

**FORM 13: SUBMISSION  
ON AN APPLICATION FOR RESOURCE CONSENT  
UNDER SECTION 96  
OF THE RESOURCE MANAGEMENT ACT 1991**

Office  
Use Only



**PART A: DESCRIPTION OF APPLICATION**

CONSENT NUMBER: WCRC: RC-2023-0046 GDC: LUN3154/23	APPLICANT: TIGA MINERALS AND METALS LTD
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DESCRIPTION OF PROPOSED ACTIVITY:  
Establish and operate a mineral sands mine, including construction of associated infrastructure.

LOCATION:  
Barrytown Flats, west of State Highway 6 (Coast Road), 9km south of Punakaiki township and 36km north of Greymouth.

**PART B: SUBMITTER DETAILS**

Full name/s	ROBIN ALEXANDER RANSOM		
Postal address	[REDACTED]		
I am the owner/ <del>occupier</del> (delete one) of the following property:	[REDACTED]		
Primary contact person/s	AS ABOVE		
Email address	[REDACTED]		
Phone number/s	Home: .	n/a	Business: n/a
	Mobile:	[REDACTED]	Fax: n/a

Signature of the submitter (or person authorised to sign on behalf of the submitter): 	Date: 5/10/2023
Name (BLOCK CAPITALS): ROBIN RANSOM	

*If this is a joint submission by 2 or more individuals, each individual's signature is required.  
A signature is not required if you make your submission by electronic means.*

I/we **support** the application numbers indicated by a tick on the back of this form

I/we **oppose** the application

I/we **neither support nor oppose** the application

(tick one)

I/we **wish to be heard** in support of my/our submission.

I/we **DO NOT wish to be heard** and hereby make my/our submission in writing only.

If you wish to be heard, and others make a similar submission would you consider making a joint case with them at any hearing

 Yes No

If you indicated you wish to be heard, you will be sent a copy of the S.42A Officer's Report and a copy of the Decision once it is released. Please indicate below which format you would like to receive these documents in:

 Electronic (CD) copy Hard (paper) copy

I/we **have** served a copy of my/our submission on the Applicant as per Section 96(6)(b) of the RMA

 Yes

The specific parts of the application that my submission relates to are: *(give details)*

My submission is opposed to the TIGA application in entirety. See attached document headed:

"Submission in opposition to resource consent application from TIGA Minerals and Metals Ltd. for a mineral sands mine at Barry-

My/our submission is that: *(include whether you support or oppose the application or specific parts of it; whether you are neutral regarding the application or specific parts of it; and the reasons for your views).*  
town Flats.

I/we seek the following decision from the Local Authority:(give precise details)

My submission requests that resource consent for the TIGA application be denied.

I ~~am~~/am not\* a trade competitor for the purposes of section 308B of the Resource Management Act 1991.

\*Select one.

\*I am/am not† directly affected by an effect of the subject matter of the submission that—

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition.

\*Delete this paragraph if you are not a trade competitor.

†Select one.

I ~~request~~/do not request\*, pursuant to section 100A of the Act, that you delegate your functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.

\*select one.

**Important information – Please read carefully.**

**SUBMISSION IN OPPOSITION TO RESOURCE CONSENT APPLICATION FROM  
TIGa MINERALS AND METALS LTD FOR A MINERAL SANDS MINE AT  
BARRYTOWN FLATS**

I am opposed to this application for a number of reasons, not least of which is that my family owns the property at [REDACTED]. The property, where our son resides and we visit, [REDACTED] of the proposed mining area.

I will return later in this submission to the implications of the TIGa proposal on us as a family but will deal first with my opposition on global, environmental and local community grounds.

**1. Global Heating**

I oppose the application by TIGa because of its potential contribution to global heating.

The NZ Government has proposed stringent emissions reductions targets from all sources including most significantly, the burning of fossil fuels. The TIGa proposal will require very substantial emissions from the diesel-fuelled machinery required to undertake the open cast mining through to the diesel-fuelled trucks required to transport the mined material along SH6 either to Westport or Greymouth. Given the magnitude of mining activities and the large number of heavy vehicle movements it will require, it seems likely that the fossil fuel carbon emissions generated will contribute in a more than minor way in the climate crisis our government has declared.

It is difficult to assess just how significant the effects will be however because the application does not include an emissions report. Accordingly the proposal cannot be measured against the global heating provisions in the RMA and the Climate Change Response (Zero Carbon) Amendment Act. But it is fair to say that by its very nature the TIGa proposal is in opposition to the targets of the government's emissions reduction plan.

The application goes into some detail on its remediation plans for the land to be mined but also acknowledges that at the end of the mining activity the land elevation will be reduced by 1.2 metres. This will fundamentally change the

nature of the Barrytown flats for the worse. It will exacerbate the anticipated impacts of global heating on coastal erosion and on seawater incursion into groundwater from sea level rise and storm surges.

## **2. Ecosystem and Ecology**

I oppose the application by TIGa because of the adverse effects it will have on indigenous flora and fauna and their habitats.

The proposed mining activities will involve excavation, truck movements, waterway pollution and sedimentation, alteration of the local hydrology, night-time lighting, noise, vibration, air pollution and dust. All of this will disturb and adversely affect the local ecosystem and its flora and fauna.

One very high profile likely victim of the proposed mining activities is the Westland Petrel/Taiko. Because it has only one breeding location, which is in the foothills of the Paparoa ranges near Punakaiki, the Taiko is already in a perilous situation. This will be exacerbated if the mine is permitted to proceed.

A very significant danger to the continued well-being of this species is the proposed night-time trucking activity, since these birds fly into their nests in the bush and depart again for the sea during night-time hours. Headlight distraction will likely confuse and disorient them, leading to injuries and fatalities. TIGa has acknowledged this problem. The remedy they have proposed is to limit trucking hours to 30 minutes before sunrise and after sunset. This is inadequate because conditions often make headlight use necessary outside of these times. In addition, it is proposed that processing of mined material will operate 24/7 at the mining site. This presents a further threat of night-time light distraction to these birds.

The Taiko has a slow reproduction rate. Combined with the fact that this is the only location where these birds breed means that any deaths due to mining activities increases the threat to the continued existence of the species.

The TIGa proposal is contrary to Policy 11 of the New Zealand Coastal Policy Statement which requires that human activities must avoid adverse effects on threatened or at-risk indigenous species and their habitats.

### **3. Amenity Values**

I oppose the application by TIGa because of the adverse effects it will have on amenity values, both for the local community and tourists.

People have been drawn to live in this area by the peace and quiet of the rural scene, the relative isolation and the natural environment. They value highly the drama of its particular landscape and topography. The connectivity between wild and frenzied ocean, gently undulating pasture and steeply rising bush-clad hills, overseen by an often hazy, sometimes misty and brooding sky, all cohere to make the Barrytown flats a unique environment: there is nowhere else quite like it in my experience on the West Coast.

These amenity values would be spoiled forever for locals and visitors alike if the area is turned into an industrial zone, with all that entails in the way of massively enhanced human activity – noise, dust, traffic, disruption to peace and quiet and overall reduction in well-being as a result.

### **4. Cycling Safety**

I oppose the TIGa application because of the enhanced danger to cyclists it will create.

The significant increase in heavy truck and trailer movements will increase danger to cyclists as a matter of course – more heavy trucks, more opportunities for accidents. There are virtually no cycleways along the entire 100km or so of SH6 between Westport and Greymouth. The likely outcome will be a reduction in the number of cyclists on SH6 in the section that mining trucks will be operating and possibly further north and south as well.

Our son lives at [REDACTED] and has made a principled lifestyle choice not to have a car. Presently he cycles almost every day throughout the year on the section of the highway between his [REDACTED] approximately one kilometre, to swim at the Barrytown Marine Reserve south of Punakaiki. He also cycles to Punakaiki and to Greymouth and Westport occasionally. The road is narrow and winding in places, which makes cornering dangerous both for cyclists and for small vehicles when large truck and trailer units are doing the cornering. This source of hazard will increase if the mining operation is permitted.

Cycling is arguably even more hazardous on straight sections of road than corners because fast-moving trucks create significant wind pressure waves as they approach and pass, and this can blow cyclists around in unpredictable and potentially dangerous ways. Our son describes the experience as “...they bring with them a large gust of wind which blusters you around on your bicycle”.

It is highly likely there will be serious cyclist injuries and/or deaths as a result of the vastly increased truck movements. Apart from that those who cease cycling will lose its positive health and well-being benefits and will see an increase in their cost of living and in their fossil fuel emissions.

## 5. Noise Pollution

I oppose the application by TIGa because of the loss of community well-being it will cause through noise pollution.

I have read the Marshall Day noise report. This is a largely technical document and not easy for a layperson to comprehend in parts. This is not helped by the fact that the glossary of terminology does not include explanations for several of the noise measurement metrics the report uses. It presents data from both **actual** noise readings (taken from recent on-location measurements) and **predicted** noise when the mine is operating (based on the claimed noise output from the various types of machinery which it is proposed will be used at the mining site and on SH6). It compares the various data with a range of NZ Acoustics Standards, Grey District Plan Noise Standards, TTPP noise limits and WHO noise guidelines.

The report’s summary says it “...provides an assessment of the potential noise effects arising from the proposed mineral sand mining activity near Barrytown...” I do understand that any attempt to assess noise effects must be both objective and measurable and that the investigation’s parameters are dictated by the NZ Acoustics Standards and WHO published guidance etc. I have no doubt this study has done what it set out to do, assuming the methods and equipment used were accepted industry practice.

My problem is that the while the metrics used may have achieved scientific accuracy, **the data the report presents do not adequately or accurately replicate what the human ear experiences.** Thus these findings are not a fair

evaluation of noise pollution as it will be experienced by local residents and other users of the area.

Several reasons for this conclusion. First, the metrics the report most commonly focuses on are to do with the measurement of noise levels averaged over specified time periods – 15 minutes is commonly used in the report, but also much longer time periods. The report does not explain how the average figures presented have been calculated. Presumably the purpose of averaging is to level out the peaks and troughs of noise occurring over specified time periods, especially for example, as recorded near highways. So I assume the average figures are created in the standard way one calculates an average, by adding up all the decibel levels measured at every designated time interval during the period in question, and dividing the sum by the number of time intervals in the particular metric. [I stand to be corrected on this assumption but because the report did not describe how the averaging is created, I can only make assumptions].

This averaging process can create what appear to be acceptable dB levels. But what does a theoretical average calculated in this way mean to human hearing? There may be many quiet times during, for example the 15 minute period, recording, say a background noise of 50 decibels. This is considered acceptable to human hearing. But these relatively quiet times may be punctuated by a heavy truck and trailer roaring along the highway at 84dB (this figure is cited in the Marshall Day report). Noise above 80dB is considered “very loud” and above 90dB to be potentially harmful to human hearing. [US Centres for Disease Control and Prevention].

So for a resident or worker or tourist close to SH6 between the mining area and either Greymouth or Westport, the TIGa activity will superimpose over the existing 50dB, a painful level of noise, 84dB, for the 10 or 15 seconds or so that it takes for the truck to advance, pass and retreat. This will happen five times per hour between 7am and 10pm and 3 times per hour between 5am and 7am. That is, every 12 minutes during the day, or 20 minutes in the early morning.

The report takes this averaging concept to a ridiculous level (ridiculous in the context of how noise is perceived by the human ear). Consider this:

*“Waka Kotahi data shows that SH6 vehicle movements steadily increase past the site from 0500am and we calculate average existing minimum traffic noise levels are in the order of 50dB. The proposed truck activity will result in a 3dB*

*noise level increase between 0500 and 0600 hours – a 3dB change is just perceptible”.* (Marshall Day report page 3)

A 3dB increase may be just perceptible, but that figure is a spurious and ultimately meaningless average. The reality for people living close to SH6 is that three times every hour between 5 and 7am the noise of an 84dB roaring truck will be added to the current noise level. Most or at least many people would still be asleep at this time so their sleep will be ended or at least disturbed.

The absurdity continues:

*“As the existing traffic volumes on SH6 increase between 0600 and 0700 hours and the successive hours of the day, the **relative** increase in noise level from quarry trucks is reduced, with a corresponding diminishing noise effect”.* [my emphasis] (page 20)

This and the previous quote use convenient mental constructs to allow Marshall Day to conclude that the noise impact of TIGa’s trucks would be *“...acceptable in the context of the existing noise environment”* (page 20). But this is specious sophistry: discussing the increased noise as a relative effect rather than the absolute effect that it is, does not reflect human hearing experience. The fact is that regardless of the pre-existing traffic noise, which increases as the working day progresses, TIGa trucking activity on the highway will add an 84dB disturbing roar five times per hour between 7am and 10pm seven days per week.

I should also discuss noise from the mining operation itself. I was at our son’s place at [REDACTED] on September 13 to 15. During this time there was noise-generating activity happening somewhere on the proposed mining site. We were informed by a local at Punakaiki that TIGa were undertaking some sort of testing. At that time a large sea was running so there was a good deal of background sound from the surf. Despite this, and even though we couldn’t see from the house where on the Barrytown flats the machinery was operating, its noise was very clear and somewhat louder than the sound of the sea. I would describe this noise as a loud, penetrating, unrelenting and irritatingly grating. There was a moderate breeze from the west blowing at the time, which is the prevailing wind. [REDACTED], very close to Marshall Day’s ambient monitoring position 3.

Marshall Day recorded 51 – 55 dB at this site at night-time which they say was largely sea sound. So the fact that the on-site machinery we heard was loud



and clear above the sound of the sea must mean its decibel level was higher than 51 – 55. The unrelenting nature of this noise was at least as intrusive and irritating as its loudness, so if this was an example of the sort of noise the mining activities will create we are in for an unpleasant life at our property if the TIGa proposal is approved.

My last comment about noise is a more general observation about the distinction between noise and sound. The Marshall Day report mentions the noise of the sea quite frequently and presents data which indicate the significant role the sea plays in the total soundscape of the area. But they do not make what I think is a very important distinction: to me, sea makes **sound** not **noise**, and because it is continuous it becomes virtually “white noise” and is quite relaxing. It becomes almost a soothing background. Whereas machinery noise is intrusive, forefront, irritating and distinctly unrelaxing.

Some of the sea-sound measurements Marshall Day recorded are around the decibel levels they predict for mining operations. This relatively high-decibel sea-sound may be interpreted by TIGa as a way of diminishing the impact of the mining operation noise, but to present this as a credible argument it is necessary to ignore the distinction between sound and noise, between soothing-relaxing-calming and grating-intrusive-irritating pollution.

Marshall Day recommend a number of consent conditions aimed at ameliorating the impact of noise, should consent be granted. One of these is that truck movements on SH6 be limited to three per hour between 5 and 7 am and none between 10pm and 5am. This is inadequate in view of the noise disruption to peoples’ lives the proposed operation will create. In order to make life for local residents tolerable I would go further than this. I would suggest no truck movements before 7am or after 8pm, and that no machinery be permitted to operate at the mine site before 7am or after 8pm.

Having said that, my preference, for the reasons outlined in this submission, would be that consent for the proposed TIGa operation should be denied to prevent this beautiful rural environment from being transformed into an enormous, ugly industrial zone.

Robin Ransom, October 5 2023.