



N

Historic Heritage Impact Assessment

Bengalla Mine Continuation Environmental Project Impact Statement

Historic Heritage Impact Assessment



Quality Information

Document Bengalla Mine Continuation Environmental Project Impact Statement

Ref 60222767

Date 2 July 2013

Prepared by Susan Lampard

Reviewed by Luke Kirkwood

Revision History

Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
1	21 March 2012	Draft	Susan Lampard Luke Kirkwood Principal Archaeologist	<i>S. Lampard</i>
2	2 July 2012	Response to BMC Comments	Susan Lampard Archaeologist	<i>S. Lampard</i>
3	31 October 2012	Incorporation of blasting data	Susan Lampard Archaeologist	<i>S. Lampard</i>
4	4 December 2012	Response to BMC Comments	Susan Lampard Archaeologist	<i>S. Lampard</i>
4	2 July 2013	Final comments from BMC	Luke Kirkwood Principal Archaeologist	<i>Luke Kirkwood</i>

Bengalla Mine Continuation Environmental Project Impact Statement

Historical Heritage Report

Prepared for

Hansen Bailey

Prepared by

AECOM Australia Pty Ltd

Level 21, 420 George Street, Sydney NSW 2000, PO Box Q410, QVB Post Office NSW 1230, Australia
T +61 2 8934 0000 F +61 2 8934 0001 www.aecom.com
ABN 20 093 846 925

2 July 2013

60222767

AECOM in Australia and New Zealand is certified to the latest version of ISO9001 and ISO14001.

© AECOM Australia Pty Ltd (AECOM). All rights reserved.

AECOM has prepared this document for the sole use of the Client and for a specific purpose, each as expressly stated in the document. No other party should rely on this document without the prior written consent of AECOM. AECOM undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document. This document has been prepared based on the Client's description of its requirements and AECOM's experience, having regard to assumptions that AECOM can reasonably be expected to make in accordance with sound professional principles. AECOM may also have relied upon information provided by the Client and other third parties to prepare this document, some of which may not have been verified. Subject to the above conditions, this document may be transmitted, reproduced or disseminated only in its entirety.

Table of Contents

Executive Summary		viii
1.0	Introduction	1
1.1	Project Background	1
1.2	Project Description	1
1.3	Director General's Requirements	4
1.4	Project Objective	4
1.5	Structure of This Report	4
1.6	Project Team	5
1.7	Limitations	5
2.0	Statutory Controls	6
2.1	Environment Protection and Biodiversity Conservation Act 1999	6
2.2	Environmental Planning and Assessment Act 1979	6
2.3	The Heritage Act 1977	7
2.4	Hunter Regional Environmental Plan (Heritage) (1989)	7
2.5	Muswellbrook Local Environmental Plan (2009)	8
3.0	Historical Context	9
3.1	Introduction	9
3.2	Early European Exploration	9
3.3	The Origins of Bengalla	9
3.4	Inglebrae/New Bengalla	11
3.4.1	The Location of Relics on the Bengalla Mining Company's Estate	12
3.4.2	Historical Themes for Old Bengalla and Bengalla Homestead	12
3.5	Overton/Overdene	13
3.6	Impact of the Merriwa Railway	14
3.7	Historical Themes	15
4.0	Methodology	16
4.1	Heritage Inventory Search	16
4.2	Historical Context	16
4.3	Field Survey Methodology	16
4.4	Analysis	17
4.5	Significance Assessment Criteria	17
5.0	Heritage Inventory Results	19
5.1	Heritage Inventories	19
5.2	Heritage Inventory Searches	19
6.0	Items Identified within the Project Boundary	21
6.1	Bengalla Homestead	21
6.1.1	Description	21
6.1.2	Historical Context	22
6.1.3	Significance Assessment	23
6.1.4	Statement of Significance	24
6.2	House Site 1	24
6.2.1	Description	25
6.2.2	Historical Context	25
6.2.3	Significance Assessment	25
6.2.4	Statement of Significance	25
6.3	House Site 2	25
6.3.1	Description	25
6.3.2	Historical Context	26
6.3.3	Significance Assessment	26
6.3.4	Statement of Significance	26
6.4	Stockyard	26
6.4.1	Description	26
6.4.2	Historical Context	26
6.4.3	Significance Assessment	27
6.4.4	Statement of Significance	27

6.5	House Site 3	27
6.5.1	Description	27
6.5.2	Historical Context	27
6.5.3	Significance Assessment	28
6.5.4	Statement of Significance	28
7.0	Items adjacent to the Project Boundary	29
7.1	Introduction	29
7.2	Keys Family Private Cemetery	29
7.2.1	Description	29
7.2.2	Historical Context	29
7.2.3	Significance Assessment	30
7.2.4	Statement of Significance	30
7.3	Old Bengalla/Dalmar Stud	31
7.3.1	Description	31
7.3.2	Historical Context	31
7.3.3	Significance Assessment	32
7.3.4	Statement of Significance	33
7.4	Overdene	34
7.4.1	Description	34
7.4.2	Historical Context	35
7.4.3	Significance Assessment	35
7.4.4	Statement of Significance	35
7.5	Blunt's Butter Factory site	36
7.5.1	Description	36
7.5.2	Historical Context	36
7.5.3	Significance Assessment	37
7.5.4	Statement of Significance	37
7.6	Edinglassie	38
7.6.1	Description	38
7.6.2	Historical Context	38
7.6.3	Significance Assessment	39
7.6.4	Statement of Significance	39
7.7	Rous Lench	40
7.7.1	Description	40
7.7.2	Historical Context	40
7.7.3	Significance Assessment	41
7.7.4	Statement of Significance	41
8.0	Issues and Potential Impacts	43
8.1	Direct Impacts	43
8.2	Indirect Impacts	43
8.2.1	Blasting	43
8.2.2	Visual	44
8.2.3	Mine Operations	44
8.3	Avoidance	44
9.0	Mitigation and Management	45
9.1	Directly Impacted Items	45
9.2	Avoidance	45
9.3	Indirectly Impacted Items	46
9.3.1	Blasting	46
9.3.2	Visual	46
9.4	Bengalla Historic Heritage Management Plan	46
10.0	Statements of Heritage Impact	47
10.1	Introduction	47
10.2	Stockyard	47
10.2.1	Summary of Impact/s to Heritage Significance	47
10.2.2	Heritage Impact Assessment	48
10.2.3	Statement of Heritage Impacts	48

10.3	Statement of Heritage Impact: Bengalla and Overdene Homesteads	49
10.3.1	Summary of Impact/s to Heritage Significance	49
10.3.2	Heritage Impact Assessment	49
10.3.3	Statement of Heritage Impacts	50
11.0	Conclusion	51
12.0	References	52
Appendix A		53
	Heritage Inventory Sheets	54

List of Tables

Table 1	Old Bengalla and Bengalla's Historical Themes	12
Table 2	Overdene's Relevance to Historical Themes	15
Table 3	Heritage Items Identified on Heritage Inventories	20
Table 4	Summary of sites identified within the Disturbance Boundary	21
Table 5	Summary of sites identified adjacent to the Project Boundary	29
Table 6	Predicted blast impacts to heritage items	43
Table 7	Summary of the nature of the heritage impacts	49
Table 8	Summary of the nature of the indirect heritage impacts	50

List of Figures

Figure 1	Regional Context	2
Figure 2	Heritage Items within and Adjacent to the Project Boundary	3

Executive Summary

AECOM Australia Pty Ltd (AECOM) was commissioned by Hansen Bailey Environmental Consultants on behalf of Bengalla Mining Company Pty Limited (BMC) to undertake a historical archaeological and cultural heritage impact assessment for the Continuation of Bengalla Mine Project (the Project). The purpose of the assessment is to form part of an Environmental Impact Statement (EIS) being prepared by Hansen Bailey to support an application for State Significant Development under Division 4.1 of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to facilitate the continuation and development of an open cut coal mining operation and associated infrastructure.

This report presents the results of the historical archaeological survey and subsequent significance assessment of identified heritage sites within the Project Boundary, conducted between 28 and 30 November 2011.

BMC was granted Development Consent (DA 211/93) by the then Minister for Urban Affairs and Planning on 7 August 1995 for the construction and operation of a surface coal mine, coal preparation plant, rail loop, loading facilities and associated facilities. The supporting document to the Development Consent is the Environmental Impact Statement for Bengalla Coal Mine dated November 1993 (Original EIS) (HLA-Envirosciences Pty Ltd, 1993). Bengalla Mine was originally approved to operate for a 21 year period from 1996. Since the granting of DA 211/93, there have been four approved modifications at Bengalla Mine.

The Project will largely rely upon the currently approved and constructed mine site infrastructure including (but not limited to) the Coal Handling and Preparation Plant (CHPP), rail loop and load out facility and workshop / administrative buildings. Some of this infrastructure will be required to be relocated or upgraded to facilitate the proposed increased production during the life of the Project.

This historical heritage assessment has been prepared for an application for Development Consent to facilitate the continuation of open cut coal largely within current Mining Leases for a further 24 years. This assessment considers the entire heritage resource impacted by present mining operations as well as the proposed extension of operations. It addresses the Director General's Requirements for the project, which are:

"A Historic heritage assessment (including archaeology) which must:

Include a statement of heritage impact (including significance assessment) for any State significant or locally significant heritage items; and

Outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures)."

(Director General's Requirements for Continuation of Bengalla Mine Project, issued 13 March 2012)

A search of heritage inventories identified that within the Project Boundary there is one listed heritage item – Bengalla Homestead, which is listed on the *Muswellbrook Local Environmental Plan 2009* (Muswellbrook LEP) and the *Hunter Regional Environmental Plan 1989* (Hunter REP). External to, but in the vicinity of the Project Boundary, four items are listed, some on multiple registers. Overdene is listed on the Register of the National Estate (a non-statutory listing), the Muswellbrook LEP and the Hunter REP. The Keys Family Private Cemetery, Dalmar Stud (Old Bengalla) and Blunt's Butter Factory are listed on the Muswellbrook LEP. The Keys Family Private Cemetery is also listed on the Hunter REP. There are no items on the World Heritage List, Commonwealth or National Heritage Lists, the State Heritage Register or Section 170 Registers.

A field survey identified five sites with potential historic heritage significance within the Project Boundary:

- Bengalla Homestead;
- House Site 1;
- House Site 2;
- House Site 3; and
- Stockyard.

Bengalla Homestead and the Stockyard have been assessed as being of local significance. Bengalla Homestead will not be directly impacted by the Project.

The indirect impacts will be managed through the existing BMC European Heritage Management Plan (EHMP) (which includes Conservation Management Plans (CMP) for Bengalla and Overdene Homesteads), which will be revised for the Project. Archival recording of the stockyard is proposed as a suitable mitigation measure, as the item is within the proposed Project Disturbance Boundary. House Sites 1 and 2 were assessed as having no heritage significance and therefore require no mitigation.

Seven items with potential historic heritage significance were identified adjacent to the Project Boundary:

- Keys Family Cemetery;
- Old Bengalla/Dalmar Stud;
- Overdene Homestead;
- Blunt's Butter Factory;
- Edinglassie; and
- Rous Lench.

No direct impacts have been identified to these items.

Indirect visual and vibration from blasting have been identified as potential impacts. Assessment of the blasting impacts undertaken by Bridges Acoustics (2013) determined that the Project is unlikely to exceed the relevant ground vibration and overpressure criteria at all heritage structures. The residual impacts will be managed through the revision of the existing EHMP. No visual impacts resulting from the current Project were identified.

Additionally, Overdene Homestead and Bengalla Homesteads will be managed in accordance with the current CMPs and the commitments contained therein.

1.0 Introduction

1.1 Project Background

AECOM Australia Pty Ltd (AECOM) was commissioned by Hansen Bailey on behalf of Bengalla Mining Company (BMC) to undertake a Historical Heritage Assessment. The assessment will inform an Environmental Impact Statement being prepared under Division 4.1 of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for continuation of mining activities at BMC.

BMC was granted Development Consent (DA 211/93) by the then Minister for Urban Affairs and Planning on 7 August 1995 for the construction and operation of a surface coal mine, coal preparation plant, rail loop, loading facilities and associated facilities. The supporting document to the Development Consent is the Environmental Impact Statement for Bengalla Coal Mine dated November 1993 (Original EIS) (HLA-Envirosciences Pty Ltd, 1993).

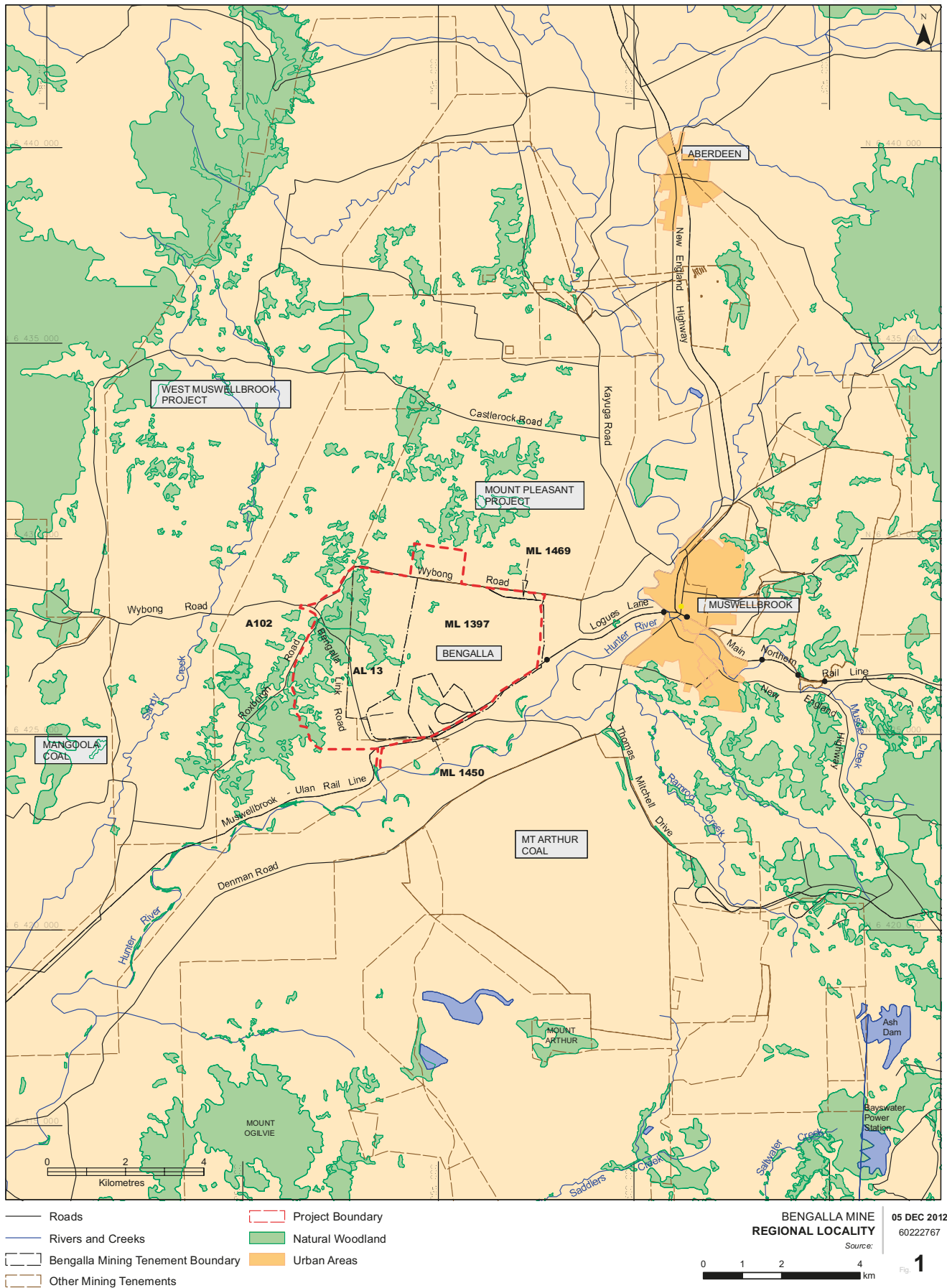
Bengalla Mine was originally approved to operate for a 21 year period from 1996 and to produce up to 8.7 Mtpa of ROM coal. The Original EIS acknowledged that significant coal reserves continued west beyond the 21 year mining extent. Since the granting of DA 211/93, there have been four approved modifications to Bengalla Mine which has approval to produce up to 10.7 Mtpa ROM coal.

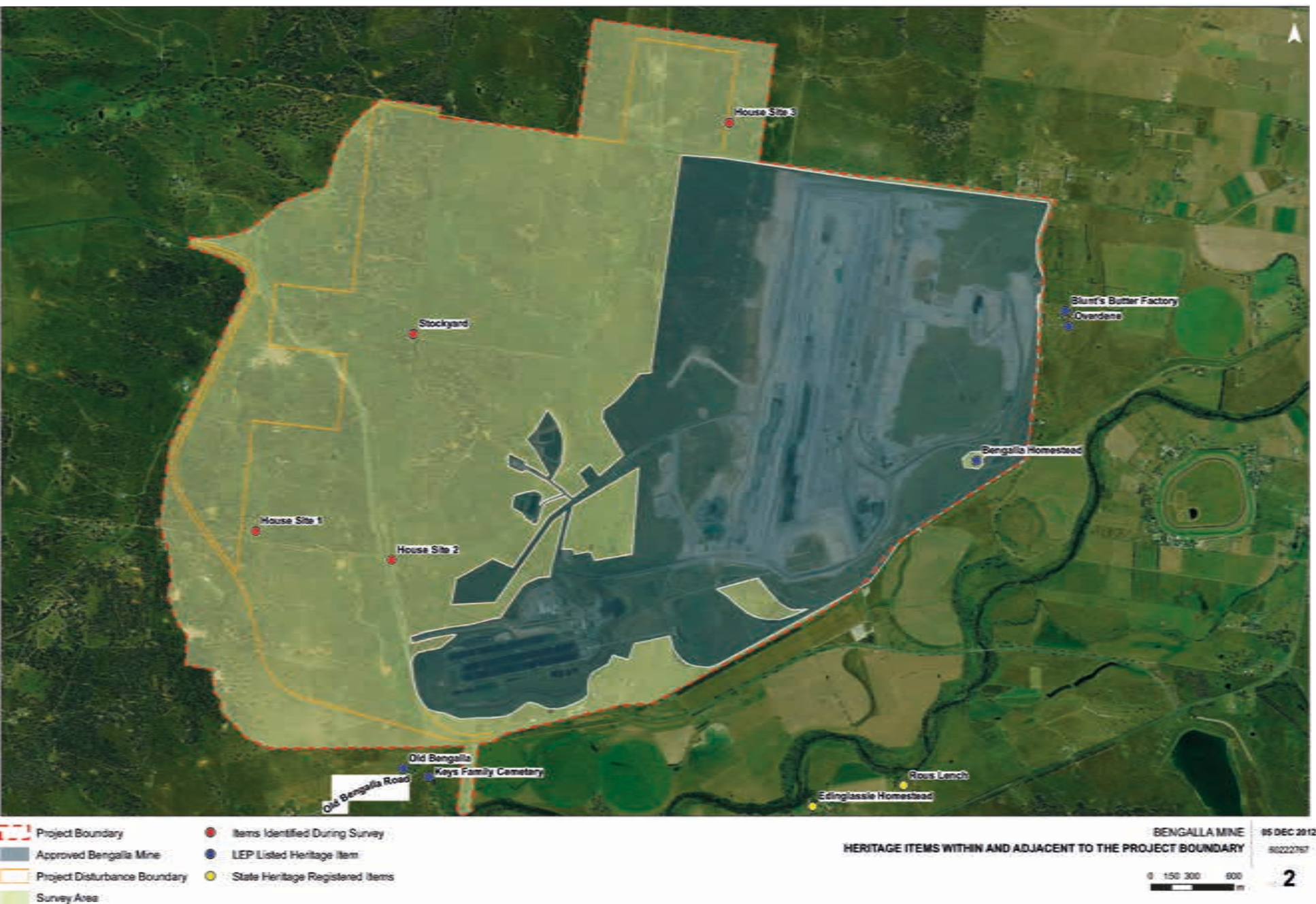
The Project will largely rely upon the currently approved and constructed mine site infrastructure including (but not limited to) the Coal Handling and Preparation Plant (CHPP), rail loop and load out facility and workshop / administrative buildings. Some of this infrastructure will be required to be relocated or upgraded to facilitate the proposed increased production during the life of the Project.

1.2 Project Description

This historical heritage assessment has been prepared to support an application for Development Consent under Division 4.1 of Part 4 of the EP&A Act to facilitate the continuation of open cut coal within the Project Boundary for a further 24 years. The Project consists of the following features:

- Open cut coal mining at up to 15 Mtpa ROM for 24 years continuing to utilising a dragline and truck / excavator fleet;
- Continue mining to the west of current operations;
- An additional Overburden Emplacement Area (OEA) to the west of Dry Creek which may be utilised for excess spoil material until it is intercepted by mining;
- Processing, handling and transportation of coal via the existing CHPP (to be upgraded) and rail loop for export and domestic sale;
- An additional CHPP coal stockpile and ROM coal stockpile;
- Continued use, expansion and upgrades to existing site infrastructure;
- The construction of a radio tower;
- Relocation of the Explosives Magazine and Reload Facility;
- Relocation of a section of Bengalla Link Road near the existing mine access road to enable coal extraction;
- The re-diversion of Dry Creek via dams and pipe work with a later permanent realignment of Dry Creek through rehabilitation areas once stability is established;
- Re-location of water storage infrastructure as mining progresses through existing dams (including the staged discharge dam);
- The construction of raw water dams and a clean water dam;
- A workforce of approximately 900 full time equivalent personnel (plus contractors) at peak production; and
- Supporting power reticulation infrastructure.





1.3 Director General's Requirements

The Project has been granted State Significant Development (SSD) status under the EP&A Act (SSD-5170). DP&I issued the Director General's Requirements (DGRs) for the project on 13 March 2012. In relation to historic heritage they require:

"A Historic heritage assessment (including archaeology) which must:

Include a statement of heritage impact (including significance assessment) for any State significant or locally significant heritage items; and

Outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures)."

(Director General's Requirements for Continuation of Bengalla Mine Project, issued 13 March 2012)

This report fulfils the requirement for a historic heritage and archaeological assessment. Statements of Heritage Impacts (SOHIs) have been prepared in accordance with the DGRs and can be found in Section 10.0. The proposed mitigation and management measures are contained in Section 9.0.

1.4 Project Objective

The objective of the historic heritage assessment is to fulfil the DGRs, as stated in Section 1.3. In order to complete this objective the following tasks have been undertaken:

- Heritage inventory search of the Project Boundary and vicinity;
- Preparation of historical context to inform the significance assessment of identified items;
- Field survey within and adjacent to the Project Boundary to identify additional heritage items, if present;
- Assess significance of identified items using NSW Heritage Branch guidelines *Assessing Heritage Significance* (NSW Heritage Office, 2001);
- Identify impacts to items of heritage significance posed by the Project;
- Identify effective and reliable mitigation and management measures relevant to the significance of the items;
- Prepare SOHIs for heritage items impacted by the Project.

1.5 Structure of This Report

In order to fulfil the above objective, the report is structured in the following manner:

- Section 1.0 Introduction;
- Section 2.0 Statutory Controls;
- Section 3.0 Historical Context;
- Section 4.0 Methodology;
- Section 5.0 Heritage Inventory Results;
- Section 6.0 Items identified within the Project Boundary;
- Section 7.0 Items adjacent to the Project Boundary;
- Section 8.0 Issues and Potential Impacts;
- Section 9.0 Mitigation and Management;
- Section 10.0 Statements of Heritage Impact;
- Section 11.0 Conclusion;
- Section 12.0 References.

1.6 Project Team

The Project was managed by Susan Lampard (AECOM Archaeologist). Susan coordinated project logistics, conducted heritage assessments and authored this report.

Geordie Oakes (AECOM Archaeologist) assisted with fieldwork and Rochelle Coxon (AECOM Graduate Archaeologist) provided additional historical research. Luke Kirkwood (AECOM Senior Archaeologist) provided technical and QA review. Jackie Mandy and Tim Osborne provided mapping support.

1.7 Limitations

Within this report predictions have been made about the probability of subsurface archaeological materials occurring within the study area based on surface indications and environmental contexts. However, it is possible that materials may occur in areas without surface indications and in any environmental context.

A summary of the statutory requirements regarding historical heritage is provided in Section 2.0. This is provided based on experience with the heritage system in NSW and does not purport to be legal advice. It should be noted that legislation, regulations and guidelines change over time and users of the report should satisfy themselves that the statutory requirements have not changed since the report was written.

2.0 Statutory Controls

A number of planning and legislative documents govern how heritage is managed in NSW and Australia. The following section provides an overview of the requirements under each as they apply to the Project.

2.1 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) took effect on 16 July 2000.

Under Part 9 of the EPBC Act, any action that is likely to have a significant impact on a matter of National Environmental Significance (known as a controlled action under the Act), may only progress with approval of the Commonwealth Minister for the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC). An action is defined as a project, development, undertaking, activity (or series of activities), or alteration. An action will also require approval if:

- It is undertaken on Commonwealth land and will have or is likely to have a significant impact on the environment on Commonwealth land; and,
- It is undertaken by the Commonwealth and will have or is likely to have a significant impact.

The EPBC Act defines 'environment' as both natural and cultural environments and therefore includes Aboriginal and historic cultural heritage items. Under the Act protected heritage items are listed on the National Heritage List (items of significance to the nation) or the Commonwealth Heritage List (items belonging to the Commonwealth or its agencies). These two lists replaced the Register of the National Estate (RNE). The RNE is no longer a statutory list; however, it remains available as an archive. Overdene Homestead is contained within this archive.

The statutory heritage registers mandated by the EPBC Act have been consulted and there are no items within the Project Boundary on these registers. In relation to historic heritage, the EPBC Act is not of further relevance to the Project.

2.2 Environmental Planning and Assessment Act 1979

The Project has been granted SSD status under the EP&A Act. As such, it will be assessed under Division 4.1 of Part 4.

Upon repeal of Part 3A of the EP&A Act on 1 October 2011, the *Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011* inserted the new Division 4.1 in Part 4 of the EP&A Act.

Division 4.1 provides for a new planning assessment and determination regime for SSD. Section 89C of the EP&A Act stipulates that a development will be considered SSD if it declared to be such by the new *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD).

Under Clause 8(1) of SEPP SRD, a development is declared to be State Significant Development if:

- a) the development on the land concerned is, by the operation of an environmental planning instrument, permissible only with development consent under Part 4 of the Act, and
- b) the development is specified in Schedule 1 or 2.

The Project is SSD as it meets both of these criteria, namely:

- it is permissible with development consent on the land on which it is located; and
- it is development that is specified in Schedule 1 of SEPP SRD.

The Heritage Branch (now within the Office of Environment and Heritage (OEH)), does not have specific guidelines regarding heritage assessments under Division 4.1. As such the following guidelines have been adopted for the Project as an indication of methods and principles required by the Heritage Branch, together with the International Council on Monuments and Sites *Burra Charter* (Australia ICOMOS, 1999):

- Heritage Manual (NSW Heritage Office & NSW Department of Urban Affairs and Planning, 1996a);
- Heritage Curtilages (NSW Heritage Office & NSW Department of Urban Affairs and Planning, 1996b);
- Assessing Heritage Significance (NSW Heritage Office, 2001);

- Levels of Heritage Significance (NSW Heritage Office, 2008); and
- Assessing Significance for Historical Archaeological Sites and Relics (NSW Heritage Branch, 2009).

The EP&A Act allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEP), which are administered by local government, and principally determine land use and the process for development applications. LEPs usually include clauses requiring that heritage be considered during development applications and a schedule of identified heritage items be provided. The Muswellbrook LEP (2009) applies to the Project and is discussed further in Section 2.4 as relevant to historic heritage.

2.3 The Heritage Act 1977

The *Heritage Act 1977* was enacted to conserve the environmental heritage of NSW. Under Section 32, places, buildings, works, relics, moveable objects or precincts of heritage significance are protected by means of either Interim Heritage Orders (IHO) or by listing on the State Heritage Register (SHR). Items that are assessed as having State heritage significance can be listed on the SHR by the Minister on the recommendation of the Heritage Council.

Archaeological relics (any relics that are buried) are protected by the provisions of Section 139. Under this section it is illegal to disturb or excavate any land knowing or suspecting that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. In such cases, an excavation permit under Section 140 is required. Note that no formal listing is required for archaeological relics; they are automatically protected if they are of local significance or higher. However for SSD projects, Section 139 and 140 approvals are not required consistent with Section 89J of the EP&A Act

Proposals to alter, damage, move or destroy places, buildings, works, relics, moveable objects or precincts protected by an IHO or listed on the SHR require an approval under Section 60. Demolition of whole buildings will not normally be approved except under certain conditions (Section 63). Some of the sites listed on the SHR or on LEPs may either be 'relics' or have relics associated with them. In such cases, a Section 60 approval is also required for any disturbance to relics *associated* with a listed item.

Under Section 170 of the *Heritage Act* NSW government agencies are required to maintain a register of heritage assets. The register places obligations on the agencies, but not on non-government proponents, beyond their responsibility to assess the impact on surrounding heritage items. AECOM has searched Section 170 registers to determine whether there are listed items within the Project area. The findings from these searches are presented in Section 4.

2.4 Hunter Regional Environmental Plan (Heritage) (1989)

The Hunter REP was deemed a *State Environmental Planning Policy* (SEPP) on 1 July 2009. The aims of the Hunter REP are threefold:

- To conserve the heritage of the Hunter Region;
- To promote the appreciation and understanding of the variety of items; and
- To encourage the conservation of townscapes that are desirable to conserve.

To this end, Schedule 1 lists items of State significance, Schedule 2 items of regional significance and Schedule 3 items of local significance within the Region.

Clause 6 requires LGAs to include provisions for significant items within LEPs, while Clause 7 provides for development of heritage items. It requires that applications to alter, damage, remove or construct in the vicinity, be accompanied by a Statement of Heritage Impact, which addresses the impact to the significance of the item.

2.5 Muswellbrook Local Environmental Plan (2009)

The Muswellbrook LEP (2009) controls development in relation to heritage items within the Muswellbrook Shire boundary. Clause 5.10.1 outlines the Council's aims in relation to heritage, which are:

- To conserve the environmental heritage of Muswellbrook;
- To conserve the heritage significance of heritage items and heritage conservation areas including associated fabric, settings and views;
- To conserve archaeological sites; and
- To conserve places of Aboriginal heritage significance.

Schedule 5 of the LEP does provide a list of identified heritage items, which has been examined to determine whether the items could potentially be impacted by the Project. The findings from review of the Muswellbrook LEP are presented in Section 5.0.

3.0 Historical Context

3.1 Introduction

The historical context of an area is important in understanding the type of sites likely to be identified and their potential distribution. The following section provides a brief overview of the history of the Hunter Valley, before focusing on the properties within the Project Boundary and those areas directly adjacent.

3.2 Early European Exploration

The Hunter region was initially identified as an area of rich resources in 1797, when Lieutenant John Shortland found coal at the mouth of the Hunter's River, as it was then known. A convict settlement was established at the mouth of the River in 1801 to gather coal and timber and burn shells for lime (Hunter, 2010).

The 1810s saw increased pressure on land around Sydney, especially following several years of drought. The farmers on the Hawkesbury River around Windsor petitioned Governor Macquarie to allow exploration inland. In 1819, Macquarie authorised men to find an overland route into what is now the Hunter Valley. The leader of this party, Windsor chief constable John Howe, exclaimed it was the best pasture he had seen since leaving England. Confirmation of the overland route was undertaken in 1820 (Hunter, 2010). Macquarie rewarded the men in this second party with land grants around what is today Singleton.

Land was quickly surveyed and by 1823 grants along rivers and creeks had been issued. Settlement, however, seems to have been of a slower pace. A traveller in 1827 said that the area was inhabited by single shepherds with their flocks (Hunter, 2010).

In 1829, Jerrys Plains was surveyed as a town, although it had been a campsite for travellers for some years previous. The town was not proclaimed until 1840 and official grants were not given until several years later. Despite the absence of official land ownership, development of the town continued.

Muswellbrook was proclaimed in 1833, although again, there had been earlier settlement in the vicinity. The surrounding area was largely used for grazing and cropping, with an increasing focus on dairying. Coal mining commenced in the 1890s, but did not become intensive until the 1980s and 1990s.

3.3 The Origins of Bengalla

The land on which Bengalla Homestead is sited was originally granted to Captain Samuel Wright (? -1852) and Captain Francis Allman (1780-1860).

Captain Samuel Wright came to the Colony with the British Army in the 3rd Regiment of Foot in 1823. During the three years he remained with the Regiment he was Commandant at Port Macquarie, Newcastle and Westernport (Victoria) and also explored the Macleay River (originally known as Wrights River). On the basis of his service and position, Wright was granted 2,560 acres west of Muswellbrook in 1826 and he chose to name his grant Bengalla. There is some conjecture as to the origin of the name, with Turner (1996) indicating it was in recognition of his Irish birthplace 'Bailieboro'. Wood (1972) states that the name is of Gaelic origin and roughly translated means 'hill or weeping/sorrows'. The Geographic Names Board, however, lists Bengalla as being of Aboriginal origin and meaning 'ornaments'. The origin of the name is therefore unclear.

Wright left the Regiment and immediately began improving his grant. The 1828 Census indicates there was one free man overseeing one ex-convict labourer and seven convicts consisting of two shepherds, four labourers and a carpenter. Turner (1996) attributes the construction of the initial structures at Old Bengalla to the convict carpenter, John Burrows. The original or Old Bengalla was centred 5.2 km to the south west of the current brick homestead and the site is now known as Dalmar Stud (Muswellbrook LEP). The location of the first structures is unknown, however circumstantial evidence indicates that they were on the same site.

Wright ran sheep and cattle on the property, as well as growing wheat and planting over ten grape varieties. These operations would have been at least partly under the direction of an overseer, as Wright served as a police magistrate in Parramatta between 1830 and 1836 (Turner, 1996).

Despite a promising beginning, Wright's ownership was short-lived. A drought between 1827 and 1829 impacted his finances and by 1832 he decided to dispose of the 2,560 acre grant, although he purchased 1,000 acres directly adjacent to the southern side of the grant and known as Cavenagh's Flat.

Old Bengalla was purchased by Captain David C.F. Scott for £500. Despite some conjecture (Turner, 1996:3) it is probable that it was Scott who constructed the main buildings. During his ownership Scott was Police Magistrate at Muswellbrook. In February 1847 Scott and his wife Maria hosted Governor Fitzroy overnight during his tour of the Hunter valley.

Old Bengalla remained mortgaged to Wright, so when Scott was affected by the 1843 depression and its aftermath, Old Bengalla reverted to Wright in 1848. The Scotts moved to Sydney, while it is assumed that Wright moved into the main buildings constructed by the Scotts. Wrights financial situation did not improve, as outlined by Turner:

By the end of 1851, Wright was in financial difficulties and during a visit to Sydney he sought to arrange an annuity to provide for himself in old age. When the negotiations failed because he owed more than £3,000, Wright wrote his will, leaving it with his agents and boarded the night steamship for Newcastle. He was never seen again and was presumed to have committed suicide.

The execution of Wright's Will saw the sale of Old Bengalla with the proceeds paying his debts with the residual being sent to his family in Ireland. The sale did not occur until May 1853, due to the circumstances surrounding his death. Wright's holdings totalled 12,335 acres, which was subdivided into 13 blocks. Two of these were let and had shingle huts. Other improvements included a lime quarry and associated kiln and hut and a stone quarry, also with a hut. No locational information was provided in relation to these improvements and subsequent research and field surveys have not been able to locate them (including the current survey).

In the auction advertisement the Old Bengalla is described as consisting of a six roomed house with detached kitchen, laundry and servant's room. Other buildings included a dairy with attached store room and a stone store above two cellars, barn, shearing shed, eight stall stable with coach house, a box and yard for one horse, two cottages and a carpenter's shop. Additionally, there were four huts and three acres of vineyards (Turner, 1996). Of this vast complex there remains the rear wall of the kitchen complex and a barn.

On 4 May 1853, Henry Osborne, pastoralist, bought Old Bengalla at auction for £6,013. He had a handsome profit of £1,000 when he sold it less than a year later to John Hudson Keys (1811-1866), the manager of St. Helier's Estate, between Muswellbrook and Scone (Turner, 1996). Keys had 16 years' experience in the Colony, having arrived in 1837. It appears that he had some capital from Ireland, but was also assisted by friends. Turner says of Keys:

Thoroughly experienced in estate management when he took over the property, Keys built it up into one of the most impressive properties in the Hunter Valley. By acquiring more land by purchase from the Crown, he had built his acreage to 18,000 by 1885 when there were 32 horses, 1,010 cattle and 3,280 sheep on the estate. At that time Bengalla was the largest estate in the Muswellbrook area, 2,000 acres larger than the more famous Edinglassie and more than three times the size of Overton.

J.H. Keys was well known for his sponsorship of immigrants from Ireland, encouraging them to come to the colony, providing employment and then assisting them to become independent on farms of their own. This practice also assisted him in obtaining suitable labour for his own vast estate in an era of labour intensive agriculture. Research by local historian Robert Tickle of Muswellbrook on the 1875 electoral roll shows that fifteen householders lived on Bengalla apart from the Keys, most if not all of them being heads of families. Of course, this implies fifteen cottages plus accommodation for casual workers and a total population on the estate of perhaps a hundred people.

(Turner, 1996:7)

Keys and his wife had four children and as 'fervent Methodists' (Turner, 1996:6) lived frugally at Old Bengalla. Others in a similar social and economic position would have chosen to display their position through the construction of a new home. The couple's first two sons died tragically in accidents and it was therefore their third son, Richard Thorn Keys, who was to inherit. It was not until Richard married in 1877 that a large new residential project was initiated called Inglebrae (see Section 3.4).

Keys and his wife continued to live at Old Bengalla until their deaths, John Hudson Keys in 1887 and Mary Irvine in 1895. On the death of Mary, Inglebrae became known as Bengalla, with the original homestead then known as Old Bengalla.

It is a little unclear what use was made of the house after this time, but it is probable the utilitarian buildings continued to be used. Turner records that the kitchen building was not demolished until the 1970s, when the stone was reused by the Yarraman vineyard.

3.4 Inglebrae/New Bengalla

Inglebrae was constructed on land originally granted to Captain Allman (see Section 3.5). Planning for the construction of Inglebrae (now Bengalla Homestead) began in 1876 when tenders were let for the manufacture of bricks on the estate. Despite having the financial ability to engage an architect, there is no evidence in the meticulous records of J.H. Keys that an architect was ever paid. Turner describes the process thus:

Construction was undertaken in the same style as farm management, cautiously, economically and largely by self finance. Such methods were most successful when applied to farming; they did not produce outstanding buildings. This was good husbandry but not great architecture.

The principal building project was the house now known as Bengalla but first called Inglebrae. The family suffered dreadful misfortune when their first and second sons died as young men in accidents and this meant that Richard Thorn Keys was heir apparent to the estate when he married in 1877. To accommodate the young couple, J.H. Keys built the house now known as Bengalla. It was erected in the usual Keys fashion using outside labour hired for the purpose. In 1876 tenders were let for bricks to be burned on the estate then progressively the various stages of construction were arranged and paid for with appropriate, detailed entries of each transaction recorded in the Estate's day book alongside store entries for tobacco, boots and clothing for the bush workers, the number of sheep killed, bullocks sold, etc.

Economical as this system of construction appears to have been, the results were certainly not architectural masterpieces. The present Bengalla House reflects the frugality of the elder Keys. The first stage was built in 1877 and when, in 1895, the second generation "master" R.T. Keys added the bedroom wing to his residence precisely the same process was followed.

(Turner, 1996:8-9)

Inglebrae was constructed in a typical Georgian style, with a symmetrical facade and rooms opening off a central hallway. The house was of five rooms, but was linked to a detached kitchen and servants quarters by a breezeway.

On the death of John Hudson Keys in 1887, Richard Thorn Keys took over control of the estate and the focus moved to Inglebrae. R.T. Keys expanded the estate to 20,000 acres before the *Closer Settlement Act 1910* required the subdivision of Keys' holdings.

Keys efforts focused on purchasing and fattening cattle driven from northern NSW and Queensland for the Riverstone Meat Works. The bottle tree in the front garden of Bengalla Homestead is indicative of the close ties R.T. Keys developed with his Queensland suppliers. While fattening cattle for the Sydney market was a common practice in the Hunter, what set R.T. Keys apart was the establishment of live export trade in cattle. The first shipments were made in 1893 and by 1895 the practice was firmly established. R.T. Keys was also one of the first to move into dairying in the district, under a share farming system. To enhance his dairy herd, R.T. Keys constructed one of the first pumping stations to irrigate lucerne crops.

Keys also extended the house. In 1895 he added four bedrooms and a second drawing room. In keeping with the original construction, this was undertaken using local bricks.

R.T. Keys died in 1909, leaving the estate to his son John Hudson Keys the second. After the *Closer Settlement Act* of 1910 Keys was forced to sell 12,000 acres. The land was subdivided into 42 farms of 100 to 700 acres and the marketing aimed dairy farmers, orchardists, wheat farmers and market gardeners. These farms were located away from the Hunter River, to the north and west of Roxburgh and Wybong Roads.

The sale left Keys with 8,000 acres, which continued to be managed as a share farm - in the 1930s there was seven farms of approximately 75 cows. The milk was supplied to the Muswellbrook Co-operative Dairy Company, Keys being a director. The long established practice of fattening cattle and pigs for the market continued.

J.H. Keys died in 1952, passing the estate to daughter Mrs. Rosemary Reynolds. In the following year the size of the estate was further eroded by the resumption of land for soldier settlement. By 1978 the estate consisted of 1,300 acres. The Reynolds operated a Hereford cattle stud and also devoted 400 acres to wheat and 350 acres to irrigated maize, soy beans and lucerne (Turner, 1996).

Mrs. Reynolds, the fourth generation to own the estate, was keenly aware of the history and significance of the homestead. It was maintained in keeping with the original architecture, although this period did see the construction of an unsympathetic garage, toilet and shower block behind the western wing. The cream brick garage replaced an earlier timber structure, reportedly a dressing room (Turner, 1996).

BMC purchased the estate in 1995. Since that time, the homestead has primarily been empty, being used occasionally for meetings during the initial period of mine development.

3.4.1 The Location of Relics on the Bengalla Mining Company's Estate

Despite a careful search of historical records in Sydney, Canberra, Bathurst, Armidale, Newcastle and Muswellbrook, no early detailed maps of the study area have been found. Consequently, given the history of the property since the peak of its agricultural development about 1900 and the demolition of many Nineteenth Century structures, it is difficult to establish the location of all the houses, barns, stockyards, mines, quarries, boiling down works, etc., which once dotted the Bengalla landscape.

3.4.2 Historical Themes for Old Bengalla and Bengalla Homestead

Table 1 below shows the history of Old Bengalla and Bengalla Homestead and its relevance to particular historical themes at National, State and local levels.

Table 1 Old Bengalla and Bengalla's Historical Themes

National	State/local	Comment
	Migration	J.H. Keys was a sponsor of immigrants from Ireland, providing employment and support for many who came to this area.
Development of local, regional & national economies	Agriculture	Situated adjacent to the Hunter River floodplain, Bengalla Homestead was established as an agricultural property, raising sheep and cattle. Some examples of farm machinery and out-buildings related to these activities remain on the property. Dairying was also another facet of industry practiced on Bengalla.
	Mining	Local sources of sandstone, limestone and clay were quarried to provide materials for construction. Skilled workers were employed on the property to extract and process these materials.
	Pastoralism	Stock were raised and fattened on Bengalla Homestead lands.
Building settlements, towns and cities	Land tenure	This property was originally an early land grant and shows expansion as the property developed and reduction as closer settlement took effect.
	Accommodation	Bengalla Homestead provided accommodation for the family and staff (from servants, farm labour to book-keeper/manager).
Developing Australia's cultural life	Domestic life	Bengalla Homestead contains evidence of domestic life for both the land-owners and their staff. Kitchen and dining facilities are evident and there is good potential for evidence in sub-surface deposits to the east of the house. A laundry building is also extant.
	Creative Endeavour	Bengalla Homestead is a fine example of 19th century Georgian and Victorian architecture, demonstrating evolutionary phases as the property developed. The landscaped garden has numerous exotic plantings and a gazebo, well-positioned to admire the views of the river and floodplain.
	Leisure/sport	Bengalla Homestead has a tennis court which would have been used by family and friends for leisure and may have been used for official local matches. The drawing and dining rooms of Bengalla Homestead would have been used for formal dining and entertainment for family and invited guests.
	Persons	The Keys family occupied Bengalla Homestead for over 150 years and were prominent persons within the local community.

3.5 Overton/Overdene

Captain Francis Allman (1780-1860) was granted 2,560 acres in 1825. Allman's grant, originally named Kelso Place, was to the north of Captain Wright's Bengalla grant. Like Wright, Allman had served as a Commandant in Newcastle during the 1820s. Allman later bought land at Rathluba, near Maitland, and by preference settled his family there. In 1832 Allman was appointed police magistrate in the Illawarra, where he moved. Having failed to prosper in the Hunter, Allman sold off the Overton estate in 1833, although he retained a portion of 640 acres to the south of Overton. This portion was later sold to the Keys and Bengalla Homestead was constructed on it in 1877 (see Section 3.4).

Overton was purchased at auction by John Kerr McDougall. McDougall was a wealthy man with large land holdings across the Hunter Valley, Baulkham Hills and other areas; however, he resided at Parramatta. It is therefore likely that the property was managed from Parramatta and that McDougall never lived at Overton. During the 1830s, however, his son John did reside on the property. The 1841 census indicates he had 2,560 acres at this time, on which he ran a sheep station. He was aided by 13 hands, seven of which were assigned convicts.

The 1841 census also indicates that two other men, Richard C. Dangar and John Tuckey, with assigned convicts were living at Overton. The status of the presence is unclear, but it may have been on a share farm type agreement with McDougall. The census records all the buildings at the time were of timber, indicating the present stone cottage of Overdene had not been constructed.

After owning the property for 25 years, McDougall sold the property to Henry Nowland. Nowland had arrived in the Colony with his family, who settled in the Hawkesbury River area. Nowland moved from there into the Hunter Valley, with his land purchases focusing initially on Singleton, but he also had large land holdings in the New England district. Turner (1996:12-13) relates to Nowland that "[h]is family claimed that "he was at one time the largest landholder and employer of labour" in the Upper Hunter".

It is unclear from the remaining records when Overdene cottage was constructed. Based on architectural features, it would appear to have been built between 1840 and 1860, although it is known that the cottage was not standing when the census information was collected in 1841. It is therefore probable that the cottage was built by either the McDougalls or in the first few years of the Nowland's ownership. Turner believes that the cottage is unlikely to have been constructed after George Blunt *"as he resided in the town it is unlikely such a refined piece of architecture would have been constructed for a manager. It is considered therefore that the probable construction date for Overdene is c1841-1860, being constructed by either McDougall or Nowland."* (Turner, 1996).

Nowland died in 1863, however, Overton was retained by the family until 1873, when it was sold to George Blunt. Blunt had made his name and fortune in railway construction. Before relocating to Victoria in 1855, Blunt had worked in France, Denmark and Norway. In the Colony he undertook the construction of the Singleton to Muswellbrook line, Sutton Forest to Western line, Toowoomba to Warwick (in Queensland), Goulburn to Yass, Narrandera to Hay (Turner, 1996).

Blunt commenced breeding draught horses, amongst more mundane farming pursuits. By 1885, Turner reports that Overton was carrying 75 horses, 112 cattle and 2,711 sheep (Turner, 1996). Blunt successfully experimented with irrigation of lucerne to feed his stock. Irrigation allowed Blunt to cut two and a half to three tons per acre every five weeks, an unusually high yield for the period.

Blunt did not fatten cattle as the adjacent Keys did, but purchased cross bred sheep to supply to the export freezer trade. From carrying 2,711 sheep in 1885, Blunt had increased his herd to 8,500 sheep in 1895. In order to shear this vast number of sheep a shearing shed was constructed on the property, although this was demolished in 1991.

Blunt did not take an interest in dairying, but in 1903 his son Thomas established a creamery at Overton. This was later extended to include a butter factory. Coal was mined on the property to run the factory for at least a short period of time.

Blunt, like the previous owners, did not live on the property, choosing to live in Muswellbrook in a house known as Brighton Villa until his death in 1905.

The *Closer Settlement Act 1910* led to the Overton Estate almost entirely disappearing. Daniel Blunt retained the butter factory and Overdene, but the remaining was subdivided into portions of between 10 and 200 acres and auctioned in 1912. W.F. Robey bought a number of these, which he on-sold in 1915. It is thought that the house of Overton was probably constructed around this time.

Overdene, as it became known, was purchased by the Moore family who then sold it to the Tibbey's. The Tibbey family lived in the cottage until 1972, when the adjacent brick house was built. Robert Alexander purchased the property from the Tibbeys.

In 1985 Overdene was bought by Owen and Lee Carter. The couple intended to restore the cottage, however, these plans were shelved when planning for the Bengalla Mine commenced. The Carter's continued to undertake minimal maintenance of the cottage until it was sold to BMC in around 1995. BMC has continued to undertake minimal maintenance of the cottage.

3.6 Impact of the Merriwa Railway

R.T. Keys fought to have the proposed alignment of the Muswellbrook to Merriwa Railway changed. The alignment required the resumption of a large amount of land and divided the Estate in half. When his efforts failed, Keys allegedly said that it was the end of Bengalla (Turner, 1996).

Construction commenced in June 1912. By 1915 trains were running between Muswellbrook and Denman, which provided the coal mine opened by George Blunt with a greater market.

3.7 Historical Themes

Table 2 below shows the history of Overdene and its relevance to particular historical themes at National, State and local levels.

Table 2 Overdene's Relevance to Historical Themes

National	State/local	Comment
Peopling Australia	Convict	Overdene had assigned convicts working on the property in 1841.
Development of local, regional & national economies	Agriculture	Situated adjacent to the Hunter River floodplain, Overdene was established as an agricultural property, raising sheep and cattle. George Blunt developed very successful irrigation systems on Overdene, pumping water from the Hunter River to grow lucerne on the river flats for fattening stock.
	Mining	Local sources of sandstone, limestone and clay were quarried to provide materials for construction. Skilled workers were employed on the property to extract and process these materials Coal was mined at Overdene in the early 20th century which was followed by the later larger scale mining that continues today. Exact locations of these activities are not known and may well have been destroyed by recent mining.
	Pastoralism	Stock were raised and fattened on Overdene. The homestead may have been built as the home of the property manager but there no extant remains directly related to this activity
Building settlements, towns and cities	Land tenure	This property was originally an early land grant and shows expansion as the property developed and reduction as closer settlement took affect
	Accommodation	Overdene has a good example of mid-19th century housing.
Developing Australia's cultural life	Domestic life	There is some potential for evidence of domestic activities in sub-surface deposits to the west of the house.
	Persons	Overdene is associated with Henry Nowland and George Blunt, both of whom were prominent citizens in the Colony and owners of large tracts of land in the Hunter Valley.

4.0 Methodology

The following sections describe the methodology used.

4.1 Heritage Inventory Search

The following method was used to determine the listed heritage items within and adjacent to the Project Boundary. A search was undertaken of the heritage schedules below through the Australian Heritage Database, the NSW State Heritage Inventory, maintained by the NSW Heritage Office, and the schedules attached to the Muswellbrook LEP and Hunter REP:

- World Heritage List;
- Commonwealth Heritage List;
- National Heritage List;
- Register of the National Estate;
- State Heritage Register;
- Section 170, Registers of relevant Government Agencies;
- Muswellbrook LEP; and
- Hunter REP.

4.2 Historical Context

The historical context of the study area was compiled through a synthesis of information gained from the following sources:

- State Library of NSW;
- Records and reports commissioned by BMC, including Turner (1996);
- Records, collections and knowledge of the Muswellbrook Family;
- Parish Plans; and
- Crown Plans.

4.3 Field Survey Methodology

A field survey was undertaken by Dr Susan Lampard and Geordie Oakes of AECOM between 27 November and 1 December 2011. Historical research prior to the fieldwork had not identified any areas of interest other than the items listed on the SHR, Schedule 5 of the Muswellbrook LEP and the Hunter REP (see Section 5.0 for the findings of these searches).

The objective of the field survey was to assess the Survey Area (i.e. the Project Boundary excluding the Approved Mine as shown on Figure 2) and to determine if there were any sites of heritage significance present. The field survey involved coverage of the Survey Area via vehicle and on foot, where feasible. Sites of known heritage significance outside the Project Boundary were also incorporated into the field survey for inclusion in the assessment with regard to visual and vibration impacts. The Survey Area is shown in Figure 2.

The following method was undertaken at each site:

- The tenant was located and permission was sought to access their property, where appropriate;
- Tenants were asked for information regarding the age and history of the structure or feature and if they were aware of any other known features of historical interest in the area;
- The structures and/or features at the site were identified and recorded;
- The structures/features were assessed for historical significance;
- Photographs of the structures/features were captured and details were recorded in a photo log; and

- The position of the item was recorded with a GPS.

4.4 Analysis

The GPS data was provided to AECOM's GIS analyst for mapping. The field notes were then formalised into Heritage Inventory Sheets for each of the sites inspected during the field survey. During this process, the physical evidence was analysed in light of the item's historical context and the item's significance was then assessed. The process of determining significance is described further in Section 4.5. The significance of each item and the information collected in the field are key components in determining what impact, if any, the Project may have on the items. Based on the significance of the item and the level of potential impact, management recommendations were developed.

4.5 Significance Assessment Criteria

In order to understand how development will impact on a heritage item, it is essential to understand why an item is significant. An assessment of significance is undertaken to explain why a particular site is important and to enable the appropriate site management and curtilage to be determined. Cultural significance is defined in the Australia ICOMOS Charter for the conservation of places of cultural significance (the Burra Charter) as meaning "aesthetic, historic, scientific or social value for past, present or future generations" (Article 1.1). Cultural significance may be derived from a place's fabric, association with a person or event, or for its research potential. The significance of a place is not fixed for all time, and what is of significance to us now may change as similar items are located, more historical research is undertaken and community tastes change.

The process of linking this assessment with a site's historical context has been developed through the NSW Heritage Management System and is outlined in the guideline *Assessing Heritage Significance* (NSW Heritage Office, 2001), part of the NSW Heritage Manual (NSW Heritage Office & NSW Department of Urban Affairs and Planning, 1996a). The *Assessing Heritage Significance* guidelines establish seven evaluation criteria (which reflect four categories of significance and whether a place is rare or representative) under which a place can be evaluated in the context of State or local historical themes. Similarly, a heritage item can be significant at a local level (i.e. to the people living in the vicinity of the item), at a State level (i.e. to all people living within NSW) or be significant to the country as a whole and be of National or Commonwealth significance.

In accordance with the guideline *Assessing Heritage Significance*, an item will be considered to be of State or local heritage significance if it meets one or more of the following criteria:

Criterion (a) – an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

The site must show evidence of significant human activity or maintains or shows the continuity of historical process or activity. An item is excluded if it has been so altered that it can no longer provide evidence of association.

Criterion (b) – an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

The site must show evidence of significant human occupation. An item is excluded if it has been so altered that it can no longer provide evidence of association.

Criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).

An item can be excluded on the grounds that it has lost its design or technical integrity or its landmark qualities have been more than temporarily degraded.

Criterion (d) – an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.

This criterion does not cover importance for reasons of amenity or retention in preference to proposed alternative.

Criterion (e) – an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area). Significance under this criterion must have the potential to yield new or further substantial information.

Guidelines for exclusion include information that would be irrelevant or only contains information available in other sources.

Criterion (f) – an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area). The site must show evidence of the element/function etc proposed to be rare.

Criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW's:

- cultural or natural places; or
- cultural or natural environments.

An item is excluded under this criterion if it is a poor example or has lost the range of characteristics of a type.

The Heritage Branch requires the summation of the significance assessment into a succinct paragraph, known as a Statement of Significance. The Statement of Significance is the foundation for future management and impact assessment.

5.0 Heritage Inventory Results

As discussed in Section 2.0, Commonwealth, State and local governments maintain inventories of items of historical significance within each jurisdiction. The following section discusses listed heritage items within the Project Boundary and its immediate surrounds.

5.1 Heritage Inventories

AECOM undertook a search of relevant heritage inventories on 31 October 2011. The inventories searched were:

- World Heritage List;
- Commonwealth Heritage List;
- National Heritage List;
- Register of the National Estate;
- State Heritage Register;
- Section 170, Registers of relevant Government Agencies;
- Muswellbrook LEP; and
- Hunter (REP).

5.2 Heritage Inventory Searches

Table 3 summarises the heritage items as currently listed on heritage registers.

Within the Project Boundary one listed heritage item has been identified – Bengalla Homestead, which is listed on the Muswellbrook LEP (Beng/R002).

In the vicinity of the Project Boundary four items are listed, some on multiple registers.

There are no items on the World Heritage List, Commonwealth or National Heritage Lists, the State Heritage Register or Section 170 Registers.

Overdene is listed on the Register of the National Estate (a non-statutory listing), the Muswellbrook LEP and the Hunter REP. In addition to Overdene, the Keys Family Private Cemetery, Dalmar Stud (Old Bengalla) and Blunt's Butter Factory are listed on the Muswellbrook LEP. The Keys Family Private Cemetery is also listed on the Hunter REP. The location of these items in relation to the Project is shown in Figure 2.

Table 3 Heritage Items Identified on Heritage Inventories

Register	Items within the Project Boundary		Items in vicinity of Project Boundary	
	Item Name & Reference	Significance	Item Name & Reference	Significance
World Heritage List	Nil	Nil	Nil	Nil
Commonwealth Heritage List	Nil	Nil	Nil	Nil
National Heritage List	Nil	Nil	Nil	Nil
Register of the National Estate	Nil	Nil	Overdene (ID 1394)	National#
State Heritage Register	Nil	Nil	Nil	Nil
Section 170 Registers	Nil	Nil	Nil	Nil
Muswellbrook LEP	Bengalla (Beng/R002)	Local	Keys Family Private Cemetery (Beng/R001)	Local
			Dalmar Stud (Old Bengalla) (Beng/R003)	Local
			Overdene (Beng/R004)	Local
			Blunt's Butter Factory (Beng/R005)	Local
Hunter Regional Environmental Plan	Nil	Nil	Overdene	Local (Schedule 3)
			Keys Family Private Cemetery	Regional (Schedule 2)
			Bengalla Homestead	Requires further investigation (Schedule 4)*

#The RNE is no longer a statutory register. Items of national significance were transferred to the National Heritage List, while items of State or local significance were transferred to relevant respective heritage lists. Overdene was not transferred to the NHL and the significance of the item to the Nation has therefore not been confirmed.

*Bengalla Homestead is listed on Schedule 4 or the REP – indicating at the time the REP was prepared there was insufficient information to assess the significance of the Homestead. Subsequent investigations (Turner, 1996).

6.0 Items Identified within the Project Boundary

During the field survey five historic items were identified within Project Boundary (four new), as outlined in Table 4. The survey undertaken for the assessment was comprehensive and while other residences and rural facilities stand within the Project Boundary, they are not discussed further here as they were deemed during fieldwork not to be of heritage significance. Further assessment of potential archaeological sites, however, has been included below. The following section describes each item, considers the criteria outlined in Section 4.5 to determine significance and provides a Statement of Significance. The location of the items in relation to the Project Boundary and Disturbance Boundary identified is shown in Figure 2. Photographs and further details regarding the items can be found in the Heritage Inventory Sheets contained in Appendix A.

Table 4 Summary of sites identified within the Disturbance Boundary

Site Name	Significance Criteria Met	Location		Within Disturbance Boundary
		Easting	Northing	
Bengalla Homestead	historical, associative, aesthetic, technical, representative	297161	6426692	✗
House Site 1	Nil	291954	6426182	✗
House Site 2	Nil	291959	6426173	✓
House Site 3	Historical, technical	295376	6429128	✗
Stockyard	Historical	293083	642761	✓

6.1 Bengalla Homestead

Bengalla Homestead is listed on Schedule 4 of the Hunter Heritage REP and Muswellbrook LEP (Beng/R002). It is located on land owned by BMC, approximately 240 m inside the Project Boundary on the south eastern side of the existing open cut.

See Appendix A for images.

6.1.1 Description

The following description is quoted, but has been abbreviated, from Bengalla Mine *European Heritage Management Plan* (AECOM 2012)

The site is generally undulating, with falls generally down from the Old Bengalla Road in the north, to the flats of the Hunter River in the south east. The property is sparsely vegetated with remnant trees and planted species. Land use is grazing with the potential of intensive crop cultivation or irrigated pasture on the river flats.

Prior to the commencement of mining operations at Bengalla Mine, the property was accessed from Muswellbrook via Kayuga, Wybong and Bengalla Roads (Old Bengalla Road). The Muswellbrook Ulan Railway bisects the river flats from the site which now can only be accessed from the Bengalla Mine Access Roads. Neighbouring land has previously and is currently used for grazing. The property is within the Bengalla Mine Mining Lease area and is adjacent to the active mining area.

The principle features of the site are the homestead buildings with the 1877 building, the 1895 extension and the 1960s additions combined with gardens, outbuildings, tennis court, farm sheds and archaeological sites. The homestead complex sits on a rise approached by a driveway and mature avenue of pepper trees. Surrounded by more mature trees is the house and garden. Around this are scattered the outbuildings, including two weatherboard cottages used for accommodation, the laundry, hayshed and more recent machinery shed and stables.

Other prominent features are the water tanks, cattle yards and fences. Items of movable heritage include farm machinery. There is high potential for archaeological evidence to exist on the site and footings in the position of the original stables have been noted. Early photographs and other historical evidence also show structures that are no longer extant, the purpose of which, excluding the dairy is unknown. The full extent of the garden including a kitchen garden and landscaping features may also be discerned through further archaeological investigations...

Bengalla house was built in two stages, which are evident in photographs and the fabric of the building. The Keys family were wealthy land owners, and the scale and decorative details of the house display this. They did not, however, employ architects to design either the 1877 or later 1895 extension to the house. Hence the house displays a taste for the popular Georgian and later Victorian style, but is not a pure representation of either. The front of the 1877 house was originally symmetrical in elevation and plan around a central entrance door and hall. It was a balanced composition, with an overhanging veranda, typical of the Colonial Georgian farmhouse. To the rear was a kitchen wing, also typical of this building type. The later extensions of a timber structure created a rear courtyard, which is a common element of earlier Colonial farmhouses.

With the addition of an eastern wing to the house in 1895, including a bay window to the south, the original Georgian simplicity of the house was altered, particularly as viewed on the south frontage, and the result was a contemporary Victorian facade. Further evidence of the extent of the 1877 section is obvious in the external brickwork, where a crack has appeared on the east and south wall of the house.

The house was built on sandstone footings, with walls of clay brick. One unusual feature of the house is the selective use of a three separate bricks bonds. The bricks of the southern and western external walls of the house are laid in a Flemish bond (header/stretcher/header in each course) with the visible end of the headers much darker (hard burnt) than the adjacent stretchers resulted in a 'checker board' pattern.

The bricks in the eastern wall are laid in an english bond (alternating courses of headers and stretchers) and the northern wall of the house is laid in colonial bond (a course of headers followed by three courses of stretchers).

According to oral accounts, the main roof was originally shingle or slate, however there is no other evidence of this, and as aptly concluded by Dr John Turner, the rainwater was collected in tanks, therefore it is most likely to have been slate. The original curved corrugated iron roof on the back north and east veranda is evident in remaining purlins and the brickwork. The bull-nose flashing line to the front veranda is concealed behind the more recent pitched veranda roof. The 1920s photographs record the bull-nose curve.

In the following year, after completion of the 1877 house, a timber wing was built at the rear east side of the courtyard, containing three bedrooms, a dressing room and bathroom. This was demolished in 1961, and a garage, bathroom and laundry built in its place. There is no physical evidence of the original structure, although the garage may be concealing evidence in the fabric.

Another timber structure on the western side of the veranda is visible in a photograph taken in 1922, and although the structure no longer exists, there is some remaining physical evidence. The use and date of building of this room is unknown.

Regular dilapidation reports are completed, with the most recent conducted in February 2012.

Further descriptive details regarding the house interior, outbuildings, gardens, areas of archaeological potential and curtilage are available in the *European Heritage Management Plan* available at http://www.riotintocoalaustralia.com.au/ouroperations/3453_bengalla_3601.asp

6.1.2 Historical Context

A detailed history of the development of Bengalla Homestead can be found in Section 3.3 and 3.4.

6.1.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	The Bengalla Homestead Complex is of local significance as it demonstrates the course and pattern of history in the Hunter Valley. The Homestead is sited on one of the earliest established properties in the Muswellbrook region and by 1885 had become the largest, at over 20,000 acres. The Homestead itself demonstrates the course of history, the original 1877 section of the house being constructed in a vernacular Colonial Georgian style. The 1895 section was constructed in a vernacular Victorian style, indicating the change in popular taste during this period. The later 1960s addition, while detracting from the heritage significance overall, does demonstrate the continued habitation and adaptation of the homestead to meet shifting expectations regarding living spaces and standards of living. The success of the pastoral enterprise and the history of the Complex is also demonstrated through the numerous outbuildings associated with the operation of the farm.
Historical association significance SHR criteria (b)	The Bengalla Homestead Complex is of local significance through its associations with the Key family. The Keys family lived in the house for over 115 years and farmed the surrounding land for over 140 years and were prominent in the local community. John Hudson Keys (1811-1866) was a leading light in the social, charitable and political life of the local community, however, he declined to accept a Parliamentary seat. Subsequent generations continued the family tradition and were active participants in the local community.
Aesthetic significance SHR criteria (c)	The Bengalla Homestead is of local aesthetic significance as a fine example of vernacular architecture including the skilful integration of Georgian and Victorian styles. The Homestead is set in a prominent location overlooking the Hunter River. The aesthetic significance of the Homestead itself is augmented by the Victorian gardens, including the gazebo folly, which is well situated to provide views over the Hunter River and as a focal point of the view from the Homestead. The outbuildings add to the aesthetic appeal, contributing to the rural character of the Complex and invoking an era when the pastoral activities were at their peak. The movable heritage, including the harvesters and gas generator, are of local significance indicating a degree of technical achievement in the technology used in the operation of the farm. The water cistern is also of local significance as an excellent example of the 19th century construction methods applied to domestic water storage.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or group.
Technical/Research significance SHR criteria (e)	The Bengalla Homestead Complex is of local technical significance for its archaeological potential. The deposits associated with the Complex have the potential to yield archaeological evidence of activities relating to early settlement and the development of the pastoral industry. Deposits relating to the Homestead are highly likely to contain evidence of early domestic activities, particularly beneath the floor boards of the house itself, as well as the auxiliary buildings including the kitchen wing, laundry and book-keeper's cottage. The gardens and associated soils will contain archaeological evidence of early garden layout and species planted. The site of the original stables is highly likely to contain evidence regarding the construction and use of the building.
Rarity SHR criteria (f)	The Bengalla Homestead Complex as a whole, while not being rare, contains rare elements. The Gazebo folly is of local significance as a rare folly of unusual design and construction methods. The book-keeper's cottage and the laundry are also of local significance for the rare insight into these activities that the structures and archaeological deposits may yield.

APPLICATION OF CRITERIA	
Representativeness SHR criteria (g)	The Bengalla Homestead Complex is of local representative significance as a good example of the development of a pastoral enterprise, which is demonstrated through the evolution of the house, garden and the development of the farm buildings. The Complex represents the necessary and desirable elements of a rural complex of its period. The necessary residence, stables, kitchens to house the Keys family, as well as the necessary infrastructure related to the pastoral activities: the book-keeper's cottage, machinery sheds, stockyards, haysheds and sundry other sheds and yards. The recreational elements including the tennis courts and ornamental gardens are representative of leisure activities and aesthetic tastes of the late Georgian and Victorian periods. The garden is representative of a colonial homestead garden with the long avenue approach to the house, terminating in a circular carriageway. The introduction of features such as the gazebo, the fernery and sundial are typical of later Victorian gardens.

6.1.4 Statement of Significance

The Bengalla Homestead Complex, which includes the house, outbuildings, garden, tennis court and machinery shed is of local historical, associative, aesthetic, social, technical, rarity and representative significance.

The Bengalla Homestead Complex is of historical local significance as it demonstrates the course and pattern of history in the Hunter Valley. The Homestead is sited on one of the earliest established properties in the Muswellbrook region and by 1885 had become the largest, at over 20,000 acres. The Homestead itself demonstrates the course of history, the original 1877 section of the house being constructed in a vernacular Colonial Georgian style. The 1895 section was constructed in a vernacular Victorian style, indicating the change in popular taste during this period.

The Complex is of local associative significance through its ties to the eminent Hunter Valley family – the Keys. The Homestead and associated land had been occupied and farmed by the Keys family from 1877 to 1995. The Keys family were a prominent local family and integral to the early development of the grazing and cattle export industry in Australia.

The Bengalla Homestead is of local aesthetic significance as a fine example of vernacular architecture including Georgian and Victorian styles. The Homestead is set in a prominent location overlooking the Hunter River. The aesthetic significance of the Homestead itself is augmented by the Victorian gardens, including the gazebo folly, which is well situated to provide views over the Hunter River and as a focal point of the view from the Homestead. The outbuildings add to the aesthetic appeal, contributing to the rural character of the Complex and invoking an era when the pastoral activities were at their peak.

The Bengalla Homestead Complex is of local technical significance for its archaeological potential. The deposits associated with the Complex have the potential to yield archaeological evidence of activities relating to early settlement and the development of the pastoral industry. Deposits relating to the Homestead are highly likely to contain evidence of early domestic activities, particularly beneath the floor boards of the house itself, as well as the auxiliary buildings including the kitchen wing, laundry and book-keeper's cottage. The gardens and associated soils will contain archaeological evidence of early garden layout and species planted. The site of the original stables is highly likely to contain evidence regarding the construction and use of the building.

The Bengalla Homestead Complex is of local representative significance as a good example of the development of a pastoral enterprise, which is demonstrated through the evolution of the house, garden and the development of the farm buildings.

6.2 House Site 1

See Appendix A for images.

House site 1 is located off Wyndham Arms Row approximately equidistant between Roxburgh and Bengalla Roads. It is located within the Project Boundary but not within the Disturbance Boundary. The item is not listed on any heritage schedules.

6.2.1 Description

The site consists of a flat area, a septic tank and above ground concrete tank. The lack of a foundation indicates the house was probably mounted on piles the location of the house is marked by a flattened area. To the north, the land slopes towards Milang Gully Creek. In this direction there is a scatter of cream brick, ceramic water/sewerage pipe and c. 1990s household debris, including children's toys, shoes and car batteries. The modern cream brick may indicate the underfloor space was enclosed to give the appearance of permanency.

6.2.2 Historical Context

The land on which the site is located does not appear to have been part of the original grants to either Allman, Wright or Scott (see Section 3.3). The 1897 Parish Plan indicates the general area had been subdivided into portions of 40 acres, with the site being located within portion 52 and in the ownership of Richard Thorn Keys. Crown Plan 572-2096 indicates the area was subdivided around 1874, with the sale completed on 24 December 1895. It would therefore appear that the land was purchased during the ownership of R.T. Keys and was part of his push to expand the Estate.

Parish Plans between 1897 and 1938 indicate that the property remained part of the Bengalla Estate. The Portion was one of seven farms that produced milk for supply to the Muswellbrook Co-operative Dairy Company.

It is unclear when it was sub-divided, but it was in the ownership of P. & F. Davey when it was purchased by BMC in the mid-1990s. The house was demolished after the approval of the Bengalla Mine.

6.2.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item does not meet this criterion as it is not important in the course or pattern of state or local history.
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item does not meet this criterion as it does not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

6.2.4 Statement of Significance

This item is not of heritage significance as it does not meet the significance threshold.

6.3 House Site 2

See Appendix A for images.

House site 2 is located off Bengalla Road. It is located within the Project Boundary. The item is not listed on any heritage schedules.

6.3.1 Description

The site consists of a flat area scattered with bricks and timber. The former structure had been connected to the power, with the power pole and connection box still in place. A semi-circle of pine, neem and gum trees screens the site from Bengalla Mine.

6.3.2 Historical Context

The land on which the site is located does not appear to have been part of the grants to either Allman or Wright, but was originally granted to Scott. Parish Plans for the period 1897 to 1938 indicate the area was part of the Bengalla Estate. It is not clear when it was sold out of the estate. In 1993 the land was part of Dalmar Stud, owned by D. & M. Koureas, and the former house was known as Wyndam Arms. The house was demolished after the initial approval of the Bengalla Mine.

6.3.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item does not meet this criterion as it is not important in the course or pattern of state or local history.
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item does not meet this criterion as it does not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

6.3.4 Statement of Significance

This item is not of heritage significance as it does not meet the significance threshold.

6.4 Stockyard

See Appendix A for images.

The stockyard is located off Wybong Road in proximity to an unnamed creek. It is not listed on any heritage register.

6.4.1 Description

The stockyard is centred around a long run, terminating in a loading ramp. The yard was divided into two, an 'L' shaped yard on the northern side and a smaller rectangular yard to the south. It has been constructed of post and rails, probably cut from the surrounding vegetation. The creek line is still lightly timbered. The construction style, method and materials indicate it was probably constructed in the late nineteenth or early twentieth century.

6.4.2 Historical Context

The land on which the site is located within the original grant given to Francis Allman in 1825. It became a part of Bengalla Estate under the management of John Hudson Keys. Prior to being purchased by BMC, it was owned by E. E. McLean and others (HLA-Envirosciences Pty Ltd, 1993). The stockyard is likely to relate to the management of the Bengalla Estate, probably part of the grazing operations and stock management associated with the supply of the Sydney meat market.

6.4.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it indicates the grazing operations and stock management associated with supplying the Sydney meat market
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item does not meet this criterion as it does not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

6.4.4 Statement of Significance

This item is of local historical significance as it indicates the grazing operations and stock management associated with supplying the Sydney meat market.

6.5 House Site 3

See Appendix A for images.

House Site 3 is located on the northern side of Wybong Road (approximately 80 m north of Wybong Road) within the Project Boundary. The item is not listed on any heritage schedule.

6.5.1 Description

The site is comprised of three areas:

House site: A concrete slab and associated demolition rubble is located approximately 295 m from Wybong Road, mid way up a slope. The slab is approximately 13 m in length and 4 metres wide. It is oriented towards Wybong Road.

Dairy: The dairy is marked by a concrete slab of which approximately 3 m² was visible through the grass. The concrete slab has been formed with a gutter along at least the northern side, probably to aid in the cleaning of the facility after milking. Adjacent to the slab is an immature fig tree.

Area of archaeological Potential: Located 50 m to the north is a line of five peppercorn trees. Associated with the trees was a scatter of blue transfer ceramic and red sandstock bricks, indicating the potential for a residence to be located in the vicinity. The ceramic and bricks provide a rough date of late nineteenth century.

6.5.2 Historical Context

Certificate of Title 3081-240 indicates that the land was initially granted to The City Mutual Life Assurance Society Ltd on 10 December 1912. Sometime between 1912 and 1915 the land was transferred to William Fredrick Robey (CT 2600-104 and CT 2600-105). On 23 August 1915 the land was transferred from Robey to Kenneth William Douglas Humphries and John Malcolm Campbell Humphries, both of whom were graziers. In 1920 John Humphries transferred his portion to Kenneth Humphries (CT 3081-240). On 26 March 1954 Kenneth Humphries transferred the Title to KWD Humphries (Kagoola) Pty Ltd and mortgaged to The Commercial Banking Company of Sydney Ltd.

The EIS (1993) lists the owner/occupier as A.L. Gardiner the property was known as 'Hillview'.

6.5.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it represents continued use of the area for farming purposes, specifically dairy farming, after the dissolution of the Bengalla and Overton Estates in the late nineteenth century.
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item is of local significance as it has the potential to yield information that will contribute to and/or enhance our understanding of rural life in the Muswellbrook area in the late nineteenth century.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

6.5.4 Statement of Significance

This item is of local historical significance as it indicates the use of the area for the dairy farming and as evidence of the development of the area in the period after the dissolution of the large estates of Bengalla and Overton.

7.0 Items adjacent to the Project Boundary

7.1 Introduction

The following sections describe the heritage items identified adjacent to the Project Boundary, provide historical context and assess their significance. Table 5 outlines the location and significance of the six items identified.

Table 5 Summary of sites identified adjacent to the Project Boundary

Site Name	Significance Criteria Met	Location	
		Easting	Northing
Overdene	Historical, associative, aesthetic, technical, representative	297827	6427660
Keys Family Cemetery	Historical, associative, technical	293203	6424408
Old Bengalla	Historical, technical	293020	6424470
Blunt's Butter Factory	Historical, technical	297805	6427769
Edinglassie Homestead	Historical, associative, aesthetic, technical, representative, rare, social	295978	6424196
Rous Lench	Historical, associative, aesthetic, technical, representative, rare, social	296636	6424347

7.2 Keys Family Private Cemetery

See Appendix A for images.

The Keys Family Private Cemetery is located on the southern side of Old Bengalla Road, approximately 260 m south of the intersection with Bengalla Road. It is therefore outside the Project Boundary, however, it is on land owned by BMC. The Cemetery is listed on Schedule 3 of the Hunter Heritage REP and on the Muswellbrook LEP (Beng/R001).

7.2.1 Description

The Keys family cemetery contains ten funerary monuments. These range from stone altar type markers to obelisks and marble headstones. They are primarily constructed of sandstone or marble. The ten headstones relate to the burial sites of eighteen individuals. The plots of several, though not all, of the graves are enclosed by wrought iron fencing. Around some of the graves this fencing is nearly two metre tall, while on others it is very close to ground level. Some of the grave plots are delineated by sandstone edging, while others are not delineated at all, with the grave marker simply located in the ground with no plot boundary marked out around it.

The entire cemetery is enclosed by a fence constructed of timber and chicken wire, with a metal swinging gate at the northern end through which the site can be accessed. Undergrowth, pepper trees, gum trees, and large grey agave currently enclose the cemetery on the eastern and western sides, while the northern and southern sides are clear of vegetation. The graves are oriented east to west, as is typical of many western graveyards, with the feet of the deceased facing in the direction of the rising sun. The graves overlook the railway line to the east as well.

7.2.2 Historical Context

The Keys family were in residence at Bengalla Homestead and ran the Bengalla Estate for almost 150 years. John Hudson Keys purchased the estate from Henry Osborne in 1853. Keys built Bengalla up into one of the most impressive properties in the Hunter Valley. Keys lived with his wife and four children on the estate, in the homestead now referred to as "Old Bengalla", located approximately 200 m to the north west of the Cemetery.

The cemetery was established in 1860, when the Key's tragically lost their son George when a horse fell on him in a drafting yard in Queensland (*Sydney Morning Herald* Thursday 31 January 1881:4). George was followed nine years later in 1869 by his elder brother John Hudson Keys, after he was accidentally shot by his brother Richard Thorn Keys while hunting.

J.H Keys died in 1887 and was buried in the cemetery. The Estate passed to Richard Thorn Keys, however, the family continued to lose members in the most tragic of circumstances. In 1888 Richard and his wife Emily Margaret lost their daughter Bessie in a coach accident at Ingelbrae (now Bengalla Homestead) on 16th September. Less than two weeks later, on the 28th of September, a relative Mr. Fitzgerald was killed in another coach accident in Muswellbrook. Both were buried at the cemetery. Emily Margaret died on the 17th April 1903, followed ten days later by her son G.C. Faucet Keys. The epitaph reads "Deeply attached in life, in death they are not divided".

In all there are 18 burials indicated by the markers and one memorial to John Beresford Hudson Pierce, who was killed in action in Amiens, France in May of 1917.

The last burial occurred in 1952, when John Hudson Keys the second, father of Rosemary Reynolds (the last of the Keys family to own Bengalla Homestead) was interred.

7.2.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it is an important site in the course of local history, providing evidence of the continued occupation and presence of the Keys family at Bengalla throughout the nineteenth and twentieth century's. It provides descendants of the Keys family with tangible evidence of their family and their significance in the local area over a century and a half.
Historical association significance SHR criteria (b)	This item is of local historical associative significance due to its association with the Keys family. Several generations of this family owned, managed and resided on the Bengalla estate over a period greater than 150 years. They were a prominent and respected family within the Muswellbrook area and local community during this time.
Aesthetic significance SHR criteria (c)	This item is not of aesthetic significance on a local or state level as it does not fulfil the requirements of this criterion. It does not demonstrate aesthetic characteristics and/or a high degree of creative/technical achievement.
Social significance SHR criteria (d)	This item is of local social significance due to its strong spiritual and emotional connection and importance to the descendants of the Keys family.
Technical/Research significance SHR criteria (e)	This item is of local technical/research significance as it has the potential to yield information that could contribute to and/or enhance our knowledge and understanding of the Keys family from the nineteenth century to the present day.
Rarity SHR criteria (f)	Historical, private family cemeteries such as the Keys family cemetery are rare in the Upper Hunter region. On account of the item's rarity in a local context it fulfils the requirements of this criterion and accordingly is significant on a local level.
Representativeness SHR criteria (g)	This item is of representative significance on a local level as it provides an excellent example of a small scale, historic family cemetery in a rural context.

7.2.4 Statement of Significance

This item fulfils the relevant criteria to qualify as being of local significance on several grounds. Firstly, the item is of local historical significance as it is an important site in the course of local history, providing evidence of the continued occupation and presence of the Keys family at Bengalla throughout the nineteenth and twentieth century's. This item is also of local historical associative and social significance due to its association with the Keys family.

Several generations of this family owned, managed and resided on the Bengalla Estate over a period greater than 150 years. They were a prominent and respected family within the Muswellbrook area and local community during this time. The site retains a strong spiritual and emotional connection with, and importance to, the descendants of the Keys family.

Furthermore, this item is of local technical/research significance as it has the potential to yield information unobtainable from other sources that could contribute to and/or enhance our knowledge and understanding of the Keys family from the nineteenth century to the present day. Finally, historical, private family cemeteries such as this item are rare in the Upper Hunter region. On account of the item's rarity in a local context it fulfils the requirements of this criterion and accordingly is significant on a local level, providing an excellent example of a small scale, historic family cemetery in a rural context.

7.3 Old Bengalla/Dalmar Stud

See Appendix A for images.

Old Bengalla/Dalmar Stud is listed on the Muswellbrook LEP (Beng/R003). It is located on the northern side Old Bengalla Road, approximately 395 m to the south of the intersection with Bengalla Road. It is therefore outside the Project Boundary; however, it is on land owned by BMC.

7.3.1 Description

The site comprises a stone and brick retaining wall in a state of ruin. The wall has been identified as the rear wall of a kitchen and bathroom complex dating from as early as the 1840s and associated with the Old Bengalla Homestead. In 1946 J.H. Keys the second wrote of Old Bengalla:

The stone kitchen still stands, as it will for generations yet, unless the stone is used for other purposes. Grannie's kitchen where she made the bread, still black with smoke and hooks where the hams were smoked, the holes in the retaining walls where the fowls roosted, the smoke house, the only bathroom as I remember. (Keys Papers, Coolah)

(in Turner, 1996:6)

The kitchen formerly served the Old Bengalla Homestead, the location of the homestead is no longer visible on the surface. There is high archaeological potential for the foundations to remain. This is despite reports that a 1920-1930s farm house was constructed on the site. This house has also been removed.

The retaining wall runs in a north-south direction, and notably has a row of sizable recesses across its length, reportedly where fowls roosted. There are also the remains of a red brick and stone fireplace/oven in the northern corner (See Appendix A for images).

A timber, structure with a corrugated iron roof is also present at the Dalmar Stud site. This item was possibly once the stable and coach house associated with Old Bengalla. It may have been converted into a shearing/wool shed at a later date. It is not clear whether this structure is associated with the earliest phases of Old Bengalla or if it was erected in the later part of the 19th century.

7.3.2 Historical Context

A detailed history of the development of Old Bengalla can be found in Section 3.3.

7.3.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of historical significance on a local level as it provides evidence of one of the earliest developed pastoral properties in the region. Old Bengalla was one of the earliest land grants in the region, and was not only one of the earliest operational estates, but was also one of the largest and most successful during the nineteenth century. This site, including the retaining wall from a demolished stone and brick outbuilding and a timber shed-like structure, comprises part of the complex associated with the Old Bengalla homestead, constructed on the site possibly as early as the 1830s. These items provide the only extant visible surface representations of the original homestead complex and possess the potential for associated sub-surface archaeological deposits. The structures provide evidence of expansion as the property developed during the early part of the nineteenth century, and as such the overall site is considered to be of local historical significance.
Historical association significance SHR criteria (b)	The site is of historical association significance due to its association with several notable figures in the history of the Hunter Region. Firstly, the site is associated with Captains Samuel Wright and D.C.F Scott. Scott served as Commandant at Port Macquarie and Newcastle in NSW and as First Commandant at Westernport, Victoria, as well as an explorer of the Macleay River (once known as Wright's River) after having served with distinction in the Napoleonic Wars. Scott was a prominent figure who contributed greatly to the Muswellbrook area through his service as police magistrate and his building and social works, including the construction of the St Albans church. The exact nature of which of these two officers was responsible for the construction of the Old Bengalla homestead is uncertain, however both were associated with the site in the early years of the estate. The site is also of significance under this criterion due to its association with the Keys family, who owned and resided on the Bengalla estate for over 150 years and several generations, and who were a high profile family within the local community. Finally the site is significant as it is associated with the Old Bengalla homestead, which hosted Governor Fitzroy during his tour of the Hunter in the mid-nineteenth century.
Aesthetic significance SHR criteria (c)	This item is not of aesthetic significance on a local or state level as it does not meet the requirements of this criterion. It does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item is of social significance on a local level to the descendants of the Keys family, who owned, managed and resided on the estate for over 150 years.
Technical/Research significance SHR criteria (e)	This item is of technical/research significance on a local level as it possesses the potential to provide information regarding the early operations and domestic life of one of the earliest, grandest, and most significant developed properties of the Muswellbrook and Upper Hunter region. The site possesses good potential to provide evidence and information pertaining to the early history of the Old Bengalla homestead and complex, possibly dating back as early as the early nineteenth century. The site could inform us of the lives and operations of the occupants and workers on the early estate, providing both surface representations of the Old Bengalla homestead complex, and good potential for sub-surface archaeological deposits.
Rarity SHR criteria (f)	This item is not of significance on a local or state level on account of rarity as it does not meet the requirements of this criterion. The item is not rare.
Representativeness SHR criteria (g)	This item is not of representative significance on a local or state level as it does not meet the requirements of this criterion. It does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

7.3.4 Statement of Significance

This item is of local significance on historical, historical associative, social, and technical research grounds. The item provides the only extant visible surface representation of the original homestead complex and possesses the potential for associated sub-surface archaeological deposits. The structures provide evidence of expansion as the property developed during the nineteenth century.

The site is also of historical association significance due to its connection to several notable figures in the history of the Hunter Region, including Captains Samuel Wright and D.C.F Scott, and the Keys family, who occupied the estate for almost 150 years during the nineteenth and twentieth century's. This item is also of technical/research significance on a local level as it has the potential to provide information regarding the early operations and domestic life of one of the earliest, grandest, and most significant developed properties of the Upper Hunter region. The site could inform us of the lives and operations of the occupants and workers on the early estate, providing in addition to the surface representations of the Old Bengalla homestead complex good potential for sub-surface archaeological deposits.

7.4 Overdene

Overdene is located 200 m outside the Project Boundary, to the east of Overton Road. The site is listed on Schedule 3 of the Hunter Heritage REP and as item Beng/R004 on the Muswellbrook LEP. Additionally, it is listed on the non-statutory Register of the National Estate.

See Appendix A for images.

7.4.1 Description

The item is located on Overton Road (Old Bengalla Road), off Wybong Road, on the western side of the Hunter River and to the east of Bengalla Mine. The house is situated on a plateau, elevated above the Hunter River floodplain. The house looks east back across the floodplain to the town of Muswellbrook. The area is sparsely vegetated with native trees and introduced species. Neighbouring land is used for grazing.

The curtilage of Overdene is defined by a fence, although it is unlikely that this has any historical significance. The gardens, if they once existed in a formal sense, have been completely removed. Recent works (construction of modern houses, demolition of original outbuildings, removal of gardens and introduction of driveways) have removed any semblance of property features that may once have been used to define a more historically appropriate curtilage.

Overdene is a modest sized house in the classic Georgian style. The front facade is symmetrical, centred around an entrance door, with two pairs of French doors and shutters to either side. There are only three windows in the building, two to the rear facade and one to the southern side facade serving the three rear rooms of the house. A kitchen wing and other outbuildings once located to the rear of the house have been demolished, although the flashing on the rear of the house is indicative of the presence of some of the former structures.

The external walls are of coursed sandstone, roughly dressed and sparrow pecked. Courses are roughly consistent on all sides, although it is more consistent on the front and side elevations than it is to the rear, which is perhaps more accurately described as being random coursed. This variation in quality of construction is typical of the period, with the finer quality being restricted to the "on-view" facades. Lintels are of dressed sandstone, which is particularly fine grained and free of colour variations. Door thresholds are all timber, except for the back door, which is dressed stone (now cracked). An additional door opening was formed in the northern side wall at some time, judging from the joinery quite early in the life of the house. A timber lintel and reveals were installed, however it appears that the surrounding stonework was not adequately supported and it has cracked badly.

The chimneys and fireplaces generally are constructed of sandstone bricks for their full height from floor level, their form evident externally where they are toothed into the stone coursing in a roughly symmetrical fashion. All three chimneys appear to have had chimney pots, although only one remains in situ.

The roof presents a long, low ridgeline, punctuated by chimneys rising from the northern and southern elevations. It is a hipped roof, with the ridge returning down both sides to form a pair of hips with box gutter between, creating a low, formal roof line to the front typical of this style. The roof timbers are hardwood of substantial dimensions with nailed joints. Shingles, presumably original, are still in place and also appear to be in good condition.

A bell cast verandah once ran around all sides of the house, also typical of this building type, however this has been almost completely removed. The floor was formed up with a sandstone wall to match the house, and was presumably flagged or paved. Some sections have sandstone bricks laid on top of the sandstone, the purpose of which is unclear. A timber floor has been constructed over the top of the original, bringing the floor level up flush with the interior. Only one short section of verandah remains in situ along the front facade. No evidence of the original verandah posts remains, with the remnant section supported on steel pipes.

The internal layout of Overdene is typical of the period, being a double pile plan with central hall, providing only a modest amount of accommodation by today's standards. The two main rooms are positioned either side of the hall. Fireplaces are positioned centrally on the external side walls. These would most likely have originally been sitting and dining rooms. To the rear, the right hand room is repeated, including a fireplace, although of slightly smaller dimensions. Presumably this was the main bedroom. The left hand side space is broken into two smaller spaces. The internal dividing walls are of sandstone bricks, generally two bricks thick. Where sections of plaster have fallen off it can be seen that the bricks are laid with header courses every second to fourth course in traditional colonial bond. There is an archway at the centre of the hall which has two header courses to form the arch itself. The chimney breasts are also of brickwork, and slight cracking can be seen at the internal corner where they meet the stone walls. The walls are rendered throughout with a lime plaster. Almost every wall displays some substantial cracking and dislodgement of the plasterwork.

The ceilings were all originally lath and plaster, as evidenced by the nail holes in the underside of the ceiling joists, and consistent with the age of the building. There are no cornices at present and no obvious evidence of there ever having been any, although heavy moulded cornices would have been typical of such a building. The floors are timber framed, and were presumably originally polished, although there is no sign of any surface finish remaining. Internal doors are all four panelled with relatively simple mouldings and plain panels. All joinery appears to be red cedar, retaining its original clear finish to the front and back rooms, although the rest have a single layer of white gloss paint.

The original approach to Overdene was probably via the north, coming in along the plateau edge to the main east facing facade. Due to the limited distance, however, from the house to the plateau edge it is unlikely that there was any kind of formal turning circle in the area. The drive probably went on to stables etc, and may have returned around the rear of the complex. The current approach is from Overton Road (Old Bengalla Road) to the west of the house. There is little in the way of landscaping associated with this modern access.

Little remains of the garden. A narrow concrete path runs from the verandah opposite the front door; however it is unlikely to be associated with the original layout. There are some mature trees about the house, although they are not of the size one would expect if they were contemporary with the house. This could, however, be explained by the poor quality of the soil on the plateau compared to the fertile Hunter River floodplain below. These trees include a Jacaranda, a Pepper Tree, and an Oak. Trees of more recent origins include citrus, peach, and various natives. Both the citrus and peach trees are located hard against the verandah wall. This suggests that they were not intentional plantings but more likely grew from discarded seeds. Other plants and shrubs of note include Plumbago, Oleander, Roses, Hibiscus, and Cape Honeysuckle.

7.4.2 Historical Context

A detailed history of the development of Overdene can be found in Section 3.5.

7.4.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it is important in the course of local history, having been a part of the operations of Overton estate, one of the larger and more successful estates in the Muswellbrook area during the nineteenth and early twentieth century.
Historical association significance SHR criteria (b)	This item is not of local or state historical associative significance as it does not fulfil the requirements of this criterion.
Aesthetic significance SHR criteria (c)	This item is of local aesthetic significance as it is a good example of a modest Georgian style residential building in a rural setting.
Social significance SHR criteria (d)	This item is not of local or state social significance as it does not fulfil the requirements of this criterion.
Technical/Research significance SHR criteria (e)	This item is of local technical/research significance as it possesses the potential to inform us of operations and lifestyles on a large scale rural estate in the nineteenth century, with further potential to demonstrate change in these aspects over time, from the nineteenth into the twentieth century.
Rarity SHR criteria (f)	This item is not significant on a local or state level on the grounds of rarity as it does not fulfil the requirements of this criterion.
Representativeness SHR criteria (g)	This item is not of local or state representative significance as it does not fulfil the requirements of this criterion.

7.4.4 Statement of Significance

This item is of local significance on historical, aesthetic and technical/research grounds. The item is of local historical significance as it is important in the course of local history, having been a part of the operations of Overton estate, one of the larger and more successful estates in the Muswellbrook area during the nineteenth and into the early twentieth centuries.

The house is of local aesthetic significance as it is a good example of a modest Georgian style residential building in a rural setting. Finally the house and surrounding site are of local technical/research significance as they possess the potential to inform us of operations and lifestyles on a large scale rural estate in the nineteenth century, with further potential to demonstrate change in these aspects over time, from the nineteenth into the twentieth century.

7.5 Blunt's Butter Factory site

See Appendix A for images.

Blunt's Butter Factory is located in proximity to Overdene Homestead, off Overton Road. The Factory site is located approximately 200 m from the Project Boundary. It is listed on the Muswellbrook LEP as item Beng/R005.

7.5.1 Description

Very little remains at the site of the previous Blunt's Butter Factory/Overton Creamery site. There are no standing structures present at the site. All that remains are the concrete foundations, fragmentary portions of walls and rubble. Some of the remaining concrete sections have glazed white tiles attached.

7.5.2 Historical Context

Blunt's Butter Factory, or the Overton Creamery, is located on what was once the Overton estate – now known as Overdene. Overton (initially called 'Kelso Place') was founded by Captain Francis Allman in 1825 on a land grant of 2,560 acres. Allman did not, however, prosper in the Hunter Valley and in 1833 sold a major portion of Overton at auction to John Kerr McDougall, a wealthy landowner who had migrated to Australia in 1798. Allman retained for himself only 640 acres, which he also named 'Overton'. This resulted in the existence of two 'Overtons' being located side by side for a period of time. The Allman's 640 acres subsequently became part of the adjacent Bengalla property and is the land on which Bengalla homestead now stands.

It is doubtful that John McDougall ever resided at Overton, and initially it was probably managed from Parramatta. However, in the 1830s McDougall's son, also John McDougall, resided on the property. The 1841 Census indicates that at that time he was the owner of the property, which constituted a sheep station with thirteen residents, seven of whom were convicts on assignment. Only timber structures existed on the property at this time, with not even the cottage now known as 'Overdene' yet constructed. In 1858 the McDougalls sold the property to Henry Nowland, who acquired a substantial amount of property throughout the Hunter, including properties at Singleton and Muswellbrook. Nowland was a prominent citizen in the local community, supporting various town charities and good causes. Nowland died in 1863, and a decade later his family sold off the Overton estate.

The Nowland family sold the property to George Blunt (1823-1905), one of the colony's most successful railway constructors. Blunt concentrated on breeding "first class draught horses" from early on during his tenure at Overton, having acquired an imported stallion 'Cannie Scott' for the purpose, at a cost of 850 guineas. By 1885 the Overton estate, along with the much smaller Brogheda estate, which Blunt also owned, was sustaining 75 horses, 112 cattle, and 2,711 sheep. To obtain hay for all of these animals, Blunt began irrigating his lucerne, with outstanding results. Blunt went on to install a steam engine and pump powerful enough to lift 1,700 gallons of water per minute from the Hunter River. This was the primary feature of Overton estate by 1895, enabling Blunt to cut a crop of lucerne averaging 2.5 to 3 tons per acre every five weeks. By 1895 Blunt had 8,500 sheep on the property, which he prepared for the export 'freezer' trade.

While George Blunt did not place much, if any, emphasis on dairying up to 1895, by the 1890s, dairying became one of the most important industries in the Upper Hunter region. The rise of this industry coincided with the development of the mechanical separation of milk and refrigeration, and resulted in the reshaping of the pattern of farming in the Muswellbrook area (Turner 1995: 19). George Blunt's son, Thomas Blunt, opened a creamery at Overton in 1903. Initially, Blunt shipped the cream produced at this creamery down to Newcastle to be made into butter. A few years later, Blunt established his own Butter Factory at Overton. The railway experience of George Blunt had led to their acquisition and operation of the Kayuga Colliery on Coal Creek Road in the early 1890s. It was from this mine that Thomas Blunt acquired the coal to fire the boilers of his Butter Factory.

Blunt's Creamery and Butter Factory was one of the earliest within the locality, with only two other creameries established and operating in the first decade of the twentieth century. The others were the Kayuga Creamery, which was opened in 1893, and the Denman Co-Operative Dairy Company, established in 1907. The Muswellbrook Dairy Co-Operative, which was located on Aberdeen Street, was not established until 1919.

Overton was severely affected by the 'Closer Settlement' principle, a long held principle of Australian philosophy, in the early twentieth century, when the NSW Government sought to reduce the number of large scale farming operations and encourage the growth of small-scale farming. Like many other large estates in the area, Overton was subject to subdivision.

From 1912 the estate was dismantled and virtually ceased to exist from this point on. The highly productive riverfront lands were divided into portions ranging from 10 to 200 acres. The site of the Butter Factory, however, along with its engine and cottage, appeared to remain in the Blunt family, in the hands of Daniel Blunt. It is probable that the establishment of the dairy co-operatives of the 1930s eventually resulted in the closure of Blunt's Butter Factory. Various amalgamations of the local creameries and factories of the region eventually lead to the creation of the Oak Co-Operative.

7.5.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it is the site of one of the earliest creameries in the Muswellbrook area, and for being the first butter factory, providing a local processing facility for the farmers who prior to its establishment had to transport cream outside the area for processing.
Historical association significance SHR criteria (b)	This item is not of historical associative significance on a local or state level as it does not fulfil the requirements of this criterion.
Aesthetic significance SHR criteria (c)	This item is not of aesthetic significance on a local or state level as it does not fulfil the requirements of this criterion. It does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item is not of social significance on a local or state level as it does not fulfil the requirements of this criterion.
Technical/Research significance SHR criteria (e)	This item is of local technical/research significance as the site possesses the potential for sub-surface archaeological deposits to be present. The site has the potential to provide information which could contribute to and/or enhance our knowledge and understanding of the role of the dairy industry in the economy of the Upper Hunter in the early to mid-twentieth century. There is also the potential for the site to provide information regarding the geographical imperatives of the location of such facilities in relation to the existing transport routes of the time and the distribution of local area dairy farms and coal mines.
Rarity SHR criteria (f)	This item is not of significance on a local or state level on account of rarity as it does not fulfil the requirements of this criterion.
Representativeness SHR criteria (g)	This item is not of representative significance on a local or state level as it does not fulfil the requirements of this criterion. It does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

7.5.4 Statement of Significance

This item is of local significance on historical and technical/research grounds. The item is of local historical significance as it was significant in the course and development of local history. The site was one of the earliest creameries in the Muswellbrook area, and the first butter factory, providing a local processing facility for the local farmers who prior to its establishment had to transport cream outside the area for processing. Furthermore, this item is of local technical/research significance as while there are little visible surface remains of the site, it retains the potential for sub-surface archaeological deposits to be present. The site therefore has the potential to provide information which could contribute to and/or enhance our knowledge and understanding of the role of the dairy industry in the economy of the Upper Hunter in the early to mid-twentieth century. The site also possesses the potential to provide information regarding the geographical imperatives of the location of such facilities in relation to the existing transport routes of the time and the distribution of local area dairy farms and coal mines.

7.6 Edinglassie

Edinglassie is located on the southern side of the Hunter River, over 1.2 km from the Project Boundary. It is listed on the State Heritage Register (Item No. 00170), Schedule 2 of the Hunter Heritage REP and the Muswellbrook LEP (Musw/R015). In addition, Edinglassie is listed on the non-statutory Register of the National Estate and National Trust of Australia register. The site is currently owned by Mount Arthur Coal.

The following information has been taken from the SHR listing available at http://www.heritage.nsw.gov.au/07_subnav_04_2.cfm?itemid=5045625

7.6.1 Description

“Site/Grounds: The house is approached through original iron gates and through well kept grounds containing many fine mature trees, including some Queensland species brought from other White family properties. The homestead is set back from the access road, and a substantial line of screening trees fronts the entrance. The siting of the homestead is intrinsic to its significance.

House: A 2 storey sandstone house with hipped iron roof of simplified Italianate style built in two stages c1880, and c1895, for James White. Each elevation is asymmetrical about a large full height projecting bay with a continuous single storey verandah (originally 2 stories to east and south) supported on cast iron columns stamped ‘F. REVETT, W. MAITLAND. The fourteen principal rooms have a variety of pressed metal ceilings and marble and timber fireplaces whilst the fine joinery throughout is of cedar. All joinery has been sensitively restored.

Outbuildings: A timber bridge links across a large trussed roof breezeway to a 2 storey service wing containing the original kitchen. Close to the house is the fine stables group of buildings designed by Hunt in timber and built in the 1880s. Although lacking in the more exuberant details characteristic of Hunt's work, these buildings nonetheless form a coherent and impressive whole. Other buildings include a meat house, killing shed and dovecote.”

7.6.2 Historical Context

“The land on which both Edinglassie and Rous Lench are located was the original Portion 4 of the Parish of Brougham in the County of Durham. This comprised an area of 1280 acres the deed of grant for which was issued to George Forbes on 1 August 1839. Like many grants of the period the land had been occupied for many years before it was officially surveyed and the deed grant issued.

A 2 storey sandstone house with hipped iron roof of simplified Italianate style built in two stages c1880, and c1895, for James White.”

7.6.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	<i>The Edinglassie property including the Edinglassie homestead, associated buildings and Rous Lench cottage are closely associated with the earliest European occupation of the area and collectively represent one of the earliest land grants of the initial settlement of the Hunter Valley.</i> <i>The Edinglassie property demonstrates various phases of human activities such as settlement and clearing, water supply and management, sheep and cattle running, development of specialist cattle breeding activities, recreation, viticulture and horse breeding.</i>
Historical association significance SHR criteria (b)	<i>It is associated with George Forbes, the original grantee, who was one of the 'gentry' settlers in the early settlement of the area.</i> <i>It is associated with a prominent family, the Whites, a leading pastoral dynasty, who were synonymous with the opening and development of the region.</i> <i>It is associated with a significant Australian architect, John Horbury Hunt.</i>
Aesthetic significance SHR criteria (c)	<i>The Edinglassie homestead with its associated outbuildings and Rous Lench cottage are good architectural examples of their type and style.</i> <i>The Edinglassie property demonstrates an excellent application of the Arcadian design approach to the siting of structures and elements in the landscape which is rare in the region.</i> <i>It is associated with a significant Australian architect, John Horbury Hunt.</i> <i>The siting of the homestead is intrinsic to its significance.</i>
Social significance SHR criteria (d)	<i>It is a well known landmark, and has provided a community focus over a number of generations from the turn of the 19th century.</i>
Technical/Research significance SHR criteria (e)	<i>It has extant and potential intact archaeological evidence capable of helping interpret past occupation and lifestyles of the area.</i> <i>It is associated with a significant Australian architect, John Horbury Hunt.</i>
Rarity SHR criteria (f)	The SHR listing does not address this element of significance.
Representativeness SHR criteria (g)	The SHR listing does not address this element of significance.

7.6.4 Statement of Significance

Primary Significance: The Edinglassie property including the Edinglassie homestead, associated buildings and Rous Lench cottage are closely associated with the earliest European occupation of the area and collectively represent one of the earliest land grants of the initial settlement of the Hunter Valley;

The Edinglassie property demonstrates various phases of human activities such as settlement and clearing, water supply and management, sheep and cattle running, development of specialist cattle breeding activities, recreation, viticulture and horse breeding;

The Edinglassie homestead with its associated outbuildings and Rous Lench cottage are good architectural examples of their type and style;

The Edinglassie property demonstrates an excellent application of the Arcadian design approach to the siting of structures and elements in the landscape which is rare in the region;

Secondary significance:

The place is also significant because:

It is associated with George Forbes, the original grantee, who was one of the 'gentry' settlers in the early settlement of the area;

It is associated with a prominent family, the Whites, a leading pastoral dynasty, who were synonymous with the opening and development of the region;

It illustrates the degree of opulence achieved and lifestyles led by the leading pastoral families in the area;

It is associated with a significant Australian architect, John Horbury Hunt;

It is a well known landmark, and has provided a community focus over a number of generations from the turn of the 19th century;

It has extant and potential intact archaeological evidence capable of helping interpret past occupation and lifestyles of the area (Tropman & Tropman Architects, 1993, 149).

The siting of the homestead is intrinsic to its significance.

7.7 Rous Lench

Rous Lench is located on the southern side of the Hunter River, over 1.4 km from the Project Boundary. It is listed on the State Heritage Register (Item No. 00211), Schedule 2 of the Hunter Heritage REP and the Muswellbrook LEP (Musw/R016). In addition, Rous Lench is listed on the non-statutory National Trust of Australia register. The site is currently owned by Mount Arthur Coal.

The following information has been taken from the SHR listing available at

http://www.heritage.nsw.gov.au/07_subnav_04_2.cfm?itemid=5045629

7.7.1 Description

The homestead is a low cottage constructed of rendered brick and corrugated iron featuring a roof ridge extended to form small gables, four panel doors, large four-pane sash windows, panelled ceilings, and gunstock stiles on French windows at the side. A photograph dating from the 1880s showing the first part of Edinglassie adjacent to an earlier hipped roof house indicates that the original house was demolished and/or rebuilt when the present Edinglassie was completed in c1895. It is therefore not likely that Rous Lench is the original homestead.

Architectural Style: Italianate.

Building Material: Sandstone, iron roof

7.7.2 Historical Context

The land on which both Edinglassie and Rous Lench are located was the original Portion 4 of the Parish of Brougham in the County of Durham. This comprised an area of 1280 acres the deed of grant for which was issued to George Forbes on 1 August 1839. Like many grants of the period the land had been occupied for many years before it was officially surveyed and the deed grant issued.

The homestead is a low cottage constructed of rendered brick and corrugated iron featuring a roof ridge extended to form small gables, four panel doors, large four-pane sash windows, panelled ceilings, and gunstock stiles on French windows at the side. A photograph dating from the 1880s showing the first part of Edinglassie adjacent to an earlier hipped roof house indicates that the original house was demolished and/or rebuilt when the present Edinglassie was completed in c1895. It is therefore not likely that Rous Lench is the original homestead.

7.7.3 Significance Assessment

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	<i>The Edinglassie property including the Edinglassie homestead, associated buildings and Rous Lench cottage are closely associated with the earliest European occupation of the area and collectively represent one of the earliest land grants of the initial settlement of the Hunter Valley.</i> <i>The Edinglassie property demonstrates various phases of human activities such as settlement and clearing, water supply and management, sheep and cattle running, development of specialist cattle breeding activities, recreation, viticulture and horse breeding.</i> <i>It illustrates the degree of opulence achieved and lifestyles led by the leading pastoral families in the area.</i>
Historical association significance SHR criteria (b)	<i>It is associated with George Forbes, the original grantee, who was one of the 'gentry' settlers in the early settlement of the area.</i> <i>It is associated with a prominent family, the Whites, a leading pastoral dynasty, who were synonymous with the opening and development of the region.</i>
Aesthetic significance SHR criteria (c)	<i>The Edinglassie homestead with its associated outbuildings and Rous Lench cottage are good architectural examples of their type and style;</i> <i>The Edinglassie property demonstrates an excellent application of the Arcadian design approach to the siting of structures and elements in the landscape which is rare in the region;</i> <i>It is associated with a significant Australian architect, John Horbury Hunt;</i> <i>The siting of the homestead is intrinsic to its significance.</i>
Social significance SHR criteria (d)	<i>It is a well known landmark, and has provided a community focus over a number of generations from the turn of the 19th century.</i>
Technical/Research significance SHR criteria (e)	<i>It has extant and potential intact archaeological evidence capable of helping interpret past occupation and lifestyles of the area.</i>
Rarity SHR criteria (f)	The SHR listing does not address this element of significance.
Representativeness SHR criteria (g)	The SHR listing does not address this element of significance.

7.7.4 Statement of Significance

The Edinglassie property including the Edinglassie homestead, associated buildings and Rous Lench cottage are closely associated with the earliest European occupation of the area and collectively represent one of the earliest land grants of the initial settlement of the Hunter Valley;

The Edinglassie property demonstrates various phases of human activities such as settlement and clearing, water supply and management, sheep and cattle running, development of specialist cattle breeding activities, recreation, viticulture and horse breeding;

The Edinglassie homestead with its associated outbuildings and Rous Lench cottage are good architectural examples of their type and style;

The Edinglassie property demonstrates an excellent application of the Arcadian design approach to the siting of structures and elements in the landscape which is rare in the region;

Secondary significance

The place is also significant because:

It is associated with George Forbes, the original grantee, who was one of the 'gentry' settlers in the early settlement of the area;

It is associated with a prominent family, the Whites, a leading pastoral dynasty, who were synonymous with the opening and development of the region;

It illustrates the degree of opulence achieved and lifestyles led by the leading pastoral families in the area;

It is associated with a significant Australian architect, John Horbury Hunt;

It is a well known landmark, and has provided a community focus over a number of generations from the turn of the 19th century;

It has extant and potential intact archaeological evidence capable of helping interpret past occupation and lifestyles of the area (Tropman & Tropman Architects, 1993, 149).

The siting of the homestead is intrinsic to its significance.

8.0 Issues and Potential Impacts

The following section draws upon information provided in Sections 6.0 and 7.0 to address the issues and potential impacts on identified heritage items during the operation of the Project.

8.1 Direct Impacts

The development of the Project will result in direct impacts to one item of local historical significance (Stockyards) and two items assessed as holding no heritage significance (House Site 1 and House Site 2).

8.2 Indirect Impacts

8.2.1 Blasting

Blasting will be a key activity required as part of the operation of the Project. As a result of this activity, associated ground vibrations have the potential to impact the structural integrity of select heritage items identified during the field survey. Such items that may continue to experience the impacts of blasting include:

- Overdene Homestead owned by BMC, approximately 2150 m east of the Year 1 mining area;
- Bengalla Homestead owned by BMC, approximately 1600 m east of the Year 1 mining area;
- Rous Lench owned by HVEC approximately 2100 m south east of the Year 1 mining area;
- Edinglassie Homestead owned by HVEC, approximately 1900 m south of the Year 1 mining area;
- Old Bengalla Site on land owned by BMC, approximately 1100 m south of the Year 24 mining area;
- Keys Family Cemetery on land owned by BMC, approximately 1100 m south of the Year 24 mining area; and
- House Site 3 owned by Coal & Allied Operations Pty Limited, approximately 360 m north of the Year 4 mining area.

Significant items of historic heritage will be located further away from the active mine and will therefore be subject to lower vibration and overpressure levels than previously experienced at the Approved Mine since operations commenced in 1999. The acoustic impact assessment for the Project undertaken by Bridges Acoustics (2013) (Appendix H of the EIS) provides a blasting impact assessment, which considers the heritage items identified within and adjacent to the Project Boundary. Bridges Acoustics concluded that all relevant blast vibration criteria would be met at the heritage structures. The predicted blast impacts have been calculated based on the recommended procedure in Appendix J of Australian Standard 2187.2-2006, using typical ground coefficients of $K=1140$ and $b=1.6$. The calculated blast impacts are provided in Table 6.

Table 6 Predicted blast impacts to heritage items

Building/Structure	Distance, m	MIC, kg						Criteria, mm/s, dBL
		500	1000	1500	500	1000	1500	
		Ground Vibration mm/s			Overpressure dBL			
Overdene Homestead ¹	2150	0.8	1.3	1.8	99	102	104	10, 120
Bengalla Homestead ¹	1600	1.2	2.1	3.0	103	106	108	10, 120
Rous Lench	2100	0.8	1.4	1.9	105	108	109	10, 120
Edinglassie Homestead	1900	0.9	1.6	2.3	106	109	110	10, 120
Old Bengalla Site	1100	2.2	3.9	5.4	- ²	- ²	- ²	50, -
Keys Family Cemetery	1100	2.2	3.9	5.4	- ²	- ²	- ²	50, -
House Site 3	360	13.4	23.3	32.2	- ²	- ²	- ²	50, -

¹ Overpressure levels have been reduced by 5 dBL to account for shielding provided by the OEA.

² House sites and the cemetery are not sensitive to overpressure.

Based on the above provided calculations, blasting associated with the Project is unlikely to exceed relevant ground vibration and overpressure criteria at all heritage items, based on results from extensive blast monitoring around Bengalla and given the relatively large distances to nearest sensitive receivers.

8.2.2 Visual

The Project will result in views that are generally consistent with current approvals from identified sensitive heritage receivers, being Bengalla, Overdene, Edinglassie and Rous Lench Homesteads. The Project is not expected to result in further erosion of the vista to or from Bengalla and views will improve when the OEA currently under construction is revegetated. There will be no alterations to the views to or from Overdene Homestead and views to the west are expected to improve as the revegetation of the OEA progresses. Views from Edinglassie and Rous Lench are unlikely to be effected by the Project and, again, are expected to improve as revegetation progresses within the southern portion of the Mine.

The existing Landscape Management Plan will be updated for the Project and will continue to be utilised to manage potential visual impacts to Historic Heritage for the Project.

8.2.3 Mine Operations

The continuation of mining will indirectly impact on Bengalla and Overdene homesteads, through continuing vacancy due to limited access, dust and noise concerns.

Bengalla Homestead is directly adjacent to the Operations Area, within the Disturbance Boundary and BMC has indicated that it will not be possible to use the homestead until the cessation of mining. The continued vacancy of Bengalla Homestead will indirectly impact on the heritage significance. Likewise, BMC has indicated that reuse of Overdene will not be considered until the cessation of mining.

8.3 Avoidance

Four historic heritage sites identified during the field survey within and adjacent to the Project Boundary will not be impacted, directly or indirectly, by the Project, including:

- House Site 3;
- Keys Family Cemetery;
- Old Bengalla; and
- Blunt's Butter Factory.

9.0 Mitigation and Management

Where feasible, engineering design measures have been incorporated to avoid impacts, however, where these are unavoidable, mitigation and management measures for each impact are proposed to reduce the magnitude of the impacts as far as practicable.

BMC has a comprehensive EHMP (AECOM 2012) for the management of identified historic heritage items. The EHMP includes detailed CMP's for both the Bengalla and Overdene Homesteads. BMC will continue to implement the following commitments in relation to Bengalla Homestead, as specified in the CMP:

- Undertake the Schedule of Conservation Works outlined in the Bengalla CMP. Works include, but are not limited to:
 - Repairing and ensuring the integrity of the foundations of the Homestead, Service Wing, Gazebo and Book-Keeper's Cottage in the short term;
 - Maintaining the stability of the structures in the medium term; and
 - Final restoration of the Homestead and outbuildings in the long term with a view to occupancy once mining operations have ceased;
- Manage Bengalla Homestead in line with the Conservation Policies and Strategies outlined in the Bengalla CMP; and
- Undertake on-going maintenance as outlined in the Bengalla CMP.

BMC will continue to implement the following commitments in relation to Overdene Homestead:

- Undertake the Schedule of Conservation Works outlined in the Overdene CMP. Works include, but are not limited to:
 - Stabilise the foundations, treat for relevant pests (including termites, if identified), tighten tie rods to stabilise the walls, rebuild the verandahs, in the short term;
 - Preserve the building in the medium term, undertaking works identified in the annual inspections in a timely manner to prevent damage; and
 - Consider the full restoration of the structure in the long term;
- Manage Overdene Homestead in line with the Conservation Policies and Strategies outlined in the Overdene CMP ; and
- Undertake on-going maintenance as outlined in the Overdene CMP.

9.1 Directly Impacted Items

As the Project is seeking approval under Division 4.1 of the EP&A Act, heritage items may be disturbed without the proponent applying for permits under the Heritage Act.

House Site 1 and 2 have been assessed as holding no heritage significance and therefore require no mitigation or management on heritage grounds.

The stockyard has been assessed as being of local significance. It is recommended that archival recording will adequately mitigate the significance of this item. The recording should comply with the Heritage Branch of the Office of Environment and Heritage guidelines *How to Prepare Archival Records of Heritage Items (1998)* and *Photographic Recording of Heritage Items using Film or Digital Capture (2006)*.

9.2 Avoidance

The four items that will not be impacted by the Project (House Site 3, Keys Family Cemetery, Old Bengalla and Blunt's Butter Factory) are located on land owned by BMC. The heritage significance of these items will be managed through an update to BMC's EHMP.

9.3 Indirectly Impacted Items

9.3.1 Blasting

The existing Blast Management Plan should be reviewed and updated including management measures to control blast impacts on identified heritage buildings and structures and selection of appropriate blast monitoring locations generally west of the Project.

9.3.2 Visual

The existing Landscape Management Plan will be updated for the Project and will continue to be utilised to manage potential visual impacts to Historic Heritage for the Project.

9.4 Bengalla Historic Heritage Management Plan

BMC's existing EHMP (AECOM 2012), Bengalla Homestead CMP and Overdene Homestead CMP will be updated with results from this assessment.

10.0 Statements of Heritage Impact

10.1 Introduction

The objective of a Statement of Heritage Impact (SOHI) is to evaluate and explain how a proposed development, rehabilitation or land use change will affect the heritage value of the item and/or place. A SOHI should also address how the heritage value of the item/place can be conserved or maintained, or preferably enhanced, by the proposed works.

Impacts have been identified to the Stockyard and Bengalla and Overdene Homesteads (Section 8.0). The following sections provide SOHIs for these impacts.

SOHIs have not been prepared for House Site 3, Keys Family Cemetery, Old Bengalla, and Blunt's Butter Factory as these items will not be impacted, either directly or indirectly, by the Project. SOHIs were not prepared for House Site 1 and House Site 2 as these items were assessed as having no historical significance (See Section 6.0).

These SOHIs have been prepared in accordance with the NSW Heritage Office & Department of Urban Affairs and Planning *NSW Heritage Manual* (1996) and NSW Heritage Office *Statements of Heritage Impact* (NSW Heritage Office, 2002). The guidelines pose a series of questions as prompts to aid in the consideration of impacts due to the Project. The questions vary in the guideline, depending on the nature of the impact to the heritage item. The questions provided are not intended to be rigid and heritage professionals are encouraged to adapt, modify or develop questions that are specific to the site and the identified impacts.

In relation to the Stockyard, the set of questions related to demolition of a building or structure are the most appropriate:

- Have all options for retention been explored?
- Can all of the significant elements of the heritage item be kept and any new development be located elsewhere on the site?
- Is demolition essential at this time or can it be postponed in case future circumstances make its retention and conservation more feasible?
- What measures are in place to mitigate the demolition of the item?
- Has the advice of a heritage consultant been sought? Has the consultant's recommendations been implemented?

The guidelines did not anticipate indirect impacts, such as those identified for Bengalla and Overdene Homesteads. A set of questions has therefore been developed that specifically address the circumstances at these two sites:

- Why does the use of the items need to be changed?
- What changes to the items are required as a result of the change of use?
- Why do the homesteads need to be vacant? (Why can't they be tenanted?)
- Does the existing use of the heritage items contribute to their significance? Will the ongoing vacancy of the properties impact upon their heritage significance?
- What measures are in place to mitigate the vacancy of the items?
- Has the advice of a heritage consultant or structural engineer been sought? Has the consultant's advice been implemented?

The guideline also specifies the minimum supporting information required. In the case of items of local significance, a Statement of Significance is required. These can be found in Sections 6.4.4, 6.1.4 and 7.4.4.

10.2 Stockyard

10.2.1 Summary of Impact/s to Heritage Significance

The above site is located within the Disturbance Boundary and will therefore be subject to removal.

10.2.2 Heritage Impact Assessment

Have all options for retention been explored?

The nature of open cut coal mining does not allow for the retention of the Stockyard. Underground mining would allow for the retention of the heritage item, but this is not a viable option in this instance, as it would result in the sterilisation of significant viable open cut coal reserves and render the Project economically unfeasible. It is therefore considered to be most beneficial to mitigate the site through archival recording prior to impacts. This will ensure the historical significance of the Stockyard is mitigated and the information retrieved and documented can contribute to an understanding of the history and development of Bengalla and the local area.

Can all of the significant elements of the heritage item be kept and any new development be located elsewhere on the site?

The nature of open cut coal mining does not allow the development to be relocated elsewhere, as the excavation must be located over the coal resource. Underground mining is not economically feasible in this instance as it would result in the sterilisation of significant coal reserves.

Is demolition essential at this time or can it be postponed in case future circumstances make its retention and conservation more feasible?

Delaying the demolition of this item is unlikely to alter the feasibility of its retention and conservation in the future, as in the event that circumstances should change, it is highly probable that the item would still remain within the Disturbance Boundary and be subject to impacts, either directly or indirectly, from mining activities. Furthermore, delaying the mitigation of this site could result in a continuing loss of context and information through deterioration and potential direct and indirect impacts through increased access to, and usage of, the area.

What measures are in place to mitigate the demolition of the item?

Prior to any impacts to the Stockyard, it has been recommended that an archival recording be undertaken to adequately mitigate the significance of the item. This recording should comply with the Heritage Branch of the Office of Environment and Heritage's guidelines: *How to Prepare Archival Records of Heritage Items* (1998) and *Photographic Recordings of Heritage Items using Film or Digital Capture* (2006).

Has the advice of a conservation consultant been sought? Has the consultant's advice been implemented?

This report outlines the advice of an historical archaeologist. The report has identified items of historic heritage significance, including the Stockyard, assessed their significance, and identified the impacts and proposed management recommendations. The implementation of the advice provided herein will be dependent on approval from the Department of Planning and Infrastructure (DP&I).

10.2.3 Statement of Heritage Impacts

The effect of removing the Stockyard has been graded to determine its impact against the significance of the site, as summarised in Table 7.

Table 7 Summary of the nature of the heritage impacts

Impact Type	Impact
Major negative impacts (substantially affects fabric or values of state significance)	None
Moderate negative impacts (irreversible loss of fabric or values of local significance; minor impacts on State significance)	The demolition of the Stockyard and its removal from the landscape will have a moderate negative impact, as it will result in the irreversible loss of fabric and values of local significance. The demolition of the item will remove its historical significance. The archival recording of the site will, however, adequately mitigate the significance of this item and ensure that information pertaining to this item is retained into the future.
Minor negative impacts (reversible loss of local significance fabric or where mitigation retrieves some value of significance; loss of fabric not of significance but which supports or buffers local significance values)	None
Negligible or no impacts (does not affect heritage values either negatively or positively)	None
Minor positive impacts (enhances access to, understanding or conservation of fabric or values of local significance)	None
Major positive impacts (enhances access to, understanding or conservation of fabric or values of state significance)	None

10.3 Statement of Heritage Impact: Bengalla and Overdene Homesteads

10.3.1 Summary of Impact/s to Heritage Significance

The continuation of mining will indirectly impact upon both Bengalla and Overdene Homesteads as they will be subject to ongoing vacancy due to a lack of access, dust, and noise concerns.

Bengalla Homestead is located within the Project Boundary, directly adjacent to the operations area. BMC has indicated that it will not be possible for the homestead to be used until the cessation of mining. Overdene Homestead is located adjacent to the Project Boundary, and like Bengalla Homestead, will not be able to be reused until the cessation of mining. The continuing vacancy of Bengalla and Overdene Homesteads will indirectly impact upon their heritage significance, as discussed below.

10.3.2 Heritage Impact Assessment

Why do the homesteads need to be vacant? (Why can't they be tenanted?)

Bengalla Homestead is located within the operations area with no independent access to the Homestead and is 50 m from an overburden emplacement area that is currently in use. BMC has identified these as risks to the safety of the potential inhabitants, as well as in breach of Occupational Health and Safety standards from the Mine.

Overdene Homestead is currently not fit for habitation, having no kitchen, bathroom and being in a general state of dereliction. In addition, it is located within 50 m of two other residences and BMC have indicated the introduction of a third tenant is likely to lead to access and space issues. It is also within an area over which BMC has negotiated altered noise and dust agreements. Due to these factors, BMC are unable to tenant the Homestead.

Does the use of the heritage items contribute to their significance? Will the ongoing vacancy of the properties impact upon their heritage significance?

As with any heritage item, its heritage significance is maximised when the item is used for its intended purpose. Continuity of use allows the significance to be maintained and expanded. In the case of Bengalla and Overdene Homesteads, part of the significance of the items is vested in their use as residences. Given continuing maintenance and the planned repairs, however, the significance of the Homesteads will be retrievable when the Homesteads are able to be inhabited again at the cessation of mining.

What measures are in place to mitigate the vacancy of the items?

The Homesteads are currently managed through individual Conservation Management Plans. These CMPs contain conservation policies and schedules for works to maintain the properties. Following approval of the Project, the CMPs will be revised, but will continue to provide the management mechanism through which the continued maintenance of the Homesteads will be ensured while they are vacant. The current CMP includes on-going periodic maintenance, including annual structural inspections, quarterly inspections of the rooves, gutters, downpipes and drainage, annual pest inspections and cleaning, and frequent security inspections. In addition, the schedules of works lays out the restoration and repairs to be undertaken to bring the Homesteads to a standard at which they will be maintained until they are able to be utilised.

Has the advice of a heritage consultant or structural engineer been sought? Has the consultant's advice been implemented?

This report outlines the advice of an historical archaeologist. The report has identified items of historic heritage significance, including Bengalla and Overdene Homesteads, assessed their significance, and identified the impacts and proposed management recommendations. The implementation of the advice provided herein will be dependent on approval from the Department of Planning and Infrastructure (DP&I).

10.3.3 Statement of Heritage Impacts

From the detailed assessment against the Heritage Branch guidelines a number of potential impacts have been assessed. These are graded to determine their impact against the significance of the sites.

The nature of the impacts is summarised in Table 8.

Table 8 Summary of the nature of the indirect heritage impacts

Impact Type	Impact
Major negative impacts (substantially affects fabric or values of state significance)	None
Moderate negative impacts (irreversible loss of fabric or values of local significance; minor impacts on State significance)	None
Minor negative impacts (reversible loss of local significance fabric or where mitigation retrieves some value of significance; loss of fabric not of significance but which supports or buffers local significance values)	With on-going maintenance and the repairs outlined in the current CMPs, the effects of continuing vacancy will be reversible once the Homesteads are inhabited again.
Negligible or no impacts (does not affect heritage values either negatively or positively)	None
Minor positive impacts (enhances access to, understanding or conservation of fabric or values of local significance)	None
Major positive impacts (enhances access to, understanding or conservation of fabric or values of state significance)	None

While not desirable from a heritage perspective, the indirect impacts to Bengalla and Overdene Homesteads are acceptable given that on-going maintenance and the repairs contained in the current CMP and to be included in future revisions of the CMP are undertaken.

11.0 Conclusion

BMC was granted Development Consent (DA 211/93) by the then Minister for Urban Affairs and Planning on the 7 August 1995 for the construction and operation of a surface coal mine, coal preparation plant, rail loop, loading facilities and associated facilities. The supporting document to the Development Consent is the Environmental Impact Statement for Bengalla Coal Mine dated November 1993 (Original EIS) (HLA-Envirosciences Pty Ltd, 1993). Bengalla Mine was originally approved to operate for a 21 year period from 1996. Since the granting of DA 211/93, there have been four approved modifications to ensure ongoing operations at Bengalla Mine.

The Project will largely rely upon the currently approved and constructed mine site infrastructure including (but not limited to) the Coal Handling and Preparation Plant (CHPP), rail loop and load out facility and workshop / administrative buildings. Some of this infrastructure will be required to be relocated or upgraded to facilitate the proposed increased production during the life of the Project. The Project is largely situated within BMC's ML1397, ML1450, ML1469 and Assessment Lease (AL) 13 (the Mining Titles).

This historical heritage assessment has been prepared for an application for Development Consent under Division 4.1 of Part 4 of the EP&A Act to facilitate the continuation of open cut coal largely within current MLs for a further 24 years. The approval seeks to replace DA 211/93 and its modifications. This assessment therefore considered the entire heritage resource impacted by present mining operations as well as the proposed new development.

A search of heritage inventories identified that within the Project Boundary there was one listed heritage item – Bengalla Homestead, which is listed on the Muswellbrook LEP and Hunter REP. In the vicinity of the Project Boundary four items are listed, some on multiple registers. There are no items on the World Heritage List, Commonwealth or National Heritage Lists, the State Heritage Register or Section 170 Registers. Overdene is listed on the Register of the National Estate (a non-statutory listing), the Muswellbrook LEP and the Hunter REP. In addition to Overdene, the Keys Family Private Cemetery, Dalmar Stud (Old Bengalla) and Blunt's Butter Factory are listed on the Muswellbrook LEP. The Keys Family Private Cemetery is also listed on the Hunter REP.

A field survey identified five sites within the Project Boundary, including Bengalla Homestead, House Site1, House Site 2, House Site 3 and a Stockyard.

House Sites 1 and 2 were assessed as having no heritage significance and therefore require no mitigation. Archival recording of the stockyard is proposed as a suitable mitigation measure, as the item is within the Disturbance Boundary.

House Site 3, assessed as being of local significance, is not proposed to be impacted by the Project. During construction of the dam and associated works, activities and mitigation will be managed through the EHMP.

The EHMP will be revised and utilised to manage the other heritage items within the Project Boundary that are not directly affected by the Project including: (Bengalla Homestead and House Site 3) and adjacent items that are located on land owned by BMC (Keys Family Cemetery, Old Bengalla, Overdene and Blunt's Butter Factory) or are impacted by BMC operations (Edinglassie and Rous Lench).

12.0 References

- AECOM (2012). *Bengalla Mining Company Pty Limited European Heritage Management Plan*. Prepared for Hansen Bailey on behalf of Bengalla Mining Company Pty Limited.
- Archaeology Australia. (2008). *Bengalla Mining Company Pty Limited European Heritage Management Plan*. Singleton: Prepared for Hansen Bailey and Bengalla Mining Company Pty Ltd.
- Australia ICOMOS. (1999). *The Burra Charter*. Burwood, Victoria: Australia ICOMOS. Retrieved from http://australia.icomos.org/wp-content/uploads/BURRA_CHARTER.pdf
- Bridges Acoustics. (2013). *Continuation of Bengalla Mine Acoustic Impact Report*.
- HLA-Envirosciences Pty Ltd. (1993). *Environmental Impact Statement for Bengalla Opencut Coal Mine*. Report to Bengalla Mining Company Pty Ltd.
- Hunter, C. (2010). *People Property Power: Plashett, Jerry's Plains*. Brisbane: Anglo American Metallurgical Coal Pty Ltd.
- NSW Heritage Branch. (2009). *Assessing Significance for Historical Archaeological Sites and "Relics"*. Parramatta. Retrieved from http://www.heritage.nsw.gov.au/docs/Arch_Significance.pdf
- NSW Heritage Office. (2001). *Assessing heritage significance*. Parramatta. Retrieved from <http://www.heritage.nsw.gov.au/docs/assessingheritagesignificance.pdf>
- NSW Heritage Office. (2002). *Statements of Heritage Impact*. Parramatta: Heritage Office. Retrieved from http://www.heritage.nsw.gov.au/03_index.htm#S-U
- NSW Heritage Office. (2008). *Levels of Heritage Significance* (pp. 1–5). Parramatta: Heritage Office. Retrieved from http://www.heritage.nsw.gov.au/docs/levels_of_heritage_significance_2008.pdf
- NSW Heritage Office, & NSW Department of Urban Affairs and Planning. (1996a). *NSW Heritage Manual*. Parramatta: Heritage Office & Department of Urban Affairs & Planning. Retrieved from http://www.heritage.nsw.gov.au/03_index.htm#M-O
- NSW Heritage Office, & NSW Department of Urban Affairs and Planning. (1996b). *Heritage Curtilages*. Parramatta: Heritage Office & Department of Urban Affairs & Planning.
- Turner, J. W. (1996). *Historical Report on the Bengalla Mining Company's Estate*. Newcastle, NSW: Report to Suters Architects Snell.
- Wood, W. A. (1972). *Dawn in the valley: the story of settlement in the Hunter River Valley to 1833*. Sydney: Wentworth Books.

Appendix A

Heritage Inventory Sheets

Heritage Data Form

ITEM DETAILS							
Name of Item	'Bengalla'						
Other Name/s Former Name/s	'Inglebrae'						
Area, Group, or Collection Name	N/A						
Street number	183						
Street name	Bengalla Road						
Suburb/town	Muswellbrook					Postcode	2333
Local Government Area/s	Muswellbrook						
Property description	Lot 22 DP 77675 Parish of Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	297505 (MGA)	Northing	6426958 (MGA)	
Owner	Bengalla Mining Company (BMC)						
Current use	N/A						
Former Use	Homestead/Stable/Garden/Residence and outbuildings						
Statement of significance	This item is of heritage significance on a local level as on account of historical, historical associative, social, and technical/research considerations. The item is of local historical significance as it provides evidence of one of the earlier developed pastoral properties in the region and its development throughout the nineteenth and twentieth century's; it provides evidence of Bengalla at its peak, when it was one of the largest and most successful estates in operation in the region. This site provides evidence of the expansion of the property as it developed in the nineteenth century and into the twentieth as well. The item provides evidence of the domestic and operational aspects of the estate at the peak of the Bengalla Estate, and as such can be considered to have played an important role in the course of local history. The item is of local historical association and social significance due to its association with the Keys family. The Keys family were a high profile family within the local community who owned, managed and resided on the estate for over 150 years and several generations, and within this house for a significant period of time, and this item is thus of social significance to the descendants of the family. The item is also considered to be of technical/research significance on a local level as it possesses the potential to provide information regarding the operations and domestic life of one of the grandest and most significant developed properties of the Muswellbrook and Upper Hunter region. The site possesses good potential to provide evidence and information pertaining to the history of the estate dating back to the nineteenth century and into the twentieth. The site could inform us of the lives and operations of the occupants of the estate, particularly the Keys family, providing both excellent surface representations of the Bengalla homestead, and good potential for associated sub-surface archaeological deposits.						
Level of Significance	State ☐				Local ☒		

DESCRIPTION	
Designer	Unknown
Builder/ maker	J.H Keys
Physical Description	Bengalla house was built in two stages. The Keys family were wealthy land owners, and the scale and decorative details of the house display this. They did not, however, employ architects to design either the 1877 or later 1895 extension to the house. Hence the house displays a taste for the popular Georgian and later Victorian style, but is not a pure representation of either. The front of the 1877 house was originally symmetrical in elevation and plan around a central entrance door and hall. It was a balanced composition, with an overhanging veranda, typical of the Colonial Georgian farmhouse. To the rear was a kitchen wing, also typical of this building type. The later extensions, in timber, created a rear courtyard, which is a common element of early Colonial farmhouses. With the addition of an eastern wing to the house in 1895, including a bay window, the original Georgian simplicity of the house was altered, particularly as viewed on the south (front) frontage, and the result was a contemporary Victorian facade.

Heritage Data Form

ITEM DETAILS							
Name of Item	Old Bengalla						
Other Name/s	'Dalmar' Stud						
Former Name/s	Bengalla Homestead and Property						
Area, Group, or Collection Name	N/A						
Street number	690						
Street name	Bengalla Road						
Suburb/town	Muswellbrook					Postcode	2333
Local Government Area/s	Muswellbrook						
Property description	Lot 19/21 DP 563495 Parish of Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	292985 (MGA)	Northing	6424429 (MGA)	
Owner	Bengalla Mining Company (BMC)						
Current use	Building/Relic; Farm shed/Retaining Wall						
Former Use	Unknown						
Statement of significance	This item is of local significance on historical, historical associative, social, and technical research grounds. The item provides the only extant visible surface representation of the original homestead complex and possesses the potential for associated sub-surface archaeological deposits. The structures provide evidence of expansion as the property developed during the nineteenth century. The site is also of historical association significance due to its connection to several notable figures in the history of the Hunter Region, including Captains Samuel Wright and D.C.F Scott, and the Keys family, who occupied the estate for almost 150 years during the nineteenth and twentieth century's. This item is also of technical/research significance on a local level as it has the potential to provide information regarding the early operations and domestic life of one of the earliest, grandest, and most significant developed properties of the Upper Hunter region. The site could inform us of the lives and operations of the occupants and workers on the early estate, providing in addition to the surface representations of the original Bengalla homestead complex good potential for sub-surface archaeological deposits.						
t	State ☐				Local ☒		

DESCRIPTION	
Designer	Probably Captain S. Wright
Builder/ maker	Convict-built under direction of Captain S. Wright and Captain D.C.F Scott.
Physical Description	The site comprises a stone and brick retaining wall in a state of ruin. The wall has been identified as the rear wall of a kitchen and bathroom complex dating from as early as the 1840s and associated with the original Bengalla Homestead. The kitchen formerly served the original Bengalla homestead, the location of which is no longer visible on the surface. There is high archaeological potential for the foundations to remain. This is despite reports that a 1920-1930s farm house was constructed on the site. This house has also been removed. The retaining wall runs in a north-south direction, and notably has a row of sizable recesses across its length, reportedly where fowls roosted. There is also the remains of a red brick and stone fireplace/oven in the northern corner. A timber, structure with a corrugated iron roof is also present at the Dalmar Stud site. This item was possibly once the stable and coach house associated with Old Bengalla. It may have been converted into a shearing/wool shed at a later date. It is not clear whether this structure is associated with the earliest phases of Old Bengalla or if it was erected in the later part of the 19th century.
Physical condition and Archaeological potential	The retaining wall is in a ruinous state resulting from the demolition of the structure to which it once belonged and the subsequent removal of stone and bricks from the site to the Hordern's Yarraman vineyard, also in the Hunter Valley. The wall itself, however is structurally sound, in a fairly good state of preservation, and retains a moderate degree of integrity. It is considered that the wall and associated site possess moderate to high archaeological potential on a local level due to their association with the original Bengalla homestead complex and thus their archaeological research potential to inform us of the early history of the Bengalla estate, once the

Heritage Data Form

	largest and most successful estate in the region.				
	The timber shed structure is currently still standing but is in a state of extreme disrepair and is structurally unsound. In 2004 the Muswellbrook Shire Council advised Bengalla Mining Company that the structure should be allowed to deteriorate naturally and the structure is currently in this process. The site is regarded as possessing moderate archaeological potential due to its potential to contribute to archaeological research on a local level due to its association with the original Bengalla homestead.				
Construction years	Start year	pre 1832-47	Finish year		Circa ☒
Modifications and dates	N/A				
Further comments	N/A				

HISTORY	
Historical notes	The property on which the original Bengalla homestead and farming complex was located was granted to Captain Samuel Wright (? – 1852) in 1825. Wright was granted 2,560 acres of land west of Muswellbrook, which he named 'Bengalla', allegedly in recognition of his Irish birthplace, believed to have been 'Baileboro'. Wright became an ensign in the 3rd Regiment ('Bufs') in 1806, fought with distinction in the Napoleonic Wars, arrived in NSW in 1823 with his regiment and subsequently left the army to become a settler in 1826. Already during this short time in the colony Wright had been Commandant at Port Macquarie and Newcastle in NSW and First Commandant at Westernport, Victoria, as well as an explorer of the Macleay River (once actually known as Wright's River). Captain Wright began to develop Bengalla immediately, and in the 1828 Census there were nine men working on the estate, comprising one free man overseer, one ex-convict labourer and seven convicts. The buildings of the late 1820s were erected on the original Bengalla grant, however, as no detailed map exists from this period little is known about them. Presumably they were constructed of timber by the convict carpenter John Burrows and were on the site of the original Bengalla House, the subject of this HIS, which is located to the north-east of the existing homestead complex currently known as 'Bengalla'. Captain Wright continued to serve as a Police Magistrate while developing Bengalla, appointed to Parramatta in 1830 and remaining there until 1836. Wright ran sheep and cattle on Bengalla estate, as well as growing wheat and establishing a vineyard. A severe drought in the period 1827-1829 adversely affected Wright's finances, and in 1832 he sold the 2, 560 acre grant to Captain D.C.F Scott, while retaining for himself leaseholds adjacent to the estate and also purchasing for £500 another 1,000 acres, which he also called 'Bengalla', to act as a freehold base to his landholding. This 1,000 acres had originally been granted to George Cavenagh in 1824. It is unlikely that there were any buildings of substance on the property at the time. Cavenagh left the Hunter and went on to enjoy a business career in Melbourne, where he established the Port Phillip Herald in 1840. The specific roles of Captains Wright and Scott in the development of Bengalla in the 1830s are somewhat obscure due to a lack of evidence. According to Hunter historian Alan Wood, the original Bengalla Homestead was built by Wright in the 1830s. Wood asserts that Wright settled on the 1,000 acres purchased from Cavenagh with his own leasehold lands, and constructed upon them the stone house which was known at the time as Bengalla Homestead, and which retained the name until the death of the first Mrs J.H Keys in 1894. The Keys family, who subsequently resided on the property were also of the belief that Wright constructed the original Bengalla homestead, with R.T Keys, of the second generation of the Keys family on the estate, telling H.M Mackenzie, author of "Among the Pastoralists and Producers" (Maitland Mercury, 1895-6) that Captain Wright was: "the first settler at Bengalla [and] farmed the old homestead where Mr R.T Keys mother resided up to her recent death". There remains doubt, however, as to whether or not Wright was the constructor of the homestead, as in his will, J.H Keys, the founder, referred to "the 2,560 acres on part of which Bengalla House now stands". That is to say, the homestead was not, as Wood believed, built on the 1,000 acres purchased by Wright from Cavenagh, but on the original grant which he sold to Scott in 1832. Furthermore, Scott, as the police magistrate for the Muswellbrook area during the 1840s, was clearly in residence in the Muswellbrook area, and was reported by the <i>Maitland Mercury</i> on the 17 February as hosting Governor Fitzroy overnight at Bengalla during his official tour of the Hunter. Scott was in residence in the area, and as police magistrate had the resources of labour and capital to construct such a residence. In 1844-1846 for example, Scott employed convict labour to construct the stone and brick St Albans church. Wright, however, as police magistrate in Parramatta from 1830-1836, and who subsequently moved to Newcastle in 1841, did not have such resources at his disposal. This would indicate that Scott was more likely responsible for the construction of the original Bengalla Homestead. Regardless of the constructor, the original Bengalla Homestead was the only stone/brick residence in the area when the 1841 census was compiled. By the 1840s, it is known that the original Bengalla Homestead was surrounded by at least ten outbuildings. Of these outbuildings, none survive, unless the barn/coach house stems from this period. However, the 1843 depression caused by the collapse of the Bank of Australia had a significant effect on Scott, eventually costing him the Bengalla estate. As the property was still mortgaged to Wright, when Scott fell upon hard times it

Heritage Data Form

reverted in ownership back to Wright, and from c. 1848 Wright was once again the proprietor of his own and Scott's portions of land. As there was still only one Bengalla Homestead at the time, it is presumed that Wright had moved into the homestead, while Scott and his family relocated to Sydney, where he ended up playing a significant role in the sporting and social life of the capital until his death in 1881. Wright, however, also found himself experiencing financial difficulties in the late 1840s, and in 1851, following a failed attempt to arrange an annuity to provide for himself in his old age, wrote his will and, after boarding the night steamship from Sydney to Newcastle, disappeared, never to be seen again, presumably having committed suicide during the journey.

Due to the manner of Wright's demise, the sale of his land, as stipulated in his will, did not take place until 1853, at which time the *Sydney Morning Herald* provided a detailed description of the property and the results of its sale by auction. The original Bengalla Homestead complex was said to consist of a house of six rooms, with "kitchen, laundry and servant's room detached, dairy and store room attached". There was also "a well built stone store, with two cellars underneath", a barn and a shearing shed, an eight stall stable and coach house, a box and yard for an entire horse, two cottages and a carpenters' shop. There were also four huts and a vineyard of three acres. The fact that Captain Wright could not, by 1852, support himself on such a property indicates that his health had failed, a not unlikely result of his life as a soldier and his sixty plus years of age. The existing outbuildings at the site, the Scott paintings, and the accounts of those who were familiar with the complex in the early part of the twentieth century suggest that the original Bengalla Homestead stood on the site of the present farmhouse on the Dalmar Stud.

The Bengalla estate was purchased at the 1853 auction by Henry Osborne, a wealthy pastoralist, for £6,013. Within a year he had sold it for £7,013 to John Hudson Keys (1811-1866), who was the manager of the St Hellier's Estate, between Muswellbrook and Scone. Under the management of J.H Keys, who was thoroughly experienced in estate management, Bengalla became one of the most impressive properties in the Hunter Valley. Keys built the estate up to 18,000 acres by 1885 by purchasing more land from the Crown. In 1885 there were 32 horses, 1,010 cattle and 3,280 sheep on the estate. At this time, Bengalla was the largest estate in Muswellbrook, 2,000 acres larger than the more famous Edinglassie and more than three times the size of nearby Overton.

Keys was renowned for his sponsorship of Irish immigrants, providing them with employment and assisting them to establish independent farms on their own. This enabled him to obtain labour for his own sizable estate in an era of intensive agriculture. On the 1875 electoral roll, it is shown that 15 householders, in addition to the Keys, lived on the estate. This implies that at the time, there were at least 15 cottages plus accommodation for casual workers on the estate, and the estate was sustaining a total population of possibly 100 people. J.H Keys and his family lived in original Bengalla Homestead. Keys played a lead role in the affairs of the Muswellbrook district, but declined to accept a parliamentary seat.

J. H Keys began to undertake construction work on the estate soon after he took possession. He was a meticulous book keeper, and from his journals it is evident that the Keys engaged tradesmen to perform particular tasks, such as stone quarrying, brick making, etc, however they undertook all of their own building, although they were wealthy enough to hire an architect or builder. It is not possible, however, to identify where the tradesmen were actually working on the site. The principal building project became the construction of the house now known as 'Bengalla'. This house was constructed initially for the heir to the Keys estate, R.T. Keys, and his wife, following their marriage in 1877. This structure eventually became the primary homestead on the property. It is not known when the original Bengalla Homestead fell into disuse, nor when it finally ceased to exist on the estate, or what became of it.

It is possible that the remaining stone and brick wall at the Dalmar site could well be the rear wall of a sizable outbuilding dating from as early as the 1840s. The structure from which the wall belongs was not demolished until the 1970s, when some of the stone was collected and moved to the Hordern's Yarraman vineyard. From a brief account by Mr J.H Keys the second, written in 1946, it appears that the retaining wall at the Dalmar Stud was the rear wall of a detached kitchen of the homestead. References to the holes in the retaining wall and to the oven suggest that a verandah linked the kitchen to the wall:

The stone kitchen still stands, as it will for generations yet, unless the stone is used for other purposes.

Grannie's kitchen where she made the bread, still black with smoke and hooks where the hams were smoked, the holes in the retaining walls where the fowls roosted, the smoke house, the only bathroom as I remember. (Keys Papers, Coolah).

J.H Keys the second also refers to several other buildings in his account, some of them already demolished, and one which may be identified with the barn/shed-like structure at the Old Bengalla Homestead site. It appears that this building could once have been a hayshed, which subsequently became a woolshed following the demolition of the original woolshed. Whether these buildings were erected before or after the Keys took over the property is unknown, but, as discussed above, it is known that J.H Keys conducted extensive stone constructions at the property throughout the mid to late nineteenth century.

Heritage Data Form

	Consultation with Muswellbrook Shire Council in 2004 regarding the barn/stable structure determined that restoration works are not warranted for the item and it should be allowed to deteriorate naturally. It is recommended that the barn/stable should be allowed to deteriorate naturally as per the 2004 advice of Muswellbrook Shire Council.
--	--

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of historical significance on a local level as it provides evidence of one of the earliest developed pastoral properties in the region. Bengalla was one of the earliest land grants in the region, and was not only one of the earliest operational estates, but was also one of the largest and most successful during the nineteenth century. This site, including the retaining wall from a demolished stone and brick outbuilding and a timber shed-like structure, comprises part of the complex associated with the original Bengalla homestead, constructed on the site possibly as early as the 1830s. These items provide the only extant visible surface representations of the original homestead complex and possess the potential for associated sub-surface archaeological deposits. The structures provide evidence of expansion as the property developed during the early part of the nineteenth century, and as such the overall site is considered to be of local historical significance.
Historical association significance SHR criteria (b)	The site is of historical association significance due to its association with several notable figures in the history of the Hunter Region. Firstly, the site is associated with Captains Samuel Wright and D.C.F. Scott. Scott served as Commandant at Port Macquarie and Newcastle in NSW and as First Commandant at Westernport, Victoria, as well as an explorer of the Macleay River (once known as Wright's River) after having served with distinction in the Napoleonic Wars. Scott was a prominent figure who contributed greatly to the Muswellbrook area through his service as police magistrate and his building and social works, including the construction of the St Albans church. The exact nature of which of these two officers was responsible for the construction of the original Bengalla homestead is uncertain, however both were associated with the site in the early years of the estate. The site is also of significance under this criterion due to its association with the Keys family, who owned and resided on the Bengalla estate for over 150 years and several generations, and who were a high profile family within the local community. Finally the site is significant as it is associated with the original Bengalla homestead, which hosted Governor Fitzroy during his tour of the Hunter in the mid-nineteenth century.
Aesthetic significance SHR criteria (c)	This item is not of aesthetic significance on a local or state level as it does not meet the requirements of this criterion. It does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item is of social significance on a local level to the descendants of the Keys family, who owned, managed and resided on the estate for over 150 years.
Technical/Research significance SHR criteria (e)	This item is of technical/research significance on a local level as it possesses the potential to provide information regarding the early operations and domestic life of one of the earliest, grandest, and most significant developed properties of the Muswellbrook and Upper Hunter region. The site possesses good potential to provide evidence and information pertaining to the early history of the original Bengalla homestead and complex, possibly dating back as early as the early nineteenth century. The site could inform us of the lives and operations of the occupants and workers on the early estate, providing both surface representations of the original Bengalla homestead complex, and good potential for sub-surface archaeological deposits.
Rarity SHR criteria (f)	This item is not of significance on a local or state level on account of rarity as it does not meet the requirements of this criterion. The item is not rare.
Representativeness SHR criteria (g)	This item is not of representative significance on a local or state level as it does not meet the requirements of this criterion. It does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.
Integrity	The integrity of this item could be classified as moderate.

HERITAGE LISTINGS	
Heritage listing/s	● Hunter REP ● Muswellbrook LEP

RECOMMENDATIONS	
Recommendations	Ongoing maintenance of the grounds as required Follow archaeological protocol outlined in Section 4.0 of the EHMP should works be proposed in the area

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	View west of the stone and brick retaining wall, currently in a ruinous state, of an outbuilding or structure potentially associated with the original Bengalla Homestead Complex.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Detail of the stone and brick chimney located in the northern corner of the ruinous stone and brick retaining wall, of an outbuilding or structure potentially associated with the original Bengalla Homestead Complex.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	View uphill of the exterior of the timber and corrugated iron shed structure on the Dalmar Stud site, possibly one of the outbuildings associated with the original Bengalla Homestead Complex.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Interior view showing construction features of the timber and corrugated iron shed structure on the Dalmar Stud site, possibly one of the outbuildings associated with the original Bengalla Homestead Complex.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

	Bengalla House - Interior The interior of the 1877 section displays the same Georgian simplicity in the proportions of the entrance, the symmetrical placement of dining and drawing room, and a breezeway running the length and breadth of the house. The detail such as the simple niches and arch, defining a second hall at the entrance (rm 13), are also typical. Other details are the dark marble and lighter carrara marble of the chimneypieces, centrally placed in the dining room and drawing room respectively. According to the Key's family descendants, the 1877 house included a dining room, drawing room, two bedrooms, an office and a bathroom and kitchen. This account includes servants' rooms attached to the rear wing. The room adjacent to the kitchen and with direct access, may have been used as a servants' room. This room was at some stage used as a bathroom as there is a basin and plumbing for a bath. There is also evidence of an earlier partition between both R24 and R25. Investigation of the 1877 section of the house show similar details in the joinery of the section inhabited by the Keys. The rear rooms are simpler in detail, with unrendered brick walls to R24 and R25, no architraves, and a simple cornice and skirting in the kitchen. The kitchen has been moved into the house and the only physical evidence of the purpose of the original kitchen are the two large fireplaces, chimneys and a vent above the fireplace. The original office is most likely to have been the back room containing the fireplace and two access doors. Whilst the two bedrooms mentioned are likely to be the remaining two rooms without an obvious use. One of these rooms was converted to a kitchen at an unknown date. The modernised kitchen fittings have been removed. The 1895 section, according to the Keys' account, included four bedrooms, and a second drawing room. There is also an office and two storage rooms with timber shelves. Also added at this time was an extension to the 1877 kitchen wing. As previously discussed, these extensions changed the symmetry of the earlier Georgian house in plan and elevation. Ceiling height is 12' 6" with a picture rail fitted at 10' in the main rooms. Ceiling material varies from room to room, with some replacement obvious: fibrous plaster panels with battened joints, timber boards, lath and plaster, pressed metal and plasterboard. The pressed metal ceiling panels were manufactured by Wunderlich, and gained popularity at the beginning of the 1900s. (The metal wall linings in the Bookkeepers Cottage are an Art Nouveau pattern that appeared in a Wunderlich catalogue in 1910. The metal ceilings found in the main house may be of the same date). Deeply moulded plaster cornice and ornate ceiling roses adorn the main rooms and distinguish the original house. The skirtings in the older section are two piece – a 12" plain base with a 2" scalloped trim. The 1895 skirtings are also two piece – an 8" base with a 4" scalloped trim with a pattern different than the 1877 section. Architraves in the 1877 section are 6" and made up of two pieces; those in the 1895 section are 7" two piece, again with a different mould. Out Buildings Arranged to the north of the homestead are a number of outbuildings, water tanks, cattle yards, and machinery. A map drawn by Rosemary Reynolds includes other buildings in this group, do no longer existing. These are a meat-house, a building of unknown purpose, a stable and tack room, the footings of the latter which are still evident. This map marks the use of the weatherboard buildings still extant as a book-keepers cottage and laundry. The cottage appears to have been built in two phases. The pressed metal wall panels indicating the first phase was constructed in the 1910s. Further from the house are the cattle yards, hayshed, stables and machinery. The hayshed is a timber framed building with galvanised iron cladding to walls and roof. The wall cladding covers only the upper half on all facades except the south. There is no floor or adjoining stock yards. This would indicate the primary purpose of this shed was the storage of hay. The construction methods and materials suggest that this building was constructed in the 20th century. The cattle yards are a typical timber construction and the date of construction is unknown. Cattle were run on the Keys property from as early as 1854, but there is no evidence that these are the original cattle yards. They are most likely to have been built with the building of the new Bengalla house in 1877 or later. Two harvesters in dilapidated condition are resting in the paddocks adjacent to the hayshed. Each has a conveyor belt and gears and are marked with the makers name. Landscape & Gardens The dominant circular carriageway framed by trees in the front garden is typical of the homestead garden. Other typical features are the garden beds, specimen trees such as the bottle tree, and avenues of trees along the driveway. A mature privet hedge bounds the garden at the front. The gazebo folly is most likely to have been
--	---

Heritage Data Form

	built later, as such structures are a common feature of gardens in the early 1900s. The vegetable garden may have been situated in the south east corner of the garden as this appears to be the most open clear area, with no mature trees, however there is no substantial physical evidence of its location. Rosemary Reynolds plan shows a fernery and rose garden on the south east corner of the house, which are no longer evident. Tree and shrub planting appears to have been progressively undertaken around the homestead over a long period of time. The more formal garden areas also appear to have had a long history of planting consisting of a core of longer lived shrub and climber species regularly interplanted with seasonal annuals. The great proportion of trees and shrubs and almost all the formal garden species are exotics. There are a few native Australian species with most natives coming from other States and most planted in relatively recent times. Species present represent a common planting pattern similar to that on other older homesteads in the Hunter Valley. On many old homesteads a core of common species (eg. Silky Oak, Jacaranda and Canary Island Palm) are often encountered. As a consequence of ongoing planting there are close to 40 species present around the homestead. Some of these species may relate back to the last century although many species reflect species sold by the local Forestry Commission nursery over the last 30 years. There are no accurate means to identify vegetation age other than through historical records. As older species died, other species have obviously been planted with a trend towards native species in recent years. Once away from the river flats, soils in the Upper Hunter Valley are generally shallow and infertile and subject to drought and shallow root penetration due to clay soils. They are generally not suited to many cool climate exotic species. This is evident at the homestead where the diversity of exotic species declines rapidly as one moves further away from the sheltering effect of the main house and associated water sources. The presence of rising ground to the west provides some shelter to the house and surrounds. Many of the larger trees (particularly the Pepper Trees and Sugar Gums) are near the end of their life, showing a variety of senescent symptoms including poor crown development and trunk rot (some related to white ant activity). Insect attack is prevalent on many. The significance of the site lies in the presence of several interesting species together with the progressive planting history of the site. It is also a prime example of the once commonly held desire to create an English/European landscape in poor soils and in a frequently hostile Australian environment. It is likely that many other species were trialled but failed. What we now see are undoubtedly the remnants of numerous landscape plantings. The immediate grounds around the house have obviously been extensively maintained at different times although currently in need of maintenance. Several of the species such as Athel Tree, Broad and Narrow leaf Privet, African Olive and bamboo are now considered weed species in parts of the Upper Hunter. Indeed even the frequently planted exotic Pepper Tree is now viewed unfavourably in many regions due to its free seeding nature and its prolific seed dispersal. A kitchen garden would have provided vegetables for consumption at Bengalla. An area to the east of the house may have been the location of such a garden. There is no firm evidence to prove such an assertion however the garden would have been in the general vicinity of the house. The possible garden area to the east is fenced and features within the landscape are suggestive of such activities.					
Physical condition and Archaeological potential	Bengalla is in good physical condition and possesses good to excellent archaeological potential.					
Construction years	Start year	1877	Finish year		Circa	☒
Modifications and dates	N/A					
Further comments	N/A					

Heritage Data Form

HISTORY	
Historical notes	In 1825 Captain Samuel Wright, of the 3rd Regiment of Foot, then the Commandant of Newcastle, was granted 2,560 acres west of Muswellbrook: he called his new estate Bengalla, in recognition of his Irish birthplace. Believed to come from 'Bailieboro', now in the Republic of Ireland, Wright became an ensign in the 3rd Regiment (or Buffs) in 1806, fought with distinction in the Napoleonic Wars, arrived in NSW with his regiment in 1823 and left the army to become a settler in 1826. In this short period in the colony he had been Commandant at Port Macquarie, Commandant at Newcastle, first Commandant at Westernport (in Victoria) and an explorer of the Macleay River (once known as Wrights River). Captain Wright began to develop Bengalla immediately and when the 1828 Census was compiled there were nine men working on the estate: one free man oversaw an ex-convict labourer and seven convicts (two shepherds, four labourers and a carpenter). The buildings of the late 1820s were erected on the original Bengalla grant of 2,560 acres but little is known about them as no detailed map exists from this period. Presumably built by the convict carpenter, John Burrows, they would have been constructed of timber and there is considerable circumstantial evidence that they were on the site of the original Bengalla House. The original or Old Bengalla, is located 5.2 km to the south west of the current Complex. Captain Wright continued to serve as a police magistrate while developing Bengalla: he was appointed to Parramatta in 1830 and remained there until 1836. As well as running sheep and cattle, Wright grew wheat on his property and by 1832 he had a vineyard with at least ten varieties of vine. Nevertheless, a drought which lasted from 1827 until 1829 adversely affected his finances and in 1832 he decided to dispose of part of Bengalla. Retaining leaseholds adjacent to the estate, he sold the 2,560 acre grant to Captain D.C.F. Scott for £500 but bought another 1,000 acres to provide a freehold base to his landholding which he still called Bengalla. The 1,000 acre section had originally been granted to George Cavenagh in 1824. An Irish emigrant, Cavenagh became a storekeeper at Wallis Plains (later West Maitland) in 1827 and remained in business there until about 1830. It is not clear what use he made of his grant near Bengalla while working at Maitland but as there is no entry for him as a landowner in the 1828 Census, it is reasonable to conclude that there was very little going on there. Confirmation of this may be drawn from the sale of his 1,000 acres plus a leasehold on its western side and an allotment in Newcastle to J.B. Bettington for only £200. It is unlikely that there were any buildings of substance on the property at that time. Having disposed of his interests in the Hunter, Cavenagh went on to enjoy a career in business in Melbourne where he established the Port Phillip Herald in 1840. The particular roles played by Scott and Wright in the development of Bengalla in the 1830s are obscure because of lack of evidence. According to the eminent Hunter Valley historian, Alan Wood, Wright built the Bengalla homestead in the 1830s but it seems more likely that Scott was responsible for the main buildings there. The collapse of the Bank of Australia in the 1843 depression severely affected the Scott family and, although its impact was not immediately obvious, that event cost David Scott the Bengalla Estate as it was still mortgaged to Wright. The property reverted to him and from about 1848 he was the proprietor of his own and Scott's portion: there was only one Bengalla once again and Wright is presumed to have been living in the homestead while the Scotts moved to Sydney, playing a significant role in the sport and social life of the capital until the death of the Captain in 1881. By the end of 1851, Wright was in financial difficulties and during a visit to Sydney he sought to arrange an annuity to provide for himself in old age. When the negotiations failed because he owed more than £3,000, Wright wrote his will, leaving it with his agents and boarded the night steamship for Newcastle. He was never seen again and was presumed to have committed suicide. By the terms of Wright's will, Bengalla was to be sold, his debts paid and the residue, if any, to be sent to his family in Ireland. Because of the manner of his demise the sale did not take place until May 1853 when the <i>Sydney Morning Herald</i> provided a detailed description of the property and the results of its sale by auction.

Heritage Data Form

At the auction sale on 4 May 1853, Henry Osborne, a wealthy pastoralist, bought Bengalla for £6,013, an average price of 9s.9d. per acre, but within a year he had sold it for £7,013 to John Hudson Keys (1811-1866), the manager of St. Helier's Estate, between Muswellbrook and Scone. Keys, who had migrated to Australia in 1837, was well acquainted with colonial conditions and had some capital of his own from Ireland. A letter to his brother in Ireland in 1859 shows that he also had financial assistance from friends in the colony.

Thoroughly experienced in estate management when he took over the property, Keys built it up into one of the most impressive properties in the Hunter Valley. By acquiring more land by purchase from the Crown, he had built his acreage to 18,000 by 1885 when there were 32 horses, 1,010 cattle and 3,280 sheep on the estate. At that time Bengalla was the largest estate in the Muswellbrook area, 2,000 acres larger than the more famous Edinglassie and more than three times the size of Overton.

J.H. Keys was well known for his sponsorship of immigrants from Ireland, encouraging them to come to the colony, providing employment and then assisting them to become independent on farms of their own. This practice also assisted him in obtaining suitable labour for his own vast estate in an era of labour intensive agriculture. Research by local historian Robert Tickle of Muswellbrook on the 1875 electoral roll shows that fifteen householders lived on Bengalla apart from the Keys, most if not all of them being heads of families. Of course, this implies fifteen cottages plus accommodation for casual workers and a total population on the estate of perhaps a hundred people.

Living with his wife and four children in the homestead now referred to as "Old Bengalla", J.H. Keys played a leading role in the affairs of the Muswellbrook district but declined to accept a parliamentary seat.

J.H. Keys was a meticulous book keeper and his journals reveal the details of his farm management practices. A tradition which he established and which persisted well into the present century was that the Keys undertook their own building. The usual practice was to hire tradesmen to perform particular tasks such as stone quarrying, brick-making, timber sawing, plastering, chimney construction, painting, etc. No evidence has been found that "The Master", as he was referred to, or his descendants ever hired an architect or builder though they were wealthy by any standard. J.H. Keys began to carry out construction work on the estate soon after he took possession. However, it is not possible to identify the sites where he had tradesmen at work.

The principal building project was the house now known as Bengalla, but which was at first called 'Inglebrae'. The family suffered dreadful misfortune when their first and second sons died as young men in accidents and this meant that Richard Thorn Keys was heir apparent to the estate when he married in 1877. To accommodate the young couple, J.H. Keys built the house now known as Bengalla. It was erected in the usual Keys fashion using outside labour hired for the purpose. In 1876 tenders were let for bricks to be burned on the estate then progressively the various stages of construction were arranged and paid for with appropriate, detailed entries of each transaction recorded in the Estate's day book alongside store entries for tobacco, boots and clothing for the bush workers, the number of sheep killed, bullocks sold, etc.

Economical as this system of construction appears to have been, the results were certainly not architectural masterpieces. The present Bengalla House reflects the frugality of the elder Keys. The first stage was built in 1877 and when, in 1895, the second generation "master" R.T. Keys added the bedroom wing to his residence precisely the same process was followed.

Bengalla continued to expand under the management of the second Keys generation, reaching 20,000 acres before its subdivision for closer settlement purposes in 1911. R.T. Keys was hailed as "one of the State's most progressive graziers" by the Pastoral Review and his record of achievement fully justifies that accolade. Keys had observed live cattle arriving in Britain from North and South America in such good condition that they were sold at more than twice the price of frozen beef from Australia and concluded:

That if Australian producers wished to get full value they must place themselves on the same footing as the Americans, and after seeing dozens of foreign cattle-boats discharging their living freight, and noticing how well bullocks looked, I felt satisfied that what the Americans were doing the Australians could also do if once the trade had a beginning.

At Keys' suggestion, the first shipments of live cattle were made about 1893 and despite difficulties in transporting cattle that had not been accustomed to handling over the great distance involved, the experiment had been successful. By 1895 Keys could claim that "the pioneer shipments have been well backed up and the trade wonderfully developed".

When the development of creameries facilitated the expansion of dairying in country districts, R.T. Keys was also among the pioneers. His 1895 interview with H.M. Mackenzie was entirely devoted to beef cattle yet two

Heritage Data Form

	years later Keys started dairy farming "on the share system" and five years later he established one of the earliest pumping stations in the Hunter Valley, using a 20 h.p. Ruston Proctor steam plant and centrifugal pump to raise 90,000 gallons of water per hour from the river to irrigate lucerne crops for his dairy herds. During the tenure of R.T. Keys, Inglebrae/Bengalla house was extended and improved. In 1895 an eastern wing consisting of four bedrooms and a second drawing room was added: construction was of locally made bricks, slate roof and striped bull-nosed iron verandas. Upon the death of R.T. Keys in 1909, his son John Hudson Keys the second, took over Bengalla, then at the peak of its development. However, government pressure on large landholders to reduce the size of their estates (the N.S.W. <i>Closer Settlement Acts</i>) led to the sale of 12,000 acres of Bengalla in 1911. The estate was also diminished by the construction of the Muswellbrook-Denman Railway which opened in 1915. The Keys opposed its route because it divided their property, required the resumption of considerable land and led to the construction of a new road to service the Roxborough siding. When their efforts to divert the line failed, J.H. Keys commented that it was the end of Bengalla. Following the sale of this portion of the estate, J.H. Keys retained 8,000 acres for dairying and lucerne growing. There were 7 dairy farms on the estate in the 1930s each milking about 75 cows and supplying milk to the Muswellbrook Co-operative Dairy Company of which Keys was a director. He favoured the Jersey and Dairy Shorthorn breed for the dairies but also continued the fattening of cattle and pigs for the meat markets. In the family tradition, J.H. Keys was active in the affairs of the district until his death in 1952. In 1953 there was a further reduction in the estate for the purposes of soldier settlement and the Keys family retained only 1,300 acres in 1978. Then owned by a fourth generation of the Keys family, Mrs. Rosemary Reynolds, the property was given over to a Hereford Cattle stud, 400 acres of wheat and 350 acres of irrigated crops including maize, soy beans and lucerne. In this period the homestead was carefully maintained in keeping with its original architecture though a brick toilet-garage block was erected to replace a timber structure behind its western wing. In 1995 the estate was sold to BMC.
--	--

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of historical significance on a local level as it provides evidence of one of the early developed pastoral properties in the region, and its development throughout the nineteenth and twentieth century's. Bengalla was, at its peak, one of the largest and most successful estates in operation during the nineteenth century. This site provides evidence of the expansion of the property as it developed during the nineteenth century and into the twentieth as well. The item provides evidence of the domestic and operational aspects of the estate at the peak of the Bengalla Estate, and as such can be considered to have played an important role in the course of local history.
Historical association significance SHR criteria (b)	The item is of historical association significance due to its association with the Keys family. The Keys family were a high profile family within the local community who owned and resided on the Bengalla estate and in Inglebrae/Bengalla house for over 150 years and several generations.
Aesthetic significance SHR criteria (c)	This item is not of aesthetic significance on a local or state level as it does not fulfil the requirements of this criterion.
Social significance SHR criteria (d)	This item is of social significance on a local level to the descendants of the Keys family, who owned, managed and resided on the estate for over 150 years, and within this house for a significant period of time.
Technical/Research significance SHR criteria (e)	This item is of technical/research significance on a local level as it possesses the potential to provide information regarding the operations and domestic life of one of the grandest and most significant developed properties of the Muswellbrook and Upper Hunter region. The site possesses good potential to provide evidence and information pertaining to the history of the estate dating back to the nineteenth century and into the twentieth. The site could inform us of the lives and operations of the occupants of the estate, particularly the Keys family, providing both excellent surface representations of the Bengalla homestead, and good potential for associated sub-surface archaeological deposits.
Rarity SHR criteria (f)	This item is not of significance on a local or state level on account of rarity as it does not meet the requirements of this criterion. The item is not rare.
Representativeness SHR criteria (g)	This item is not of representative significance on a local or state level, as although the house displays a taste for the popular Georgian and later Victorian style, it is not a pure representation of either.

Heritage Data Form

Integrity	The integrity of this item could be classified as moderate to high.
------------------	---

HERITAGE LISTINGS	
Heritage listing/s	• Register of the National Trust • Schedule 4, Hunter Regional Environment Plan (REP) • Muswellbrook LEP

RECOMMENDATIONS	
Recommendations	Manage Bengalla in accordance with the CMP in Appendix B , which addresses the management commitments

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Bengalla Homestead: Front elevation of homestead, view north.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Bengalla Homestead: Kitchen wing, view south.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Bengalla Homestead: Rear view of house, view south.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard

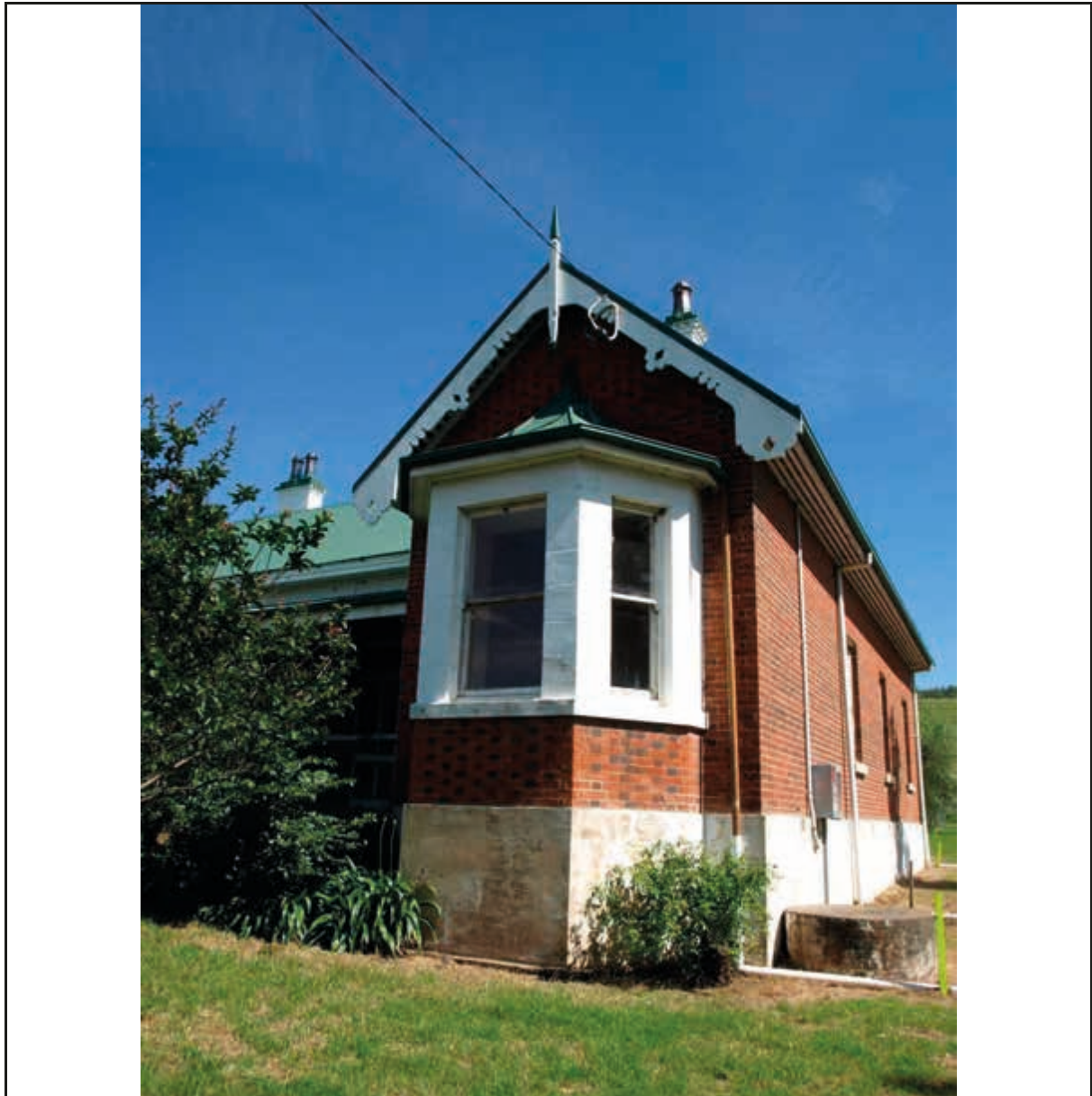


Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Bengalla Homestead: Detail of Bay Window, view north-west.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard

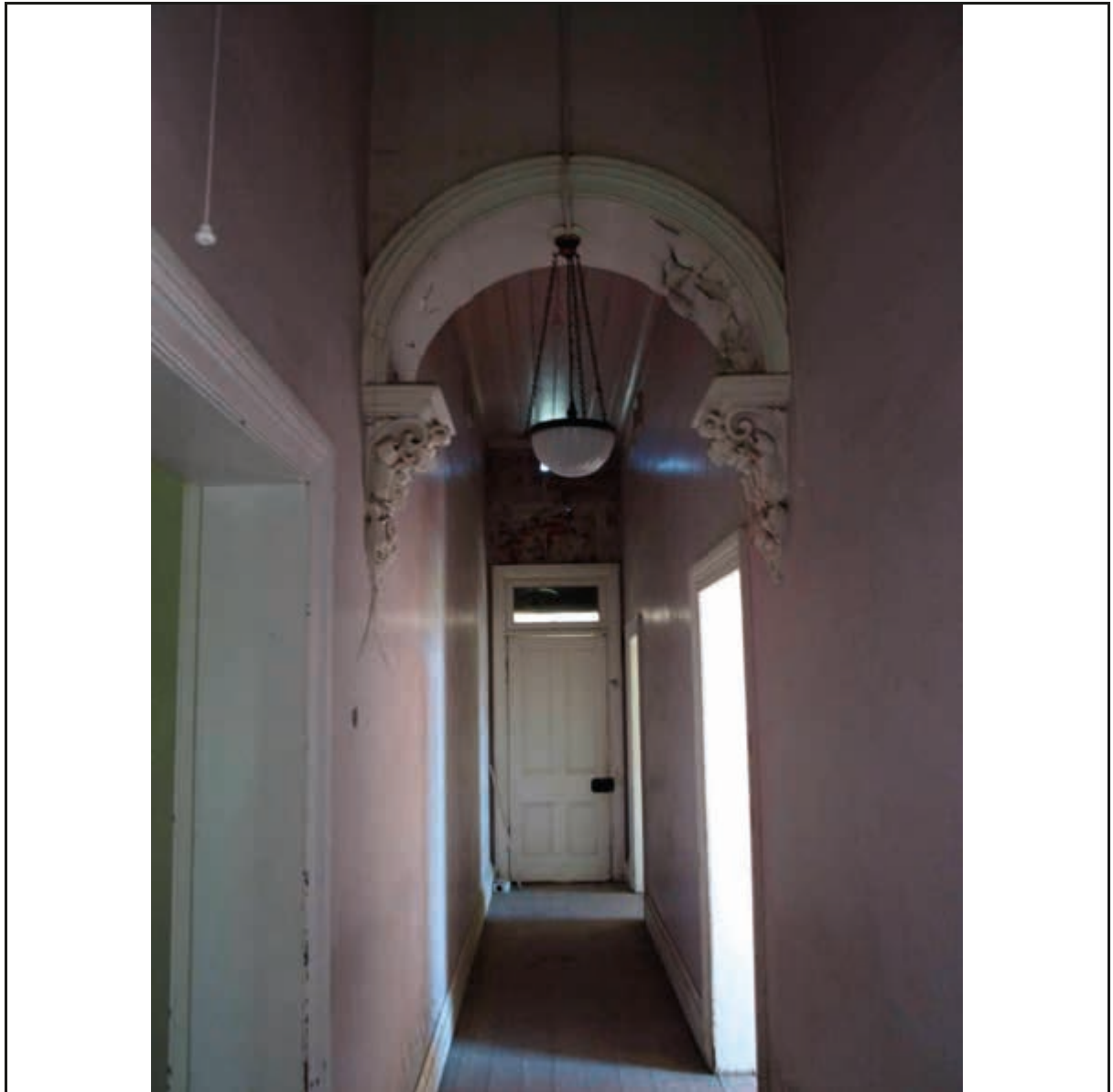


Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Bengalla Homestead Interior: Eastern Hallway.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Bengalla Homestead Interior: Front Parlour.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

ITEM DETAILS							
Name of Item	House Site 1						
Other Name/s Former Name/s							
Area, Group, or Collection Name	N/A						
Street number							
Street name	Wyndham Arms Road						
Suburb/town	Muswellbrook				Postcode	2333	
Local Government Area/s	Muswellbrook						
Property description	Parish of Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	(MGA) 291959	Northing	(MGA) 6426173	
Owner	Bengalla Mining Company (BMC)						
Current use	Nil						
Former Use	House						
Statement of significance	This item does not meet the significance threshold and is therefore not of State or local heritage significance						
Level of Significance	State ☐				Local ☐		

DESCRIPTION						
Designer	N/A					
Builder/ maker	Unknown					
Physical Description	The site consists of a flat area, a septic tank and above ground concrete tank. The lack of a foundation indicates the house was probably mounted on stumps. The location of the house is marked by a flattened area. To the north, the land slopes towards Milang Gully Creek. In this direction there is a scatter of cream brick, ceramic water/sewerage pipe and c. 1990s household debris, including children's toys, shoes and car batteries. The modern cream brick may indicate the underfloor space was enclosed to give the appearance of permanency. The house site is marked by plantings of palm, cycad and jacaranda. The size and height of these plantings indicate they are not more than 50 years old, giving an estimate of 1960s construction date.					
Physical condition and Archaeological potential	The archaeological potential at the site is moderate, however the deposits have been assessed as being of limited heritage significance.					
Construction years	Start year	1960s?	Finish year		Circa	☐
Modifications and dates	N/A					
Further comments	N/A					

Heritage Data Form

HISTORY	
Historical notes	The land on which the site is located does not appear to have been part of the original grants to either Allman, Wright or Scott (see Section Error! Reference source not found.). The 1897 Parish Plan indicates the general area had been subdivided into portions of 40 acres, with the site being located within portion 52 and in the ownership of Richard Thorn Keys. Crown Plan 572-2096 indicates the area was subdivided around 1874, with the sale completed on 24 December 1895. It would therefore appear that the land was purchased during the ownership of R.T. Keys and was part of his push to expand the Estate. Parish Plans between 1897 and 1938 indicate that the property remained part of the Bengalla Estate. The Portion was one of seven farms that produced milk for supply to the Muswellbrook Co-operative Dairy Company. It is unclear when it was sub-divided, but it was in the ownership of P. & F. Davey when it was purchased by BMC in the mid-1990s. The house was apparently demolished after the approval of the Bengalla Mine.

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item does not meet this criterion as it is not important in the course or pattern of state or local history.
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item does not meet this criterion as it does not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.
Integrity	

HERITAGE LISTINGS	
Heritage listing/s	Nil

RECOMMENDATIONS	
Recommendations	The item is not of heritage significance and therefore does not require further consideration on heritage grounds.

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	House Site 1 – view south west. Septic tank in foreground.				
Image year	2011	Image by	Susan Lampard	Image copyright holder	AECOM



Heritage Data Form

ITEM DETAILS							
Name of Item	House Site 2						
Other Name/s Former Name/s							
Area, Group, or Collection Name	N/A						
Street number							
Street name	Wyndham Arms Road						
Suburb/town	Muswellbrook				Postcode	2333	
Local Government Area/s	Muswellbrook						
Property description	Parish of Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	(MGA) 291959	Northing	(MGA) 6426173	
Owner	Bengalla Mining Company (BMC)						
Current use	Nil						
Former Use	House						
Statement of significance	This item does not meet the significance threshold and is therefore not of State or local heritage significance						
Level of Significance	State ☐				Local ☐		

DESCRIPTION						
Designer	N/A					
Builder/ maker	Unknown					
Physical Description	The site consists of a flat area scattered with bricks and timber. The former structure had been connected to the power, with the power pole and connection box still in place. A semi-circle of pine, neem and gum trees screens the site from Bengalla mine.					
Physical condition and Archaeological potential	The archaeological potential at the site is moderate, however the deposits have been assessed as being of no heritage significance.					
Construction years	Start year		Finish year		Circa	☐
Modifications and dates	N/A					
Further comments	N/A					

HISTORY	
Historical notes	The land on which the site is located does not appear to have been part of the grants to either Allman or Wright, but was originally granted to Scott. Parish Plans for the period 1897 to 1938 indicate the area was part of the Bengalla Estate. It is not clear when it was sold out of the estate. In 1993 the land was part of Dalmar Stud, owned by D. & M. Koureas, and the former house was known as Wyndam

Heritage Data Form

	Arms. The house was demolished after the initial approval of the Bengalla Mine.
--	---

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item does not meet this criterion as it is not important in the course or pattern of state or local history.
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item does not meet this criterion as it does not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.
Integrity	

HERITAGE LISTINGS	
Heritage listing/s	Nil

RECOMMENDATIONS	
Recommendations	The item is not of heritage significance and therefore does not require further consideration on heritage grounds.

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	House Site 2 – view south east. House pad in foreground with semi-circle of trees screening mine beyond.				
Image year	2011	Image by	Susan Lampard	Image copyright holder	AECOM



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	House Site 2 – view south west. House pad in foreground with power connection pole.				
Image year	2011	Image by	Susan Lampard	Image copyright holder	AECOM



Heritage Data Form

ITEM DETAILS							
Name of Item	Stockyard						
Other Name/s Former Name/s							
Area, Group, or Collection Name	N/A						
Street number							
Street name	Off Wybong Rd						
Suburb/town	Muswellbrook				Postcode	2333	
Local Government Area/s	Muswellbrook						
Property description	Parish of Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	(MGA) 293094	Northing	(MGA) 6427605	
Owner	Bengalla Mining Company (BMC)						
Current use	Nil						
Former Use	Stockyard						
Statement of significance	This item is of local historical significance as it indicates the grazing operations and stock management associated with supplying the Sydney meat market						
Level of Significance	State ☐				Local ☒		

DESCRIPTION						
Designer	N/A					
Builder/ maker	Unknown					
Physical Description	The stockyard is centred around a long run, terminating in a loading ramp. The yard was divided into two, an 'L' shaped yard on the northern side and a smaller rectangular yard to the south. It has been constructed of post and rails, probably cut from the surrounding vegetation. The creek line is still lightly timbered. The construction style, method and materials indicate it was probably constructed in the late nineteenth or early twentieth century.					
Physical condition and Archaeological potential	The archaeological potential at the site is moderate, however the deposits have been assessed as being of limited heritage significance.					
Construction years	Start year		Finish year		Circa	☐
Modifications and dates	N/A					
Further comments	N/A					

HISTORY	
Historical notes	The land on which the site is located within the original grant given to Francis Allman in 1825. It became a part of Bengalla Estate under the management of John Hudson Keys. Prior to being purchased by BMC, it was owned by E. E.

Heritage Data Form

	McLean and others (HLA-Envirosciences Pty Ltd, 1993). The stockyard is likely to relate to the management of the Bengalla Estate, probably part of the grazing operations and stock management associated with the supply of the Sydney meat market.
--	--

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it indicates the grazing operations and stock management associated with supplying the Sydney meat market
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item does not meet this criterion as it does not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.
Integrity	

HERITAGE LISTINGS	
Heritage listing/s	Nil

RECOMMENDATIONS	
Recommendations	Archival recording prior to demolition.

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Stockyard				
Image year	2011	Image by	Susan Lampard	Image copyright holder	AECOM



Heritage Data Form

ITEM DETAILS							
Name of Item	House Site 3						
Other Name/s Former Name/s							
Area, Group, or Collection Name	N/A						
Street number							
Street name	Wybong Road						
Suburb/town	Muswellbrook				Postcode	2333	
Local Government Area/s	Muswellbrook						
Property description	Parish of Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	(MGA) 295376	Northing	(MGA) 6429128	
Owner	Bengalla Mining Company (BMC)						
Current use	Nil						
Former Use	House						
Statement of significance	This item is of local historical significance as it indicates the use of the area for the dairy farming and as evidence of the development of the area in the period after the dissolution of the large estates of Bengalla and Overdene						
Level of Significance	State ☐				Local ☒		

DESCRIPTION						
Designer	N/A					
Builder/ maker	Unknown					
Physical Description	The site is comprised of three areas: House site: A concrete slab and associated demolition rubble is located approximately 295 m from Wybong Road, mid way up a slope. The slab is approximately 13 m in length and 4 metres wide. It is oriented towards Wybong Road. Dairy: The dairy is marked by a concrete slab of which approximately 3 m² was visible through the grass. The concrete slab has been formed with a gutter along at least the northern side, probably to aid in the cleaning of the facility after milking. Adjacent to the slab is an immature fig tree. Area of archaeological Potential: Located 50 m to the north is a line of five peppercorn trees. Associated with the trees was a scatter of blue transfer ceramic and red sandstock bricks, indicating the potential for a residence to be located in the vicinity. The ceramic and bricks provide a rough date of late nineteenth century.					
Physical condition and Archaeological potential	The archaeological potential at the site is high.					
Construction years	Start year		Finish year		Circa	☐
Modifications and dates	N/A					
Further comments	N/A					

Heritage Data Form

HISTORY	
Historical notes	Certificate of Title 3081-240 indicates that the land was initially granted to The City Mutual Life Assurance Society Ltd on 10 December 1912. Sometime between 1912 and 1915 the land was transferred to William Fredrick Robey (CT 2600-104 and CT 2600-105). On 23 August 1915 the land was transferred from Robey to Kenneth William Douglas Humphries and John Malcolm Campbell Humpries, both of whom were graziers. In 1920 John Humpries transferred his portion to Kenneth Humpries (CT 3081-240). On 26 March 1954 Kenneth Humpries transferred the Title to KWD Humpries (Kagoola) Pty Ltd and mortgaged to The Commercial Banking Company of Sydney Ltd. The EIS (1993) lists the owner/occupier as A.L. Gardiner the property was known as 'Hillview'.

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it indicates the use of the area for the dairy farming and as evidence of the development of the area in the period after the dissolution of the large estates of Bengalla and Overton..
Historical association significance SHR criteria (b)	This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons of importance in state or local history.
Aesthetic significance SHR criteria (c)	This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item does not meet this criterion as it does not have a strong or special association with a particular community or cultural group.
Technical/Research significance SHR criteria (e)	This item is of local significance as it has the potential to yield information that will contribute to and/or enhance our understanding of rural life in the Muswellbrook area in the late nineteenth century.
Rarity SHR criteria (f)	This item does not meet this criterion as it is not rare.
Representativeness SHR criteria (g)	This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.
Integrity	

HERITAGE LISTINGS	
Heritage listing/s	Nil

RECOMMENDATIONS	
Recommendations	Manage the heritage significance of the item through inclusion in the EHMP.

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	House Site 3 – view north west. Row of peppercorn trees marking the archaeological site.				
Image year	2011	Image by	Susan Lampard	Image copyright holder	AECOM



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	House Site 3 – detail of ceramic identified in association with the archaeological site.				
Image year	2011	Image by	Susan Lampard	Image copyright holder	AECOM



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	House Site 3 – view north west. Concrete foundation of dairy.				
Image year	2011	Image by	Susan Lampard	Image copyright holder	AECOM



Heritage Data Form

ITEM DETAILS							
Name of Item	Keys Family Cemetery						
Other Name/s Former Name/s	N/A						
Area, Group, or Collection Name	N/A						
Street number	N/A						
Street name	Bengalla Road						
Suburb/town	Muswellbrook					Postcode	2333
Local Government Area/s	Muswellbrook						
Property description	Lot 1 DP 236668 Parish Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	293245 (MGA)		Northing	6424489
Owner	Bengalla Mining Company (BMC)						
Current use	Cemetery						
Former Use	Cemetery						
Statement of significance	This item fulfils the relevant criteria to qualify as being of local significance on several grounds. Firstly, the item is of local historical significance as it is an important site in the course of local history, providing evidence of the continued occupation and presence of the Keys family at Bengalla throughout the nineteenth and twentieth century's. This item is also of local historical associative and social significance due to its association with the Keys family. Several generations of this family owned, managed and resided on the Bengalla estate over a period greater than 150 years. They were a prominent and respected family within the Muswellbrook area and local community during this time. The site retains a strong spiritual and emotional connection with, and importance to, the descendents of the Keys family. Furthermore, this item is of local technical/research significance as it has the potential to yield information unobtainable from other sources that could contribute to and/or enhance our knowledge and understanding of the Keys family from the nineteenth century to the present day. Finally, historical, private family cemeteries such as this item are rare in the Upper Hunter region. On account of the item's rarity in a local context it fulfils the requirements of this criterion and accordingly is significant on a local level, providing an excellent example of a small scale, historic family cemetery in a rural context.						
Level of Significance	State ☐				Local ☒		

DESCRIPTION						
Designer	N/A					
Builder/ maker	N/A					
Physical Description	The Keys family cemetery contains ten funerary monuments. These range from stone altar type markers to obelisks and marble headstones. They are primarily constructed of sandstone or marble. The ten headstones relate to the burial sites of eighteen individuals. The plots of several, though not all, of the graves are enclosed by wrought iron fencing. Around some of the graves this fencing is nearly 2m tall, while on others it is very close to ground level. Some of the grave plots are delineated by sandstone edging, while others are not delineated at all, with the grave marker simply located in the ground with no plot boundary marked out around it. The entire cemetery is enclosed by a simple fence constructed of timber and chicken wire, with a simple metal swinging gate at the northern end through which the site can be accessed. Undergrowth, pepper trees, gum trees, and large grey Agava currently enclose the cemetery on the eastern and western sides, while the northern and southern sides are clear of vegetation. The graves are oriented east to west, as is typical of many western graveyards, with the feet of the deceased facing in the direction of the rising sun. The graves overlook the railway line to the east as well.					
Physical condition and Archaeological potential	The cemetery is in good physical condition, with the all of the graves and funerary monuments intact and well maintained. The integrity of the site is excellent and it can be said to possess significant archaeological potential.					
Construction years	Start year	1860	Finish year	1952	Circa	☐
Modifications and dates	Members of the Keys family were buried in the family cemetery from the period 1860 to 1952.					
Further comments						

Heritage Data Form

HISTORY	
Historical notes	The Keys family were in residence at Bengalla for almost 150 years. John Hudson Keys (1811-1866) purchased the estate from Henry Osborne in 1853 for £7,013. Keys had previously been the manager of St Helier's estate, located between Muswellbrook and Scone in the Hunter Valley. Having migrated to Australia in 1837 Keys was well acquainted with colonial conditions and had some capital of his own from Ireland, as well as financial assistance from friends in the colony. Keys built Bengalla up into one of the most impressive properties in the Hunter Valley. By 1885, Keys had acquired more land from the Crown, building his acreage to 18,000, which supported 32 horses, 1,010 cattle and 3,280 sheep. At this time, Bengalla was the largest estate in the Muswellbrook area, 2,000 acres larger than the renowned Edinglassie and more than three times the size of Overton. Keys lived with his wife and four children on the estate, in the homestead now referred to as "Old Bengalla". He played a leading role in the affairs of the Muswellbrook district, but declined to accept a parliamentary seat. J.H Keys died in 1887. The family had suffered dreadful misfortune when both their first and second sons were killed in their youth in accidents. This meant that Richard Thom Keys became the heir to the estate, upon his marriage in 1877. To accommodate the couple, J.H Keys built for them the house now known as 'Bengalla', but at the time known as 'Inglebrae'. Bengalla continued to expand under the management of the second Keys generation, reaching 20,000 acres before its subdivision for closer settlement purposes in 1911. R.T Keys was hailed as "one of the most progressive graziers" by the Pastoral Review. R.T Keys pioneered the live stock export market to the UK. At his suggestion, the first shipments of live cattle from Australia to Britain were made in 1893, and was successful. By 1895 the trade had developed significantly. When the development of creameries facilitated the expansion of dairying in country districts, R.T Keys was also among the pioneers. During his tenure 'Inglebrae' house was further extended and improved upon. Upon the death of R.T Keys in 1909, his son, John Hudson Keys the Second, took over Bengalla, which was then at the peak of its development. However, pressure from the Government on large landholders to reduce the size of their estates (the NSW Closer Settlement Acts) led to the sale of 12,000 acres from the estate in 1911. The estate was then further diminished by the construction of the Muswellbrook-Denman Railway, which opened in 1915. The Keys had opposed this railway line because it divided their property. When their efforts to divert the line failed, J.H Keys the Second commented that it was the end of Bengalla. In 1953 there was a further reduction in the estate for the purposes of soldier settlement. By 1978, the Keys family retained only 1,300 acres. By this time, the estate was owned by the fourth generation of the Keys family – Mrs Rosemary Reynolds. The property was being used as a Hereford Cattle stud, as well as 400 acres for wheat and 350 acres of irrigated crops, including maize, soy beans, and lucerne. In 1995 the tenure of the Keys family came to end at Bengalla, with the estate being sold to the Bengalla Mining Company.

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it is an important site in the course of local history, providing evidence of the continued occupation and presence of the Keys family at Bengalla throughout the nineteenth and twentieth century's. It provides descendants of the Keys family with tangible evidence of their family and their significance in the local area over a century and a half.
Historical association significance SHR criteria (b)	This item is of local historical associative significance due to its association with the Keys family. Several generations of this family owned, managed and resided on the Bengalla estate over a period greater than 150 years. They were a prominent and respected family within the Muswellbrook area and local community during this time.
Aesthetic significance SHR criteria (c)	This item is not of aesthetic significance on a local or state level as it does not fulfil the requirements of this criterion. It does not demonstrate aesthetic characteristics and/or a high degree of creative/technical achievement.
Social significance SHR criteria (d)	This item is of local social significance due to its strong spiritual and emotional connection and importance to the descendants of the Keys family.
Technical/Research significance SHR criteria (e)	This item is of local technical/research significance as it has the potential to yield information that could contribute to and/or enhance our knowledge and understanding of the Keys family from the nineteenth century to the present day. Information from, for example, osteological investigations of the bodies could provide us with information regarding the health, diets, and personal characteristics of these individuals that would be

Heritage Data Form

	unobtainable from other sources.
Rarity SHR criteria (f)	Historical, private family cemeteries such as the Keys family cemetery are rare in the Upper Hunter region. On account of the item's rarity in a local context it fulfils the requirements of this criterion and accordingly is significant on a local level.
Representativeness SHR criteria (g)	This item is of representative significance on a local level as it provides an excellent example of a small scale, historic family cemetery in a rural context.
Integrity	This item retains a high degree of integrity.

HERITAGE LISTINGS	
Heritage listing/s	• Schedule 3, Hunter REP • Muswellbrook LEP

RECOMMENDATIONS	
Recommendations	Regular maintenance and upkeep of the grounds Maintain public access

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	View east of the Keys Family Cemetery. Railway line and Bengalla Mine visible in the background.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	View south of the Keys Family Cemetery.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Detail of grave plots within the Keys Family Cemetery illustrating variation in the types of funerary monuments present.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Detail of the funerary Monument of John Hudson Keys, the first of the Keys family to reside on the property, having purchased Bengalla in 1853, and who then turned it into one of the largest and most impressive properties in the Hunter Valley.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

ITEM DETAILS					
Name of Item	'Overdene'				
Other Name/s	'Overton'				
Former Name/s	'Kelso Place'				
Area, Group, or Collection Name	N/A				
Street number	79				
Street name	Bengalla Road				
Suburb/town	Muswellbrook			Postcode	2333
Local Government Area/s	Muswellbrook				
Property description	Lot 1, DP 735667 Parish of Clanricard				
Location - Lat/long	Latitude			Longitude	
Location - AMG (if no street address)	Zone	56	Easting	297805 (MGA)	Northing
					6427769
Owner	Bengalla Mining Company (BMC)				
Current use	N/A				
Former Use	Homestead				
Statement of significance	This item is of local significance on historical, aesthetic and technical/research grounds. The item is of local historical significance as it is important in the course of local history, having been a part of the operations of Overton estate, one of the larger and more successful estates in the Muswellbrook area during the nineteenth and into the early twentieth century's. The house is of local aesthetic significance as it is a good example of a modest Georgian style residential building in a rural setting. Finally the house and surrounding site are of local technical/research significance as they possess the potential to inform us of operations and lifestyles on a large scale rural estate in the nineteenth century, with further potential to demonstrate change in these aspects over time, from the nineteenth into the twentieth century.				
Level of Significance	State ☐			Local ☒	

DESCRIPTION	
Designer	Unknown
Builder/ maker	Unknown
Physical Description	The item is located on Overton Road (Old Bengalla Road), off Wybong Road, on the western side of the Hunter River and to the east of Bengalla Mine. The house is situated on a plateau, elevated above the Hunter River floodplain. The house looks east back across the floodplain to the town of Muswellbrook. The area is sparsely vegetated with native trees and introduced species. Neighbouring land is used for grazing. The curtilage of Overdene is defined by a fence, although it is unlikely that this has any historical significance. The gardens, if they once existed in a formal sense, have been completely removed. Recent works (construction of modern houses, demolition of original outbuildings, removal of gardens and introduction of driveways) have removed any semblance of property features that may once have been used to define a more historically appropriate curtilage. Overdene is a modest sized house in the classic Georgian style. The front facade is symmetrical, centred around an entrance door, with two pairs of French doors and shutters to either side. There are only three windows in the building, two to the rear facade and one to the southern side facade serving the three rear rooms of the house. A kitchen wing and other outbuildings once located to the rear of the house have been demolished, although the flashing on the rear of the house is indicative of the presence of some of the former structures. The external walls are of coursed sandstone, roughly dressed and sparrow pecked. Courses are roughly consistent on all sides, although it is more consistent on the front and side elevations than it is to the rear, which is perhaps more accurately described as being random coursed. This variation in quality of construction is typical of the period, with the finer quality being restricted to the "on-view" facades. Lintels are of dressed sandstone, which is particularly fine grained and free of colour variations. Door thresholds are all timber, except for the back

Heritage Data Form

	door, which is dressed stone (now cracked). An additional door opening was formed in the northern side wall at some time, judging from the joinery quite early in the life of the house. A timber lintel and reveals were installed, however it appears that the surrounding stonework was not adequately supported and it has cracked badly. The chimneys and fireplaces generally are constructed of sandstone bricks for their full height from floor level, their form evident externally where they are toothed into the stone coursing in a roughly symmetrical fashion. All three chimneys appear to have had chimney pots, although only one remains in situ. The roof presents a long, low ridgeline, punctuated by chimneys rising from the northern and southern elevations. It is a hipped roof, with the ridge returning down both sides to form a pair of hips with box gutter between, creating a low, formal roof line to the front typical of this style. The roof timbers are hardwood of substantial dimensions with nailed joints. Shingles, presumably original, are still in place and also appear to be in good condition. A bell cast verandah once ran around all sides of the house, also typical of this building type, however this has been almost completely removed. The floor was formed up with a sandstone wall to match the house, and was presumably flagged or paved. Some sections have sandstone bricks laid on top of the sandstone, the purpose of which is unclear. A timber floor has been constructed over the top of the original, bringing the floor level up flush with the interior. Only one short section of verandah remains in situ along the front facade. No evidence of the original verandah posts remains, with the remnant section supported on steel pipes. The internal layout of Overdene is typical of the period, being a double pile plan with central hall, providing only a modest amount of accommodation by today's standards. The two main rooms are positioned either side of the hall. Fireplaces are positioned centrally on the external side walls. These would most likely have originally been sitting and dining rooms. To the rear, the right hand room is repeated, including a fireplace, although of slightly smaller dimensions. Presumably this was the main bedroom. The left hand side space is broken into two smaller spaces. The internal dividing walls are of sandstone bricks, generally two bricks thick. Where sections of plaster have fallen off it can be seen that the bricks are laid with header courses every second to fourth course in traditional colonial bond. There is an archway at the centre of the hall which has two header courses to form the arch itself. The chimney breasts are also of brickwork, and slight cracking can be seen at the internal corner where they meet the stone walls. The walls are rendered throughout with a lime plaster. Almost every wall displays some substantial cracking and dislodgement of the plasterwork. The ceilings were all originally lath and plaster, as evidenced by the nail holes in the underside of the ceiling joists, and consistent with the age of the building. There are no cornices at present and no obvious evidence of there ever having been any, although heavy moulded cornices would have been typical of such a building. The floors are timber framed, and were presumably originally polished, although there is no sign of any surface finish remaining. Internal doors are all four panelled with relatively simple mouldings and plain panels. All joinery appears to be red cedar, retaining its original clear finish to the front and back rooms, although the rest have a single layer of white gloss paint. The original approach to Overdene was probably via the north, coming in along the plateau edge to the main east facing facade. Due to the limited distance, however, from the house to the plateau edge it is unlikely that there was any kind of formal turning circle in the area. The drive probably went on to stables etc, and may have returned around the rear of the complex. The current approach is from Overton Road (Old Bengalla Road) to the west of the house. There is little in the way of landscaping associated with this modern access. Little remains of the garden. A narrow concrete path runs from the verandah opposite the front door, however it is unlikely to be associated with the original layout. There are some mature trees about the house, although they are not of the size one would expect if they were contemporary with the house. This could, however, be explained by the poor quality of the soil on the plateau compared to the fertile Hunter River floodplain below. These trees include a Jacaranda, a Pepper Tree, and an Oak. Trees of more recent origins include citrus, peach, and various natives. Both the citrus and peach trees are located hard against the verandah wall. This suggests that they were not intentional plantings but more likely grew from discarded seeds. Other plants and shrubs of note include Plumbago, Oleander, Roses, Hibiscus, and Cape Honeysuckle.
Physical condition and Archaeological potential	This item is currently in a poor to fair condition, although it is capable, and deserving of, restoration. The basic structure is sound and key components are still largely intact. The exterior walls of the building have cracked in places. There is major cracking on the northern side wall, particularly along the eastern reveal of the doorway installed after the construction of the house, where it appears the stonework was inadequately supported and so has cracked very badly, to the extent that a large section has fallen away. There is also cracking and evidence of subsidence at this end of the structure. Steel ties have been installed in an attempt to prevent further movement. There is also some rising damp and loss of pointing to the lower sections of all walls. Joints to the rear wall have eroded badly in some places, and a few smaller stones have been fretted away or been dislodged. Cast iron air vents at floor level are also badly rusted and some are missing altogether. The roof is still in relatively good condition, with the shingles still in place and the iron cladding showing few obvious leaks. However, the guttering has generally failed as all of the downpipes are missing, resulting in rainwater discharging near the building.

Heritage Data Form

	The interior of the building is in a similar state of disrepair to the exterior. Almost every wall displays some substantial cracking and/or dislodgement of plasterwork. The worst areas for the dislodgement of plaster appear to be on the brick internal walls rather than the stone external walls. This is particularly the case around the archway in the hall. Many of the cracks appear to be quite old and may well have been present prior to the application of the first layer of wallpaper (c. 1900). Some cracks have had narrow strips of paper pasted along them in order to disguise their presence, and in at least one area newspaper has been used to try to consolidate the plaster on the wall. The plasterwork overall is in quite poor condition, particularly in the hallway, where large sections have been dislodged. There is evidence of rising damp generally, although this seems to be restricted to the very lower edge of the wall, with the plasterwork and brickwork spalling off in a line immediately above the skirting. A number of the internal walls are also badly cracked. With regard to the chimneys, the chimney breasts are cracking away from the main walls slightly at the internal corners, undoubtedly due to the contrasting construction methods, with brickwork against stonework respectively. This does not, however, appear to be causing any major issues, and the chimney breasts themselves appear to be in fair condition, although all of the mantelpieces have been removed. The hearth stones appear to remain intact. The floors appear to be in good condition, with no obvious areas of sagging or decay. The floor is set relatively high off the ground which has aided its preservation, although there is probably little ventilation of the sub floor space due to the verandah around all sides of the house. The ceilings, however, which would originally have been lath and plaster, have been removed and replaced with masonite sheets, several of which are now loose or missing. Most of the hardware survives intact, including brass door knobs, brass and porcelain sash locks, and sundry items such as coat hooks, hook and eye catches, etc. Despite the state of disrepair that the item has fallen into, it is still considered to possess good to excellent archaeological potential.					
Construction years	Start year	1830s or 1860s	Finish year		Circa	☒
Modifications and dates	N/A					
Further comments	N/A					

HISTORY	
Historical notes	The farm now known as Overton/Overdene was originally part of a land grant to Captain Francis Allman (1780-1860). The grant was for 2,560 acres, comprising rich riverfront lands with great agricultural potential. Captain Allman founded Overton (which he first called Kelso Place) in 1825. Subsequently he bought a smaller estate at Rathluba near Maitland, where he lived with his family until 1832, when he was appointed to the police magistracy at Illawarra. In 1833 the major part of Overton was sold at auction to John Kerr McDougall, a wealthy landowner who had migrated to NSW in 1798. Allman retained 640 acres adjacent to Overton, which led to two Overtons existing side by side for a time. Later this 640 acre section of Overton became part of the adjacent Bengalla property. The McDougall family were very early free immigrants to NSW, who had originally been based at Baulkham Hills. By the 1830s their interests had diversified and they owned land in a variety of locations in the Hunter Valley and elsewhere. It is doubtful whether J.K. McDougall actually resided at Overton, and it was probably managed along with several other farm properties from Paramatta. McDougall's son, however, John McDougall, lived on Overton sometime in the 1830s. The 1841 Census shows him as the owner of the 2,560 acre property, which then constituted a sheep station with thirteen residents, seven of them convicts on assignment. Also living at Overton at the time were Richard C. Dangar and John Tuckey, both of whom had smaller convict establishments. All of these families lived in timber houses, so it would appear that the present cottage known as Overdene had not been built at that time. The McDougall's sold their Overton land to Henry Nowland in 1858. Nowland arrived in NSW with his parents who took up property in the Hawkesbury River district. From that base, Nowland eventually moved to the Hunter Valley and acquired land around Singleton and the New England district. Nowland then moved to Muswellbrook, where he acquired Overton and Collatoota as well as a great many town properties. His land purchases in the Muswellbrook area occurred mostly in the period 1834-35. Nowland was a leading citizen and supported the towns various charities and good causes. According to one

Heritage Data Form

source, Overdene was built during the Nowland tenure, but that cannot be verified. Henry Nowland died in 1863, however his family did not dispose of Overton for another decade.

In the 1870s the Nowland family sold Overton to George Blunt, one of the colony's most successful railway constructors. Blunt (1823-1905) had wide experience in France, Denmark and Norway before migrating to Victoria in 1855. Blunt's extensive business experience had a direct influence on his management of Overton and on the Muswellbrook district. Fairly early in his tenure, he concentrated on the breeding of "first class draught horses" and for this purpose he acquired an imported stallion, "Cannie Scot", at a cost of 850 guineas. By 1885 the property was carrying 75 horses, 112 cattle and 2711 sheep on Overton and a much smaller property known as Brogheda. To obtain hay for these animals at reduced cost Blunt began to irrigate his lucerne with outstanding results.

Beginning experimentally with three acres irrigated by a windmill, Blunt went on to install a steam engine and pump powerful enough to lift 1,700 gallons of water per minute from the Hunter River. This aspect of Overton was its chief feature by 1895, enabling Blunt to cut a crop of lucerne averaging from 2½ to 3 tons per acre every five weeks. This was an outstanding result for this period.

Unlike many of his neighbours, Blunt did not fatten cattle but did prepare sheep for the export "freezer" trade. He preferred cross bred sheep for the purpose, buying the necessary stock from northern NSW, and in 1895, the estate carried 8,500 sheep and possessed its own shearing shed (demolished in 1991). In 1903 his son Thomas opened a creamery and later a butter factory at Overton.

The Blunt family's railway building experience led to their operation of the Kayuga Colliery on Coal Creek Road before 1894 when it supplied coal to the Muswellbrook Gas Works. This mine also provided coal for the Overton butter factory but at an earlier stage the Blunts had opened their own mine on the estate, close to the homestead.

Although George Blunt was very successful and Overton highly productive in his hands (at his death in 1905 his estate was valued at £26,132), the estate did not possess a homestead in keeping with its owner's status. This was because Blunt lived in Brighton Villa in Muswellbrook and the stone house on the estate was merely a manager's residence.

Closer settlement, a long established principle of Australian political philosophy, had a severe impact on the larger estates around Muswellbrook in the early 20th century. Overton was subdivided in 1912, as the NSW Government sought to encourage the growth of small scale farming. Overton was dismantled and it virtually ceased to exist from this point on. The highly productive riverfront lands were divided into sections ranging from 10 to 200 acres. Several allotments were bought by W.F. Robey who resold them in 1915. The house now called Overton is presumed to have been built after the subdivision sale of 1912, but a detailed examination of the map issued at that time may show that it was earlier.

Overdene was eventually purchased by the Moore family, and later by the Tibbey's. The house was last inhabited in 1972 by Tibbey, who at that time built and moved to the adjacent brick residence. They later sold to Robert Alexander. Owen and Lee Carter purchased Overdene in 1985, with plans to restore the old house. However, once the plans for the Bengalla Mine were announced this restoration was put on hold, and apart from some basic maintenance the house has remained untouched since.

While a precise date for the construction of Overdene house cannot be given, it would appear from its design and construction to be from the earlier rather than latter part of the 19th century. This is supported by comparison with the early Colonial Georgian style of 1790-1840 as defined by the book "Identifying Australian Architecture" written by Richard Appleby. While the latter "Victorian Georgian" style of 1840-1890 is also applicable, most of the examples given in the book which are comparable to Overdene date to the 1840s-60s. Overdene may have been built by the McDougalls at some time after the 1841 census, or by the Nowlands after they acquired the property in 1858. In any case Overdene would almost certainly have been built prior to 1873

Heritage Data Form

	when Blunt acquired it, for as he resided in the town it is unlikely such a refined piece of architecture would have been constructed for a manager. It is therefore considered probable construction date for Overdene is c1841-1860, being constructed by either McDougall or Nowland.
--	--

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it is important in the course of local history, having been a part of the operations of Overton estate, one of the larger and more successful estates in the Muswellbrook area during the nineteenth and into the early twentieth century's.
Historical association significance SHR criteria (b)	This item is not of local or state historical associative significance as it does not fulfil the requirements of this criterion.
Aesthetic significance SHR criteria (c)	This item is of local aesthetic significance as it is a good example of a modest Georgian style residential building in a rural setting.
Social significance SHR criteria (d)	This item is not of local or state social significance as it does not fulfil the requirements of this criterion.
Technical/Research significance SHR criteria (e)	This item is of local technical/research significance as it possesses the potential to inform us of operations and lifestyles on a large scale rural estate in the nineteenth century, with further potential to demonstrate change in these aspects over time, from the nineteenth into the twentieth century.
Rarity SHR criteria (f)	This item is not significant on a local or state level on the grounds of rarity as it does not fulfil the requirements of this criterion.
Representativeness SHR criteria (g)	This item is not of local or state representative significance as it does not fulfil the requirements of this criterion.
Integrity	This item possesses poor to fair integrity, as it has fallen into a state of severe disrepair. Associated archaeological deposits hold high integrity as there has been limited disturbance to the surrounding area

HERITAGE LISTINGS	
Heritage listing/s	• Register of the National Estate (Registered Place – listed 25/03/1986) • Register of the National Trust • Schedule 3, Hunter REP • Muswellbrook Local Environment Plan (LEP)

RECOMMENDATIONS	
Recommendations	Manage Overdene in accordance with the CMP in Appendix C of the EHMP, which addresses the management commitments

Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	View north-west of the front elevation of 'Overdene'.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	View east of the rear elevation of 'Overdene'.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	View north of the southern elevation of 'Overdene'.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard

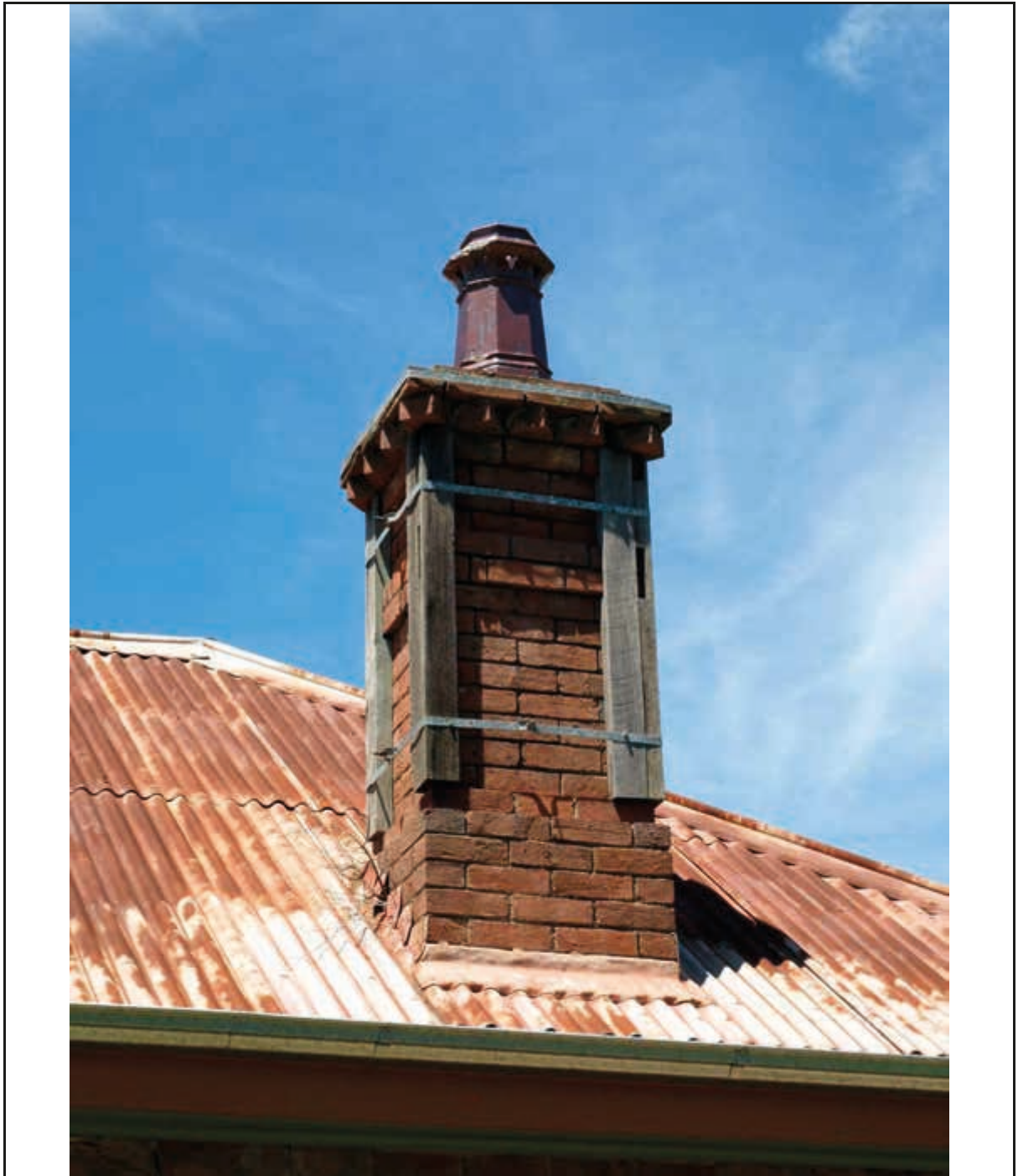


Heritage Data Form

IMAGES - 1 per page

Please supply images of each elevation, the interior and the setting.

Image caption	Detail of 'Overdene' chimney stack – view north.				
Image year	2011	Image by	Dr Susan Lampard	Image copyright holder	Dr Susan Lampard



Heritage Data Form

ITEM DETAILS							
Name of Item	Blunt's Butter Factory						
Other Name/s	'Overton Creamery'						
Former Name/s	'Blunt's Butter Factory'						
Area, Group, or Collection Name	N/A						
Street number	179						
Street name	Bengalla Road						
Suburb/town	Muswellbrook					Postcode	2333
Local Government Area/s	Muswellbrook						
Property description	Parish of Clanricard						
Location - Lat/long	Latitude				Longitude		
Location - AMG (if no street address)	Zone	56	Easting	297805 (MGA)	Northing	6427769 (MGA)	
Owner	Bengalla Mining Company (BMC)						
Current use	Rubble/Relic						
Former Use	Butter Factory						
Statement of significance	This item is of local significance on historical and technical/research grounds. The item is of local historical significance as it was significant in the course and development of local history. The site was one of the earliest creameries in the Muswellbrook area, and the first butter factory, providing a local processing facility for the local farmers who prior to its establishment had to transport cream outside the area for processing. Furthermore, this item is of local technical/research significance as while there are little visible surface remains of the site, it retains the potential for sub-surface archaeological deposits to be present. The site therefore has the potential to provide information which could contribute to and/or enhance our knowledge and understanding of the role of the dairy industry in the economy of the Upper Hunter in the early to mid-twentieth century. The site also possesses the potential to provide information regarding the geographical imperatives of the location of such facilities in relation to the existing transport routes of the time and the distribution of local area dairy farms and coal mines.						
Level of Significance	State ☐				Local ☒		

DESCRIPTION							
Designer	N/A						
Builder/ maker	Thomas Blunt						
Physical Description	Very little remains at the site of the Blunt's Butter Factory/Overton Creamery. There are no standing structures present at the site. All that remains are the concrete foundations, fragmentary portions of walls and rubble. Some of the remaining concrete sections have glazed white tiles attached.						
Physical condition and Archaeological potential	The site has been almost totally destroyed and is in quite poor physical condition. It retains very little integrity. The site does, however, possess moderate potential for sub-surface archaeological deposits to be present, which could retain higher levels of integrity than the surface representations.						
Construction years	Start year	1903	Finish year		Circa	☐	
Modifications and dates	N/A						
Further comments	N/A						

HISTORY	
Historical notes	Blunt's Butter Factory, or the Overton Creamery, is located on what was once the Overton estate. Overton (initially called 'Kelso Place') was founded by Captain Francis Allman in 1825 on a land grant of 2,560 acres. Allman did not, however, prosper in the Hunter Valley and in 1833 sold a major portion of Overton at auction to John Kerr McDougall, a wealthy landowner who had migrated to Australia in 1798. Allman retained for himself only 640 acres, which he also named 'Overton'. This resulted in the existence of two 'Overtons' being located side by side for a period of time. The 640 acres subsequently became part of the adjacent Bengalla property.

Heritage Data Form

	It is doubtful that John McDougall ever resided at Overton, and initially it was probably managed from Parramatta. However, in the 1830s McDougall's son, also John McDougall, resided on the property. The 1841 Census indicates that at that time he was the owner of the property, which constituted a sheep station with thirteen residents, seven of whom were convicts on assignment. Only timber structures existed on the property at this time, with not even the cottage now known as 'Overdene' yet constructed. In 1858 the McDougalls sold the property to Henry Nowland, who acquired a substantial amount of property throughout the Hunter, including properties at Singleton and Muswellbrook. Nowland was a prominent citizen in the local community, supporting various town charities and good causes. Nowland died in 1863, and a decade later his family sold off the Overton estate. The Nowland family sold the property to George Blunt (1823-1905), one of the colony's most successful railway constructors. Blunt concentrated on breeding "first class draught horses" from early on during his tenure at Overton, having acquired an imported stallion 'Cannie Scott' for the purpose, at a cost of 850 guineas. By 1885 the Overton estate, along with the much smaller Brogheda estate, which Blunt also owned, was sustaining 75 horses, 112 cattle, and 2,711 sheep. To obtain hay for all of these animals, Blunt began irrigating his lucerne, with outstanding results. Blunt went on to install a steam engine and pump powerful enough to lift 1,700 gallons of water per minute from the Hunter River. This was the primary feature of Overton estate by 1895, enabling Blunt to cut a crop of lucerne averaging 2.5 to 3 tons per acre every five weeks. By 1895 Blunt had 8,500 sheep on the property, which he prepared for the export 'freezer' trade. While George Blunt did not place much, if any, emphasis on dairying up to 1895, by the 1890s, dairying became one of the most important industries in the Upper Hunter region. The rise of this industry coincided with the development of the mechanical separation of milk and refrigeration, and resulted in the reshaping of the pattern of farming in the Muswellbrook area (Turner 1995: 19). George Blunt's son, Thomas Blunt, opened a creamery at Overton in 1903. Initially, Blunt shipped the cream produced at this creamery down to Newcastle to be made into butter. A few years later, Blunt established his own Butter Factory at Overton. The railway experience of George Blunt had led to their acquisition and operation of the Kayuga Colliery on Coal Creek Road in the early 1890s. It was from this mine that Thomas Blunt acquired the coal to fire the boilers of his Butter Factory. Blunt's Creamery and Butter Factory was one of the earliest within the locality, with only two other creameries established and operating in the first decade of the twentieth century. The others were the Kayuga Creamery, which was opened in 1893, and the Denman Co-Operative Dairy Company, established in 1907. The Muswellbrook Dairy Co-Operative, which was located on Aberdeen Street, was not established until 1919. Overton was severely affected by the 'Closer Settlement' principle, a long held principle of Australian philosophy, in the early twentieth century, when the NSW Government sought to reduce the number of large scale farming operations and encourage the growth of small-scale farming. Like many other large estates in the area, Overton was subject to subdivision. From 1912 the estate was dismantled and virtually ceased to exist from this point on. The highly productive riverfront lands were divided into portions ranging from 10 to 200 acres. The site of the Butter Factory, however, along with its engine and cottage, appeared to remain in the Blunt family, in the hands of Daniel Blunt. It is probable that the establishment of the dairy co-operatives of the 1930s eventually resulted in the closure of Blunt's Butter Factory. Various amalgamations of the local creameries and factories of the region eventually led to the creation of the Oak Co-Operative.
--	---

APPLICATION OF CRITERIA	
Historical significance SHR criteria (a)	This item is of local historical significance as it is the site of one of the earliest creameries in the Muswellbrook area, and for being the first butter factory, providing a local processing facility for the farmers who prior to its establishment had to transport cream outside the area for processing.
Historical association significance SHR criteria (b)	This item is not of historical associative significance on a local or state level as it does not fulfil the requirements of this criterion.
Aesthetic significance SHR criteria (c)	This item is not of aesthetic significance on a local or state level as it does not fulfil the requirements of this criterion. It does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.
Social significance SHR criteria (d)	This item is not of social significance on a local or state level as it does not fulfil the requirements of this criterion.
Technical/Research significance SHR criteria (e)	This item is of local technical/research significance as the site possesses the potential for sub-surface archaeological deposits to be present. The site has the potential to provide information which could contribute to and/or enhance our knowledge and understanding of the role of the dairy industry in the economy of the Upper

Heritage Data Form

	Hunter in the early to mid-twentieth century. There is also the potential for the site to provide information regarding the geographical imperatives of the location of such facilities in relation to the existing transport routes of the time and the distribution of local area dairy farms and coal mines.
Rarity SHR criteria (f)	This item is not of significance on a local or state level on account of rarity as it does not fulfil the requirements of this criterion.
Representativeness SHR criteria (g)	This item is not of representative significance on a local or state level as it does not fulfil the requirements of this criterion. It does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.
Integrity	This item possesses only low integrity.

HERITAGE LISTINGS	
Heritage listing/s	Muswellbrook LEP

RECOMMENDATIONS	
Recommendations	Fence site to protect from stock Follow archaeological protocol outlined in Section 4.0 of the EHMP should works be proposed in the area



About Us	*Listings	Development
Heritage Council	Publications & Forms	Conservation & Technical
About Heritage	Research	Funding

Edinglassie

Item

Name of Item:	Edinglassie
Type of Item:	Complex / Group
Group/Collection:	Farming and Grazing
Category:	Homestead Complex
Location:	Lat:150.82904322 Long:-32.30318179
Primary Address:	Denman Road, Muswellbrook, NSW 2333
Local Govt. Area:	Muswellbrook

Property Description:

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	15	-	DP	228159
LOT	141	-	DP	533001
LOT	1	-	DP	601359
LOT	1	-	DP	90622

All Addresses

Street Address	Suburb/Town	LGA	Parish	County	Type
Denman Road	Muswellbrook	Muswellbrook	Brougham	Durham	Primary

Statement of Significance

Primary Significance:

The Edinglassie property including the Edinglassie homestead, associated buildings and Rous Lench cottage are closely associated with the earliest European occupation of the area and collectively represent one of the earliest land grants of the initial settlement of the Hunter Valley;

The Edinglassie property demonstrates various phases of human activities such as settlement and clearing, water supply and management, sheep and cattle running, development of specialist cattle breeding activities, recreation, viticulture and horse breeding;

The Edinglassie homestead with its associated outbuildings and Rous Lench cottage are good architectural examples of their type and style;

The Edinglassie property demonstrates an excellent application of the Arcadian design approach to the siting of structures and elements in the landscape which is rare in the region;

Secondary significance:

The place is also significant because:

It is associated with George Forbes, the original grantee, who was one of the 'gentry'

settlers in the early settlement of the area;

It is associated with a prominent family, the Whites, a leading pastoral dynasty, who were synonymous with the opening and development of the region;

It illustrates the degree of opulence achieved and lifestyles led by the leading pastoral families in the area;

It is associated with a significant Australian architect, John Horbury Hunt;

It is a well known landmark, and has provided a community focus over a number of generations from the turn of the 19th century;

It has extant and potential intact archaeological evidence capable of helping interpret past occupation and lifestyles of the area (Tropman & Tropman Architects, 1993, 149).

The siting of the homestead is intrinsic to its significance.

Date Significance Updated: 31 Jul 07

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Construction Years:

1880 - 1895

Physical Description:

Site/Grounds

The house is approached through original iron gates and through well kept grounds containing many fine mature trees, including some Queensland species brought from other White family properties. The homestead is set back from the access road, and a substantial line of screening trees fronts the entrance. The siting of the homestead is intrinsic to its significance.

House

A 2 storey sandstone house with hipped iron roof of simplified Italianate style built in two stages c1880, and c1895, for James White. Each elevation is asymmetrical about a large full height projecting bay with a continuous single storey verandah (originally 2 stories to east and south) supported on cast iron columns stamped 'F. REVETT, W. MAITLAND.

The fourteen principal rooms have a variety of pressed metal ceilings and marble and timber fireplaces whilst the fine joinery throughout is of cedar. All joinery has been sensitively restored.

Outbuildings

A timber bridge links across a large trussed roof breezeway to a 2 storey service wing containing the original kitchen. Close to the house is the fine stables group of buildings designed by Hunt in timber and built in the 1880s. Although lacking in the more exuberant details characteristic of Hunt's work, these buildings nonetheless form a coherent and impressive whole. Other buildings include a meat house, killing shed and dove-cote.

Site/Grounds

The house is approached through original iron gates and through well kept grounds containing many fine mature trees, including some Queensland species brought from other White family properties.

Modifications and Dates:

2004 Power line installed across front of property, involving the removal of 3 trees: The proposal involves the removal of 3 trees. An arborist report, submitted as part of the

application identifies this fabric as: 1 x yellow box, *Eucalyptus melliodora*, 40-45 years old, 12 meters high & 2 x Lombardy poplar (*Populus nigra 'Italica'*), native to Italy. 10-14 years old. 5 meters high

Former Use:

agriculture

History**Historical Notes:**

The land on which both Edinglassie and Rous Lench are located was the original Portion 4 of the Parish of Brougham in the County of Durham. This comprised an area of 1280 acres the deed of grant for which was issued to George Forbes on 1 August 1839. Like many grants of the period the land had been occupied for many years before it was officially surveyed and the deed grant issued

A 2 storey sandstone house with hipped iron roof of simplified Italianate style built in two stages c1880, and c1895, for James White.

Historic Themes

Australian Theme (abbrev)	New South Wales Theme	Local Theme
3. Economy - Developing local, regional and national economies	Agriculture - Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	Clearing land for farming -
3. Economy - Developing local, regional and national economies	Agriculture - Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	Growing vines and maintaining vineyards -
3. Economy - Developing local, regional and national economies	Agriculture - Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	Experimenting with new breeds of stock -
3. Economy - Developing local, regional and national economies	Agriculture - Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	Pastoralism - grazing sheep, cattle, goats or other animals -
3. Economy - Developing local, regional and national economies	Technology - Activities and processes associated with the knowledge or use of mechanical arts and applied sciences	Technologies for reticulated water supply -
4. Settlement - Building settlements, towns and cities	Accommodation - Activities associated with the provision of accommodation, and particular types of accommodation – does not include architectural styles – use the theme of Creative Endeavour for such activities.	Housing farming families -
4. Settlement - Building settlements, towns and cities	Land tenure - Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Granting Crown lands for private farming -
8. Culture - Developing cultural institutions and ways of life	Domestic life - Activities associated with creating, maintaining, living in and working around houses and institutions.	Living in a rural homestead
8. Culture - Developing cultural institutions and ways of life	Leisure - Activities associated with recreation and relaxation	Enjoying public parks and gardens -

Procedures /Exemptions

Section of Act	Description	Title	Comments	Action Date
57(2)	Exemption to allow work	Standard Exemptions	SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977 Notice of Order Under Section 57 (2) of the Heritage Act 1977 I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order: 1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published in the Government Gazette on 22 February 2008; and 2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached. FRANK SARTOR Minister for Planning Sydney, 11 July 2008 To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.	Sep 5 2008

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
<i>Heritage Act - State Heritage Register</i>		00170	02 Apr 99	27	1546
<i>Heritage Act - Permanent Conservation Order - former</i>		00170	02 Dec 83	167	5449
<i>Regional Environmental Plan</i>	Hunter REP 1989		03 Nov 89	107	9350
<i>National Trust of Australia register</i>	Edinglassie Including gardens, curtilage	4033	23 Jun 80		
<i>Register of the National Estate - Interim</i>		00134			

Data Source

The information for this entry comes from the following source:

Name: Heritage Office
Database Number: 5045625
File Number: S90/05833 & HC 32464

Every effort has been made to ensure that information contained in the State Heritage Inventory is correct. If you find any errors or omissions please send your comments to the **Database Manager**.

All information and pictures on this page are the copyright of the Heritage Branch or respective copyright owners.

Edinglassie



PCO Plan Number 170

Image Type:	Map / Plan
Image Year:	02 Jul 80
Image By:	Heritage Council of NSW
Image Copyright Owner:	Heritage Council of NSW
Map Scale:	1:20000



About Us	*Listings	Development
Heritage Council	Publications & Forms	Conservation & Technical
About Heritage	Research	Funding

Rous Lench

Item

Name of Item:	Rous Lench
Type of Item:	Complex / Group
Group/Collection:	Farming and Grazing
Category:	Homestead Complex
Location:	Lat:150.84364889 Long:-32.29787106
Primary Address:	Denman Road, Edinglassie, NSW 2333
Local Govt. Area:	Muswellbrook

Property Description:

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	142	-	DP	533001

All Addresses

Street Address	Suburb/Town	LGA	Parish	County	Type
Denman Road	Edinglassie	Muswellbrook	Brougham	Durham	Primary

Statement of Significance

Primary Significance:

The Edinglassie property including the Edinglassie homestead, associated buildings and Rous Lench cottage are closely associated with the earliest European occupation of the area and collectively represent one of the earliest land grants of the initial settlement of the Hunter Valley;

The Edinglassie property demonstrates various phases of human activities such as settlement and clearing, water supply and management, sheep and cattle running, development of specialist cattle breeding activities, recreation, viticulture and horse breeding;

The Edinglassie homestead with its associated outbuildings and Rous Lench cottage are good architectural examples of their type and style;

The Edinglassie property demonstrates an excellent application of the Arcadian design approach to the siting of structures and elements in the landscape which is rare in the region;

Secondary significance

The place is also significant because;

It is associated with George Forbes, the original grantee, who was one of the 'gentry' settlers in the early settlement of the area;

It is associated with a prominent family, the Whites, a leading pastoral dynasty, who were synonymous with the opening and development of the region;

It illustrates the degree of opulence achieved and lifestyles led by the leading pastoral families in the area;

It is associated with a significant Australian architect, John Horbury Hunt;

It is a well known landmark, and has provided a community focus over a number of generations from the turn of the 19th century;

It has extant and potential intact archaeological evidence capable of helping interpret past occupation and lifestyles of the area (Tropman & Tropman Architects, 1993, 149).

The siting of the homestead is intrinsic to its significance.

Date Significance Updated: 31 Jul 07

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Construction Years:

1875 - 1895

Physical Description:

The homestead is a low cottage constructed of rendered brick and corrugated iron featuring a roof ridge extended to form small gables, four panel doors, large four-pane sash windows, panelled ceilings, and gunstock stiles on French windows at the side. A photograph dating from the 1880s showing the first part of Edinglassie adjacent to an earlier hipped roof house indicates that the original house was demolished and/or rebuilt when the present Edinglassie was completed in c1895. It is therefore not likely that Rous Lench is the original homestead.

Architectural Style: Italianate.

Building Material: Sandstone, iron roof

Modifications and Dates:

The original house was demolished and/or rebuilt when the present Edinglassie was completed in c1895. It is therefore not likely that Rous Lench is the original homestead.

Former Use:

agriculture

History

Historical Notes:

The land on which both Edinglassie and Rous Lench are located was the original Portion 4 of the Parish of Brougham in the County of Durham. This comprised an area of 1280 acres the deed of grant for which was issued to George Forbes on 1 August 1839. Like many grants of the period the land had been occupied for many years before it was officially surveyed and the deed grant issued.

The homestead is a low cottage constructed of rendered brick and corrugated iron featuring a roof ridge extended to form small gables, four panel doors, large four-pane sash windows, panelled ceilings, and gunstock stiles on French windows at the side. A photograph dating from the 1880s showing the first part of Edinglassie adjacent to an earlier hipped roof house indicates that the original house was demolished and/or rebuilt when the present Edinglassie was completed in c1895. It is therefore not likely that Rous Lench is the original homestead.

Architectural Style: Italianate.

Building Material: Sandstone, iron roof

Historic Themes

Australian Theme (abbrev)	New South Wales Theme	Local Theme
3. Economy - Developing local, regional and national economies	Agriculture - Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	Clearing land for farming -
3. Economy - Developing local, regional and national economies	Agriculture - Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	Pastoralism - grazing sheep, cattle, goats or other animals -
4. Settlement - Building settlements, towns and cities	Accommodation - Activities associated with the provision of accommodation, and particular types of accommodation – does not include architectural styles – use the theme of Creative Endeavour for such activities.	Housing farming families -
4. Settlement - Building settlements, towns and cities	Land tenure - Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Granting Crown lands for private farming -

Procedures /Exemptions

Section of Act	Description	Title	Comments	Action Date
57(2)	Exemption to allow work	Standard Exemptions	SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977 Notice of Order Under Section 57 (2) of the Heritage Act 1977 I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order: 1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published in the Government Gazette on 22 February 2008; and 2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached. FRANK SARTOR Minister for Planning Sydney, 11 July 2008	Sep 5 2008

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
<i>Heritage Act - State Heritage Register</i>		00211	02 Apr 99	27	1546
<i>Heritage Act - Permanent Conservation Order - former</i>		00211	26 Aug 83	120	3980
<i>Regional Environmental Plan</i>	Hunter REP 1989		03 Nov 89		
<i>National Trust of Australia register</i>	Edinglassie Including gardens, curtilage and adjoin	4033	23 Jun 80		

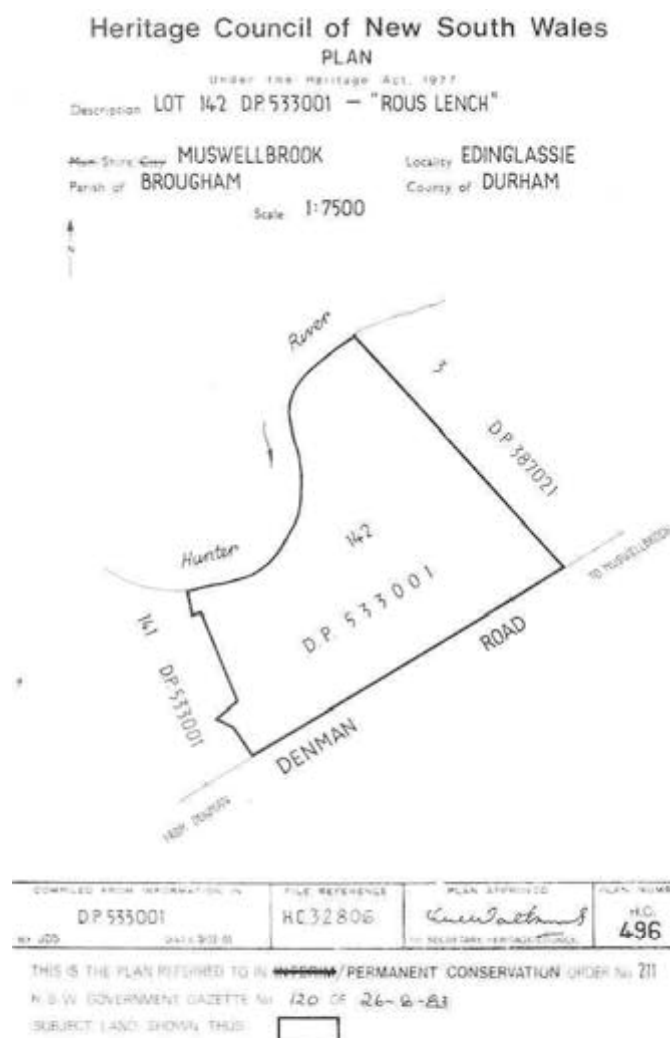
The information for this entry comes from the following source:

Name: Heritage Office
Database Number: 5045629
File Number: S90/05440 & HC 32806

Every effort has been made to ensure that information contained in the State Heritage Inventory is correct. If you find any errors or omissions please send your comments to the **Database Manager**.

All information and pictures on this page are the copyright of the Heritage Branch or respective copyright owners.

Rous Lench



PCO Plan Number 211

Image Type:	Map / Plan
Image Year:	09 Dec 81
Image By:	Heritage Council of NSW
Image Copyright Owner:	Heritage Council of NSW
Map Scale:	1:7500