

**Compliance Audit Program**  
New Berrima Quarry  
**The Austral Brick Company Pty Ltd**

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# 1. Introduction

## 1.1. Background

New Berrima Quarry is an open cut clay and shale quarry located about 1.5 kilometres east of New Berrima in the Southern Highlands, NSW. The quarry consists of a single mining authorisation as summarised in Table 1.

**Table 1 Summary of mining titles comprising New Berrima Quarry**

Title	Grant	Expiry	Last renewal
Mining Mineral Owners Lease 6 M(MO)L 6 (1992)	27 June 2017	27 June 2038	Not applicable

M(MO)L 6 is held by The Austral Brick Company Pty Ltd who is developing the mine as a 'greenfields' site.

The mine was granted Project Approval 08\_0212 (PA 08\_0212) under the Environmental Planning and Assessment Act 1979 on 6 July 2012 and this approval was last modified on 6 July 2017. Project Approval 08\_0212 commenced in September 2016 with site establishment activities commencing in November 2020 and mostly completed during 2021 and 2022. Site establishment activities included site access intersection upgrade works, construction of the water management system, establishment of site access roads, sealing of the site and western access roads, construction of the visibility barriers, planting of the southern and northern vegetation screen, relocation of powerlines, and progressive stabilisation or rehabilitation of completed works including the planting of Shale Woodland tree species on the northern and southern visibility barriers. At the time of the audit, it was advised by Austral personnel that the only outstanding work to be completed was the planting out of the central visibility barrier with Shale Woodland tree species which had been delayed due to wet weather conditions.

No ore extraction activities had occurred at the time of this audit.

As part of the compliance audit program undertaken by the NSW Resources Regulator, an audit of the mining and mining purposes operations associated with the New Berrima Quarry was undertaken on 21 April 2022. The audit focussed on the mining purposes, related disturbance activities, and rehabilitation activities within M(MO)L6.

## 1.2. Audit objectives

The objectives of the audit were to:

- undertake a compliance audit of the New Berrima Quarry, against select requirements of the Mining Act 1992 (specifically Division 1, Section 5) and the conditions of the mining leases issued pursuant to that Act.
- assess the operational performance of the New Berrima Quarry mining operations against specific commitments made in the 'Mining Operations Plan for the New Berrima Clay/Shale Quarry' dated August 2018 ('MOP').
- assess the status of the current Rehabilitation Cost Estimate (RCE) for accuracy and lodgement requirements.

## 1.3. Audit scope

The scope of the audit included:

- the mining activities associated with the New Berrima Quarry including:
  - mine and mining purposes development within M(MO)L6
  - temporary and permanent rehabilitation activities associated with mining activities

- a review of documents and records pertaining to the mining and exploration activities
- the assessment of compliance for the period from 20 April 2021 to 21 April 2022

## 1.4. Audit criteria

The audit criteria against which compliance was assessed included:

- *Mining Act 1992*, Sections 5, 6, 163C to 163E, 163G, 378D
- Mining Regulation 2016, clauses 59 to 68
- Conditions 1 to 6 of M(MO)L6
- Commitments made in Sections 2.3.8 and 3.2.16 of the approved MOP with respect to rehabilitation and weed control obligations
- *Rehabilitation Cost Estimation Tool Handbook* (June 2017) published by NSW Department of Planning and Environment
- *ESG3: Mining Operations Plan (MOP) Guidelines*, September 2013 published by NSW Trade and Investment, Regional Infrastructure and Services – Division of Resources and Energy
- *Guidelines and Format for Preparation of an Annual Environmental Management Report* (January 2006) published by NSW Department of Primary Industries – Mineral Resources

## 1.5. Publishing and disclosure of information

This audit report was published on the NSW Resources Regulator’s website consistent with:

- Section 365 of the *Mining Act 1992*
- *Resources Regulator’s Public comment policy*
- *Government Information (Public Access) Act 2009*.

## 2. Audit methods

The audit process involved the interview of site personnel, a review of documentation and samples of records provided by the titleholder and/or operator and a site inspection of the operations to determine the level of compliance of the operations and assess the status of the operational performance. The audit process and methodology are described in more detail in the sections below.

### 2.1. Opening meeting

The opening meeting was held on 21 April 2022 at New Berrima Quarry site office. The audit team was introduced, and the scope of their responsibilities was conveyed to the auditees. The objectives and scope of the audit were outlined. The methods to be used by the team to conduct the audit were explained, including interview of personnel, review of documentation, examination of records and a site inspection to assess specific compliance requirements.

### 2.2. Site interviews and inspections

#### 2.2.1. Data collection and verification

Where possible, documents and data collected during the audit process were reviewed onsite. All information obtained during the audit process was verified by the audit team where possible. For example, statements made by site personnel were verified by viewing documentation and/or site inspections where possible. Where suitable verification could not be provided, this has been identified in the audit findings as not determined.

#### 2.2.2. Site inspections

A site inspection was undertaken of the New Berrima Quarry including:

- access roads and haul roads
- administration facilities
- amenity bunding
- open cut pit area
- water management infrastructure including dams, pipelines, pumps and irrigation systems

### 2.3. Closing meeting

The closing meeting was held on 21 April 2022 at the New Berrima Quarry site office. The objectives of this meeting were to discuss any outstanding matters, present preliminary findings and outline the process for finalising the audit report.

### 2.4. Compliance assessment definitions

The reporting of results from the compliance audit was determined based on the definitions presented below in Table 2.

**Table 2 Audit assessment categories**

Assessment	Criteria
Compliance	Sufficient and appropriate evidence is available to demonstrate the particular requirement has been complied with.
Non-compliance	Clear evidence has been collected to demonstrate the particular requirement has not been complied with. There are 3 subcategories of non-compliance reflecting the severity and level of risk associated with the non-compliance:

	<p>NC1 – the absence of planning or implementation of a required operational element which has the potential to result in a significant risk.</p> <p>NC2 – an isolated lapse or absence of control in the implementation of an operational element which is unlikely to result in a significant risk.</p> <p>NC3 – an administrative or reporting non-compliance which does not have a direct environmental or safety significance.</p> <p>Note: The identification of a non-compliance in this audit may or may not constitute a breach of, or offence under, the <i>Mining Act 1992</i>. Non-compliances identified in this audit report may be further investigated by the NSW Resources Regulator and regulatory actions may be undertaken.</p>
Observation of concern	<p>Where an auditee may be compliant at the time of the audit but there are issues that exist that could result in the potential for future non-compliance if not addressed.</p> <p>Observation of concern was also used where an issue may not have particular compliance requirements, but which was not conducive to good management or best practice.</p>
Suggestion for improvement	<p>Where changes in processes or activities inspected or evaluated at the time of the audit could deliver improvement in relation to risk minimisation, sustainable outcomes and management practices.</p>
Not determined	<p>The necessary evidence has not been collected to enable an assessment of compliance to be made within the scope of the audit. Reasons why the audit team could not collect the required information include:</p> <ul style="list-style-type: none"> <li>• insufficient information on the file relating to the period covered by the audit or insufficient evidence collected to reach a conclusion</li> <li>• the wording on the criteria (approval condition) meant that no evidence could be gathered, or it was too difficult to gather the evidence.</li> </ul> <p>A ‘not determined’ assessment was also made where the condition was outside the scope of the audit.</p>
Not applicable	<p>The circumstances of the authorisation or titleholder have changed and are no longer relevant (e.g. no longer mining, mining equipment and plant has been removed).</p> <p>An invoking element in the criteria was not activated within the scope of the audit.</p>

## 2.5. Reporting

Following completion of the site audit, the audit checklists were completed, and audit notes were reviewed to compile a list of outstanding matters to be noted in the audit report. This report provides an overview of the operational performance of the site in relation to the mining operations and to identify any non-compliances or observations of concern noted by the auditors during the site inspections and interviews.

The draft audit findings were forwarded to Austral Bricks for comment. Consideration was given to the representations made during the finalisation of the audit report.

### 3. Audit findings

#### 3.1. Mining Act 1992 – Section 5

Section 5 of the *Mining Act 1992* states that a person must not prospect for or mine any mineral except in accordance with an authorisation that is in force in respect of that mineral and the land where the prospecting or mining is carried on.

Austral Bricks staff advised that all operations had been conducted within the boundaries of M(MO)L6. This was confirmed by the audit team during the inspection. There was no observable evidence of prospecting or mining occurring outside the boundaries of M(MO)L6.

#### 3.2. Rehabilitation

Condition 1 of M(MO)L6, required that any disturbance resulting from the activities carried out under the mining lease must be rehabilitated to the satisfaction of the Minister.

To give effect to this condition, the titleholder must have conducted activities resulting in disturbance. During the inspection, it was observed that the titleholder had conducted surface disturbing activities under the mining lease resulting in the construction and installation of key infrastructure to support the mining operation. This included access roads, visual amenity bunding, a temporary out-of-pit emplacement, water management infrastructure, electrical infrastructure, site amenities and administration facilities. Topsoil and overburden material was removed from the open cut pit area and used for the construction of some of this infrastructure, primarily the visual amenity bunding. No ore had been extracted at the date of this audit.

Rehabilitation of disturbed areas was conducted. Most of the rehabilitation undertaken was temporary rehabilitation to stabilise the structures that were built in support of the mining operation. This included the visual amenity bunds and the out-of-pit emplacement. The temporary rehabilitation was observed to be broadly consistent with the mining operations plan (MOP).

#### 3.3. Mining operations plan

Several specific commitments were made in the MOP regarding rehabilitation and weed and pest management.

These commitments are shown in Table 3.

**Table 3 Selected commitments in New Berrima MOP for assessment**

Document	Page no.	Section	Commitment
MOP	12	2.3.8 Progressive rehabilitation	Additional trees will be planted within the northern tree screen to the west of the northern visibility barrier. Species to be planted will be selected from the Southern Highland Shale Woodland Endangered Ecological Community. This area will be fenced to limit losses of small shrubs from grazing stock and wildlife.
MOP	12	2.3.8 Progressive rehabilitation	A tree screen will be planted on the south-eastern periphery of the Surplus Overburden Stockpile Area. Species will include <i>Eucalyptus dives</i> (Broadleaf Peppermint), <i>E. mannifera</i> (Brittle Gum), <i>E. radiata</i> subsp. <i>Radiata</i> (Narrow-leaved Peppermint) and selected wattles.
MOP	19	3.2.16 Weed and pest mgt	A range of weed species have been identified within the quarry site, although none are currently listed weed

		<p>species. The following management measures will be implemented to reduce the potential impacts from weeds:</p> <p>Prior to soil stripping, where weeds are visibly present, an authorised herbicide will be sprayed across the area to limit the presence of weeds in stripped topsoil.</p> <p>Earthmoving equipment will be thoroughly cleaned prior to being brought onsite.</p> <p>Where visual inspections identify actual or potential weed infestations, weed control will be undertaken as required.</p>
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### 3.3.1. Progressive rehabilitation

Information provided by Austral Bricks indicated that additional trees were planted within the northern tree screen of the site. However, it was unclear if the species planted were representative of the Southern Highland Shale Woodland EEC. During the inspection, recent plantings were observed within the northern tree screen area.

Following the audit, the revegetation contractor advised Austral Bricks that representative species from the Southern Highland Shale Woodland EEC were used within the northern tree screen. However, due to site constraints such as soil moisture conditions, additional non-listed species were used to ensure rapid growth and survival. These additional species were all Australian natives.



Figures 1 and 2 Northern Visibility Bund in background with evidence of recent planting activity

Information provided during interviews indicated that a tree screen was planted along the south-eastern periphery of the Surplus Overburden Stockpile. However, it was unclear if the species planted were those listed in the MOP commitment. During the inspection, it was observed that recent plantings had occurred on the south-eastern periphery of the Surplus Overburden Stockpile.

Following the audit, the revegetation contractor advised Austral Bricks that only one of the listed Eucalyptus species (*E. mannifera*) was used in the south-eastern tree screen. *Acacia melanoxylon* was also used. The contractor indicated that the other listed Eucalypt species would not have been suitable for this area since the area was ‘holding water’ at the time of planting so the substitute species, *Casuarina cunninghamiana* and *Eucalyptus elata* were planted.

The substitution of species for better performance in specific site conditions is acknowledged. However, it is important to ensure compliance with commitments made in the approval documents, in particular section 2.3.8 of the MOP, and where this is not possible, to apply for a satisfactory amendment or modification to the relevant approvals (raised as Observation of Concern No.1).



Figure 3 Evidence of tree planting at the south-eastern side of the Surplus Overburden Stockpile

### 3.3.2. Weed control

During the interviews, weed and pest management documentation indicated that weeds were being managed in accordance with the MOP commitment. Evidence of regular site inspections using the Workplace Environmental Inspection Form, Equipment Delivery checklist including wash-down confirmation was sighted. Recent tax invoices for contract weed spraying were sighted as further evidence of weed management activities.

During the inspection, a moderate infestation of the noxious weed, Nodding Thistle, was observed around the northern tree screen area. This weed had significant dispersal capability and extended seed longevity in the soil. If left untreated this weed could completely prevent the use of the land for future grazing.

Monthly inspections for weed and pest infestations should be undertaken to ensure outbreaks are identified and controlled early. Suitable control of the Nodding Thistle infestation should be undertaken as soon as possible (raised as Observation of Concern No.2).



Figure 4 Northern tree screen area showing evidence of Nodding Thistle infestation (shown in red circles)

## 3.4. Reporting

### 3.4.1. Annual rehabilitation reporting

Condition 3 of M(MO)L6 required the lease holder to prepare an annual rehabilitation report which provides a detailed review of the progress of rehabilitation against the criteria in the approved MOP.

Austral Bricks submitted the '2021 Annual Review for the New Berrima Clay/Shale Quarry' on 28 February 2022. Section 8 – Rehabilitation of the Annual Review indicated that no final rehabilitation has been undertaken on the site. However, the report noted that temporary rehabilitation works including stabilisation and revegetation of visual amenity bunds, surplus overburden stockpile, road verges and dam embankments were completed during the period.

### 3.4.2. Compliance and environmental incident reporting

Condition 4 of M(MO)L6 requires the lease holder to notify the department immediately after becoming aware of any breaches of the Mining Act or Regulations including conditions of title or any breaches of other environment protection legislation.

During interviews, Austral Bricks advised that no known breaches of Mining Act requirements or other environmental protection legislation had occurred during the preceding 12 months. There was nothing observed during the site inspection that would indicate any environmental incidents have occurred.

## 4. Compliance management

### 4.1. Identifying compliance obligations

Identifying compliance obligations is a critical step in the development of an effective compliance management system. Compliance obligations for a mine can include:

- regulatory requirements (e.g. environmental legislation)
- conditions imposed on the grant, renewal, or transfer of mining leases
- specific commitments made by the organisation (e.g. MOP commitments)

Once identified, compliance obligations should be reviewed periodically to identify any changes in those obligations (e.g. changes in legislation).

### 4.2. Inspections, monitoring and evaluation

An effective inspection, monitoring and evaluation process is required to:

- monitor the implementation of the risk controls
- evaluate the effectiveness of those controls based on an assessment of inspection and monitoring data
- implement an adaptive management approach if monitoring shows that controls may be ineffective.

Austral Bricks demonstrated a good understanding of its compliance obligations with respect to M(MO)L6. Monthly Work Reports are used by key personnel to keep track of compliance obligations and relevant work completed. Austral Bricks also uses the DPE Annual Review and DRNSW Annual Rehabilitation Report process to assess performance against environmental and rehabilitation commitments.

### 4.3. Record keeping

Sections 163D and 163E of the *Mining Act 1992* relate to the creation and maintenance of records required under the Act, the regulations, or a condition of title. Records must be kept in a legible form for production to any inspector and must be maintained for a period of four years after the expiry or cancellation of the title.

Generally, records were available to demonstrate compliance with most requirements, including MOP requirements. Records requested during the audit were made available for the audit team to review. Examples of records sighted during the audit included:

- Austral Monthly Work Reports
- Workplace Environmental Inspection Form
- Rehabilitation Contractor Tax Invoice
- Rehabilitation Contractor Work Report
- Equipment Delivery Checklist Form

Rehabilitation records were available for sighting by the audit team. However, it was noted that rehabilitation records maintained by Austral were in a variety of formats and are located on various systems and devices. For example, hard copy tax invoices are in files, Monthly Reports are located on personal computers or local drives etc.

It is recommended that inspection records, rehabilitation activity records and monitoring records be retained in one easily accessible location (noted as Suggestion for Improvement No.1). Further detail on acceptable record keeping is available in the department's Guideline: Rehabilitation Records at: <https://www.resourcesregulator.nsw.gov.au/sites/default/files/documents/guideline-rehabilitation-records.pdf>

## 5. Audit conclusions

From the evidence reviewed during the audit, and observations made on site during the audit site inspections, it was concluded that Austral Bricks has achieved a high level of compliance with the requirements of the mining lease and MOP in relation to the operations of New Berrima Quarry.

It was noted that ore extraction operations were yet to commence and activities onsite have primarily consisted of establishment of critical infrastructure to support the open cut mining operations. As such, there was little to no opportunity to conduct final rehabilitation at this stage of the mine life. However, temporary stabilisation and revegetation activities across the site, particularly on visual amenity bunds, were observed to be of leading industry practice standard and Austral Bricks is to be commended on this work.

Two observations of concern and one suggestion for improvement were noted by the auditor as summarised in Table 4 and Table 5. Regulatory actions may be undertaken in relation to the observations of concern identified during the audit.

**Table 4 Summary of observations of concern**

OBSERVATION OF CONCERN NO.	DESCRIPTION OF ISSUE	RECOMMENDATION
1	Section 2.3.8 of the MOP identified that a selection of species, namely Eucalyptus dives (Broadleaf Peppermint), E. mannifera (Brittle Gum), E. radiata subsp. Radiata (Narrow-leaved Peppermint) and selected wattles would be planted within the south-eastern tree screen. The rehabilitation contractor substituted some of these species for others due to the very wet soil conditions at the time.	The substitution of species for better performance in specific site conditions is acknowledged. However, it is important to ensure compliance with commitments made in approval documents and where this is not possible, to apply for a satisfactory amendment or modification to the relevant approvals.
2	The site inspection identified a moderate infestation of Nodding Thistle ( <i>Carduus nutans</i> subsp. nutans). This weed is highly invasive and prohibits livestock grazing if left untreated.	Monthly inspections for weed and pest infestations should be undertaken to ensure outbreaks are identified and controlled early. Suitable control of the Nodding Thistle infestation should be undertaken as soon as possible.

**Table 5 Summary of suggestions for improvement**

SUGGESTIONS FOR IMPROVEMENT	DESCRIPTION OF ISSUE
1	Site rehabilitation records are currently located in various formats and in various locations. It is recommended that Inspection records, Rehabilitation activity records and monitoring records be retained in one easily accessible location. Further detail on acceptable record keeping is available in the Department’s Guideline: Rehabilitation Records at: <a href="https://www.resourcesregulator.nsw.gov.au/sites/default/files/documents/guideline-rehabilitation-records.pdf">https://www.resourcesregulator.nsw.gov.au/sites/default/files/documents/guideline-rehabilitation-records.pdf</a>