

**Before a Hearings Panel Appointed by the
Selwyn District Council and Canterbury Regional Council**

Under

the Resource Management Act 1991
(Act)

And

In the Matter

an application under section 88 of the
Act by Bathurst Coal Limited in
relation to the completion of mining
and closure and rehabilitation of the
Canterbury Coal Mine in the Malvern
Hills, Canterbury

**Summary Statement of
Eden James Paul Sinclair (Operations)
for Bathurst Coal Limited**

Dated: 26 October 2021

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INTRODUCTION

1. My full name is Eden James Paul Sinclair.
2. I have the qualifications and experience set out at paragraphs 2 - 5 of my statement of evidence dated 1 October 2021. I am currently the Canterbury Coal Technical Services Manager for Bathurst Resources Limited (**BRL**). BRL operates the Canterbury Coal Mine (**CCM**) on behalf of Bathurst Coal Limited (**BCL**).
3. In this statement, I provide a summary of the key points in my evidence and respond to the evidence provided for the Council which I have read.

KEY POINTS

4. The Canterbury Coal Mine (**CCM**) is located on a ridge in the Malvern Hills where a deposit of the Broken River coal measures lies close to the surface. Coal mining has been virtually continuous in the Malvern Hills coalfield since the underground Homebush mine opened in 1872. Opencast mining commenced at the site around 2003, with Bathurst Coal Limited (**BCL**) purchasing the site in 2013.
5. The CCM has developed into a well-managed site operating to industry best practise. The CCM won the award for innovation at the 2019 Minerals Sector Awards and was a finalist in 2020 in the environment management category for work done to eliminate historic AMD and improve AMD outcomes at the site.
6. The Addendum AEE filed on 6 April 2021, provides additional details of the final operational period and the closure and rehabilitation process. The rehabilitation and closure works outlined in the Addendum AEE are well advanced with major earthworks projects on schedule to be completed in by the end of March 2022, and only approximately 22Ha of final rehabilitation to be completed out of a footprint of 57Ha.
7. BCL has operated the CCM in accordance with the sites Environmental Management Plan (**EMP**). The EMP provides management plans and processes to manage operational activities at the site, and reduce, remedy, mitigate any environmental effects.

8. Closure activities are managed in accordance with the Mine Closure Management Plan (**MCMP**). The MCMP contains key operational components that aim to ensure the effective management of the closure and rehabilitation process and delivery of outcomes.

VIDEO PROVIDING AN OVERVIEW OF THE SITE

9. In order to better describe and provide the site and the closure works currently be undertaken and provide some 3-dimensional context for the site and its surrounding environment I would like to present the following video. I will provide a commentary to the video as we go through it.

[Play Video]

10. I trust that video has provided some further context for the site and for the mine closure proposals.

SECTION 42A REPORTS AND CONFERENCING OUTCOMES

11. In my evidence I responded to a number elements raised in the section 42a reports. These elements included
 - (a) Flows to tara stream;
 - (b) Mussel shell reactor dilution;
 - (c) Decant design, commissioning and redundancy;
 - (d) Monitoring of decant flows;
 - (e) ELF capping;
 - (f) Discharge points for subsoil drains;
 - (g) Proposed conditions; and
 - (h) Compliance monitoring points.
12. I am happy to answer any questions on these matters at the end of my summary.
13. I also attended the caucusing meeting held on the 19th October to discuss water quality matters between the BCL and council experts.

14. A detailed summary of the active closure and post closure phases and the activities being undertaken during those times was provided during caucusing. I believe that this clarified a number of points for all of the experts present. An updated water quality TARP and performance monitoring matrix was also provided during the caucusing.
15. Discussion regarding the closure proposals and statements made in the Addendum AEE and section 42A reports were varied and thorough.
16. It appeared to me that a number of items were agreed in principle during this caucusing. While a joint witness statement has not been signed by all experts, I understand that the following points were generally agreed between the experts:
 - (a) The N02 Pit Pond is the remnant of the mine working pit, but not a classic deep mine pit lake, as the pit will be infilled with approximately 14m of fill.
 - (b) The N02 Pit Pond will be largely retained as a shallow sump (providing stormwater surge capacity) throughout the Active Closure Phase, so will not behave as per the final pond. This will be taken into account when analysing water quality data obtained during performance monitoring.
 - (c) The mine domains are different, but that care is needed in using North ELF water quality to provide an analogue model for N02 Pit Pond. Performance monitoring during the active closure phase will be used to ensure N02 Pit Pond water quality can be used for dilution before it is relied upon in the Post Closure Phase.
 - (d) Clarification that the SDC Malvern Hills Potable Water Supply network would be used for dilution of MSR effluent during the Operational and Active Closure phases because N02 water is unavailable as the pond would be retained with a low water level to manage TSS.
 - (e) The spillway channel from N02 to Tara Pond and Tara Pond spillway are major structures designed to pass 1:100 year events.

- (f) There was a lot more discussion of the mechanisms making stratification of N02 highly likely or almost certain rather than a possibility. A TARP for N02 Pit Pond stratification was discussed for the Post Closure Phase, along with appropriate monitoring.
 - (g) The creation of mudfish refuge habitat in Tara Stream was discussed - I agree it would be a possibility (subject to managing sediment discharge and the concerns expressed by Dr Hogsden and Ms Hartwell). However, the creation of such habitat does not appear to be directly linked to any adverse effect from BCL's activities. I do not consider that any ongoing obligation in relation to the creation or maintenance of such habitat would be appropriate.
 - (h) New suggested CC02_tele monitoring location for compliance purposes during the Post Closure Phase, with the removal of turbidity as a compliance requirement in the Post Closure Phase.
 - (i) Continue using CC02_tele as the monitoring/compliance point for the Active Closure Phase.
 - (j) Apparent agreement to continue performance monitoring at CC12 (Oyster Gully stream).
17. To me, it appeared at conferencing that a number of the above items along with other items could be agreed by ECan's witnesses despite the joint witness statement not being signed. This may be able to be achieved as we progress through the hearing and may be clarified by ECan's witnesses.

CONCLUSION

18. In summary, I believe the mine closure proposal and accompanying management plans provide a robust system to allow complete and comprehensive closure of the mine and to construct a safe and stable landform without undue effects on receiving environments.



Eden Sinclair

26 October 2021

