Before the Hearing Commissioners Appointed by the Grey District Council and West Coast Regional Council

Under the Resource Management Act 1991

In the matter of Resource consent applications by TiGa Minerals and Metals

Ltd to establish and operate a mineral sands mine on State

Highway 6, Barrytown (RC-2023-0046; LUN3154/23)

Supplementary Statement of **Stephen Jeffery Miller**

7 February 2024

Applicant's solicitor:

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Matters of response

- 1 My name is Stephen Jeffery Miller
- 2 I have been asked to provide additional information on the following matters:
 - (a) What is the total area to be mined?
 - (b) What is the percentage of that area mined at any one time?
 - (c) What is the amount of planned mined ore contained within 100m of the lagoons?
 - (d) What is the amount of planned mined ore contained with 100m of the northern mining limit?
 - (e) How long is the mining occurring within 100m of the lagoons?
- 3 Responses to the above questions are as follows:
 - (a) The area to be mined is a total of 33.9 Hectares which includes all of the mining panels 1-10.
 - (b) The active mining area is a 300 m by 100 m area (3 hectares) which is 9% of the total mine area. This is the area of mining pit disturbance at any one time.
 - (c) The amount of ore reserve within 100m of the lagoons is 13% (or 540,000 tonnes) of the total reserve scheduled.
 - (d) The amount of ore reserve within 100m of the northern boundary is a further 10% (430,000 tonnes).
 - (e) Combined ore reserve losses within 100m of the lagoon area and the northern boundary are approximately 25 to 30% on the scheduled reserve. The project economic loss is greater than estimated at over 30% as the contained metal grade of the ore loss is higher than the average grade in the project, therefore losing more saleable product.
 - (f) The time that the mining area is active within 100m of the lagoons can be determined by considering the amount of ore within the lagoon area and the total time of the proposed timing. This is 13% of the total mine ore reserve, so depending on the final mining rate the time spent inside the area will vary.

Based on a 5-7 year mining period:

(i) the time spent inside the 100m area of the lagoons is between approximately 8 to 11 months.

- (ii) based on revised Figure 16, Attachment D of Dr Bramley's evidence panels 4, 5, 6, 7, 8, and 10 would be affected.
- (iii) The time spent within 100m of the lagoons in each panel is approximately 5 to 7 weeks.
- 4 As I stated orally, the ore body varies in thickness which can impact on the mining advance rate.
- 5 Scheduling of the mining sequence to observe the breeding season setback from the lagoons can be accommodated so that mining inside the 100m setback will not occur.

Stephen Jeffery Miller

Dated this 7th day of February 2024