

## **DIVISION OF RESOURCES & GEOSCIENCE ADVICE RESPONSE**

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Dear Jessie

**Project: Dendrobium Mine Extension Project**  
**Stage: Review of Environmental Impact Statement**  
**Development Application: SSD-8194**

I refer to your correspondence dated 25 July 2019 inviting the Division of Resources & Geoscience (the Division) to provide comments on the Dendrobium Mine Extension Project (Dendrobium Project or the Project). The Project is submitted by Illawarra Coal Holdings Pty Ltd, a wholly owned subsidiary of South32 Limited (South32 or the Proponent).

The relevant units internal to the Division have been consulted in generating this advice. Further, the Department of Planning, Industry and Environment - Planning & Assessment Division and the Proponent should be aware that matters pertaining to rehabilitation, environmental impacts of final landform design, subsidence, subsidence management, mine operator and safety are not assessed by the Division. Reference should be made to the response from the NSW Resources Regulator on these matters.

### **Advice overview**

The Division has determined that the Dendrobium Project will:

- ensure continued operations at the Dendrobium Mine until 2048.
- improve resource recovery and be an efficient use of resources.
- produce 77.6 million tonnes (Mt) of Run-of-Mine (ROM) coal over 23 years.
- ensure an appropriate return to the state of A\$680 million in royalties (current dollars).
- generate total revenue (value of coal produced) of A\$10.4 billion (current dollars).
- support continued employment for up to 500 full time operational jobs at the existing Dendrobium Mine.
- continue to supply the majority (along with blended coal from the Appin mine) of the coking coal to the nearby BlueScope steelworks.

If the Project is not approved, production at Dendrobium Mine would cease in about 2024.

## Resource and Economic Assessment

The Dendrobium Project entails an underground mining operation proposed to extract approximately 77.6 Mt of ROM coal over 23 years, until 2048, at a maximum of 5.2 million tonnes per annum (Mtpa) ROM coal. The Project will utilise existing infrastructure owned by South32, which includes the Dendrobium Pit Top, Kemira Valley Coal Loading Facility, Dendrobium Coal Preparation Plant and shafts. Product coal will be transported to the Port Kembla Steelworks or Port Kembla Coal Terminal (PKCT).

The Project plans to extract coal from the Bulli and Wongawilli Seams using longwall mining methods, maximising resource recovery. While the mining method maximises resource recovery South32 has reduced the mining footprint in order to minimise impact on subsidence-sensitive surface features while maintaining commercial viability. In some areas, longwall length has been reduced (from both the commencing and finishing ends) and other areas will be left unmined. Coal resources in these unmined areas will not be commercially viable once mining of the longwall panels is complete, resulting in the sterilisation of remaining coal.

The Division has verified that the Dendrobium Project will produce 77.6 Mt of ROM coal and 64.2 Mt of product coal. This is in addition to 34.7 Mt ROM coal production in the currently approved in Dendrobium Area 3 (DA 60-03-2001). The Proponent has completed coal resource and reserve estimations for the Project in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC code). The JORC Code is an industry-standard professional code of practice that sets minimum standards for public reporting of mineral exploration results, mineral resources and ore reserves. Reserves are the economically mineable portion of a resource. A JORC compliant reserves report for the Project assists in independently assessing the commercial viability of the Project and the proposed mining method.

The Dendrobium Mine is currently operating longwalls in Area 3B. The next operating area, Area 3C, has high levels of carbon dioxide gas. The geological conditions within the area mean there is significant lead time to drain gas in Area 3C to a safe level. Mining Area 5, while working to make Area 3C safe, is critical to allow continued operations at Dendrobium Mine. If the Project is not approved, production at Dendrobium Mine will cease in about 2024.

The Project would also continue to supply a large proportion of the coal that is exported from the PKCT. This coal export facility has been running under capacity for many years and without the coal supplied from the Project, the coal terminal would be placed in further decline.

In view of the constraints outlined in the Proponent's Environmental Impact Statement and based on the information currently available, the Division considers the Dendrobium Project satisfies section 3A objects of the *Mining Act 1992* and the requirements of clause 15 of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. The Project represents an efficient development and utilisation of coal resources which will foster significant social and economic benefits.

The Division is satisfied that, should the operational outcomes be achievable, the proposed mine design and mining method submissions adequately recover coal resources and will provide an appropriate return to the state.

The resource utilisation, recovery and economic benefits assessment undertaken by the Division is addressed in Attachment A.

### **Application of section 380AA of the *Mining Act 1992* – restrictions on planning applications for coal mining and titles required to undertake mining**

Section 380AA states:

*(1) An application for development consent, or for the modification of a development consent, to mine for coal cannot be made or determined unless (at the time it is made or determined) the applicant is the holder of an authority that is in force in respect of coal and the land where mining for coal is proposed to be carried out, or the applicant has the written consent of the holder of such an authority to make the application.*

*(2) For that purpose, an authority in respect of coal need not be in force in respect of the whole of the land to which the application for development consent relates but must be in force for the land where mining for coal is proposed.*

Based on current title information the Division is satisfied that the Proponent holds the appropriate titles as required for planning applications for coal as relating to the Project and satisfies the requirements of section 380AA.

### **The requirement for a mining authorisation and royalty liability**

#### *Requirement for a mining lease*

Coal is a prescribed mineral under the Act. The Proponent is required to apply for appropriate mining title(s) allowing for mineral extraction, such as a mining lease, from the Division to undertake mining. Based on current title information the Division advises that the Proponent holds the appropriate titles as required for mineral extraction (coal) satisfying the requirements of sections 5 and 73 of the Act.

#### *Additional ancillary mining activities (including ventilation shafts)*

For ancillary mining activities carried out in connection with and in the immediate vicinity of a mining lease in respect of a mineral, the proponent is required to hold a Mining Lease for ancillary mining activities or an 'off title' designated ancillary mining activity as defined by clause 7 of the Mining Regulation 2016 (the Regulation). This applies where the activities move beyond the scope of section 73 (Rights under mining lease) and/or section 81 (Surface activities in relation to subsurface leases) of the Act.

#### *Royalty liability*

The holder of a mining lease is also liable to pay royalty for both publicly and privately-owned extracted minerals (refer to section 282-285 of the Act).

### **Application of section 65 of the *Mining Act 1992* – development consents under the *Environmental Planning and Assessment Act 1979***

A development application under the *Environmental Planning and Assessment Act 1979* must be approved before a mining lease can be granted. A mining lease will only be granted for activities specified in the development consent.

Section 65 states:

*The Minister must not grant a mining lease over land if development consent is required for activities to be carried out under the lease unless an appropriate development consent is in force in respect of the carrying out of those activities on the land.*

### **Biodiversity offset assessment**

The Division requests that the Proponent consider potential resource sterilisation should any future biodiversity offset areas be considered. The Proponent must consult with the Division and any holders of existing mining or exploration authorities that could be potentially affected by the proposed creation of any such biodiversity offsets, prior to creation occurring. This will ensure there is no consequent reduction in access to prospective land for mineral exploration or potential for the sterilisation of mineral and extractive resources.

### **Summary of review**

The Division has determined that should the project be approved; efficient and optimised resource outcomes can be achieved, and any identified risks or opportunities can be effectively regulated through the conditions of mining authorities issued under the *Mining Act 1992*.

The Division requests to review the draft conditions of approval before finalisation and any granting of development consent.

For further enquiries and advice in relation to this matter, please contact Adam W. Banister, Senior Advisor Assessment Coordination – Resource Assessments on 02 4063 6534 or [assessment.coordination@planning.nsw.gov.au](mailto:assessment.coordination@planning.nsw.gov.au).

Yours sincerely



Stephen Wills  
**Executive Director Resource Operations**  
**Division of Resources & Geoscience**  
18 September 2019

Encl.

Attachment A – Dendrobium Mine Extension Project - Resource & Economic Assessment (DOC19/617590)  
Attachment B – Dendrobium Mine Extension Project - Diagram (DOC19/808931)