature of the coach route network within the study area;

- Brief survey of targeted sections of the Clermont-Aramac coach road (outside of the study area) to determine the likelihood of sites and places to survive of comparative nature and context to those in the study area;
- Further site inspection to record key features and sites within the study area which are considered to be associated with the route;
- On completion, provide a CHMP Report to HPPL which provides clear and achievable mitigation and management measures to protect and conserve cultural heritage values associated with the coach route network within the study area for the life of the project, including:
 - Record any sites located within the proposed disturbance area of the project in detail to an archival standard by a qualified cultural heritage professional and in line with the draft DERM Guidelines for Archival Recording; and
 - Obligations for any sites which might be considered an Archaeological Place, under the provisions of Section 60 of the QHA, including liaison with DERM;
 - Consider the potential for archaeological excavation or further research opportunities for sites which exhibit archaeological values important to the region or to Queensland, which might be impacted by the project.

Until such time that the CHMP has been completed, this report suggests that no ground disturbing activities be undertaken within 500 m either side of the coach route alignment shown in Figure 18.

8.3 Recommendation 3 – Protection of Archaeological Places of State Significance (A-5 Hotel Site)

This assessment has found the former Hotel site (A-5) to be an Archaeological Place of potential state significance. State significant archaeological sites require special consideration under the provisions of the *Queensland Heritage Act 1992*, as they represent a heritage asset that *has potential to contain an archaeological artefact that is an important source of information about Queensland's history*.⁵ Obligations under section 60 of the Act require the person who finds the 'archaeological place' to report the find to the Chief Executive Officer of the DERM, which in this case is HPPL.

In addition, avoidance of these sites should be practised and all staff made aware of relevant obligations to avoid the area. If a place is registered on the QHR, development at that place will fall under Queensland's Integrated Development Assessment System (IDAS). As a result, the DERM

⁵ *Queensland Heritage Act 1996, Section 60 (b)*

may require an archaeological investigation to be conducted on an archaeological place as part of the consent conditions, particularly if the proposed development may damage or impact the significance of the site.

8.4 Recommendation 4 - Mitigation of Site A-7 & A-11 (Wendouree Homestead and Murdering Lagoon)

Site A-7 (Wendouree Homestead) and Site A-11 (Murdering Lagoon) are directly impacted by the project and cannot be avoided. Considered by this report to each exhibit low levels of cultural heritage significance, it is therefore recommended the following process is carried out prior to any development or ground disturbance takes place:

- Brief further research the history, including oral history, of the homestead complex;
- Record the complex in detail to an archival standard by a qualified cultural heritage professional and in line with the draft DERM Guidelines for Archival Recording; and
- Provide an archival report to HPPL and appropriate local organisations such as the Barcaldine Regional Council, DERM, and the John Oxley Library.

8.5 Recommendation 5 – Unexpected Finds

This report has found that the study area has the potential to contain non-Indigenous cultural heritage material, particularly in the vicinity of the nineteenth century couch route and homestead complexes.

Accordingly, the EM Plans developed for the project should include a procedure for managing unexpected cultural heritage material or sites that may be encountered. This should include:

- All work at the location of the potential material or site must cease and reasonable efforts to secure the site should be made – a buffer zone of 20 metres around the find is suitable;
- Work can continue at a distance of 20 meters from a find area. Note that the material or site should not be removed or disturbed any further (barriers or temporary fences may be erected as a buffer around the find if required);
- The Site Manager should be notified. They will then notify the Historical Archaeologist appointed to the project; and
- The Historical Archaeologist will provide management recommendations to the Site Manager and will liaise with the DERM to ensure that the archaeological provisions of the *Queensland Heritage Act 1992* are followed.

These procedures should be integrated into HPPL's procedures for impact assessment and site scouting, as well as any procedures for managing cultural heritage.

8.6 Recommendation 6 – Archaeologist “On-Call”

It is recommended that a historical archaeologist be appointed during construction phases of the project, so that a call-out can be made as soon as potential archaeological material is noted.

8.7 Recommendation 7 – Regular Monitoring

The project should undertake a bi-annual survey of all heritage items identified on HPPL owned or leased land (i.e. land on which HPPL operates), or on land directly affected by current operations, to ensure that the general recommendations outlined above and those for individual heritage items are being followed and having a positive effect. Any damage to items can be catalogued and actions taken to ensure that the process that caused the damage is not repeated and that training material for staff can be updated with current information. HPPL should develop forms and databases, similar to those it has for Indigenous heritage, to monitor the condition, management and protection of the heritage sites.

9.0 Bibliography

Bickford, A and S Sullivan

- 1984 'Assessing the Research Significance of Historic Sites', in Sullivan, S and S Bowdler (eds) *Site Surveys and Significance Assessment in Australian Archaeology* (Proceedings of the 1981 Springwood Conference on Australian Prehistory), Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra, pp 19–26.

Brisbane Courier, 28 April 1880, p. 6.

Cook, M & Pullar, M.

- 2008 *A Contextual Heritage Study of Tracks and Trails in Queensland: A Report for the Environmental Protection Agency.*

Cooper, J.

- 2005 *Sufficient for living: a history of pastoral industries in the Alpha district.* Alpha, Alpha Historical Society.

Cottam, S.

- 1990 *Jillaroo: Station Life in the Outback.* Melbourne, Viking O'Neil.

Evans, R.

- 2007 *A History of Queensland.* Cambridge University Press, Melbourne.

French, M.

- 1989 *Conflict on the Condamine: Aborigines and the European Invasion.* Toowoomba, Darling Downs Institute Press.

Fitzgerald, R.

- 1984 *A History of Queensland: From 1915 to the 1980s.* Brisbane, University of Queensland Press.

Hoch, I.

- 1984 *Alpha Jericho: a history 1846-198.* Jericho, Jericho Shire Council.

John Oxley Library

- 1892 *Queensland in 1892, Illustrating Stock Routes, Main Roads, Railway Lines and Artesian Bores and Tanks, 45 miles to the inch.* Brisbane, Survey Office & Railway Commissioner.

Johnston, W.

- 1982 *The Call of the Land: A History of Queensland to the Present Day.* Brisbane, Jacaranda Press.

Kerr, J.

1998 *Triumph of Narrow Gauge: A History of Queensland Railways*. Brisbane, Boolarong Press.

Museum of Lands, Mapping and Surveying

1885 South Kennedy Pastoral District.

1888 M57 Sheet 207.

1919 Queensland Four Mile Map Sheet 10b.

National Library of Australia

1874 Map of Queensland. Gibbs, Shallard & Co.

O'Donnell, D.

1989 *A History of Clermont and District*. Clermont, Belyando Shire Council.

Queensland Heritage Register

Irlam's Ant Bed Building Place ID: 602010

Queensland State Archives

Run Files

1887-1932 Queensland State Archives Item ID27600, Hobartville Pt 1.

1932-1961 Queensland State Archives Item ID306319, Hobartville Pt 2.

1910-1929 Queensland State Archives Item ID29381, Charlemont.

1885-1931 Queensland State Archives Item ID27646, Surbiton.

1929-1960 Queensland State Archives Item ID306861, Cavendish, South Kennedy.

Dead Farm Files

N/A Queensland State Archives Item ID70575, Springsure: 1099, 1105-1107.

N/A Queensland State Archives Item ID68482, Clermont: 676, 680, 682.

N/A Queensland State Archives Item ID74923, Springsure: 1089, 1091, 1098, 1100-1104, 1109, 1113, 1115.

Queenslander, 13 July 1878, p. 469.

Richards, J.

2008 *The Secret War: A True History of Queensland's Native Police*. Brisbane, University of Queensland Press.

Suarez-Inclan, Maria Rosa,

2002 'The Conceptual and Substantive Independence of Cultural Routes in Relation to Cultural Landscapes' Presentation to the ICOMOS 13th General Assembly, Scientific meeting of the International Committee on Cultural Routes (CIIC), Madrid, 5 Dec 2002.

Tranter, D.

1990 *Cobb & Co: Coaching in Queensland*. Brisbane, Queensland Museum.

United States National Park Service

(Undated Webpage) *Guidelines for the Treatment of Cultural Landscapes: Factors to Consider when Selecting a Treatment*:
http://www.nps.gov/history/HPS/hli/landscape_guidelines/factors.htm.

10.0 Appendices

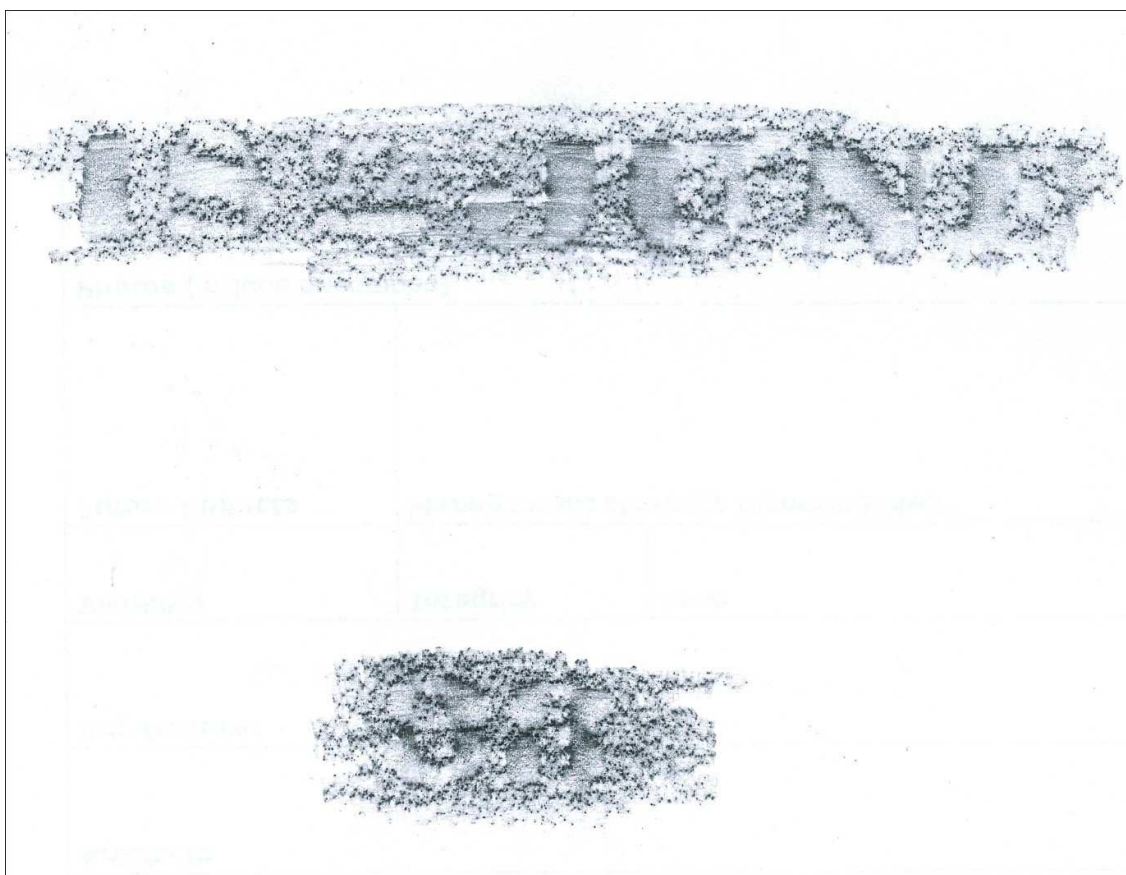
Appendix A -Site Recording Forms (Site Inventory)

Site No	A – 1
Type/Name	Lagoon Creek Bush Camp
Location (Datum WGS84 Zone 55K)	██████████
Description	<p>Site within the Wendouree property (MDL333) approximately 35-40 m east of Lagoon Creek and adjacent to recent vehicular track. High concentration of artefacts along the north side of an erosion ditch (riparian corridor erosion zone along eastern side of Lagoon Creek, particularly to the immediate south of the bush camp site). Scatter extends over an area approximately 15 m by 30 m. Artefacts include: blue, black, light and dark green glass, amethyst glass (dating to 1890-1916), buttons, squarehead nails, wire fragments, buttons, metal pieces likely associated with harnesses and carts such as rings and links, ceramic tablewares, transferware, condiment bottles (Lea & Perrins glass bottle top stoppers), shotshell casings (Eley London x2, Eley Winchester x1), campfire stove fragments, and an axe head.</p> <p>Artefacts also noted along margins of modern vehicular track (which traverses the area north – south) for approximately 150 m. Isolated artefacts (ceramics, glass) noted on grassed-covered area along eastern side of track. Provenance of these artefacts difficult to determine as site has been disturbed.</p> <p>Bush camp likely a reused/'recycled' site for shepherd/stockmen proximate to Doonans Hotel site. Possible use as watering/servicing area for draught animals. Former stone pitch creek crossing once located approximately 50 -100 m south of camp site, now washed away (D. Carruthers, pers comm.)</p>
Provenance	Late nineteenth century/early twentieth century
Condition	Poor. The site has been impacted by relic hunters/collectors, clearing, erosion, flooding, livestock and vehicular traffic.
GSV	50%
Potential Impact	Potential impacts by services, roads, and infrastructure
Archaeological Potential	High potential - surface scatter Low potential - subsurface remains
Site Phase Association	Indirect association with coach route network, likely to have direct association with stock route network.
Individual Site Significance	Moderate



Site No	A - 2
Type/Name	Kate Doonan's Gravesite
Location (Datum WGS84 Zone 55K)	██████████
Description	<p>Site within Wendouree property (MDL333). Grave is located in an area of regrowth vegetation approximately 70 m east of Lagoon Creek, and 25 m east of a vehicular track which runs north-south. A cattle trail is immediately adjacent to the grave. The gravesite comprises two stone slabs – the erect headstone and secondary slab stone.</p> <p>Headstone inscription: "In loving memory of Kate, the wife of P. Doonan, Died 18 June 1885, Aged 33 years RIP"</p> <p>Associated with Doonan's Hotel site along coach route. The precise hotel site and coach route alignment were not identified during this survey.</p>
Provenance	c1885
Condition	Fair
GSV	50%
Potential Impact	Potential impacts by services, roads and infrastructure
Archaeological Potential	High potential – human remains, possible grave goods.
Site Phase Association	Direct association with coach route network
Individual Site Significance	Low - Moderate





Pencil rubbing of Kate Doonan's grave to clarify age at death ('33' – note difference in the '8' in date and '3')

Site No	A - 3
Type/Name	Bottle Dump
Location (Datum WGS84 Zone 55K)	██████████
Description	<p>Site located on Wendouree property (MDL333) and identified by landowner (D. Carruthers). Site located along southern bank of a ravine which feeds into Sandy Creek from the east. Scatter extends over an area approximately 20 m x 10 m. Located 150 NE of old paddock fence line. Dense concentration of fragmented stoneware (porter ale and stout bottles), light and dark green glass, amethyst glass, transferwares including Willow pattern. Aromatic Schnapps panelled bottle (pharmaceutical, advertised as a medicinal gin tonic in the mid to late 19th c).</p> <p>Dump likely to have been associated with Doonan's Hotel.</p>
Provenance	Late nineteenth century
Condition	Poor - Fair. The site has been scavenged by relic hunters/collectors (no complete bottles noted). Condition of subsurface material may be better.
GSV	50%
Potential Impact	Potential impact by services, roads and infrastructure
Archaeological Potential	High potential – surface scatter as well as subsurface remains
Site Phase Association	Indirect association with coach route network, likely to have direct association with stock route network.
Individual Site Significance	Low - Moderate



Site No	A - 4
Type/Name	Old Paddock Fence line
Location (Datum WGS84 Zone 55K)	██████████
Description	Site located on Wendouree property (MDL333) and identified by landowner (D. Carruthers). Three barbed split post fence remnant on a west-east alignment approximately 110 m in length. Remnant comprises at least five posts approximately 105 cm high, with at least two fallen posts (possibly more). Landowner suggests fencing relates to old paddock associated with Doonan's Hotel.
Provenance	Late nineteenth century
Condition	Poor
GSV	0%
Potential Impact	<ul style="list-style-type: none"> • Not within open cut mine footprint • Potential impacts by services, roads and infrastructure
Archaeological Potential	Low
Site Phase Association	Direct association with coach route network
Individual Site Significance	Low





Site No	A - 5
Type/Name	Coach Route Hotel site
Location (Datum WGS84 Zone 55K)	██████████
Description	<p>Site located on Wendouree property (MDL333) and identified by landowner (D. Carruthers). Located 50 m east of Lagoon Creek, approximately 500 m northwest of earthen dam (20th c). Heavy regrowth vegetation of juvenile trees and grasses. Site includes both structural remains and surface scatter.</p> <p>Structural: 3-sided rectilinear meta-sedimentary stone alignment. Stones approximately 30-40 cm h, internal area 140 cm x 100 cm, entire structural footprint 190 cm x 130 cm. GSV – 50% (grass coverage). Likely a hearth / fireplace structure.</p> <p>Artefactual: Dense scatter across 50 m x 50 m area, extending southwest from hearth structure. Artefacts include: complete green and black bottles, amethyst liniment bottle bases, square base gin bottles, buttons (Crown), Kynoch & Co Birmingham percussion cap, possible chamber pot lip, glass fragments (blue, clear, light and dark green, dark purple, browns), ceramic fragments (blue, purple, brown transferwares), earthenware fragments, stoneware bottle fragments, pipestems, draught horseshoe, ink bottle bases, tin lids and container fragments. Decorative metalwork – possible lamp (candle or gas) fixture found adjacent to stone structure.</p> <p>An area of metal discard, including wagon wheel rims, braces, links and chain, rods, and other unidentified objects situated approximately 4 m to the west of the stone structure.</p> <p>During consultation with landowners (B. Carruthers and D. Carruther) also noted a 'garden bed marked with rocks'. The garden was not located.</p> <p>Site likely to be former hotel/inn on the historical Surbiton – Wendouree coach route, previously unidentified on sourced historical maps/documents.</p>
Provenance	Late nineteenth century
Condition	Fair
GSV	30%
Potential Impact	Potential impacts by services, roads and infrastructure
Archaeological Potential	High potential – surface scatter, structural remains, subsurface remains
Site Phase Association	Direct association with coach route network
Individual Site Significance	Moderate - High



Site No	A - 6
Type/Name	Cart Ruts
Location (Datum WGS84 Zone 55K)	[REDACTED]
Description	Site located on Wendouree property (MDL333) and identified by landowner (D. Carruthers), approximately 7 km northwest of the Wendouree Homestead. Remnant wagon/cart tracks remain in situ along the western and eastern sides of a gravel farm road which crosses the site. Approximately 10 m east of the track, at least six tracks can be seen in a cleared area (10 m x 10 m), possibly where the carts became bogged, necessitating deviations from main route. Tracks are indicated by alternating bands of compacted and sandy soil (approximate 35-40 cm width), on a west-east alignment.
Provenance	Late nineteenth century/early twentieth century
Condition	Fair
GSV	Eastern section - 95%
Potential Impact	Will be entirely impacted by proposed development
Archaeological Potential	Moderate
Site Phase Association	Direct association with coach route network
Individual Site Significance	Low - Moderate



Site No	A - 7
Type/Name	Wendouree Homestead complex
Location (Datum WGS84 Zone 55K)	██████████
Description	<p>Carruthers homestead, located in MDL333, approximately 500 m southwest of the Degulla Road/Hobartville Road T-junction. Consultation undertaken on-site with three members of Carruthers family (Doug, Sharon and Betty). Site comprises a main homestead, a secondary homestead, a fibro house, large sheds, garages, high water tanks, orange tree orchard, cattle yards, and Horseshoe Lagoon (448481E, 7437018N), over an area approx. 500 m x 400m.</p> <p>Homestead 1: prefabricated house dating to early 1960s with addition, garage and pool. Fibro house located approx. 30m to west of main house. Orchard along western side of house.</p> <p>Homestead 2: Was not visited. Apparently built on site of original hut (previously dating to the late nineteenth century on which a 2-car garage and tank are now located (1960s?))</p> <p>Functional buildings/structures: All other buildings/structures on site date to the mid to late twentieth century. Large sheds are steel framed with corrugated iron sheeting. Storage sheds aluminium. Steel tanks and sundry machines.</p>
Provenance	1960s on
Condition	Good
GSV	60 - 90%
Potential Impact	Will be entirely impacted by proposed development
Archaeological Potential	Low
Site Phase Association	20 th c pastoral activity – no direct association with coach route network
Individual Site Significance	Low



Site No	A - 8
Type/Name	Hobartville Homestead complex
Location (Datum WGS84 Zone 55K)	<div style="background-color: black; width: 100px; height: 1.2em;"></div>
	<p>Complex is located on the western side of the Hobartville Road (Hobartville property, or MDL285) and comprises: main homestead (x2 houses) and garden, large shed, meathouse, car port, two [2] demountables, dog run area, chook yard and pigsty, cattle yards, gravesite, Southern cross windmill water pump and storage tanks within area approximately 300 m x 200 m. Consulted with property manager (not landowner, as Barcaldine Company is), Steve Kimber.</p> <p>Homestead: Two houses linked together by contemporary extension. Main house likely dates to c1895 and was reportedly relocated from Mt. Morgan in the 1920s/30s replacing an older house on site which may have burnt down (S. Kimber, pers comm.). A rectangular low set white weatherboard house faces southeast with a large wraparound enclosed verandah with louvres on south, west and east sides. Exposed 'cross' bracing on internal verandah walls. Hipped green corrugated iron roof with skillion extension over verandah. House restumped, but older cypress pine stumps remain beneath house.</p> <p>Main house connected to a secondary house on northern side (approx. 2 m apart) by a louvred hallway addition. Secondary house is more contemporary (date unknown), but reclad and reroofed at same time as main house for a degree of aesthetic cohesion. Smaller low set white weatherboard house with skillion roof, small portico on east side to support airconditioner, recent addition of a small deck entrance to rear. Landowner does not know provenance of second house. A wash area with timber framework, enclosed on three sides with corrugated iron sheeting and skillion roof, is situated to the rear of second house. One water storage tank situated to the west of main house within yard, and two adjacent to the second house in the east yard.</p> <p>Small corrugated iron shed on eastern edge of homestead complex housing garden tools. Remnant ironbark adzed post and rail fence reused as garden feature. Plantings around house include: Poinciana, leopard wood, cedar, pepper tree, bottle trees.</p> <p>Skillion-roofed carport adjacent to second house on western side, in front of an older green pitched-roof timber-framed meathouse with walls of partial asbestos sheeting and partial mesh netting at top for ventilation.</p> <p>Functional buildings/structures: All other buildings/structures on site date to the late twentieth century. Large sheds are steel framed with corrugated iron sheeting. Storage sheds aluminium. Demountables and livestock transport all recent make.</p> <p>Gravesite: White wrought iron fencing surround, with corner balustrades anchored by small timber footings. Grave site of a mother and son dating to 1884 - Mary Ann Curnow, aged 42 and Hobartville Curnow, aged 3 months. Marble headstone on sandstone (concrete?) base a recent twentieth century construction. Structural elements date to mid or late twentieth century – good condition. Financer of grave unknown. Relatives of deceased unknown.</p> <p>Light artefactual scatter extends across an area approximately 5 m by 10 m from western side of vehicular track (adjacent to raised livestock transport container), few glass and ceramic fragments visible on track, and ephemeral scatter on eastern side of track. Artefacts include: black, green blue glass, metal fragments, ceramic transferware. S. Kimber stated he had hit a bottle dump in that area (clarification which area?) thinks original house was in this vicinity, between large shed and gravesite.</p>
Provenance	1880s on
Condition	Good
GSV	70 - 100%
Potential Impact	On boundary of mine footprint – potential subsidence, possible impacts from services, roads, and related infrastructure
Archaeological Potential	High potential – human remains and potential grave goods, surface scatter, subsurface remains
Site Phase Association	Indirect association with coach route network
Individual Site Significance	Moderate





Site No	A - 9
Type/Name	Greentree Dam
Location (Datum WGS84 Zone 55K)	██████████
Description	<p>Site is located in the northwest of Hobartville property (MDL285), approximately 500 m north of a tributary of Sandy Creek. Earthen dam is approximately 80 m x 80 m. Southern Cross windmill water pump and holding tank, cattle yards with permanent troughs. Cattle yards eastern perimeter fencing form part of intersect marsupial fencing (AHC-14) boundary.</p> <p>Dam builders camp site may have been around this area (S. Kimber pers comm.) Camp site not located during survey.</p>
Provenance	c1902 on
Condition	Good
GSV	0 – 90% Dense vegetation in disused paddocks, but good visibility in paddocks and top of dam banks.
Potential Impact	Possible impacts from services, roads, and related infrastructure
Archaeological Potential	Low potential – possible camp site and/or surface scatter
Site Phase Association	20 th c pastoral activity – no direct association with coach route network
Individual Site Significance	Low



Site No	A - 10
Type/Name	Marsupial Fence
Location (Datum WGS84 Zone 55K)	██████████
Description	Site is located in the northwest of Hobartville property (MDL285). Site identified by landowner. Marsupial netting runs on a north-south alignment. Mostly falling down south of Greentree Dam, but intact section runs to the north. Netting/fencing earmarked for removal (S. Kimber, pers comm.)
Provenance	Early twentieth century on
Condition	varies
GSV	90%
Potential Impact	Will be removed by landowner
Archaeological Potential	Nil
Site Phase Association	20 th c pastoral activity – no direct association with coach route network
Individual Site Significance	Low



Site No	A - 11
Type/Name	Murdering Lagoon
Location (Datum WGS84 Zone 55K)	
Description	Site located in the northern sector of the Hobartville property (MDL285) approximately 4km northwest of Hobartville homestead complex, and 1.8 km west of the Hobartville road. Dredged and widened in the 1980s (?) Unknown origin of name, but possibly alludes to a local incident involving the local Aboriginal community (S. Kimber, pers. Comm.)
Provenance	Early twentieth century
Condition	Good
GSV	0 – 50%
Potential Impact	Will be entirely impacted by proposed development
Archaeological Potential	Low
Site Phase Association	20 th c pastoral activity – no direct association with coach route network
Individual Site Significance	Low

