

# **2018 Annual Review**

# for the

# New Berrima Clay/Shale Quarry

Project Approval PA08\_0212 Mining (Mineral Owner) Lease 6

Prepared in Conjunction with:

R.W. CORKERY & CO. PTY LIMITED

February 2019

This page has intentionally been left blank



# **2018 Annual Review**

# for the

# New Berrima Clay/Shale Quarry

#### Prepared by:

The Austral Brick Company Pty Limited ABN: 52 000 005 550 Wallgrove Road, HORSLEY PARK NSW 2164 PO Box 6550 WETHERILL PARK NSW 1851 Telephone: (02) 9830 7706 Email: compliance-ab@australbricks.com.au

#### Prepared in Conjunction with:

R.W. Corkery & Co. Pty Limited Geological & Environmental Consultants ABN: 31 002 033 712

Brooklyn Office: 1st Floor, 12 Dangar Road PO Box 239 BROOKLYN NSW 2083

Telephone: (02) 9985 8511

Email: brooklyn@rwcorkery.com

Orange Office: 62 Hill Street ORANGE NSW 2800

Telephone: (02) 6362 5411

Email: orange@rwcorkery.com

Brisbane Office: Suite 5, Building 3 Pine Rivers Office Park 205 Leitchs Road BRENDALE QLD 4500

Telephone: (07) 3205 5400 Email: brisbane@rwcorkery.com

Ref No. 744/27

February 2019



#### This Copyright is included for the protection of this document

# COPYRIGHT

© R.W. Corkery & Co. Pty Limited 2019

and

#### © The Austral Brick Company Pty Limited 2019

All intellectual property and copyright reserved.

Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the Copyright Act, 1968, no part of this report may be reproduced, transmitted, stored in a retrieval system or adapted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without written permission. Enquiries should be addressed to R.W. Corkery & Co. Pty Limited.



Name of Operation         New Berrima Clay/Shale Quarry		
Name of Operator	The Austral Brick Company Pty Limited	
Project Approval # 08_0212		
Name of holder of Project Approval	The Austral Brick Company Pty Limited	
Mining Lease #	M(MO)L6	
Name of holder of mining lease	The Austral Brick Company Pty Limited	
Water licence #	Not Required	
Name of holder of water licence	Not Required	
MOP/RMP start date	19 September 2018	
MOP/RMP end date	31 August 2025	
Annual Review start date 1 January 2018		
Annual Review end date 31 December 2018		
I, Peter Young-Whitford, certify that to the be accurate record of the compliance status of period 1 January 2018 to 31 December 2018 a behalf of The Austral Brick Company Pty Lim	st of my knowledge this audit report is a true and The Austral Brick Company Pty Limited for the and that I am authorised to make this statement of	
I, Peter Young-Whitford, certify that to the be accurate record of the compliance status of period 1 January 2018 to 31 December 2018 a behalf of The Austral Brick Company Pty Lim <i>Note.</i>	st of my knowledge this audit report is a true and The Austral Brick Company Pty Limited for the and that I am authorised to make this statement of ited.	
<ul> <li>I, Peter Young-Whitford, certify that to the be accurate record of the compliance status of a period 1 January 2018 to 31 December 2018 a behalf of The Austral Brick Company Pty Lime Note.</li> <li>a) The Annual Review is an 'environmental audit' for the p Assessment Act 1979. Section 122E provides that a period information for inclusion in) an audit report produced to</li> </ul>	st of my knowledge this audit report is a true and The Austral Brick Company Pty Limited for the and that I am authorised to make this statement of	
<ul> <li>I, Peter Young-Whitford, certify that to the be accurate record of the compliance status of Tperiod 1 January 2018 to 31 December 2018 a behalf of The Austral Brick Company Pty Lime Note.</li> <li>a) The Annual Review is an 'environmental audit' for the provides that a perior formation for inclusion in) an audit report produced to knows that the information is false or misleading in a microporation, \$1 million and for an individual, \$250,000.</li> <li>b) The Crimes Act 1900 contains other offences relating to defraud by false or misleading statement – maximum p</li> </ul>	st of my knowledge this audit report is a true and The Austral Brick Company Pty Limited for the and that I am authorised to make this statement of ited. urposes of section 122B(2) of the Environmental Planning and rson must not include false or misleading information (or provide the Minister in connection with an environmental audit if the person	
<ul> <li>I, Peter Young-Whitford, certify that to the be accurate record of the compliance status of Tperiod 1 January 2018 to 31 December 2018 a behalf of The Austral Brick Company Pty Lime Note.</li> <li>a) The Annual Review is an 'environmental audit' for the provides that a perior formation for inclusion in) an audit report produced to knows that the information is false or misleading in a microporation, \$1 million and for an individual, \$250,000.</li> <li>b) The Crimes Act 1900 contains other offences relating to defraud by false or misleading statement – maximum p</li> </ul>	st of my knowledge this audit report is a true and The Austral Brick Company Pty Limited for the and that I am authorised to make this statement of ited. urposes of section 122B(2) of the Environmental Planning and rson must not include false or misleading information (or provide the Minister in connection with an environmental audit if the person aterial respect. The maximum penalty is, in the case of a of false and misleading information: Section 192G (Intention to enalty 5 years imprisonment); Section 307A, 307B and 307C (false	
<ul> <li>I, Peter Young-Whitford, certify that to the be accurate record of the compliance status of period 1 January 2018 to 31 December 2018 a behalf of The Austral Brick Company Pty Lime Note.</li> <li>a) The Annual Review is an 'environmental audit' for the provides that a perior formation for inclusion in) an audit report produced to knows that the information is false or misleading in a micorporation, \$1 million and for an individual, \$250,000.</li> <li>b) The Crimes Act 1900 contains other offences relating to defraud by false or misleading statement – maximum p or misleading application/information/documents – max</li> </ul>	st of my knowledge this audit report is a true and The Austral Brick Company Pty Limited for the and that I am authorised to make this statement of ited. urposes of section 122B(2) of the Environmental Planning and rson must not include false or misleading information (or provide the Minister in connection with an environmental audit if the person aterial respect. The maximum penalty is, in the case of a of false and misleading information: Section 192G (Intention to enalty 5 years imprisonment); Section 307A, 307B and 307C (false imum penalty 2 years imprisonment or \$22,000, or both).	
<ul> <li>I, Peter Young-Whitford, certify that to the be accurate record of the compliance status of Tperiod 1 January 2018 to 31 December 2018 a behalf of The Austral Brick Company Pty Lime Note.</li> <li>a) The Annual Review is an 'environmental audit' for the p Assessment Act 1979. Section 122E provides that a perinformation for inclusion in) an audit report produced to knows that the information is false or misleading in a m corporation, \$1 million and for an individual, \$250,000.</li> <li>b) The Crimes Act 1900 contains other offences relating to defraud by false or misleading application/information/documents – max</li> <li>Name of authorised reporting officer</li> </ul>	st of my knowledge this audit report is a true and The Austral Brick Company Pty Limited for the and that I am authorised to make this statement of ited. urposes of section 122B(2) of the Environmental Planning and rson must not include false or misleading information (or provide the Minister in connection with an environmental audit if the person aterial respect. The maximum penalty is, in the case of a of false and misleading information: Section 192G (Intention to enalty 5 years imprisonment); Section 307A, 307B and 307C (false imum penalty 2 years imprisonment or \$22,000, or both). Peter Young-Whitford	

# Title Block



This page has intentionally been left blank



# CONTENTS

#### Page

1.	STAT	TEMENT OF COMPLIANCE
2.	INTR	ODUCTION2
	2.1	OVERVIEW OF OPERATIONS
	2.2	SCOPE AND FORMAT
	2.3	KEY PERSONNEL CONTACT DETAILS
3.	APPI	ROVALS6
4.	OPE	RATIONS SUMMARY7
	4.1	EXTRACTION OPERATIONS
	4.2	OTHER OPERATIONS
	4.3	NEXT REPORTING PERIOD10
5.	ACTI	ONS REQUIRED FROM PREVIOUS ANNUAL REVIEW13
6.	ENVI	RONMENTAL PERFORMANCE14
	6.1	INTRODUCTION14
	6.2	METEOROLOGICAL MONITORING15
	6.3	AIR QUALITY
	6.4	ABORIGINAL HERITAGE
	6.5	WASTE MANAGEMENT
7.	WAT	ER MANAGEMENT
	7.1	WATER TAKE
	7.2	SURFACE WATER
	7.3	GROUNDWATER
8.	REH	ABILITATION
	8.1	REHABILITATION PERFORMANCE DURING THE REPORTING PERIOD
	8.2	ACTIONS FOR THE NEXT REPORTING PERIOD
9.	СОМ	MUNITY
	9.1	COMMUNITY COMPLAINTS
	9.2	COMMUNITY LIAISON
10.	INDE	PENDENT AUDIT
11.		DENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD
12.	ACTI	VITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD



# CONTENTS

#### Page

#### APPENDICES

Appendix 1	Compliance Review of Project Approval 08_0212 A	\1-1
Appendix 2	Compliance Review of Mining (Mineral Owners) Lease 6 A	2-1
Appendix 3	Meteorological Data Recorded during 2018 A	\3-1

#### FIGURES

Figure 1	Locality Plan	3
Figure 2	Approved Layout – New Berrima Clay/Shale Quarry	4
Figure 3	Surrounding Land Ownership	5
Figure 4	Activities During the 2018 Reporting Period	8
Figure 5	Planned Activities - 2019	12
Figure 6	Environmental Monitoring Locations	16
Figure 7	Monthly Wind Roses 2018	17
Figure 8	Deposited Dust Monitoring Results	19
Figure 9	Water Quality Monitoring Results – Key Parameters	23

#### TABLES

Table 1	Statement of Compliance	1
Table 2	New Berrima Clay/Shale Quarry – Approvals and Licences	6
Table 3	2018 Production Summary – tonnes	7
Table 4	Relevant Environmental Performance Aspects	14
Table 5	Summary of 2018 Temperature and Rainfall Records (On-site Station)	15
Table 6	Deposited Dust Monitoring Results	19
Table 7	Summary of Water Quality Testing – All Data	22
Table 8	Summary of Areas Disturbed and Rehabilitation	25
Table 9	Independent Audit Action Response Plan Status	27

#### PLATES

Plate 1:	View West of Soil Stockpile within Surplus Overburden Stockpile Area – February 2019	.9
Plate 2:	View West of Soil Stockpile within Central Visibility Barrier Area – February 2019	-
Plate 3:	Fencing to Restrict Access to Area of High Archaeological Constraint	. 9



# 1. STATEMENT OF COMPLIANCE

The compliance status of relevant approvals was reviewed for the reporting period and is summarised in **Table 1**. It was determined that there were no non-compliances during the reporting period.

Table 1Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	Yes / No
Project Approval 08_0212	Yes
Mining (Mineral Owners) Lease 6	Yes



# 2. INTRODUCTION

#### 2.1 OVERVIEW OF OPERATIONS

The New Berrima Clay/Shale Quarry is located approximately 1.5km east of New Berrima in the Southern Highlands region of New South Wales (see **Figure 1**). Project Approval 08\_0212 was granted on 6 July 2012 and modified on 26 November 2015 and 6 July 2017. The approved layout of the Site is shown in **Figure 2** with surrounding land ownership and residences shown in **Figure 3**. Whilst Project Approval 08\_0212 has been physically commenced, to date, construction and operational activities have not yet commenced.

#### 2.2 SCOPE AND FORMAT

This Annual Review for the New Berrima Clay/Shale Quarry ("the Quarry") has been compiled by The Austral Brick Company Pty Limited ("Austral") in conjunction with R.W. Corkery & Co. Pty Limited.

This is the third Annual Review submitted for the Quarry and is applicable for the period 1 January to 31 December 2018 ("the reporting period"). The information presented within this Annual Review has been prepared based on information compiled by R.W. Corkery & Co. Pty Limited and provided by Austral.

This Annual Review has been compiled in accordance with *Condition 5(4)* of Project Approval 08\_0212, generally follows the format and content requirements identified in the *Annual Review Guideline* dated October 2015 and includes relevant information as required by the following conditions of Project Approval 08\_0212.

- *Condition 2(15b)*: Production Data.
- *Condition 3(31)*: Waste Management.
- *Condition 5(11a)*: Public Display.

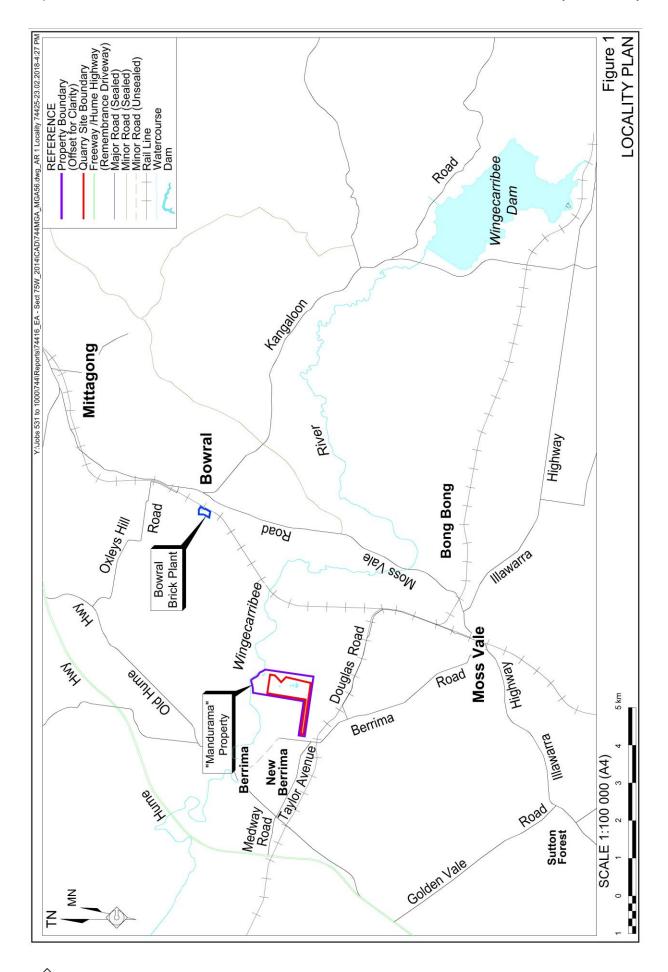
#### 2.3 KEY PERSONNEL CONTACT DETAILS

The key personnel contact names, position and phone numbers are as follows.

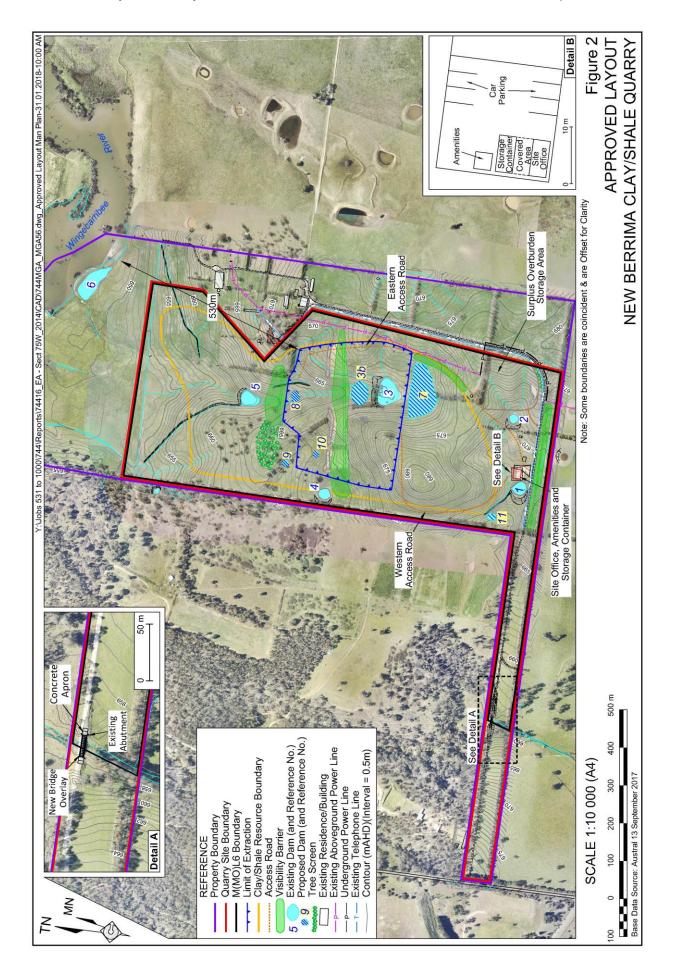
Name	Position	24 Hour Contact
Peter Young-Whitford	Raw Materials and Mining Manager	0412 611 714
Cassandra Steppacher	NSW Environmental Coordinator	0425 341 106



#### 2018 ANNUAL REVIEW Report No. 744/27

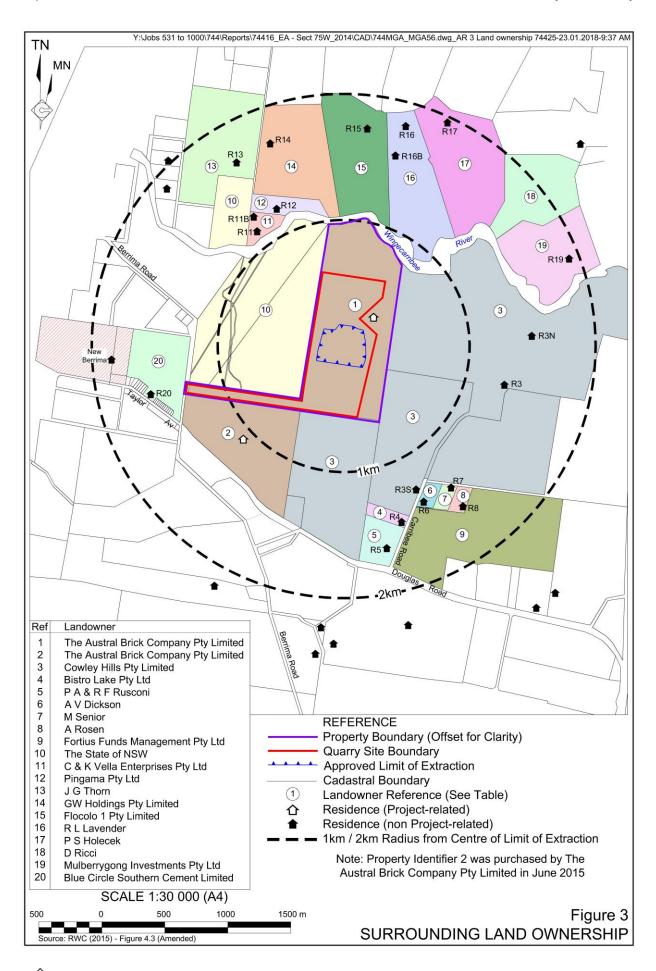


THE AUSTRAL BRICK COMPANY PTY LIMITED New Berrima Clay/Shale Quarry



R.W. CORKERY & CO. PTY. LIMITED

New Berrima Clay/Shale Quarry



## 3. APPROVALS

The Quarry is required to operate in accordance with the approvals and licences listed in **Table 2**.

Consent/Lease/Licence	Issue Date	Expiry Date	Details / Comments
Project Approval 08_0212	6/07/2012	31/12/2045	Issued by the (then) Minister for Planning and Infrastructure and last modified 6 July 2017.
Mining (Mineral Owners) Lease 6	27/06/17	27/06/2038	Granted by the Secretary of the Department of Planning and Environment.
Environment Protection Licence 20377	1/08/2016	Renewed annually	Issued by NSW Environment Protection Authority.

Table 2
New Berrima Clay/Shale Quarry – Approvals and Licences

During the reporting period there were no modifications or variations to these approvals or licences. A variation application for EPL 20377 was lodged in March 2018, however, as at the end of the reporting period the processing of the variation application by EPA remained in progress. The compliance reviews for Project Approval 08\_0212 and M(MO)L6 included in **Appendix 1** and **2** reflect the conditions relevant as at the end of this reporting period. A separate Annual Return also continued to be submitted to the NSW EPA in accordance with the requirements of Environment Protection Licence 20377 and is not further reported in this document.

A Section 138 Road permit, DA 17/1477, was also approved during the reporting period for an upgrade to the intersection of the Quarry access road and Berrima Road to accommodate B-Double vehicles. This permit does not contain any conditions relevant to the ongoing operation of the Quarry.



### 4. OPERATIONS SUMMARY

#### 4.1 EXTRACTION OPERATIONS

No extraction operations were undertaken during the reporting period. Table 3 provides the production summary.

2016 Floutetion Summary – tonnes					
Material	Approved limit (specify source)	Previous reporting period (actual)	This reporting period (actual)	Next reporting period (forecast)	
Waste Rock / Overburden	Not Specified	0	0	0	
ROM <sup>1</sup>	NA	-	-	-	
Coarse Reject <sup>1</sup>	NA	-	-	-	
Fine Reject <sup>1</sup>	NA	-	-	-	
Saleable Product (Extractive Material)	150 000t [PA 08_0212 Condition 2(7)]	0	0	0	
Transported Product	150 000t [PA 08_0212 Condition 2(8)]	0	0	0	
Notes: 1. The Quarry does not generate 'Run of Mine' material, coarse or fine rejects.					

Table 3 2018 Production Summary – tonnes

No soil stripping operations were undertaken, and no soil material was spread. A total of approximately  $700m^3$  of topsoil material is currently stockpiled from physical commencement activities undertaken in 2016. The location of these stockpiles is shown on **Figure 4** and photographs from February 2019 are shown as **Plates 1** and **2**.

#### 4.2 OTHER OPERATIONS

During the reporting period, Austral undertook a range of non-extractive activities. A summary of these activities is provided as follows.

#### **Aboriginal Heritage Training and Management**

Aboriginal heritage induction training of four key Austral personnel was undertaken in accordance with the Aboriginal Heritage Management Plan on 28 November 2018. The training was completed by a Senior Archaeologist from Biosis and aims to improve Aboriginal cultural awareness and the delivery of Aboriginal cultural information and requirements during site inductions.

In addition to the management measures outlined within the Aboriginal Heritage Management Plan, rural fencing was installed during October 2018 to minimise the risk of inadvertent access to the areas identified as being of high archaeological constraint (see **Figure 4** and **Plate 3**).



R.W. CORKERY & CO. PTY. LIMITED

THE AUSTRAL BRICK COMPANY PTY LIMITED New Berrima Clay/Shale Quarry

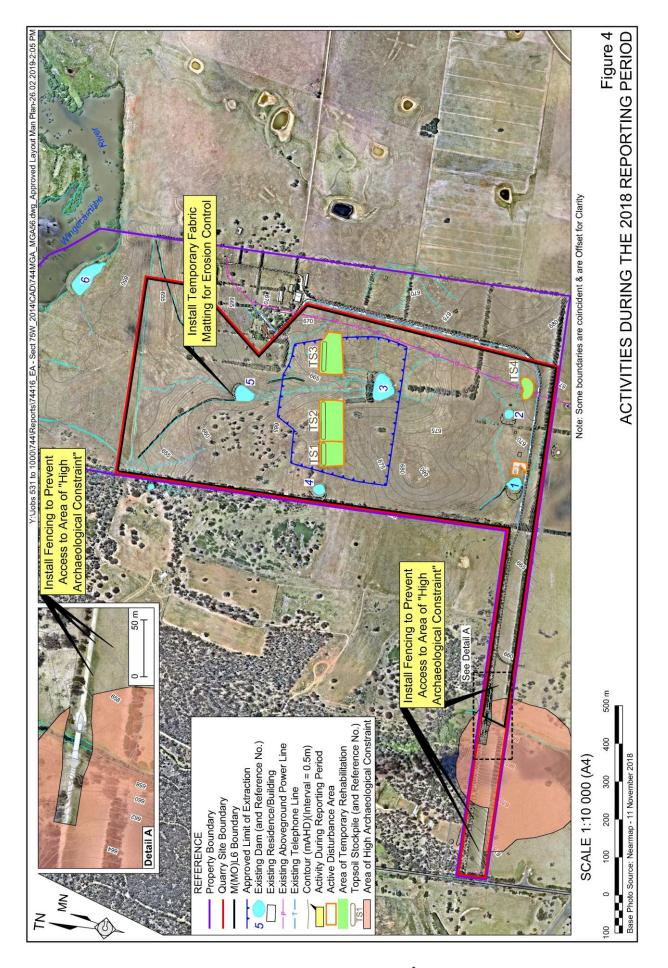




Plate 1: View West of Soil Stockpile within Surplus Overburden Stockpile Area – February 2019 Ref: 744\_DSC0333\_20190214

Plate 2: View West of Soil Stockpile within Central Visibility Barrier Area – February 2019 Ref: 744\_DSC0368\_20190214





Plate 3: Fencing to Restrict Access to Area of High Archaeological Constraint Source: Austral Bricks



#### Management Plan Review and Update

As a result of the Modification 2 Application, Independent Audit and 2016 Annual Review, all management plans were reviewed and updated during 2017. Following review and incorporation of agency comments, all management plans excluding the Water Management Plan were subsequently approved by DPE on 28 September 2018. As at the time of this report, feedback from the Natural Resource Access Regulator (NRAR) was still being sought in relation to the updated Water Management Plan.

A further administrative update of the Aboriginal Heritage Management Plan was also approved by DPE on 9 November 2018.

In addition to the management plans, a Mining Operations Plan was also prepared in accordance with the requirements of M(MO)L6 and approved by the Resources Regulator on 19 September 2018.

#### **Overhead Powerline**

During the reporting period plans for the rerouting of the overhead powerlines above the Surplus Overburden Stockpile areas were submitted to Endeavour Energy for approval. No physical works have been undertaken to date with approval and rerouting expected during the next reporting period.

#### **Environmental Monitoring and Community Liaison**

Environmental monitoring continued throughout the reporting period including meteorological, deposited dust and surface water quality monitoring. Results of this monitoring are summarised in Sections 6 and 7.

The community consultative committee also continued to meet during the reporting period. Details of these meetings are summarised in Section 9.

#### 4.3 NEXT REPORTING PERIOD

Activities planned to be undertaken during the next reporting period are summarised as follows and displayed on **Figure 5**.

#### Land Preparation and Construction

The following construction / land preparation activities are planned to commence in the next reporting period.

- Construction and upgrade of water management structures (dams and diversion drains) in accordance with the updated Water Management Plan.
- Construction of the northern, central and southern visibility barriers utilising overburden recovered from the extraction area.
- Construction of the western access road.
- Rerouting of the overhead powerlines above the Surplus Overburden Stockpile area.



#### Extraction

Clay/shale extraction operations are not expected to commence for several years pending production requirements at the Bowral Brick Plant. However, overburden will be recovered in order to construct the visibility barriers.

#### Rehabilitation

No areas will become available for final rehabilitation during the next reporting period. However, temporary revegetation of the visibility barriers, including establishment of a stabilising pasture cover and planting of the top and northern slopes of the central and northern barriers and the southern slope of the southern barrier with tubestock of native shrubs and trees. Planting of the tree screen west of the Northern Visibility Barrier and southeastern periphery of the Surplus Overburden Stockpile Area will be undertaken in accordance with the measures detailed in the approved Landscape Management Plan and Water Management Plan. General property maintenance, including weed control and slashing, will also be undertaken as required.

#### **Environmental Monitoring and Community Liaison**

The following monitoring will be conducted during the next reporting period.

- Meteorological conditions. Dust deposition.
- Surface water quality. Noise levels.
- General inspections for water management and maintenance.

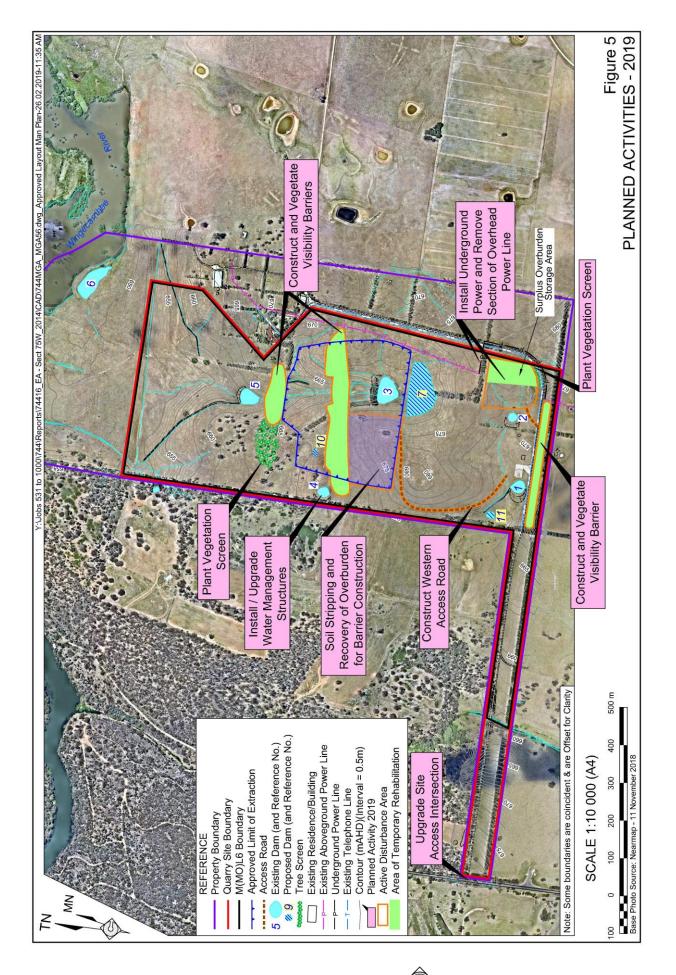
The community consultative committee will also continue to meet during the next reporting period at intervals determined by the committee.

#### **Management Plans**

It is expected that the updated Water Management Plan will be approval of DPE following receipt of any feedback from NRAR.



THE AUSTRAL BRICK COMPANY PTY LIMITED New Berrima Clay/Shale Quarry



**R.W. CORKERY & CO. PTY. LIMITED** 

### 5. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

The 2017 Annual Review was submitted to DPE and Resources Regulator on 28 February 2018 in accordance with the requirements of PA 08\_0212 and M(MO)L6. Copies were also provided to Wingecarribee Shire Council, Water NSW and the (then) Lands and Water division within the Department of Primary Industries.

Excluding an acknowledgement of receipt from the Resources Regulator on 22 March 2018, no response was received from DPE or Resources Regulator. Whilst not a requirement, Water NSW confirmed on 26 March 2018 that they had no comments.



### 6. ENVIRONMENTAL PERFORMANCE

#### 6.1 INTRODUCTION

A summary of environmental performance for the principal environmental aspects is provided in **Table 4**. Further detail regarding specific environmental aspects is also provided in the following subsections. Environmental performance relating to water is discussed in Section 7.

Aspect	Approval criteria/ (EIS prediction)	Performance during the reporting period	Trend/key management implications	Implemented/proposed management actions
Noise (Barrier construction)	43dB(A) during the day at receiver R2.	No barrier construction activities were undertaken during the reporting	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed.
	38dB(A) at all other receivers.	period. No complaints and no issues raised through the CCC.		Noise monitoring planned during the construction of the visibility barriers.
Noise (operations)	38dB(A) at all receivers.	No complaints and no issues raised through the	No trends identifiable. Currently no management	No specific management measures implemented
		CCC.	implications.	or currently proposed. Operational noise monitoring planned following commencement of extraction activities.
Blasting	Blasting is not an approved activity.	No blasting undertaken.	Nil.	Nil.
Air Quality	PM <sub>10</sub> 24hr = 50μg/m <sup>3</sup> PM <sub>10</sub> Annual =	No exceedances of annual average deposited dust and no complaints or	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed.
	TSP Annual = $90\mu g/m^3$ Dep Dust Annual = $4g/m^2/month$	issues raised through the CCC.		Monthly deposited dust monitoring will continue in accordance with the Air Quality Management Plan.
Biodiversity	No significant impacts predicted.	No operational activities or activities relating to biodiversity aspects occurred.	No trends identifiable. Currently no management implications.	No specific management measures implemented or currently proposed.
Landscape and Visual	Implement Landscape Management Plan.	No complaints or issues raised through the CCC.	Currently no management implications.	Visibility barriers to be constructed and tree screens planted during next reporting period.
Heritage	Implement Aboriginal Cultural Heritage Management Plan.	Aboriginal heritage training completed by key Austral personnel to improve the delivery of Aboriginal heritage content during inductions. Due diligence fencing of	Currently no management implications.	Induction of all employees by Austral personnel trained in accordance with the Aboriginal Heritage Management Plan.
		area of high archaeological constraint to ensure no inadvertent access.		

Table 4Relevant Environmental Performance Aspects



#### 6.2 METEOROLOGICAL MONITORING

Austral installed a meteorological station (see **Figure 6**), in September 2016. The meteorological station complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

A summary of the temperature and rainfall data for the reporting period is provided in **Table 5** whilst **Figure 7** presents the monthly wind roses. Daily rainfall records for the reporting period are presented in **Appendix 3**.

	Т	emperature (	Rainfall (mm)			
Month	Average	Maximum	Minimum	Rannan (mm)		
January	20.5	39.8	6.9	55.2		
February	18.5	35.4	7.0	98.0		
March	16.8	32.9	3.1	19.8		
April	16.0	30.2	3.2	20.2		
Мау	10.2	23.4	-1.2	16.0		
June	7.1	14.9	-3.6	53.0		
July	7.2	19.0	-4.5	4.6		
August	7.5	19.7	-4.6	17.0		
September	10.2	25.6	-2.7	10.4		
October	13.3	29.2	2.8	57.8		
November	15.5	32.0	4.8	119.0		
December	19.3	35.3	9.2	71.0		
Total	-	-	-	542.0		

 Table 5

 Summary of 2018 Temperature and Rainfall Records (On-site Station)

A total of 542mm of rain was recorded from 1 January 2018 to 31 December 2018, well below the long-term (148year) average rainfall of 958.8mm recorded at the nearby BoM Moss Vale (Hoskins St) Station (No. 068045). Notwithstanding, three high intensity rain events occurred during the reporting period, including 69.8mm on 25 February, 83.8mm on 28 November and 54mm on 13 December 2018 (see **Appendix 3** and **Figure 8**).

#### 6.3 AIR QUALITY

#### **Environmental Management**

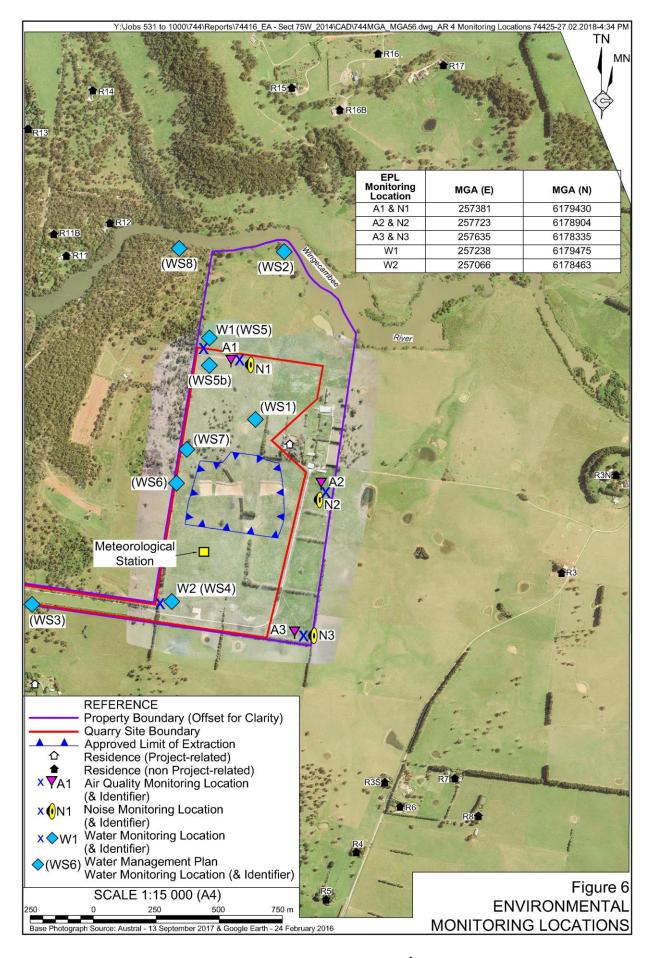
As no earthmoving or extraction activities occurred during the reporting period, no specific dust mitigation measures were required.

#### **Environmental Performance**

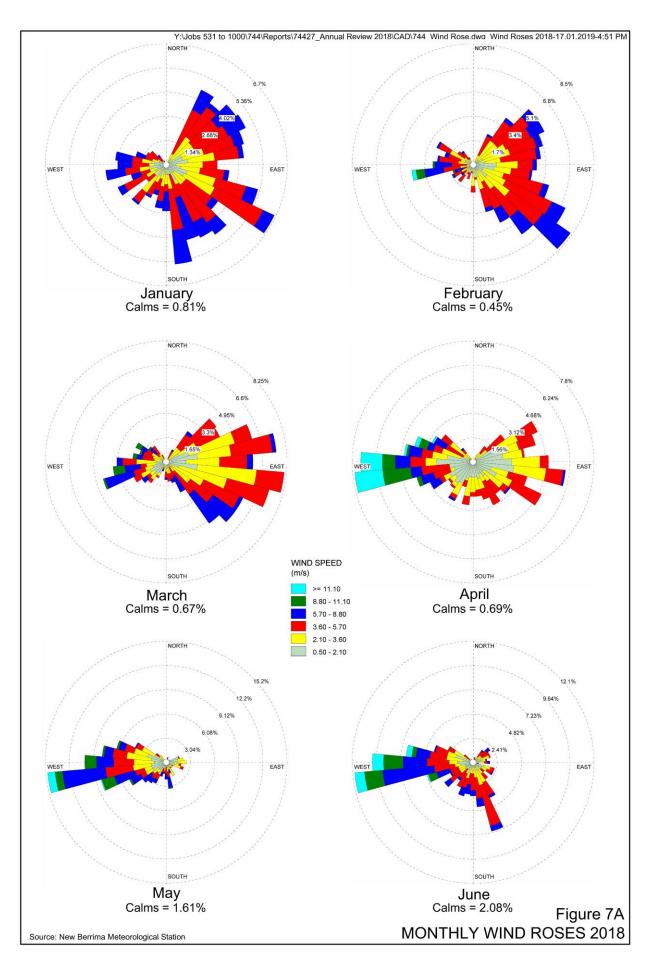
Austral continued to collect air quality samples from three deposited dust gauges, at Sites A1, A2 and A3 (see **Figure 6**) throughout the reporting period. The results of the dust monitoring are summarised in **Table 6** and presented graphically in **Figure 8**. The monthly insoluble solids over the period ranged from  $0.3g/m^2/month$  to  $3.8g/m^2/month$ . The highest monthly insoluble solids of  $3.8g/m^2/month$  was recorded at Site A3 during October 2018.



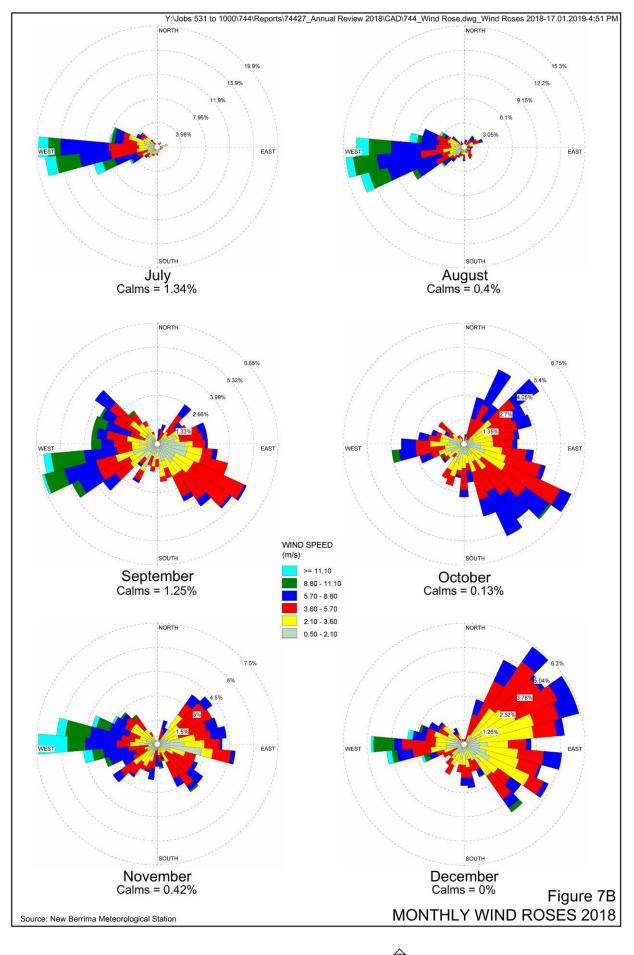
THE AUSTRAL BRICK COMPANY PTY LIMITED New Berrima Clay/Shale Quarry

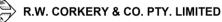






#### THE AUSTRAL BRICK COMPANY PTY LIMITED New Berrima Clay/Shale Quarry

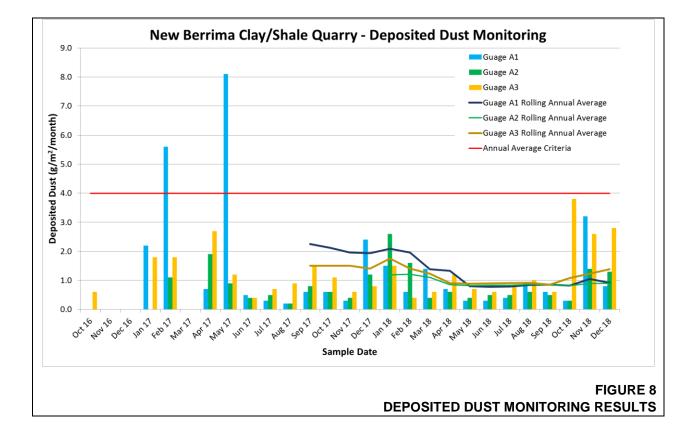




			-			-							
			Monthly <sup>1</sup> Dust Deposition Rate (g/m <sup>2</sup> /month)										
		A1				A2			A3				
SAMPL	SAMPLING PERIOD			Rolling Annual Average	-	Insoluble	Rolling Annual Average	Ash	Insoluble	Rolling Annual Average	Ash		
29/12/17	to	01/02/18	1.5	2.1	0.9	2.6	1.2	1.5	1.5	1.8	0.9		
01/02/18	to	28/02/18	0.6	2.0	0.3	1.6	1.2	1.0	0.4	1.4	0.3		
28/02/18	to	31/03/18	1.4	1.4	0.6	0.4	1.1	0.3	0.6	1.2	0.4		
31/03/18	to	01/05/18	0.7	1.3	0.7	0.6	0.9	0.5	1.2	0.9	0.7		
01/05/18	to	30/05/18	0.3	0.8	0.2	0.4	0.8	0.3	0.7	0.9	0.5		
30/05/18	to	29/06/18	0.3	0.8	0.1	0.5	0.8	0.3	0.6	0.9	0.4		
29/06/18	to	31/07/18	0.4	0.8	0.3	0.5	0.8	0.4	0.8	0.9	0.5		
01/08/18	to	31/08/18	0.9	0.8	0.7	0.6	0.9	0.5	1.0	0.9	0.7		
01/09/18	to	02/10/18	0.6	0.8	0.3	0.5	0.8	0.3	0.6	0.9	0.5		
03/10/18	to	03/11/18	0.3	0.8	0.3	0.3	0.8	0.3	3.8	1.1	3.3		
02/11/18	to	30/11/18	3.2	1.0	2.1	1.4	0.9	1.0	2.6	1.2	2.1		
01/12/18	to	29/12/18	0.8	0.9	0.6	1.3	0.9	0.9	2.8	1.4	2.2		

 Table 6

 Deposited Dust Monitoring Results



The rolling annual average monthly deposition rates for the reporting period were between  $0.8g/m^2/month$  and  $2.1g/m^2/month$ , which is significantly below the criteria of  $4g/m^2/month$ , indicating good air quality with respect to dust deposition. Further data collection is required before any trends can be established.

#### **Reportable Incidents and Further Improvements**

No complaints were received and no reportable incidents relating to air pollution occurred during the reporting period. No further improvements relating to air pollution are currently planned or considered necessary. However, with the planned commencement of earthmoving activities, management controls during the next reporting period will be implemented consistent with the approved Air Quality Management Plan.

#### 6.4 ABORIGINAL HERITAGE

#### **Environmental Management**

As discussed in Section 4.2, during the reporting period four key Austral personnel undertook Aboriginal heritage induction training in accordance with the Aboriginal Heritage Management Plan. The training was completed on 28 November 2018 by a Senior Archaeologist from Biosis. This training will assist in improving Aboriginal cultural awareness and the delivery of Aboriginal cultural information and requirements during site inductions.

Whilst not a commitment, in addition to the management measures outlined within the Aboriginal Heritage Management Plan, Austral installed rural fencing during October 2018 to minimise the risk of inadvertent access to the areas identified as being of high archaeological constraint (see **Figure 4** and **Plate 3**).

#### **Environmental Performance, Reportable Incidents and Further Improvements**

No Aboriginal heritage sites were identified during the reporting period and no further improvements are currently deemed necessary. No reportable incidents occurred during the reporting period.

#### 6.5 WASTE MANAGEMENT

All lunch wastes generated by personnel installing the fencing during October 2018 were removed from site each day with no waste receptacles required. No additional waste reduction or management measures were required during the reporting period and no specific improvements are planned for the next reporting period.

## 7. WATER MANAGEMENT

#### 7.1 WATER TAKE

During the reporting period, no water was accessed or obtained for the purpose of facilitating Quarry operations. As outlined within the Water Management Plan, the existing and planned water storages on site will either be exempt from the harvestable right dam capacity (being for pollution control purposes) or within the harvestable right dam capacity for the property. As a result, water licencing is not required. Notwithstanding, the volume of water utilised for Quarry operations will be reported within the respective AEMRs.

It is noted that Water Supply Works and Water Use Approval 10CA102968 and associated Water Access Licence 25683 issued on 1 July 2011 for accessing water from the Wingecarribee River, are used solely for irrigation purposes within the Mandurama property. No water was accessed under this licence for Quarry purposes.

#### 7.2 SURFACE WATER

#### **Environmental Management**

As earthmoving and extraction activities did not occur during the reporting period, the principal management measure involved the maintenance of the existing farm dams. As the soil stockpiles created in 2016 have stabilised and no further soil exposing activities occurred during the reporting period.

Whilst the site was not operational, Austral undertook site inspections following significant rainfall events. No erosion or sedimentation issues were noted except for minor scour on the wall of an existing farm dam (Dam 5) following a substantial rain event on 13 December 2018. This was repaired using temporary fabric matting installed by Tracks Plant Hire. A stabilised spillway will be installed as part of the construction of the Quarry water management system which includes upgrade of existing farm dams for use as sediment basins.

#### **Environmental Performance**

Water quality monitoring was carried out in accordance with the Water Management Plan at the eight site locations identified in **Figure 6** and summarised below.

- WS2 represents the upstream Wingecarribee River monitoring location and WS8 represents the downstream location,
- WS1, WS5, WS6 and WS7 represent monitoring locations within ephemeral drainage lines within the Quarry Site which ultimately report to the Wingecarribee River. WS5 is also located on the confluence with drainage lines from the property west of the Quarry Site. As a result, future monitoring is proposed to be undertaken at monitoring location WS5b, which is located upstream of this confluence and will not be affected by water runoff from the adjacent property.
- WS4 is located within an ephemeral drainage line in the southern part of the Quarry Site which reports to Stony Creek.
- WS3 is located within Stony Creek upstream of any Quarry activities.

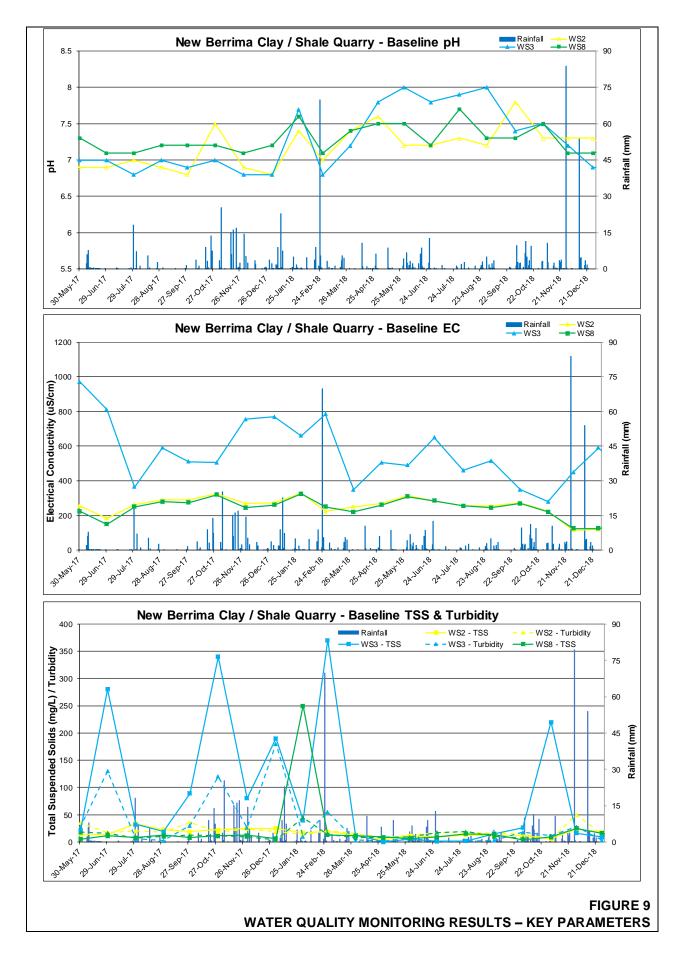
Monthly data has been consistently collected since May 2017 following a single round of monitoring in 2008. A summary of the monitoring data is provided in **Table 7** and key analytes are presented graphically in **Figure 9**. This data has been collected as baseline water quality data. Baseline data will continue to be collected until earthmoving and extractive activities commence in the next reporting period.

		w	S1	w	S2	w	<b>S</b> 3	WS4	w	S5	W	S6	WS7	w	58	
Parameter	Units	Min	Max	Min	Max	Min	Max	Min Max	Min	Max	Min	Max	Min Max	Min	Max	
		Me	dian	Me	dian	Me	dian	Median	Me	dian	Med	lian	Median	Me	dian	
рН		7.7	7.7	6.8	7.8	6.8	8.0		6.4	6.7				7.1	7.7	
		7	.7	7	.2	7	.1		6.6					7	.2	
EC	μS/cm	393	393	102	330	280	970		120	135				125	325	
		3	93	26	0.0	50	7.5		1	28				25	0.0	
Sodium	mg/L	26.9	26.9	10.0	37.0	10.0	80.0	ļ	17.0	18.0				12.0	35.0	
		26	5.9	26	5.0	30	).3		17	7.5				25	5.0	
Potassium	mg/L	27.1	27.1	1.2	8.6	4.5	26.0	ļ	2.1	4.8				2.4	8.6	
			7.1	6	.1	8	.0		3	.5				5	.8	
Calcium	mg/L	13.6	13.6	3.6	19.0	27.0	92.0	ļ	3.9	4.6				5.0	22.0	
			3.6		5.5		5.5			.3					5.0	
Magnesium	mg/L	7.9	7.9	2.3	11.0	6.8	28.0	ļ	2.3	2.8	_			2.7	9.4	
		7	.9	-	.5	11	.0			.6				6	.2	
Chloride	mg/L	60	60	15	48	31	195		35	37				18	50	
-			60		5.0	55				6	_				35.0	
Sulfate	mg/L	2	2	2	82	3	285		0	0				4	81	
			2	27	7.0	27	<i>'</i> .5		< L	OR				25	5.0	
Bicarbonate	mg/L	NT	NT	29	77	17	280	NS	12	21	N	s	NS	30	79	
			IT		).0		5.0			7		0	115	59.0		
Phosphate	mg/L	NT	NT	0.1	0.3	0.1	1.3	ļ	0.1	0.1				0.3	0.3	
			IT	-	.2	-	.4			.1	_			-	.3	
Fluoride	mg/L	NT	NT	0.1	1.7	0.1	0.3	-	0.0	0.0	_			0.1	0.4	
			IT	-	.2	-	.2			.OR	_			_	.2	
Nitrate	mg/L	NT	NT	0.2	4.6	0.1	4.7		0.0	0.0	_			0.2	4.0	
			IT		.8		.3			.OR	_				6	
Total Ammonia	mg/L	NT	NT	0.0	1.6	0.1	3.3		0.3	0.3				0.1	0.2	
	4		IT		.2	-	.3	-		.3	_			-	.2	
TKN	mg/L	7.3	7.3	0.2	3.8	0.4	17.0		1.5	1.7	-			0.1	2.4	
			.3		.3		.3	-		.6	_				.1	
Total Phosphorus	mg/L	0.2	0.2	0.0	0.5	0.0	1.6		0.2	0.8				0.1	0.2	
<b>T</b> 00			.2		.2		.4			.5					.1	
TSS	mg/L	32	32	4	34	2	370	ł	61	290	-			4	250	
- I · I·.		-	32		1.0		5.0			76					1.0	
Turbidity	NTU	NT	NT	5.3	50.0	0.6	180.0	ł	80.0	180.0	-			3.5	55.0	
NS = No Sample			IT = Not Te		3.0	10	0.0		13	0.0				11	1.0	

# Table 7 Summary of Water Quality Testing – All Data

General conclusions that can be drawn from the baseline water quality monitoring to date are as follows.

• Water has not been present at WS4, WS6 and WS7 during any monitoring events and has not been present at WS1 since the August 2008 sampling event. Water has also only been present at WS5 on two occasions. As these are ephemeral drainage lines located in well vegetated catchments, run off events will be limited to short periods following adequate rainfall.





- At WS2 (Wingecarribee River upstream) and WS8 (Wingecarribee River downstream), water has been present during all monitoring events. As would be expected, the results for most parameters are very similar between these locations with near neutral pH ranging from 6.8 to 7.8 and low electrical conductivities ranging from 102µS/cm to 330µS/cm. Whilst generally low, total suspended solids (TSS) and turbidity tends to be slightly higher at WS2 (upstream) ranging from 4mg/L to 34mg/L with a median of 14mg/L and 5.3NTU to 50NTU with a median of 18NTU respectively. At WS8 (downstream) TSS and turbidity has ranged from 4mg/L to 250mg/L with a median of 11mg/L and 3.5NTU to 55NTU with a median of 11NTU respectively.
- At WS3 (Stony Creek upstream), water has also been present during all monitoring events and, similar to Wingecarribee River, has near neutral pH ranging from 6.8 to 8.0. However, the electrical conductivity, TSS and turbidity are higher, ranging from 280µS/cm to 970µS/cm, 2mg/L to 370mg/L and 0.6NTU to 180NTU and is likely reflective of agricultural and industrial activities further upstream.
- At WS5, sufficient water was present in June and July 2017 to collect samples for analysis. The pH was also near neutral at 6.4 and 6.7 and electrical conductivity was low at 120µS/cm and 135µS/cm. Similar to WS3, TSS and turbidity were elevated, at 61mg/L and 290mg/L and 80NTU and 180NTU respectively. Future monitoring is proposed to be undertaken slightly upstream towards the Quarry to remove the influence of surrounding agricultural activities.

#### **Reportable Incidents and Further Improvements**

No reportable incidents or other issues arose during the reporting period.

No specific improvements are planned during the next reporting period other than the upgrade of the existing farm dams and construction of additional dams for use as sediment basins and clean water diversion in accordance with the Water Management Plan.

#### 7.3 GROUNDWATER

Groundwater is not expected to be encountered during operations. Notwithstanding, groundwater monitoring bores are required to be installed in consultation with NRAR prior to extraction reaching a depth of 660m AHD. Extraction operations have not yet commenced.

A groundwater monitoring approach has been prepared by a Senior Associate Hydrogeologist with Jacobs and was submitted to NRAR 28 November 2018. Feedback is still being sought from NRAR prior to installation of the groundwater monitoring bores with the bores planned to be installed during the next reporting period.

There were no reportable incidents and no further improvements are currently planned.



#### REHABILITATION 8.

#### REHABILITATION PERFORMANCE DURING THE REPORTING 8.1 PERIOD

Figure 4 shows the status of the Quarry Site at the end of this reporting period whilst Table 8 provides a summary of the disturbance and rehabilitation areas.

	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
Quarry Area Type	Year 2 (ha)	Year 3 (ha)	Year 4 (ha)
Total Quarry footprint	2.0 <sup>1</sup>	2.0 <sup>1</sup>	9.3 <sup>2</sup>
Total active disturbance	2.0 <sup>1</sup>	2.0 <sup>1</sup>	9.3 <sup>2</sup>
Land being prepared for rehabilitation	0	0	0
Land under active rehabilitation	0	0	0
Completed rehabilitation	0	0	0
Notes: 1. Includes approximately 1.9ha of temporary reh 2. Includes approximately 4.4ha of temporary reh			

Table 8 Summary of Areas Disturbed and Rehabilitation

2. Includes approximately 4.4na of temporary renabilitation (estimated)

Disturbance on site currently consists of the previously created preliminary topsoil stockpiles from soil removal from sections of the central visibility barrier and the office / car parking area. These have been stabilised utilising pasture species and are considered to be temporary rehabilitation. It is noted that, due to dry conditions and grazing pressure from both cattle and subsequently kangaroos, spray grassing of the stockpiles was undertaken on 28 February 2018 to achieve a suitable groundcover density.

#### 8.2 **ACTIONS FOR THE NEXT REPORTING PERIOD**

Rehabilitation planned during the next reporting period will principally depend upon the progress of the visibility barrier construction. It is expected that the barrier construction will be completed during the next reporting period with soil stripped from the footprint of the barriers spread over the barriers and seeded with pasture species for stabilisation. The top and northern slopes of the central and northern barriers and the southern slope of the southern barrier will also be planted with tubestock to aid with the management of visual amenity. Given that the central and northern visibility barriers will be deconstructed, this revegetation will only be temporary.

Additionally, whilst not strictly a rehabilitation activity, planting of the vegetative screens adjacent the northern visibility barrier and around the Surplus Overburden Stockpile is also planned to take place (see Figure 5).

Seeds from the local and neighbouring Shale Woodland Community have been harvested by Wariapendi Native Nursery and are currently being propagated for use in the vegetative screens and rehabilitation of the visibility barriers.



**R.W. CORKERY & CO. PTY. LIMITED** 

### 9. COMMUNITY

#### 9.1 COMMUNITY COMPLAINTS

No complaints were received during the reporting period and no complaints have been received in previous reporting periods.

#### 9.2 COMMUNITY LIAISON

With the exception of continued engagement with the Community Consultative Committee (CCC) and the committee meetings held, no specific community engagement activities or actions occurred during the reporting period.

Three meetings of the CCC were held in 2018, namely on 7 March, 22 August, and 5 December. A copy of the CCC meeting minutes are posted on Austral's website (http://australbricks.com.au/environmental-monitoring-data/) under "New Berrima (NSW)".

These meetings continue to provide the opportunity for the Company to provide updates to the CCC members and for the members to ask questions regarding the status of operations activities. It is noted that community interest in attending the CCC meetings has been limited with no community members attending the 7 March meeting (nil apologies received), one member attending the 22 August meeting and two members (one being a new member) attending the 5 December meeting. Throughout the reporting period members of the CCC have sought additional community members to participate, however, participation has been declined.

No site inspections were undertaken during the reporting period, the last being undertaken during the March 2017 meeting.



# 10. INDEPENDENT AUDIT

The first independent environmental audit of the Quarry was undertaken in August 2017, in accordance with *Schedule 5 Condition 9* of PA 08\_0212. As a result, of the audit, four recommendations were provided. A summary of the audit recommendations, proposed action/response and status update is presented in **Table 9**.

-				
Audit Recommendation	Action / Response	Status Update		
It is recommended that the environmental management plans be reviewed and the management measures and monitoring programs revised if necessary to address	The six environmental management plans and Environmental Management Strategy (EMS) required by PA 08_0212 are to be reviewed in light of the:	Updated environmental management plans (excluding the Water Management Plan) were approved on 28 September 2018. Awaiting feedback from NRAR on the updated Water Management Plan prior to DPE approval.		
implementation matters and accommodate the delayed commencement of works on the Quarry site.	<ul> <li>2017 Independent Environmental Audit;</li> <li>2016 Annual Review and associated DPE comments; and</li> </ul>			
	<ul> <li>Modification 2 of PA 08_0212.</li> </ul>			
It is recommended that the environmental monitoring programs be reviewed and time for commencement and the frequency of monitoring be revised if necessary to meet the delayed commencement of works on the Quarry site, resulting from the timeframe change resulting from the requirement for the bridge works over Stony Creek (Project Approval 08_0212 MOD 2).	Update relevant monitoring program components within the management plans.			
Ensure dust deposition gauge bottle collection and analysis conforms with the monthly monitoring regime in the Air Quality Management Plan section 11.6 and AS 3580.10.1-2003.	Designation of alternative Austral personnel to complete collection and changeover of dust deposition gauge bottles.	Completed Primary collector – Compliance & Environmental Coordinator. Secondary collector – Raw Materials & Mining Manager.		
	Include confirmation of dust bottle collection and receipt of results into monthly checklist. <i>Note: The monthly checklist will also include confirmation of all applicable monitoring as outlined within the updated Management Plans.</i>	Monthly checklist to be finalised prior to commencement of site establishment. Regular internal checks of sample collection continue in the interim.		
Progressive rehabilitation had not been implemented on the topsoil stockpiles in the area of the Central Visibility Barrier at the date of this audit and it is recommended that the implementation of Statement of Commitment occur to address the requirements of Project Approval	The soil stockpiles have naturally regenerated with no further action required however future soil stockpiles will be seeded as they are formed.	No further action currently required (no further soil stripping occurred during the reporting period). Soil stripping and stockpiling is planned during the next reporting period with seeding to be undertaken in accordance with the approved Water Management Plan.		
08_0212 Schedule 3 condition 34 and 35.	Include requirement to seed long-term soil stockpiles in future contractual agreements with earthmoving contractor.	Not yet applicable – no soil stripping undertaken during the reporting period. This will be undertaken prior to commencement of further soil stripping activities.		

Table 9
Independent Audit Action Response Plan Status

The next Independent Environmental Audit is due to be undertaken by August 2020.



### 11. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

During the reporting period there were no:

- reportable incidents or exceedances;
- official cautions, warning letters, penalty notices or prosecution proceedings; or
- non-compliances with PA 08\_0212 or M(MO)L6.



#### 12. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

Activities planned to be completed during the next reporting period are outlined in Section 4.3 and planned improvements in environmental management practices in Sections 6 and 7. In summary, the key activities planned for the next reporting period are as follows.

- Construction and upgrade of water management structures (dams and diversion drains) in accordance with the Water Management Plan.
- Construction of the northern, central and southern visibility barriers.
- Construction of the western access road.
- Temporary rehabilitation of the visibility barriers and completed stockpiles.
- Planting of the visual tree screens.
- Continued environmental monitoring.
- Continued community consultation, principally through the CCC.

No further updates to the management plans are currently expected to be required.

Investigation of automated monitoring and notification systems will also continue to be undertaken, including the possible use of water level sensors and telemetry services, to assist with environmental monitoring and management.



This page has intentionally been left blank



## Appendices

(Total No. of pages including blank pages = 42)

- Appendix 1 Compliance Review of Project Approval 08\_0212 (32 pages)
- Appendix 2 Compliance Review of M(MO)L6 (6 pages)
- Appendix 3 Meteorological Data Recorded during 2018



This page has intentionally been left blank



## **Appendix 1**

## Compliance Review of Project Approval 08\_0212

(Total No. of pages including blank pages = 32)



This page has intentionally been left blank



Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDUL	E 2: ADMINISTRATION CONDITIONS			
OBLIGATI	ON TO MINIMISE HARM TO THE ENVI	RONMENT		
2/1	In addition to meeting the specific performance criteria established under this approval, the Proponent must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Compliant	All reasonable and feasible measures to minimise potential for harm during the reporting period were implemented.	A, D
TERMS O	F APPROVAL			
2/2	<ul> <li>The Proponent must carry out the project generally in accordance with the:</li> <li>a) EA;</li> <li>b) EA (MOD 1); and</li> <li>c) EA (MOD 2).</li> </ul>	Compliant	The works completed during the reporting period are considered to be generally consistent these documents.	D, A
2/2A	<ul> <li>The Proponent must carry out the project in accordance with the Project Plans, statement of commitments, and the conditions of this consent.</li> <li><i>Notes:</i> <ul> <li>a) The Project Plans are shown in Appendix A; and</li> <li>b) The statement of commitments is reproduced in Appendix B.</li> </ul> </li> </ul>	Compliant	The works completed during the reporting period are considered to be generally consistent these conditions and commitments.	D, A
2/3	If there is any inconsistency between the documents in condition 2, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Noted	-	-
2/4	<ul> <li>The Proponent must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:</li> <li>a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and</li> <li>b) the implementation of any actions or measures contained in these documents.</li> </ul>	Compliant	The Management Plans were reviewed and updated in response to the Department's requirements.	D



	-		Pag	e 2 of 29
Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDUL	E 2: ADMINISTRATION CONDITIONS (	Cont'd)		
LIMITS ON	I APPROVAL			
Quarrying	Operations			
2/5	Consent shall lapse 31 December 2045.	Noted	-	-
	Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary or DRG. Consequently, this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those undertakings have been carried out to a satisfactory standard.			
	Material Extraction			
2/6	The Proponent must not carry out any development in the extraction area below a level of 640m AHD.	Not Yet Applicable	Extraction operations yet to commence.	D, A
	Note: This condition does not apply to the construction of any bores approved by DPI – Water or pollution and sediment control structures described in the EA or EA (MOD 1).			
2/7	The Proponent must not extract more than 150 000 tonnes of extractive materials from the site in any calendar year.	Not Yet Applicable	Transportation operations yet to commence.	D, A
Extractive	Material Transport			
2/8	The Proponent must not transport more than:			
	a) 150 000 tonnes of product from the site in any calendar year;	Not Yet Applicable	Transportation operations yet to commence.	D, A
	<li>b) 68 laden trucks from the site in a day; and</li>	Not Yet Applicable	Transportation operations yet to commence.	D, A
	<ul> <li>c) 8 laden trucks from the site in an hour.</li> </ul>	Not Yet Applicable	Transportation operations yet to commence.	D, A
2/9	The Proponent must only transport extractive material on the haul route.	Not Yet Applicable	Transportation operations yet to commence.	D, A
STRUCTU	RAL ADEQUACY			
2/10	The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	Not Yet Applicable	No buildings, structures, etc. which the BCA applies have been constructed to date.	D, A
	assessment of compliance			
D = Docume	ntation Sighted A = Advised b	ov Austral Employ	vee O = Observation	

	-	Quarry for t		e 3 of 29
Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDUL	E 2: ADMINISTRATION CONDITIONS (	Cont'd)	·	•
STRUCTU	RAL ADEQUACY (Cont'd)	•		
	<ul> <li>Notes:</li> <li>Under Part 4A of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.</li> </ul>			
	• Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.			
DEMOLITI	ON	•		
2/11	The Proponent must ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	Not Applicable	No demolition undertaken during the reporting period.	D, A
PROTECT	ION OF PUBLIC INFRASTRUCTURE			
2/12	<ul> <li>The Proponent must:</li> <li>a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and</li> <li>b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the</li> </ul>	Not Applicable	No infrastructure required to be repaired or relocated.	D, A
	project.			
		0		
2/13	<ul> <li>The Proponent must ensure that all plant and equipment used at the site is:</li> <li>a) maintained in a proper and efficient condition; and</li> <li>b) operated in a proper and efficient manner.</li> </ul>	Compliant	No earthmoving plant or equipment were utilised on site during the reporting period.	A
STAGED S	SUBMISSION OF ANY STRATEGY, PLA	N OR PROGR	RAM	
2/14	<ul> <li>With the approval of the Secretary, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.</li> <li>Notes:</li> <li>While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to</li> </ul>	Not Applicable	The Management Plans prepared relate to all stages of operations.	D
	ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and assessment of compliance	by Austral Employ	/ee O = Observation	

	l .	1	Pag	e 4 of 29
Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDUL	E 2: ADMINISTRATION CONDITIONS (	Cont'd)		
STAGED	SUBMISSION OF ANY STRATEGY, PLA	N OR PROG	RAM (Cont'd)	
2/14 (Cont'd)	<ul> <li>If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.</li> </ul>			
PRODUCT		T		
2/15	The Proponent must: a) provide annual quarry production data to DRG using the standard form for that purpose; and	Not Yet Applicable	Extraction operations yet to commence.	D, A
	<li>b) include a copy of this data in the Annual Review (see condition 4 of schedule 5).</li>	Not Yet Applicable	Table 4 of this Annual Review summarises the production data – confirming there has been nil to date.	D
SCHEDUL	E 3: ENVIRONMENTAL PERFORMANC	CE CONDITIO	NS	
IDENTIFIC	ATION OF BOUNDARIES	I	1	
3/1	<ul> <li>Prior to carrying out any development on site under this approval, the</li> <li>Proponent must:</li> <li>a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction; and</li> </ul>	Compliant	Plans submitted on 18 March 2016.	D
	<ul> <li>b) submit a survey plan of these boundaries to the Secretary.</li> </ul>			
3/2	During the project, the Proponent must ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify the limits of extraction.	Compliant	All relevant boundaries are marked with posts at nominated locations. These markers were retained throughout the reporting period.	A, O
NOISE				
Bund Con				1
3/3	The Proponent must construct the Visibility Barriers prior to carrying out any quarrying operations on site under this approval to the satisfaction of the Secretary. This condition does not prohibit the winning of extractive material on site to be used in the construction of the Visibility Barriers.	Not Yet Applicable	Extraction operations (or construction of the Visibility Barriers) have not yet commenced.	D, A, O
	Note: Visibility Barriers are shown on the project layout plans in Figure 1 of APPENDIX A.			
	assessment of compliance ntation Sighted A = Advised I	by Austral Employ	yee O = Observation	

ı

			I			Pag	e 5 of 29
Condition No.	Requirement		Complian	ce Commer	nt		Basis*
SCHEDUL	E 3: ENVIRONMENTAL PER	FORMANC		IONS (Cont'	d)		
NOISE (Co	ont'd)						
Visibility E	Barrier and Stockpile Dimens	sions					
3/3A	Appendix A) must be constructed to meet the dimensions specified in Table 1A, unless the Secretary agrees otherwise.		Not Yet Applicabl	e commen	ced.	iers has not yet	D, A
	Table 1A: Visibility Barriers a	nd Surplus	Overburde	n Stockpile D	imensions		
	Structure Central Barrier ( <i>minimum</i> )	<b>Heig</b> 675 (m		<b>Base Width</b> (m) 30 - 45	<b>Length (m)</b> 420	Surface Area (ha) 1.5	
	Northern Barrier (minimum)	672 (m		35 - 50	160	0.7	
	Southern Barrier (minimum)	4 metres a natural lan		20	350	0.7	
	Overburden Stockpile (maximum)	683 (m	AHD)	-	-	-	
Noise Crit	eria – Bund Construction						
3/4	During the construction of the Barriers, the Proponent must that the noise generated on s not exceed the criteria in Tab Table 1 – Noise Criteria – Bu Receiver R2 All other receivers	ensure ite does le 1.				iers has not yet	D, A
Noise Crit	Notes: • Receiver locations are sh • Noise generated by the p exemptions (including centric)	roject is to	be measure	ed in accorda			and
3/5	Except for the period when th	e Visibility	Not Yet	Barrier co	onstruction or e	extraction	D, A
	Barriers are being constructed Proponent must ensure that t generated by the project does exceed 38dB(a) LAeq (15min residence on privately-owned However, this criterion does r the Proponent has a written a with the relevant landowner to	d, the he noise s not ) at any land. not apply if igreement	Applicabl		is have not yet		2,7
	the criteria, and the Proponer advised the Department in wr the terms of this agreement.	nt has					
	assessment of compliance				o o:		
D = Docume	ntation Sighted	A = Advised b	by Austral Em	pioyee	O = Obse	ervation	



	1			T			Page	e 6 of 29
Condition No.	Red	quirement		Compliance	Comr	nent		Basis*
SCHEDUL	E 3:	ENVIRONMENTAL PE	RFORMANC	E CONDITIO	NS (Co	ont'd)		
NOISE (Co	ont'o	d)						
Hours of (	Эреі	rations						
3/6	оре	e Proponent must compl erating hours in Table 2. ble 2 – Operating Hours	y with the	Compliant		ctivities were un oproved hours o	dertaken outside of of operation.	A
			-					
	Da	ay	Transport	Quarrying Oper	ations	Construction		
	Mo	onday – Friday	7 am to 4 pm	7 am to 5 pm		7 am – 5 pm		
		aturday	8 am to 1 pm	8 am to 1 pm		8 am – 1 pm		
	Su	undays and Public Holidays	None	None		None		
		te: Maintenance activitie ned residences.	s may occur	at any time pro	ovided	they are inaudi	ble at privately-	
Operating	Со	nditions			-			
3/7	The	e Proponent must:						
	a)	implement best practice management to minimi construction, operation frequency and traffic no project;	se the al, low	Compliant	were and e requir	limited to monit rosion and sedi	eporting period oring, inspections iment control which c and no specific	A
	<ul> <li>b) minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;</li> </ul>		Not Yet Applicable		cable conditions red during peric	s have not yet ods of site activity.	A	
	c)	maintain the effectivener noise suppression equi plant at all times and end defective plant is not us operationally until fully and	ipment on nsure sed	Not Yet Applicable	As ab	oove.		A
	d)	regularly assess noise data and relocate, mod stop operations on site compliance with the rel conditions of this appro-	lify, and/or to ensure evant oval,	Not Yet Applicable	No da	ata yet assembl	ed.	A
Noise Mar		ement Plan	cretary.					
3/8	The Ma	e Proponent must prepa nagement Plan for the p isfaction of the Secretary	roject to the y. This plan ation with d to the prior to the	Compliant	on 18 13 Ma during	March 2016 ar	an was updated period and	D
* = Basis for	asse	ssment of compliance						
D = Docume	ntatic	on Sighted	A = Advised b	by Austral Employ	/ee	O = 0	bservation	

Condition No.	Requirement		Compliance	Comment	Basis
SCHEDUL	E 3: ENVIRONMENTAL	PERFORMANC		NS (Cont'd)	
NOISE (Co	ont'd)				
Noise Mai	nagement Plan (Cont'd)				
3/8 (Cont'd)	b) describe the measure be implemented to e				
	<ul> <li>best management p employed on site;</li> </ul>	ractice is being			
	<ul> <li>the noise impacts of minimised during me conditions when the this approval do not</li> </ul>	eteorological noise limits in			
	• compliance with the conditions of this ap				
	c) describe the propos management system				
	d) include a monitoring	g program that:			
	<ul> <li>is capable of evaluar performance of the performance of</li></ul>				
	<ul> <li>includes a protocol f exceedances of the conditions in this ap</li> </ul>	relevant			
	<ul> <li>evaluates and reports on the effectiveness of the noise management system on site.</li> </ul>				
	The Proponent must imp approved management approved from time to ti Secretary.	plan as			
AIR QUAL	· ·				
Air Qualit	y Criteria				
3/9	The Proponent must en- reasonable and feasible mitigation measures are that particulate matter e generated on site do no criteria in Table 3, Table at any residence on priv land, or on more than 25 privately-owned land.	e Proponent must ensure that all asonable and feasible avoidance and tigation measures are employed so at particulate matter emissions nerated on site do not exceed the teria in Table 3, Table 4 and Table 5 any residence on privately-owned ad, or on more than 25% of any		Barrier construction and extraction activities have not yet commenced. Notwithstanding, deposited dust monitoring to date indicates compliance with the applicable criteria.	D, A
	Table 3 – Long-Term In	npact Assessmer	nt Criteria for F	Particulate Matter	
	Pollutant	Averaging period	<sup>d</sup> Criterion	1	
	Total suspended particulates (TSP	') Annual	<sup>a</sup> 90 μg/m <sup>3</sup>	3	
	Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	° 30 µg/m <sup>3</sup>	3	
	Table 4 – Short Term In	npact Assessmei	nt Criteria for I	Particulate Matter	
	Pollutant	Averaging period	<sup>d</sup> Criterion	1	
	Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>а</sup> 50 µg/m <sup>3</sup>	3	

	1			1		r	Pa	ge 8 of 29		
Condition No.	Requirement	:		Com	oliance	Comm	ent	Basis*		
SCHEDUL	E 3: ENVIRO	NMENTAL PE		E CO	NDITIO	NS (Cor	nt'd)	•		
AIR QUAL	ITY (Cont'd)									
Air Qualit	y Criteria (Cor	nťd)						-		
3/9 (Cant'd)	Table 5 – Lor	ng-Term Impa	ct Assessmer	nt Crite	eria for E	Deposite	ed Dust			
(Cont'd)	Pollutant	Averaging period	Maximum increas deposited dust le			total dust level				
	<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month		<sup>a</sup> 4 g/m <sup>2</sup> /mo	onth				
	<ul> <li>a Total in concentra</li> <li>b Increme</li> </ul>	concentrations due to all other sources);								
	own); • c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air – Determination of Particulate Matter – Deposited Matter – Gravimetric Method.									
	<ul> <li>d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary in consultation with EPA.</li> <li>e "Reasonable and feasible avoidance measures" includes, but is not limited to, the operational</li> </ul>									
Operating							ement an air quality management eedance of the criteria.			
3/10	The Propone	nt must:								
	practice t	nt best manag to minimise th s of the projec	e dust		Not licable	manag	ivities requiring specific dust gement occurred during the ng period.	A		
	monitorin modify, a site to en	assess air qu ng data and re nd/or stop op sure compliar conditions of t	locate, erations on nce with the	Con	npliant		ited dust monitoring data complies ominated criteria	S D		
	the project meteorol	the air quality ct during adve ogical conditio nary events (s ble 5 above);	erse ons and		t Yet licable		verse conditions have yet ed during periods of activity.	A		
	d) minimise pollution;	any visible of and	f-site air	Con	npliant		es during the reporting period did nerate visible dust.	A		
	· ·	the surface d e generated b		Con	npliant	and co	pances to date have been limited onfined to the approved pance areas.	A		
	assessment of contract of contract of contract of contract of the second structure of the second struc	ompliance	A = Advised b	oy Austr	al Employ	/ee	O = Observation			

Condition No.	Re	quirement	Compliance	Comment	Basis
SCHEDUL	E 3	ENVIRONMENTAL PERFORMANC		NS (Cont'd)	
AIR QUAL	ITY	(Cont'd)			
Air Quality	/ Ma	anagement Plan			
3/11	Qu pro	e Proponent must prepare an Air ality Management Plan for the ject to the satisfaction of the cretary. This plan must:	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was updated during the reporting period and	D
	a)	be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to the construction of the Visibility Barriers		submitted for approval (approval expected early 2018). During the reporting period deposited dust monitoring has been undertaken in accordance with the plan. As no	
	b)	describes the measures that would be implemented to ensure:		construction or operational activities occurred, no specific management measures were required during the	
	•	best management practice is employed;		reporting period.	
	•	the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and			
	•	compliance with the relevant conditions of this approval;			
	c)	describes the proposed air quality management system; and			
	d)	includes an air quality monitoring program that:			
	•	is capable of evaluating the performance of the project;			
	•	includes a protocol for determining any exceedances of the relevant conditions of approval;			
	•	adequately supports the air quality management system; and			
	•	evaluates and reports of the adequacy of the air quality management system.			
	ap ap	e Proponent must implement the proved management plan as proved from time to time by the cretary.			
	r –	GICAL MONITORING			1
3/12	Pro sui vic rec Me Air	ring the life of the project, the opponent must ensure that there is a table meteorological station in the inity of the site that complies with the juirements in the "Approved thods for Sampling and Analysis of Pollutants in New South Wales" deline.	Compliant	A station was established on site on 19 September 2016 and remains operational.	D, O
* = Basis for	asse	ssment of compliance			

Condition No.	Requirement	Compliance	Comment	Basis
SCHEDUL	E 3: ENVIRONMENTAL PERFORMANC		NS (Cont'd)	<u> </u>
SOIL AND	WATER			
	Note: The Proponent is required to obtain the necessary water licences for the project under the Water Act 1912 and/or Water Management Act 2000.	Not Yet Applicable	No water licences currently required.	D
Riparian E	Buffer Distance			
3/13	The Proponent must maintain a minimum buffer distance of 515 metres (measured from the top of bank) between extraction area and Wingecarribee River.	Compliant	No extraction activities occurred within the nominated buffer during the reporting period.	D, A
Surface W	ater Discharging			
3/14	The Proponent must ensure that all surface water discharges from the site comply with section 120 of the POEO Act or, if an EPL has been issued regulating water discharges from the site, the discharge limits (both volume and quality) set for the project in the EPL.	Not Yet Applicable	As operational activities have not commenced there have been no 'discharges'.	A
Surface W	ater Supply			
3/15	The Proponent must ensure it has sufficient water for all stages of the project, and if necessary, adjust the scale of quarrying operations on site to match its available supply.	Not Yet Applicable	Barrier construction and extraction operations yet to commence. Existing farm dams on-site will provide initial water supply.	D, A
On-Site Se	ewerage Management			
3/16	The Proponent must manage on-site sewage to the satisfaction of Council and EPA.	Not Yet Applicable	Toilet facilities/amenities not yet established on site.	A
Storage of	f Chemicals & Petroleum Products			
3/17	The Proponent must ensure all chemicals and/or petroleum products on site are stored in accordance with Australian Standard AS1940-2004, The Storage and Handling of Flammable and Combustible Liquids, and in appropriately bunded areas with impervious flooring and of sufficient capacity to contain 110% of the largest container stored within the bund. The flooring and bund(s) must be designed in accordance with: • the requirements of relevant	Not Yet Applicable	No chemicals or petroleum products were stored on site during the reporting period	A
	<ul> <li>the requirements of relevant Australian Standards; and</li> <li>DECC's Storing and Handling Liquids: Environmental Protection – Participants Manual.</li> </ul>			



	Basi	
Page	11 of :	29

Condition No.	Re	quirement	Compliance	Comment	Basis
SCHEDUL	E 3	ENVIRONMENTAL PERFORMANC		NS (Cont'd)	
SOIL AND	WA	ATER (Cont'd)			
Water Mar	age	ement Plan			
Water Man 3/18		e Proponent must prepare a Water inagement Plan for the project to the isfaction of the Secretary. This plan ist be prepared in consultation with e EPA, WaterNSW and DPI – Water suitably qualified and experienced rsons whose appointment has been proved by the Secretary, and be omitted to the Secretary for approval or to the construction the Visibility rriers on site. addition to the standard quirements for management plans be condition 3 of schedule 5), this in must include a:	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 9 June 2016. The Plan was updated during the reporting period and submitted to NRAR for feedback. Approval of the updated plan is expected early 2019. During the reporting water monitoring has been undertaken in accordance with the plan. Whilst the water management system has not yet been constructed, erosion & sedimentation inspections were undertaken by the Company.	D
	a)	Site Water Balance that:			
	•	includes details of:			
		<ul> <li>sources and security of water supply, including contingency planning for future reporting periods;</li> </ul>			
		<ul> <li>water use on site;</li> </ul>			
		<ul> <li>water management on site;</li> </ul>			
		<ul> <li>reporting procedures, including comparisons of the site water balance each calendar year; and</li> </ul>			
	•	describes the measures that would be implemented to minimise clean water use on site;			
	b)	Surface Water Management Plan, that includes:			
	•	detailed baseline data on surface water flows and quality in the water-bodies that could be affected by the project;			
	•	a detailed description of the surface water management system on site, including the:			
		<ul> <li>clean water diversion systems;</li> </ul>			
		<ul> <li>erosion and sediment controls; and</li> </ul>			
		<ul> <li>water storages.</li> </ul>			
	•	a plan for identifying, extracting, handling, and the long-term storage of potentially acid forming material on site;			

= Basis for assessment of compliance D = Documentation Sighted

A = Advised by Austral Employee

O = Observation

Condition No.	Re	quirement	Compliance	Comment	Basi
SCHEDUL	E 3	: ENVIRONMENTAL PERFORMANC	E CONDITIO	NS (Cont'd)	
SOIL AND	WA	ATER (Cont'd)			
Water Mar	nag	ement Plan (Cont'd)			
3/18 (Conťd)	•	detailed plans, including design objectives and performance criteria, for:			
		<ul> <li>the water storage dams; and</li> </ul>			
		<ul> <li>reinstatement of drainage lines on the rehabilitated areas of the site;</li> </ul>			
		<ul> <li>control of water pollution from rehabilitated areas of the site;</li> </ul>			
	•	performance criteria for surface water quality attributes relevant to water quality impacts on biological diversity and aquatic ecological integrity, including salinity, heavy metals, sediment load, pH, hardness and biological oxygen demand;			
	•	a program to monitor:			
		<ul> <li>the effectiveness of the water management system;</li> </ul>			
		<ul> <li>surface water flows and quality in local water ways; and</li> </ul>			
		<ul> <li>ecosystem health of local water ways;</li> </ul>			
	•	a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and			
	c)	Groundwater Management Plan, which includes:			
	•	detailed baseline data on groundwater levels, yield and quality in the area, that could be affected by the project;			
	•	groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;			
	•	a program to monitor:			
		<ul> <li>groundwater inflows to the quarrying operations;</li> </ul>			
		- the impacts of the project on:			
		<ul> <li>local alluvial aquifers;</li> </ul>			
		<ul> <li>any groundwater bores on privately-owned land that could be affected by the project;</li> </ul>			



	-	-	Page	13 of 29
Condition No.	Requirement	Compliance	Comment	Basis*
SCHEDUL	E 3: ENVIRONMENTAL PERFORMANC	E CONDITIO	NS (Cont'd)	
	WATER (Cont'd)			
	nagement Plan (Cont'd)			1
3/18 (Cont'd)	<ul> <li>the seepage/leachate from water storages or backfilled voids on site; and</li> </ul>			
	<ul> <li>groundwater dependent ecosystems;</li> </ul>			
	<ul> <li>a plan to respond to any exceedances of the groundwater assessment criteria;</li> </ul>			
	The Proponent must implement the approved management plan as approved from time to time by the Secretary.			
Groundwa	ter Monitoring			
3/18A	The Proponent must install 3 pairs of nested piezometers prior to the quarry pit floor reaching 660m AHD, in consultation with DPI – Water and to the satisfaction of the Secretary.	Not Yet Applicable	Extraction operations have not yet commenced (and therefore the 660m AHD level has not yet been reached). However, the proposed approach to groundwater monitoring was submitted to DPI – Water (now NRAR) on 28 November 2018 for comment (awaiting feedback).	D
VISUAL		•		
Establishr	nent of Effective Vegetative Screens			
3/19	The Proponent must vegetate (with grasses, shrubs and trees) the Visibility Barriers as soon as practicable after the completion of the construction of the bunds, to the satisfaction of the Secretary.	Not Yet Applicable	Barriers not yet constructed.	D, A
3/19A	Prior to transporting any product from the site, the Proponent must establish a 0.68 ha tree screen adjacent to the Northern Visibility Barrier, as shown on Figure 1 in Appendix A. The screen must include native plant species from the Southern Highlands Shale Woodland Endangered Ecological Community.	Not Yet Applicable	No product transportation has occurred to date.	A
Advertisin	g			
3/20	The Proponent must not erect or display any advertising structure(s) or signs on the site without the written approval of the Secretary.	Not Yet Applicable	No advertising structures are required or have been erected for the quarry.	D, A
	Note: This condition does not require approval for any business identification, traffic management, and/or safety or environmental signs.			
* = Basis for	assessment of compliance			
D = Documer	ntation Sighted A = Advised b	y Austral Employ	vee O = Observation	

Condition No.	Red	quirement	Compliance	Comment	Basis*
SCHEDUL	E 3	ENVIRONMENTAL PERFORMANC		NS (Cont'd)	
VISUAL (	Cont	'd)			
Operating	j Co	nditions			
3/21	The	e Proponent must:			
	a)	implement all reasonable and feasible measures to minimise the visual impacts and any off-site lighting impacts of the project; and	Not Yet Applicable	No lighting was required to be used on- site during the reporting period.	A
	b)	maintain and improve the effectiveness of the bunds and vegetative screens over the life of the project.	Not Yet Applicable	Barriers not yet constructed	D, A
3/22	De	leted			
TRANSPO	ORT				
Road Upg	grade	es (Local Roads)			
3/23		or to transporting any extractive terial from the site, the Proponent st:	Not Yet Applicable	No product transportation has occurred to date.	A
	a)	construct the junction of the site access road with Berrima Road to Basic Right Turn and Basic Left Turn Treatment standard for a 19m semi-trailer;	Not Yet Applicable	Construction has not yet commenced.	A
	b)	construct a raised concrete median in Berrima Road on the south bound approach to its junction with MR372;	Not Yet Applicable	Construction has not yet commenced.	A
	c)	provide appropriate traffic signage and line-marking,	Not Yet Applicable	Construction has not yet commenced.	A
	Gu	accordance with AUSTROADS ide to Road Design and to the isfaction of the Council.			
Road Upg	grade	es (Main Roads)			
3/24	ma mu a) b)	or to transporting any extractive terial from the site, the Proponent st: construct the Berrima Road/Taylor Avenue junction to give priority to MR372 incorporating Rural BA Left and Right turn treatments for a 19m semi-trailer; provide appropriate traffic signage and line-marking, accordance with AUSTROADS	Note Yet Applicable	No product transportation has occurred to date. Notwithstanding, Council proposes to construct a roundabout at the road junction – Austral will submit funds once construction is completed.	A
	Gu	<i>ide to Road Design</i> and to the isfaction of the Council and the			
* = Basis for	asse	ssment of compliance			
D = Docume	entatio	on Sighted A = Advised	by Austral Employ	yee O = Observation	

Condition No.	Requirement	Compliance	Comment	Basis'
-	E 3: ENVIRONMENTAL PERFORMANC			
	RT (Cont'd)			
	rades (Main Roads) (Cont'd)			
3/24	If the Council undertakes or proposes			
(Cont'd)	to undertake a superior treatment of this intersection upgrade, then this condition may be fulfilled by the Proponent paying a monetary contribution to the Council equivalent to the cost of the upgrades specified under this condition, as assessed by a qualified independent valuer or quantity surveyor appointed by the Secretary. The costs of the valuation are to be paid by the Proponent.			
	Any dispute over the interpretation of this condition or a satisfactory valuation can be referred by any party to the Secretary for resolution. The decision of the Secretary in any such dispute shall be final.			
Transport	Route			
3/25	The Proponent must ensure heavy vehicles associated with the Project travel along haulage routes specified in the EA and the haulage route diagram in Figure 3 of APPENDIX A to this approval to the satisfaction of the Secretary.	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
Road Mair	ntenance Contribution			
3/26	The Proponent must pay to Council an annual contribution of 91.2 cents per cubic metre of extractive material exported from the site (indexed annually to Consumer Price Index) for the life of the Project. The volume of extractive material exported from the site must be established by way of a volumetric survey of the site carried out by a registered surveyor. Each annual volumetric survey must be provided to Council to allow verification of the contribution amount. The first annual payment falls due 12 months from the commencement of operation. <i>Note: The Proponent must provide a base-line survey of the site to the</i>	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
	base-line survey of the site to the Council prior to the commencement of operations.			
* = Basis for	assessment of compliance			

	1		I	Page	16 of 29
Condition No.	Red	quirement	Compliance	Comment	Basis*
SCHEDUL	E 3:	ENVIRONMENTAL PERFORMANC		NS (Cont'd)	
TRANSPO	RT	(Cont'd)			
Parking	r				1
3/27	The Proponent must provide sufficient parking for all project-related traffic, in accordance with Council's parking code.		Not Yet Applicable	Operations have not yet commenced, however, dedicated parking areas are planned on site.	A
Operating	Co	nditions	1		T
3/28	The	e Proponent must ensure that:			
	a)	vehicles on site do not exceed a speed limit of 30 kilometres per hour;	Compliant	Company policy nominates a speed limit of 30kph on site.	A
	b)	all loaded vehicles entering or leaving the site have their loads covered; and	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
	c)	all loaded vehicles leaving the site are cleaned of sand and other materials before they leave the site so they do not track dirt onto the public roads.	Not Yet Applicable	Despatch of clay/shale has not yet commenced.	A
Transport	Ma	nagement Plan	•		
3/29	The Proponent must prepare a Transport Management Plan for the project to the Secretary. This plan must:		Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was updated during the reporting period and approved 28 September.	D, A
	a)	be submitted prepared in consultation with the RMS and Council, and submitted to the Secretary for approval prior to carrying out any quarrying operations on site;		Transport operations have not yet commenced.	
	b)	include a drivers' code of conduct for the project;			
	c)	describe the measures that would be implemented to ensure:			
	•	establishing a CB radio communication protocol with the local bus companies, to improve driver awareness of quarry truck and school bus locations along haulage routes;			
	•	the drivers of project-related vehicles comply with the drivers' code of conduct for the project; and			
	•	compliance with the relevant conditions of this approval; and			
	d)	include a program to monitor the effectiveness of the implementation of these measures.			
* = Basis for D = Docume		essment of compliance	by Austral Employ	vee O = Observation	

Condition No.	Rec	quirement	Compliance	Comment	Basis*
SCHEDUL	E 3:	ENVIRONMENTAL PERFORMANC		NS (Cont'd)	<b></b>
TRANSPO	RT	(Cont'd)			
	1	nagement Plan (Cont'd)	1	I	1
3/29 (Cont'd)	app app	Proponent must implement the proved management plan as proved from time to time by the cretary.			
3/30	(TM red Roa Zor fror (TC	build the Traffic Management Plan MP) for the proposed works require a uction of the speed limit on Berrima ad and/or Taylor Avenue, a Speed he Authorisation must be obtained in RMS Traffic Operations Unit DU) prior to commencing work within road reserve.	Not Yet Applicable	Authorisation not currently required.	A
WASTE					
3/31	The	Proponent must:			
	a)	monitor the amount of waste generated by the project;	Not Yet Applicable	No substantial quantities of waste yet generated on site.	А
	b)	investigate ways to minimise waste generated by the project;	Compliant	All contractors are required to remove their own waste from site.	A
	c)	implement reasonable and feasible measures to minimise waste generated by the project;	Compliant	All contractors are required to remove their own waste from site.	A
	d)	ensure that all waste generated by the project is lawfully disposed of to an appropriate facility; and	Compliant	All contractors are required to dispose of all wastes lawfully.	A
	e)	report on waste management and minimisation in the annual review,	Compliant	See Section 6.5 of this document.	D
	to t	he satisfaction of the Secretary.			
ABORIGIN	IAL	HERITAGE			
Aborigina	l He	ritage Management Plan	T	1	1
3/32	Abo for Sec	Proponent must prepare an original Heritage Management Plan the project to the satisfaction of the cretary. This plan must:	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Plan was updated during the reporting period and approved 28 September 2018. A further	D
	a)	be prepared in consultation with OEH and the relevant Local Aboriginal Land Council;		administrative update was approved 9 November 2018.	
	b)	be submitted to the Secretary for approval prior to any ground disturbance; and		Activities during the reportion period were compliant with the Plan.	
	c)	include a:			
	•	protocol for the engagement of an Aboriginal Site Officer for any necessary ground disturbance monitoring;			
* = Basis for	asse	ssment of compliance			
D = Docume	ntatic	n Sighted A = Advised I	by Austral Employ	vee O = Observation	

ABORIGIN	E 3: ENVIRONMENTAL PERFORMANC IAL HERITAGE (Cont'd) I Heritage Management Plan (Cont'd) • program for the recording, notifying, salvage and surface collection of any Aboriginal objects/sites that	E CONDITION	NS (Cont'd)	
<b>Aborigina</b> 3/32	<ul> <li>Heritage Management Plan (Cont'd)</li> <li>program for the recording, notifying, salvage and surface collection of</li> </ul>			
3/32	<ul> <li>program for the recording, notifying, salvage and surface collection of</li> </ul>			
	salvage and surface collection of			
	may be encountered within the project area;			
	<ul> <li>description of the measures that would be implemented if any Aboriginal skeletal remains are discovered during the project; and</li> </ul>			
	<ul> <li>protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of the Aboriginal heritage of the objects/sites.</li> </ul>			
	The Proponent must implement the approved management plan as approved from time to time by the Secretary.			
3/32A	If any item or object of potential Aboriginal heritage significance is identified during works associated with the project, the Proponent must ensure that:	Not Applicable	No Aboriginal heritage objects or objects suspected of being of Aboriginal origin were located during the reporting period.	D, A
	<ul> <li>all work in the immediate vicinity of the potential Aboriginal item or object ceases immediately;</li> </ul>			
	<li>b) a 10m buffer area around the potential item or object is cordoned off; and</li>			
	c) the OEH is contacted immediately.			
	Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the <i>National</i> <i>Parks and Wildlife Act 1974</i> .			
LANDSCA	PE			
Rehabilita	tion Objectives			
3/33	The Proponent must rehabilitate the site to the satisfaction of the DRG. This rehabilitation must be consistent with the proposed rehabilitation strategy in the EA (MOD 1), and comply with the objectives in Table 6.	Not Yet Applicable	No areas of final rehabilitation have yet become available.	D, A
* = Basis for	assessment of compliance			<u>.                                    </u>



Condition No.	Requirement		Compliance	Comment	Basi
SCHEDUL	E 3: ENVIRONMENTA	L PERFORMANC		NS (Cont'd)	
LANDSCA	APE (Cont'd)				
Rehabilita	ation Objectives (Cont'	d)			
3/33	Table 6 – Rehabilitatio	n Objectives			
(Cont'd)	Feature Site (as a whole) Surface Infrastructure Quarry Walls Quarry Pit Floor Other Land affected by the project	otherwise Final slopes of 1:3 (v wall of Bench 1 Vegletated with native surrounding landscap Suitable for grazing o Restore ecosystem fi self-sustaining eco-sy olocal native	ned and removed vertical : horizontal e endemic flora sp be and to minimise or other agricultura unction, including ystems comprised species: and	l activities maintaining or establishing	
-	ve Rehabilitation				
3/34	The Proponent must re- site progressively, that reasonably practicable disturbance. All reason feasible measures mus minimise the total area dust generation at any rehabilitation strategies employed when areas generation cannot yet rehabilitated.	is, as soon as following hable and st be taken to exposed for time. Interim s must be prone to dust	Compliant	The previously created soil sto have been adequately grassed supplementary hydromulching undertaken in February 2018.	d with
Landscap	e Management Plan				
3/35	<ul> <li>The Proponent must p Landscape Manageme project to the satisfacti Secretary. This plan m</li> <li>a) be prepared in cor OEH and Council, to the Secretary for to carrying out any site under this app</li> <li>b) describe the short, long term measure implemented to:</li> <li>manage the remna and habitat on site;</li> <li>rehabilitate the ripa adjacent to the Wir River on site; and</li> <li>ensure compliance rehabilitation objec progressive rehabil obligations in this a</li> </ul>	ent Plan for the on of the ust: nsultation with and submitted or approval prior v development on proval; , medium and es that would be ant vegetation ; arian land ngecarribee e with the tives and litation	Compliant	The Plan was submitted to the on 18 March 2016 and approv 13 May 2016. The Plan was u during the reporting period and approved 28 September 2018 No areas of final rehabilitation become available. However, te rehabilitation is generally in ac with the plan.	ed on pdated d have emporary

Condition No.	Re	quirement	Compliance	Comment	Basi
SCHEDUL	E 3	: ENVIRONMENTAL PERFORMANC		NS (Cont'd)	
LANDSCA	PE	(Cont'd)			
Landscap	e M	anagement Plan (Cont'd)			
3/35 (Conťď)	c)	include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggering remedial action (if necessary);			
	d)	include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:			
	•	ensuring compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;			
	•	enhancing the quality of existing vegetation and fauna habitat;			
	•	restoring native endemic vegetation and fauna habitat within the biodiversity areas and rehabilitation area;			
	•	maximising the salvage of resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;			
	•	collecting and propagating seed;			
	•	minimising the impacts on fauna on site, including undertaking pre- clearance surveys;			
	•	controlling weeds and feral pests;			
	•	controlling erosion;			
	•	managing grazing and agriculture on site;			
	•	controlling access; and			
	•	bushfire management;			
	e)	a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;			



Condition				21 of 29
No.	Requirement	Compliance	Comment	Basis*
SCHEDUL	E 3: ENVIRONMENTAL PERFORMANC		NS (Cont'd)	
LANDSCA	NPE (Cont'd)			
Landscap	e Management Plan (Cont'd)			
3/35 (Cont'd)	<ul> <li>f) identify the potential risks to successful implementation of the rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate against these risks; and</li> </ul>			
	<ul> <li>g) include details of who would be responsible for monitoring, reviewing, and implementing the plan.</li> <li>The Proponent must implement the</li> </ul>			
	approved management plan as approved from time to time by the Secretary.			
3/36	Deleted.			
3/37	Deleted.			
SCHEDUL	E 4: ADDITIONAL PROCEDURES			
NOTIFICA	TION OF LANDOWNERS			
4/1	As soon as practicable after obtaining monitoring results showing an:			
	<ul> <li>a) exceedance of any relevant criteria in schedule 3, the Proponent must notify affected landowners in writing of the exceedance, and provide regular monitoring results to each of affected landowner until the project is again complying with the relevant criteria; and</li> </ul>	Not Yet Applicable	No exceedances have occurred to date.	D
	<ul> <li>b) an exceedance of the relevant air quality criteria in schedule 3, the proponent must send a copy of the NSW Health fact sheet entitled "<i>Mine Dust and You</i>" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land.</li> </ul>	Not Yet Applicable	No exceedances have occurred to date.	D
INDEPEN	DENT REVIEW			
4/2	If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.	Not Applicable	No requests for an independent review are known to have been submitted to date.	A
* = Basis for	assessment of compliance			
D = Docume	ntation Sighted A = Advised b	y Austral Employ	vee O = Observation	

Condition No.	Requirement	Compliance	Comment	Basis
SCHEDUL	E 4: ADDITIONAL PROCEDURES (C	Cont'd)	·	
INDEPEN	DENT REVIEW (Cont'd)		-	
4/2 (Conťd)	If the Secretary is satisfied that an independent review is warranted, the within 2 months of the Secretary's decision the Proponent must:	n		
	<ul> <li>a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:</li> </ul>			
	<ul> <li>consult with the landowner to determine his/her concerns;</li> </ul>			
	<ul> <li>conduct monitoring to determine whether the project is complying with the relevant criteria in schedule 3; and</li> </ul>			
	<ul> <li>if the project is not complying with these criteria, then identify the measures that could be implemented to ensure compliant with the relevant criteria;</li> </ul>			
	<li>b) give the Secretary and landowned a copy of the independent review and</li>			
	<ul> <li>comply with any written requests made by the Secretary to implement any findings of the review.</li> </ul>			
4/3	If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then t Proponent may discontinue the independent review with the approva of the Secretary.	Applicable	No requests for an independent review are known to have been submitted to date.	A
	If the independent review determines that the project is not complying with the relevant criteria in schedule 3, the the Proponent must:			
	<ul> <li>a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expe- and conduct further monitoring until the project complies with the relevant criteria; or</li> </ul>			
	<ul> <li>b) secure a written agreement with the landowner to allow exceedances of the relevant criteria,</li> </ul>			
	to the satisfaction of the Secretary.			



#### New Berrima Clay/Shale Quarry

Condition No.	Red	quirement	Compliance	Comment	Basis
SCHEDUL	E 5:	ENVIRONMENTAL MANAGEMEN	T, MONITORIN	IG, AUDITING AND REPORTING	1
ENVIRON	/EN	ITAL MANAGEMENT			
Environme	enta	I Management Strategy			
5/1	En for	e Proponent must prepare and an vironmental Management Strategy the project to the satisfaction of the cretary. The strategy must: be submitted for approval to the Secretary prior to the	Compliant	The Plan was submitted to the Secretary on 18 March 2016 and approved on 13 May 2016. The Strategy was updated during the reporting period and approved 28 September.	D
		commencement of construction activities;			
	b)	provide the strategic framework for environmental management of the project;			
	c)	identify the statutory approvals that apply to the project;			
	d)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;			
	e)	describe the procedures that would be implemented to:			
	•	keep the local community and relevant agencies informed about the operation and environmental performance of the project;			
	•	receive, handle, respond to, and record complaints;			
	•	resolve any disputes that may arise during the course of the project;			
	•	respond to any non-compliance; and			
	•	respond to emergencies; and			
	f)	include:			
	•	copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and			
	•	a clear plan depicting all the monitoring to be carried out in relation to the project.			
	app	e Proponent must implement the proved strategy as approved from e to time by the Secretary.			
* = Basis for	asse	ssment of compliance			

Condition No.	Red	quirement	Compliance	Comment	Basis
SCHEDUL	E 5:	ENVIRONMENTAL MANAGEMEN	, MONITORIN	IG, AUDITING AND REPORTING (Cont'd	)
ENVIRON	MEN	TAL MANAGEMENT (Cont'd)			
Adaptive I	Mana	agement			
5/2	ma tha crit in s the me app or c	e Proponent must assess and nage project-related risks to ensure t there are no exceedances of the eria and/or performance measures schedule 3. Any exceedance of se criteria and/or performance asures constitutes a breach of this proval and may be subject to penalty offence provisions under the EP&A or EP&A Regulation.	Not Yet Applicable	No exceedances of criteria have occurred to date.	A
	<ul> <li>Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:</li> <li>a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not</li> </ul>		Not Yet Applicable	No exceedances of criteria have occurred to date.	
	b)	recur; consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and	Not Yet Applicable	No exceedances of criteria have occurred to date.	A
	c)	implement remediation measures as directed by the Secretary,	Not Yet Applicable	No directions received from the Secretary during the reporting period.	D
	to t	he satisfaction of the Secretary.			
Managem	ent F	Plan Requirements			
5/3	Ma app with incl	e Proponent must ensure that the nagement Plans required under this proval are prepared in accordance n any relevant guidelines, and lude:	Compliant	All management plans were prepared as required by the Project Approval and approved by the Secretary. The updated management plans submitted also address these matters, as applicable.	D
	a)	detailed baseline data;			
	b)	a description of:			
	•	the relevant statutory requirements (including any relevant approval, licence or lease conditions);			
	•	any relevant limits or performance measures/criteria; and			
	•	the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;			



Condition No.	Re	quirement	Compliance	Comment	Basis
SCHEDUL	E 5	ENVIRONMENTAL MANAGEMENT	, MONITORIN	IG, AUDITING AND REPORTING (Cont'c	I)
ENVIRON	MEN	ITAL MANAGEMENT (Cont'd)			
Managem	ent	Plan Requirements (Cont'd)			
5/3 (Conťd)	c)	a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;			
	d)	a program to monitor and report on the:			
	•	impacts and environmental performance of the project; and			
	•	effectiveness of any management measures (see (c) above);			
	e)	a contingency plan to manage any unpredicted impacts and their consequences;			
	f)	a program to investigate and implement ways to improve the environmental performance of the project over time;			
	g)	a protocol for managing and reporting any:			
	•	incidents;			
	•	complaints;			
	•	non-compliances with statutory requirements; and			
	•	exceedances of the impact assessment criteria and/or performance criteria; and			
	h)	a protocol for periodic review of the plan.			
	of i un	te: The Secretary may waive some these requirements if they are necessary or unwarranted for rticular management plans.			
Annual Re	vie	w			
5/4	anı mu pei sat	the end of December 2016, and nually thereafter, the Proponent ist review the environmental formance of the project to the isfaction of the Secretary. This riew must:	Compliant	The first Annual Review was prepared for 2016 and the report updated as directed by the Secretary. This Annual Review for 2018 has been prepared in accordance with this condition.	D
	a)	describe the development (including rehabilitation) that was carried out in the previous calendar year, and the works that are proposed to be carried out over the next year;			

D = Documentation Sighted

O = Observation

Condition No.	Red	quirement	Compliance	Comment	Basis
SCHEDUL	E 5:	ENVIRONMENTAL MANAGEMENT	, MONITORIN	IG, AUDITING AND REPORTING (Cont'	d)
ENVIRON	MEN	TAL MANAGEMENT (Cont'd)			
Annual Re	eviev	v (Cont'd)			
5/4 (Cont'd)	b)	include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against:			
	•	the relevant statutory requirements, limits or performance measures/criteria;			
	•	the monitoring results of previous years; and			
	•	the relevant predictions in the documents listed in condition 2 of Schedule 2;			
	c)	identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;			
	d)	identify any trends in the monitoring data over the life of the project;			
	e)	identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and			
	f)	describe what measures will be implemented over the next year to improve the environmental performance of the project.			
Revision of	of St	rategies, Plans and Programs			
5/5	an:		Compliant	All management plans have been reviewed during the preparation fo the 2018 Annual Review. Excluding the	D, A
	a)	annual review under condition 4 above:		Water Management Plan which is awaiting approval, no updates to	
	b)	incident report under condition 7 below;		remaining management plans are required.	
	c)	audit report under condition 9 below; and			
	d)	any modifications to this approval,			
	neo ano app	Proponent must review, and if cessary revise, the strategies, plans, d programs required under this proval to the satisfaction of the cretary.			
* = Basis for	asses	ssment of compliance		•	•

SCHEDULE 5: ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING (Cont'd)         ENVIRONMENTAL MANAGEMENT (Cont'd)         Revision of Strategies, Plans and Programs (Cont'd)         Revision of Strategies, Plans and Programs (Cont'd)         Within 4 weeks of conducting any such review, and provide any revised documents to the Secretary of the outcomes of the traview, and provide any revised documents to the Secretary for review and approval.         Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.         5/6       The Proponent must establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operated in accordance with the guidelines and as directed by the committee under this approval.         Notes: <ul> <li>The CCC Guidelines for State Significant Projects (November 2016, or its latest version), and be operated in accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent council version, and the collar on site under the Proponent complies with this approval.         Notes:        <ul> <li>In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent councils with this approval.</li> <li>In accordance with the guideline, the Committee should comprise an independent chair and apropriate representation fr</li></ul></li></ul>	Condition No.	Requirement	Compliance	Comment	Basis*
Revision of Strategies, Plans and Programs (Cont'd)         Within 4 weeks of conducting any such review, the Proponent must advise the Secretary of the outcomes of the treview, and provide any revised documents to the Secretary for review and approval.         Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.         Community Consultative Committee         5/6       The Proponent must establish and coordance with the Sparter of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.       Compliant and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.         Notes:       • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent, Council, recognised environmental groups and the local communy.         REPORTING         The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident, and appropriate agencies as soon as practicable after the Proponent complies with the proponel.         5/7       The Proponent must notify, at the generating priories as soon as practicable after the Proponent incident. Within 7 days of the date of the incident, and any other relevant agencies ano as practicable after the Pr	SCHEDUL	E 5: ENVIRONMENTAL MANAGEMENT	, MONITORIN	IG, AUDITING AND REPORTING (Cont'd	d)
Within 4 weeks of conducting any such review, the Proponent must advise the Secretary of the outcomes of the review, and provide any revised documents to the Secretary for review and approval.           Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.           5/6         The Proponent must establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.         Compliant The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.           • The CCC is an advisory committee. Incident Reporting         Not Yet Appropriate expresentation from the Proponent, Council, recognised environmental groups and the local community.           REPORTING         The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify be Secretary and any other relevant agencies are soon as practicable after the Proponent becomes aware of the incident, and detailed report on the incident, and detailed report on the incident, and	ENVIRON	MENTAL MANAGEMENT (Cont'd)			
review, the Proponent must advise the Secretary of the outcomes of the review, and provide any revised documents to the Secretary for review and approval.       Image: Compute the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.         Community Consultative Committee         Solution of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.       Compliant Projects (November 2016, or the CCC has been operated in general accordance with the guideline, the Committee.         Intel CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.         Notes:         Incident Reporting         Solution of the Proponent from the Proponent, Council, recognised environmental groups and the local community.         REPORTING         Not Yet and any other relevant agencies and responsible after the Proponent must notify, at the environment. For any other incident associated with the project, the environment incident agencies as soon as practicable after the Proponent becomes aware of the incident, within 7 days of the date of the incident, and detailed report on the incident, and       Not Yet Applicable       Not reportable incidents occurred during the reporting period.	Revision o	of Strategies, Plans and Programs (Cor	nt'd)		
the environmental performance of the project.         Community Consultative Committee         5/6       The Proponent must establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.       Compliant       The first meeting of the CCC was held on 7 September 2016. The CCC has been operated in accordance with the guidelines for States Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.       Committee.         Notes:       • The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.         • In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.         REPORTING         Incident Reporting         5/7       The Proponent must notify, at the environment. For any other incident associated with the secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident, the Proponent must provide the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident, the Proponent must provide the Secretary and any other relevant agencies as soon as practicable after the		review, the Proponent must advise the Secretary of the outcomes of the review, and provide any revised documents to the Secretary for review and approval. Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any			
project.         Community Consultative Committee           5/6         The Proponent must establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.         In a first meeting of the CCC was held on 7 September 2016. The CCC has been operated in accordance with the guidelines and as directed by the committee. (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.         In the CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.           In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.           REPORTING           Incident Reporting           5/7         The Proponent must notify, at the environment. For any other incident has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and         Not Yet Proponent must notify the Secretary and any relevant agencies with a detailed report on the incident, and         Not provide					
5/6       The Proponent must establish and operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee CCCC (Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.       Compliant       The first meeting of the CCC was held on 7 September 2016. The CCC has been operated in accordance with the Department's Community Consultative Committee Committee CCCC (Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.       The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.         •       In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.         REPORTING         Incident Reporting         5/7       The Proponent must notify, at the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as paracticable after the Proponent must notify the Secretary and any relevant agencies as soon as practicable after the Proponent becomes aware of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and					
operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's Community Consultative Committee (CCC) Guidelines for State Significant Projects (November 2016, or its latest version), and be operating prior to any development being carried out on site under this approval.       on 7 September 2016. The CCC has been operated in accordance with the guidelines and as directed by the committee.         Notes:       •       The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.       •         In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.       REPORTING         Si/7       The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies as soon as practicable after the Proponent agencies as soon as practicable after the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent with the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent must notify in the Secretary and any relevant agencies as soon as practicable after the Proponent must notify and the project, the Proponent must notify the Secretary and any relevant agencies with a detailed report on the incident, and       Not Yet       Applicable       No reportable incidents occurred during the reporting period.	Communit	ty Consultative Committee	•		
<ul> <li>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.</li> <li>In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.</li> </ul> <b>REPORTING</b> 5/7         The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must notify the Secretary and any relevant agencies with a detailed report on the incident, and	5/6	operate a CCC for the project to the satisfaction of the Secretary. This CCC must be operated in general accordance with the Department's <i>Community Consultative Committee</i> ( <i>CCC</i> ) <i>Guidelines for State Significant</i> <i>Projects</i> (November 2016, or its latest version), and be operating prior to any development being carried out on site	Compliant	on 7 September 2016. The CCC has been operated in accordance with the guidelines and as directed by the	D
REPORTING         Incident Reporting         5/7       The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and       Not Yet Applicable       No reportable incidents occurred during the reporting period.		<ul> <li>The CCC is an advisory committee. responsible for ensuring that the Pro</li> <li>In accordance with the guideline, the appropriate representation from the laboratory</li> </ul>	ponent compli Committee sl	es with this approval. hould comprise an independent chair and	
Incident Reporting         5/7       The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and       Not Yet Applicable       No reportable incidents occurred during the reporting period.		· ·			
5/7 The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and					
such further reports as may be requested.		The Proponent must notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be			A
* = Basis for assessment of compliance	* - Basis for		1	l	1

Condition No.	Re	quirement	Compliance	Comment	Basis
SCHEDUL	.E 5	ENVIRONMENTAL MANAGEMEN	T, MONITORIN	NG, AUDITING AND REPORTING (Cont'd	d)
ENVIRON	MEN	ITAL MANAGEMENT (Cont'd)			
Regular R	epo	rting (Cont'd)			
5/8	The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.		Compliant	Any relevant information is posted on the Austral website.	D, A
5/9	1	thin a year of the commencement of	Compliant	The initial independent audit was	D
0,0	dev app unl the cor Ind	velopment on site under this proval, and every 3 years thereafter, ess the Secretary directs otherwise, e Proponent must commission, mmence and pay the full cost of an lependent Environmental Audit of e project. This audit must:		undertaken in August 2017 (i.e. within 1 year following physical commencement). The audit was conducted by Trevor Brown & Associates whom were approved by the Secretary. The audit addressed all relevant matters. The next audit is required by August	
	a)	be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;		2020.	
	b)	include consultation with the relevant agencies;			
	c)	assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL and/or Water License (including any assessment, plan or program required under these approvals);			
	d)	review the adequacy of any approved strategy, plan or program required under these approvals;			
	e)	recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals; and			
	f)	be conducted and reported to the satisfaction of the Secretary.			
	sui exp	te: This audit team must be led by a tably qualified auditor and include perts in any fields specified by the cretary.			



Condition No.	Requ	irement	Compliance		29 of 29 Basis*
SCHEDUL	E 5: E	NVIRONMENTAL MANAGEMEN	T, MONITORIN	IG, AUDITING AND REPORTING (Cont'd	d)
INDEPEND	DENT	ENVIRONMENTAL AUDIT (Cont'	d)		
5/9A	audit other a cop Secre any r audit imple propo	n 12 weeks of commencing each , unless the Secretary agrees wise, the Proponent must submit by of the audit report to the etary, together with its response to ecommendations contained in the report, and a timetable for the ementation of any measures based to address the mmendations.	Compliant	The audit was submitted 30 October 2017 with the response action plan.	D
5/10	audit Secre a cop Secre any r audit	n 3 months of commissioning this , or as otherwise agreed by the etary, the Proponent must submit by of the audit report to the etary, together with its response to ecommendations contained in the report.	Compliant	The audit was submitted 30 October 2017 with the response action plan.	A
ACCESS 1		FORMATION			
5/11	devel appro a) n	wing the commencement of lopment on site under this oval, the Proponent must: make the following information publicly available on its website: me documents listed in condition 2	Compliant	The required documentation is maintained on the Austral website and appears up to date.	D
	• C	f Schedule 2; urrent statutory approvals for the roject;			
	р	pproved strategies, plans or rograms;			
	re b th a	summary of the monitoring esults of the project, which have een reported in accordance with he various plans and programs pproved under the conditions of his approval;			
	q	complaints register, updated on a uarterly basis;			
		ninutes of CCC meetings;			
	th	opies of any annual reviews (over ne last 5 years);			
	a re	ny independent environmental udit, and the Proponent's esponse to the recommendations any audit; and			
	S	ny other matter required by the ecretary; and			
	b) k	eep this information up-to-date,			
		e satisfaction of the Secretary.			
* = Basis for	assessi	ment of compliance			



This page has intentionally been left blank



## **Appendix 2**

# Compliance Review M(MOL)6

(Total No. of pages including blank pages = 6)



This page has intentionally been left blank



New Berrima Clay/Shale Quarry

Table A Compliance Review – M(MO)L 6

Cond.	Conditional Deguirement	Compliance	Commonto	Des!-
No.	Conditional Requirement al Conditions	Compliance	Comments	Basis
	abilitation			
1.1(01)	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Not Yet Applicable	No areas have become available for final rehabilitation.	D, A
2. Mini	ing Operations Plan			
(a)	The leaseholder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The leaseholder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting.	Not Yet Applicable	No significant surface disturbing activities have commenced to date. Notwithstanding, a Mining Operations Plan for M(MO)L6 was approved by the Resources Regulator on 19 September 2018.	D, A
(b)	The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which:	Compliant		D
	i) Identifies areas that will be disturbed;		MOP Plan 5 identifies the ultimate extent of disturbance and rehabilitation.	
	<ul> <li>Details the staging of specific mining operations, mining purposes and prospecting;</li> </ul>		MOP Section 2 outlines the mining operations during the MOP term and includes an indicative yearly production summary. Plans 3A to 3G also provided indicative annual 'staging'.	
	<li>iii) Identifies how the mine will be managed and rehabilitated to achieve the post mining land use;</li>		MOP Sections 5 to 8 outline the rehabilitation phases, completion criteria and activities during and following the MOP term.	
	<ul> <li>iv) Identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or minimise harm to the environment; and</li> </ul>		Environmental management measures are principally outlined in MOP Section 3.	
	<ul> <li>v) Reflects the conditions of approval under:         <ul> <li>the Environmental Planning and Assessment Act 1979;</li> <li>the Protection of the Environment Operations Act 1997; and</li> </ul> </li> </ul>		Relevant conditional requirements for other approvals are outlined within MOP Section 4.1.	
	<ul> <li>any other approvals relevant to the development including the conditions of this mining lease.</li> </ul>			
(c)	The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines.	Compliant	MOP Section 1.1 confirms the MOP has been prepared in accordance with these guidelines. Section headings and information presented are also generally consistent with ESG3.	D
(d)	The leaseholder may apply to the Minister to amend an approved MOP at any time.	Not Yet Applicable	No MOP amendments have been sought to date.	D, A

#### Table A (Cont'd) Compliance Review – M(MO)L 6

Cond. No.	Cor	nditional Requirement	Compliance	Comments	Basis*
Genera	al Co	onditions (Cont'd)			
3. Ann	ual F	Rehabilitation Report			
(a)	Reł	<ul> <li>e leaseholder must submit an Annual habilitation Report which includes, but is not ted to the following:</li> <li>A plan, or plans, which identifies the location (including coordinates) of all disturbance areas that are the subject of previous,</li> </ul>	Compliant	Correspondence from the Resources Regulator dated 19 June 2018 confirm that the Annual Review (as required by Project Approval 08_0212) can be accepted in lieu of an Annual Debbilitation Deport The 2010	D
	ii)	current or future rehabilitation activities. A brief description of all surface disturbing activities carried out during the report period. The location and size (in hectares) of each of the disturbance areas is to be identified on a plan.		Rehabilitation Report. The 2018 Annual Review (this report) has been submitted on 28 February 2019 (i.e. within the required timeframe).	
	iii)	A brief description of rehabilitation undertaken during the reporting period (for example, area reshaped and seeded for pasture). The location and size (in hectares) of the rehabilitation areas are to be identified on a plan.			
	iv)	A description of rehabilitation monitoring programs and analysis of results of rehabilitation monitoring programs, including a summary of whether rehabilitation is trending towards meeting the objectives and completion criteria.			
	V)	A brief description of the rehabilitation care and maintenance works to be undertaken over the next 12 months to address the outcomes of the monitoring program.			
	vi)	A brief description of the rehabilitation forecast for the next 12 months. The location and size (in hectares) of the proposed rehabilitation areas are to be identified on a plan.			
	vii)	Photographs of each disturbance area including those areas where rehabilitation activities have been conducted.			
(b)	sub date Sec	Annual Rehabilitation Report must be mitted within 90 days of the grant anniversary e, unless otherwise approved by the cretary.	Compliant	As above.	D
Yes <sup>#</sup> No * = Bas	) <sup>#</sup> - Co	omplied / not complied with. Compliance no longer re assessment of compliance	quired to be ass	essed A = Advised by Company	Employee
		ntation sighted		O = Observation during i	

New Berrima Clay/Shale Quarry

#### Table A (Cont'd) Compliance Review – M(MO)L 6

	1		P	age 3 of 4
Cond. No.	Conditional Requirement	Compliance	Comments	Basis*
Genera	al Conditions (Cont'd)	-		1
4. Non	-compliance and Incident Reporting			
(a)	<ul> <li>The leaseholder must notify the Department immediately after becoming aware of any of the following:</li> <li>i) Any breaches of the conditions of this mining lease or breaches of the Act or Regulation.</li> <li>ii) Any breaches of environment protection legislation causing or threatening material harm to the environment, arising in connection with significant surface disturbing activities, including mining operations, mining purposes and prospecting operations, under this mining lease.</li> <li>iii) Any notification made under section 148 of the <i>Protection of the Environment Operations Act 1997</i> arising in connection with significant surface disturbing activities including mining operations, mining purposes and prospections of the significant surface disturbing activities including mining operations, mining purposes and prospecting activities including mining operations, mining purposes and prospecting operations, under this significant surface disturbing activities including mining operations, mining purposes and prospecting operations, under this</li> </ul>	Not Applicable	No breaches of this lease or breaches causing or threatening environmental harm and no notifications under S148 of the POEO Act occurred during the reporting period.	D, A
(b)	Notifications must be provided through the Department's website.	Not Applicable	As above.	D, A
5. Env	ironmental Incident Report	11		
(a)	The leaseholder must submit an Environmental Incident Report to the Department within seven (7) days of: i) All breaches referred to in condition 4(a)(i)	Not Applicable	As above.	D, A
	that caused or threatened material harm to the environment;			
	ii) All breaches referred to in condition 4(a)(ii).			
(b)	The Environmental Incident Reporting must include the following:	Not Applicable	As above.	D, A
	i) The details of the mining lease;			
	ii) Contact details for the leaseholder;			
	<li>iii) A map identifying the location of the incident and where material harm to the environment has or is likely to occur;</li>			
	<ul> <li>A description of the nature of the incident or breach, likely causes and consequences;</li> </ul>			
	<ul> <li>A timetable showing actions taken or planned to address the incident and to prevent future incidents or breaches referred to in condition 5(a);</li> </ul>			
	* - Complied / not complied with. Compliance no longer re is for assessment of compliance	quired to be ass	essed A = Advised by Company I	
	cumentation sighted		A = Advised by Company iO = Observation during i	

#### Table A (Cont'd) Compliance Review – M(MO)L 6

Cond.				ige 4 of 4						
No.	Conditional Requirement	Compliance	Comments	Basis*						
General Conditions (Cont'd)										
5. Envi	ronmental Incident Report (Cont'd)									
(b) (Cont'd)	<ul> <li>vi) Summary of all previous incidents or breaches which have occurred in the previous 12 months relating to significant surface disturbing activities, including mining operations; and</li> </ul>									
	vii) Mining purposes and prospecting operations under this mining lease.									
6. Secı	urity									
	The leaseholder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the mining lease, including obligations of all or any kind under the mining lease that may arise in the future.	Compliant	A bond of \$10,000 was paid on 11 April 2017. Following receipt of a Notice of Assessed Deposit dated 19 September 2018 (in response to the submitted MOP and Rehabilitation Cost	A						
(a)	Amount: \$10,000.		Estimate), a bank guarantee for \$489,000 was established (dated							
(b)	Licence holder's entitlement to interest: none.		17 October 2018).							
* = Basi	* - Complied / not complied with. Compliance no longer re is for assessment of compliance sumentation sighted	equired to be ass	essed A = Advised by Company E O = Observation during ir							



## **Appendix 3**

## Meteorological Data Recorded during 2018

(Total No. of pages including blank pages = 4)



This page has intentionally been left blank



Date	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	0	0	0.2	0	0	0	0	0	3	0
2	2.2	0	0	0	0	6.8	0	0	0	0	3.2	0
3	0.2	0.2	0	0	0	2.4	0.4	2	1.8	1.2	0	0
4	0.2	0.4	0	0	0	0.2	0	0	0.6	9.8	0	0.2
5	0	0.2	3.2	0.2	0	1.6	0.2	0	0.2	2.8	0	0.2
6	0	0	0	0	0	3.2	0	2.8	2.2	0.2	0	0
7	1.8	0	0.8	0	0	0	0	0	0.4	2.2	10.6	0
8	1.8	0	0	0	0	0.4	0	0	3.6	2.6	2.8	0
9	9	0	0	0	0	2.2	0	0	0.2	0	0	0
10	0.2	4.8	0.2	0	0	0.8	0	0	0	0	0	0
11	0.2	0.2	0.2	0	0	0	0	0.4	0	0.8	0	0
12	22.8	0	0	0	8.8	0.4	1.6	0	0	0	0	0
13	0.8	0	0	10.6	0.4	0	0	0	0	6.6	0	54
14	7.4	0	1.2	1	0.2	0	0	0	0	11.4	1.2	4.4
15	0	0	0	0	0.2	0	0.2	0	0	5	2.6	4.8
16	0	0	0	0	0	2.2	0	0	0	0.2	0	0.2
17	0	0	0	0	0.4	0	0	0	0	1.4	0.4	0
18	0	0	0	0	0	6.2	0	1.2	0	3.6	0.2	0
19	0	3.8	0	1	0	8.8	0	0	0	0.2	0	1.6
20	0	9	0.8	0	0	1	0	0	0	9.4	0	3.4
21	0	0	3.4	0.2	0	0.2	0	0	0	0.2	3.6	0.2
22	0	0	5.6	0	0	0.4	0	0	0	0	2.8	1.8
23	0.2	0	0	0.2	0	0	0	0	0	0	3.8	0.2
24	0	1.2	4.4	0	0	0	0	0.4	0	0	0	0
25	0.8	69.8	0	0.2	0	0	0	1.6	0	0	0.2	0
26	5	5.6	0	0.2	0.2	0.2	0	3	0.8	0	0.2	0
27	0.2	0.4	0	0	0	2.4	0	0.6	0.4	0	0	0
28	0.2	0	0	1.2	0	12.6	1.2	0	0	0.2	83.8	0
29	0		0	6.2	1.2	0.2	0.8	0	0	0	0.6	0
30	1.8		0.2	0.2	4.2	0	0	0	0	0	0	0
31	0.4		0		0		0	5		0		0

Table A3-1 2018 Rainfall Records

This page has intentionally been left blank

