

**Before the Decision-Making Committee of the Environmental Protection Authority
At Wellington**

Application for Marine Consent by Trans-Tasman Resources Ltd

IN THE the Exclusive Economic
MATTER OF Zone and Continental Shelf
 (Environmental Effects)
 Act 2012

AND

IN THE An application by Trans-
MATTER OF Tasman Resources Ltd for a
 marine consent application
 made to excavate iron sand
 from the seabed of the
 exclusive economic zone in
 the South Taranaki Bight,
 process that sand to remove
 iron particles and return the
 remaining sand to the
 seabed.

Kiwis Against Seabed
Mining Incorporated
(KASM)

Submitter

Further Evidence of Leigh Torres

On Behalf of Kiwis Against Seabed Mining Incorporated

Dated 6 March 2017

Duncan Currie/Ruby Haazen

21 Shaddock Street

Eden Terrace

AUCKLAND

rghaazen@gmail.com

Ph: 021-144-3457

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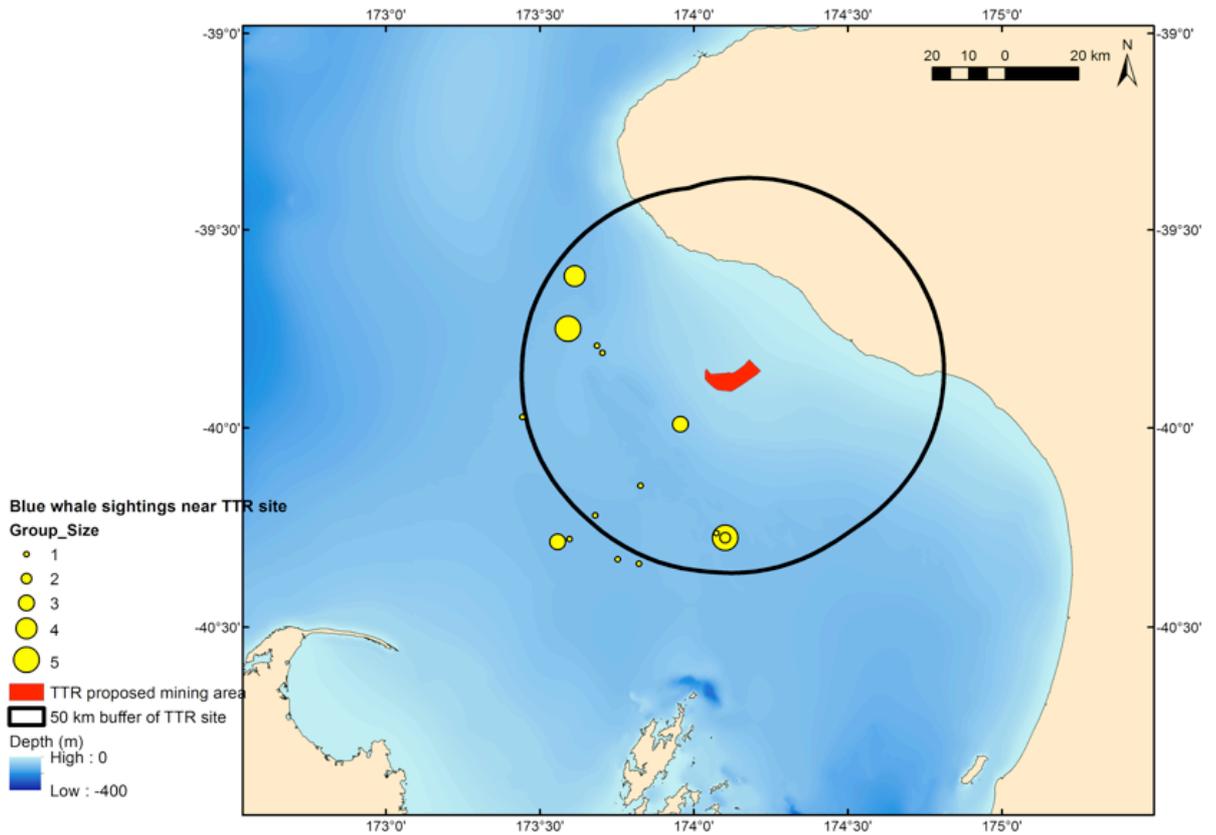
Introduction

1. My name is Leigh Torres.
2. I prepared evidence dated 24 January 2017 (my “First Statement”) and rebuttal evidence dated 15 February 2017 in these proceedings on behalf of KASM. The purpose of this evidence is to address matters raised during the further evidence of Simon Childerhouse following his Further Supplementary Evidence dated 2 March and given on 3 March 2017.
3. I have read the Code of Conduct for Expert Witnesses Environment Court’s Consolidated Practice Note (2014). In so far as I express expert opinions, I agree to comply with that Code. In particular, except where I state that I am relying upon the specified evidence of another person as the basis for any expert opinion I have formed, my evidence is within my sphere of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions which I express.

Sightings

4. I refer to Dr Childerhouse’s evidence at paragraph 22. Below is the map of the blue whale sightings near the TTR site with a 50 km buffer around the site displayed.

Further Evidence of Leigh Torres



5. There was one duplicate sighting in the list I sent to Dr Childerhouse (a DOC sighting). One has been deleted for this plot. The two sightings on top of each other to the south of the TTR site are not duplicates. They were made sequentially to each other. It is evident from this plot that 10 sightings of 24 blue whales have been recorded within 50 km of the proposed mining site. Another 5 sightings of 7 blue whales have been recorded within 60 km of the site. My apologies for including these 5 other sightings as within 50 km instead of 60 km, but these calculations were made without mapping software (GIS or Google Earth) while on a research vessel by estimating the location of the TTR site (no shapefile available and no location given).
6. I refer to paragraph 23 of Dr Childerhouse’s evidence that “these sighting data, when combined with a lack of any blue whale sightings from 8200 km of dedicated aerial surveys undertaken by TTR within the proposed mining area and inshore waters, provides good evidence that the proposed mining and nearby waters are highly unlikely to be a significant area for blue whales.”

I understand that TTR's aerial surveys only covered the shallow inshore waters near the TTR site (less than approximately 45m¹), so it is not surprising they did not observe blue whales. I do not consider the lack of blue whale sightings during these aerial surveys to be good evidence that the area near the proposed mining site is unlikely to be a significant area for blue whales. Rather, the above sightings and my own research, including regular acoustic detections of blue whales near the proposed mining site, indicate that the nearby waters are likely to be an important habitat for blue whales.

Other Foraging Locations

7. I refer to Dr Childerhouse's paragraph 24 about other blue whale foraging locations in NZ. There have been observations of blue whales foraging in other areas around NZ, but these are irregular incidences/reports; not including off Westport which I consider to be part of the STB region. What makes the STB important to blue whales is the predictability of a good food source. Whales may feed occasionally in other areas, but they depend on the STB to meet their energy demands. Furthermore, while blue whales seen in the STB are also seen in other locations (I refer to the photo-id evidence I previously presented) this does not mean that everywhere else the whales are seen is also a foraging ground. It remains unknown if other areas in NZ are blue whale foraging grounds. Yet, we do know from my research that the STB is a blue whale foraging ground.

Noise levels/Condition 12

8. I refer to Dr Childerhouse's paragraph 15: "The currently accepted NOAA threshold level for behavioural disturbance from non-pulsed noise (e.g. continuous noise such as a mining operation) is 120 dBRMS. This is the same level as described in Southall et al. (2007) which was used as the basis for Condition 12 and is also the same threshold level for disturbance that I used in my assessment of behavioural impact in my primary evidence." I note that 120 dB threshold of behavioral disturbance is stated to be used as a basis for

¹ Oral evidence of Simon Childerhouse, 3 March 2017, TTR hearing.

Further Evidence of Leigh Torres

Condition 12, yet Condition 12 uses 135 dB cut off. Noise is measured on a logarithmic scale so this difference of 15dB is a significantly higher threshold.

Leigh Torres

6 March 2017