

In the matter of an application for approvals under the Fast Track Approvals Act
2024 for the Barrytown Minerals Project – Southern Block
[FTAA-2605-1238]

By **Tāiko Critical Minerals Limited**

Applicant

**Statement of evidence in reply of John Ballingall in relation to economic
critiques of the Southern Resources Block application**

5 October 2026

Applicant's solicitors:

Alex Booker

Anderson Lloyd

Floor 2, The Regent Building, 33 Cathedral Square, Christchurch 8011

PO Box 13831, Christchurch 8141

DX Box WX10009 Christchurch

p [REDACTED]
[REDACTED]

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lloyd.**

Introduction

- 1 My name is John Stacey Ballingall.
- 2 I provided a statement of economic evidence dated 3 March 2026 and prepared the economic impact assessment dated 9 March 2026 for the Barrytown Minerals Project.
- 3 My qualifications and experience are set out in my earlier evidence. I also prepared economic evidence for the earlier resource consent process in January and February 2024.
- 4 I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and have complied with it when preparing this reply. The matters addressed below are within my area of expertise, except where I identify a matter as requiring legal or other specialist evidence.

Scope of reply

- 5 I have reviewed the economic matters raised in the comments of [REDACTED], the Coast Road Resilience Group (CRRG), and Professor Glenn Banks. The [REDACTED] and [REDACTED] comments are not paragraph-numbered, so references to them below identify their section and PDF page; [REDACTED] comments are cited by concern number.
- 6 My economic impact assessment dated 9 March 2026 describes the estimated gross economic activity associated with the Barrytown Minerals Project (BMP) as a whole. My statement dated 3 March 2026 addresses the Southern Resources Block (SRB) application.

Project wide effects and effects attributable to the SRB

- 7 Esther (pp.2-3) states that my analysis does not look at the incremental benefits and costs of the SRB.
- 8 My 9 March 2026 assessment reports average annual BMP-wide estimates of \$122.7 million of GDP, \$230.0 million of exports, \$76.7 million of non-wage operating expenditure, \$13.0 million of wages, 135 direct FTE positions and 189 flow-on jobs.
- 9 In my 3 March 2026 statement, I used 87% of expected mining volumes to pro-rate several annual BMP-wide values to the SRB. That gives approximate annual estimates of \$107.0 million of GDP, \$200.2 million of

exports, \$66.9 million of operating expenditure and \$39.8 million of royalties and tax.

- 10 This was a scaling exercise based on expected volumes, not a separate financial model of the SRB. In my opinion it is appropriate for a staged project. It assumes impacts move broadly in proportion to volume, although I noted that economies of scale and other non-linear effects could make that assumption imperfect.
- 11 Those figures should not be described as incremental benefits generated by the SRB over and above the already consented Central Resources Block and associated processing facilities. They are incremental benefits relative to a scenario where no additional mining takes place over the 14-year life of the SRB mining area.

Financial model, assumptions and uncertainty

- 12 My evidence drew on financial modelling prepared by Orecast Modelling for TCM. As I am not a mining expert, I did not independently verify the model's production schedule, product prices, exchange rate assumptions, operating and capital costs. I used the financial model's outputs for my modelling, confident that they had been reviewed independently by PwC.
- 13 [REDACTED] (pp.4-5) casts doubt on the validity of my estimates due to concerns over the underlying financial modelling, as highlighted by the 11 March 2026 market announcement and the model's subsequent retraction.
- 14 TCM advises this retraction was for technical reasons related to sign-off of the mineral resource by a Competent Person, not due to concerns over the accuracy of the financial model itself. This sign-off has since occurred, validating the assumed mineral resource in the financial model. In my opinion, the financial report and accompanying peer review are therefore robust foundations on which to base my economic analysis.
- 15 My evidence presents a base case and does not publish a sensitivity analysis for mineral prices, exchange rates, production volumes, mine life, wages, diesel, electricity or other operating costs.
- 16 Commenters' comments (Banks, paras 14-20; CRRG, paras 27-29; [REDACTED], pp.8-9.) note commodity price, fuel and input-price movements after the model date. I have not been provided with a revised financial model since I prepared my evidence.
- 17 I accept that I have not established how the headline estimates change under adverse price or cost scenarios. But this works both ways – a lower

NZD exchange rate than the 0.65 per USD assumed, for example, would lift export earnings and GDP above my central estimate.

- 18 Such an analysis would also need to consider how world prices for the minerals have adjusted to a higher-input cost environment. If prices have increased to retain margins, then the overall impact on the GDP estimates I previously estimated would be small.

Employment and flow-on effects

- 19 Some Commenters questioned my used of an employment multiplier to explore flow-on job impacts (Banks, paras 26 and 29; [REDACTED], p.3 and pp.5-6).
- 20 The 135 direct positions are based on the applicant's whole-project staffing information. I accept that one cannot say with certainty that the 135 FTE positions equates to 135 net new regional jobs, at least not immediately.
- 21 TCM advises there may be a transition period when some technical expertise is brought in from Australia for 3-5 years, with knowledge transfer to local workers via training programmes occurring over this period.
- 22 However, it seems to me to be a reasonable proposition that over time most of these 135 roles will be filled from within the regional economy. The regional workforce has a long history of being engaged in mining operations and will be well placed to either take up roles straight away or upskilling through knowledge transfer and training.
- 23 TCM advises it has been working closely with the Ministry of Social Development's Regional Labour Market team to promote opportunities at BMP. TCM has already received many job enquiries from local people looking for work and recently employed its Operations Manager who lives in Barrytown.
- 24 In my opinion, the existence of some degree of flow-on employment impacts on suppliers isn't being debated.¹ But they cannot easily be observed directly, so one either chooses to avoid putting a number on them because of disagreements about the 'right' number, or one assumes some form of multiplier, aware of that choice's limitations.
- 25 I prefer the second approach. The question then is how large the chosen multiplier should be.

¹ The Waihi North Project decision is useful on this point. The panel accepted that indirect and induced effects exist but said their quantification was challenging.

- 26 The 189 flow-on jobs are calculated by applying a 1.4 employment multiplier from Fleming and Measham (2014), an Australian study of regions with existing mines. The study uses observed employment relationships and is preferable for this purpose to an unadjusted input-output multiplier which will overstate flow-on impacts due to ignoring displacement effects and the effects of wage increases.
- 27 It is true that the 1.4 multiplier is not a New Zealand or Barrytown-specific estimate and that there are caveats around its use. However, in my professional opinion it is a conservative parameter. Fleming and Measham's econometric approach uses observed regional employment changes and incorporates offsetting effects, such as displacement of jobs in other industries.
- 28 By comparison, the New Zealand input-output Type II multiplier cited in my earlier evidence implies 1.96 indirect and induced jobs per direct mining job, but does not account for displacement or resources being reallocated from other activities.
- 29 I note that recent Fast-Track economic analysis of the Waihi North mine used a multiplier of 1.7 supplier and contractor jobs, plus 0.8 induced jobs, per direct job – much higher than the 1.4 used in my evidence. Input-output employment Type I multipliers (i.e. indirect jobs divided by direct jobs) are typically around 2.
- 30 As such, I don't believe I am seeking to gild the lily here – I could have used a much higher multiplier but chose a conservative one.
- 31 In my 9 March report I stated that BMP direct employment would increase mining employment on the West Coast by 18.0%, while identifying the baseline as 6,826 jobs. That baseline number was an error and I thank Professor Banks for spotting it (Banks, para 34).
- 32 The 18.0% increase is from a West Coast regional baseline mining jobs figure of 770 (close to the 750 mentioned by Mr Banks). So the 18.0% figure is correct. The 6,286 in my evidence is the New Zealand (not West Coast) number of mining jobs, of which the 135 BMP direct job is 2.15%.
- 33 This drafting slip does not affect my conclusions.

Local spending, retention and distribution

- 34 Commenters (Banks, paras 21-24; Esther, p.6.) state that not enough analysis has been done to estimate local benefits from operating expenditure. I have focused on providing an economic assessment of the

Application to assist the Panel's decision making. The Application has been made under the FTAA which has a purpose to facilitate the delivery of development projects with significant regional or national benefit. The Panel is also required to assess adverse impacts against those regional or national benefits.

- 35 The \$76.7 million BMP-wide and \$66.9 million SRB-scaled figures are estimates of non-wage operating expenditure. They are not a precise estimate of expenditure retained in Grey District or on the West Coast. The financial model on which my analysis was based did not provide a breakdown by supplier location, imported content or the share of purchases made from local businesses.
- 36 However, I maintain that the majority of this spend will take place within the regional economy. Of the mine's non-wage operating expenditure, over 50% is from mining and processing operations and administrative services. I expect this spending to be directed largely to local suppliers, for reasons of timeliness of delivery and local knowledge. Transport costs are around 41% of non-wage operating expenditure, and will be split between regional transport operators and national freight operators as product moves to market.
- 37 TCM advises the only mining apparatus to be imported is the specialist separation equipment, which is not available in New Zealand. It will procure the remaining inputs (e.g. safety gear, building supplies) from within the West Coast economy, as they are commonly available given the prominence of the region's mining sector.
- 38 The \$13.0 million wage estimate is based on 135 FTEs remunerated at the 2024 West Coast mining median earnings figure used in the report. It is gross payroll estimate, not a direct measure of regional household income. However, aside from some specialist technical staff who may come from outside the region, I would expect regional workers to take up the vast majority of roles.
- 39 It is not clear to me what Professor Banks' "fair share" calculation seeks to demonstrate. There is no economic basis for determining what "fair" should be – it is inherently subjective.

Economic costs and net benefits

- 40 Commenters have stated that my evidence did not pay enough attention to economic costs (Banks, paras 29-33; CRRG, paras 25-26, 32; [REDACTED], pp.6-7), focusing on gross economic benefits rather than net economic benefits.

- 41 My evidence quantified some economic costs, including the potential loss of grazing output, and discussed tourism and housing.
- 42 Commenters note that I haven't sought to quantify environmental costs, landscape effects, recreational impacts, cultural values, radioactive waste disposal, or distributional effects.
- 43 This is correct. I am sure that if I had done so, Commenters would have instead criticised my estimates for crudely and insensitively trying to put dollar values on the inherently un-monetisable.
- 44 My understanding is that the quantified economic benefits and costs I have estimated feed into the FTAA Panel's decision-making process along with other experts' assessments of these wider social effects. There is no requirement for a fully specified and monetised social cost-benefit analysis.
- 45 The Waihi North Project decision (paragraphs 784-787) provides useful guidance here. It treated an economic impact assessment as a way to describe commonly-quantified effects, and assessed non-market environmental effects separately.

Economic deprivation and mining: causation, correlation or something else altogether?

- 46 Professor Banks (paras 25-28) states that despite mining's contribution to the regional economy, some parts of the West Coast region have suffered deprivation.
- 47 The existence of historic mining alongside socioeconomic deprivation on the West Coast does not mean that mining caused deprivation. The drivers of regional deprivation are multi-faceted and usually generational. They cannot in my opinion be attributed to the presence (or not) of a single industry.
- 48 Neither does the presence of deprivation mean this specific project would not deliver significant regional economic benefits and wellbeing improvements.
- 49 My assessment identifies potential channels of economic benefits from SRB; it does not measure precisely who will benefit and by how much.
- 50 I cannot imagine that the legal test for approving a project is that every single citizen must be better off in the region (or perhaps nationally?). No project would ever be approved on that basis – the evidential bar would be insurmountable. Nothing would ever get done.

Land, tourism and housing

- 51 [REDACTED] (p.6) questions my use of a lower-end grazing revenue per hectare figure of \$464 to estimate revenue forgone. He does not suggest an alternative figure, however.
- 52 The grazing calculation was intended to indicate the scale of the opportunity cost relative to the potential benefits from mining the same land. One could increase the per hectare figure by 100 and the opportunity cost of the land for grazing purposes would still be tiny compared to the benefits it could otherwise generate as a mine.
- 53 On housing, [REDACTED] (p.7) makes the fair comment that renters might suffer from higher rental costs as demand for housing rises. There will be an offsetting benefit to the rental property owner, however. In addition, TCM advises it has underwritten housing developments to support an expansion of the rental supply. That will moderate rental increases.
- 54 Commenters disagree with my assessment of tourism effects (Henderson, section 1-2; Grace, concern 10; CRRG para 31; Banks, para 33).
- 55 I accept there may be negative tourism impacts. But despite concerns from multiple stakeholders on this topic over the years, no one has been willing to put their penny down on the potential tourism costs of BMP or SRB.
- 56 The CRRG comments cite an earlier “small survey” in which 69% of 37 respondents surveyed said that a mine could affect their decision to visit.
- 57 This is relevant evidence of *stated* visitor perceptions for a small sample of visitors and should not be dismissed (albeit we have no idea how the 37 people were selected and thus how representative they are of all visitors).
- 58 But it does not establish how many visitors would *actually* change their plans, the duration of any effect, or the resulting change in regional tourism value added.
- 59 My comparison of the mine’s export revenue with regional visitor spending (also an export, but of tourism services), including the statement that tourism spending could fall by 95% and the region would still be better off, was deliberately illustrative. The aim was to put some parameters on how severe the drop in tourism spending would have to be to leave regional exports lower than if the mine did not proceed.
- 60 I maintain the position that while there could be a negative impact, I do not expect tourism to be significantly adversely affected. I have not identified

reliable empirical evidence that past mining development on the West Coast has caused a material reduction in visitor numbers or tourism activity.

- 61 Indeed, the historical evidence does not show an inverse relationship between mining and tourism activity on the West Coast.
- 62 Development West Coast² reports that, in the combined Charleston and Barrytown areas, the correlation between local mining and tourism employment is approximately zero.
- 63 This history is consistent with the two sectors being able to operate in the same regional economy without tourism necessarily contracting as mining expands.
- 64 Research on sector interaction also indicates that mining's tourism effects are not necessarily uniformly adverse. In interviews with 78 residents and sector representatives in the Queensland regions of Gladstone and Roma, Moyle et al³ identified pressures on tourism – including competition for workers and accommodation, and effects on infrastructure and visitor products – as well as potential synergies. These synergies included mining sector investment in visitor facilities and events, tourism businesses gaining from resource-related business travel and spending, and partnerships between sectors.

Product mix

- 65 CRRG (para 34) identifies a difference between the product mix in my 9 March report and the products described in the SRB application, noting the application describes ilmenite, garnet, zircon and gold, and does not include critical minerals concentrate expected to be 3% of total revenue.
- 66 My analysis was based on the financial model for BMP that was available to me at the time of writing my report. As noted in paragraphs 9-10 above, no separate model was prepared for SRB.
- 67 I understand that SRB will not in fact produce any CMC. Given CMC accounts for just 3% of expected revenue in the application, such a change in product mix is – in my opinion – not material for the purposes of estimating the economic benefits of the project. In GDP terms, the 3% of revenue associated with CMC is around \$3.2m per year. This small

² Development West Coast. 2025. 'Mining and Tourism on the West Coast: Charleston, Barrytown and the wider West Coast region - GDP, employment and earnings, 2000-2025.

³ Moyle, B. D., Moyle, C. J., & Bec, A. 2016. *Current Issues in Tourism*.
<https://doi.org/10.1080/13683500.2016.1238884>

decrease in annual economic benefits would be partially offset if there is additional production of other minerals, however.

Conclusion

- 68 The comments referred to above addressed do not fundamentally alter the findings of my evidence – that SRB would deliver significant benefits to the regional and national economies.
- 69 They highlight potential – but not robustly quantified – adverse effects that the Panel may weigh up against the quantified benefits that I have presented.

John Stacey Ballingall

5 October 2026