

Before the Independent Hearing Panel

In the Matter of the Resource Management Act 1991 (**RMA**)

And

In the Matter of an application to the Central Otago District Council and Otago Regional Council for resource consent to establish and operate a gold mining activity at 1346 – 1536 Teviot Road, Millers Flat

Reference RC230325 (Central Otago District Council)
RM23.819 (Otago Regional Council)

**Evidence of Ciaran Maurice Keogh on behalf Hawkeswood Mining Limited
(Contaminated Land)**

29 April 2024

Jeremy Brabant
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Introduction

1. My full name is Ciaran Maurice Keogh. I am an Environmental Consultant specialising in the assessment of contaminated sites and I am the Principal of Environmental Consultants Otago Limited. I hold the Degrees of Master of Resource and Regional Planning and Master of Business Administration.
2. I have thirteen years' experience as a contaminated land assessor. I have in association with my professional staff, undertaken some 500 contaminated site investigations throughout Otago and Southland.
3. I was instructed by Hawkeswood Mining Limited in April 2022 with respect to land at 1346 – 1536 Teviot Road, Millers Flat (**Site**) upon which a gold mining activity is proposed. I was engaged to undertake a contaminated site investigation of the part of the Site identified as being the location of the former Millers Flat landfill. We were again instructed by Hawkeswood Mining Limited in November 2023 to also undertake soil sampling in the vicinity of parts of the Site previously used for stockyards and housing of agricultural machinery.
4. I am familiar with the area to which the application for resource consent relates. I have visited the Site on two occasions, most recently on 27 November 2023 and have a deep familiarity with the Site and its environs having been engaged as an environmental consultant by the former Electricity Corporation over a four year period in the late 1990's as a part of a team undertaking a feasibility assessment of the then proposed Tuapeka Hydro Dam on the Clutha River.
5. Although this is not a hearing before the Environment Court, I record that I have read and agree to and abide by the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. This evidence is within my area of expertise, except where I state that I rely upon the evidence of other expert witnesses as presented to this hearing. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed.

Scope of Evidence

6. My evidence will address the following:
 - a. Environmental Consultants Otago Limited (**EC Otago**) was commissioned by Hawkeswood Civil Limited to undertake a Preliminary Site Investigation (**PSI**), with limited soil sampling and analysis for contamination, at the Site. Investigation was required to facilitate assessment of the extent of past activities, to provide information as to the property's contamination status outside of the known landfill activity, and to ascertain suitability of the bulk of the land for the proposed mining activity.
 - b. EC Otago has undertaken a PSI on the Site. The PSI included undertaking historical research, a site inspection and preliminary soil sampling. During this investigation, 6 soil samples were collected and analysed for heavy metals, organochlorine pesticides and polycyclic aromatic hydrocarbons. Twelve auger holes were excavated to a depth of 2.5 metres along the identified mining perimeter to confirm the absence of landfill material.
 - c. EC Otago has undertaken soil sampling and analysis within two areas of land within adjoining properties at 1484 and 1534 Teviot Road, in respect of a farm shed and stock yards. The report was prepared in response to a request for information from CODC¹.

Assessment

7. The information reviewed, and the investigation undertaken, confirmed that HAIL Category G3 (Landfill Sites) applies to part of the land. No other HAIL activities were identified within the Site. The investigation has identified a mining perimeter, the boundary of which was shown to be

¹ 16 November 2023, The letter stated "10. Confirm if the stockyard area is excluded from mining operations".

unaffected by the HAIL activity with contaminant levels at or below background concentrations. As a result, the provisions of the NES do not apply to the part of the Site outside the mining perimeter (where mining is proposed to occur).

8. The investigation indicates it is highly unlikely that the soils outside the mining perimeter present a risk to human health or the environment in their current state or during the proposed mining works, based on the preliminary sampling undertaken.
9. EC Otago has undertaken soil sampling and analysis within two areas of land within adjoining properties at 1484 and 1534 Teviot Road, in respect of a farm shed and stock yards. The report was prepared in response to a request for information from CODC², and hence was scoped to respond to the question asked. The results of sampling and analysis indicate that contaminant concentrations at all sampling locations are consistent with the predicted background levels.
10. Based our investigations, EC Otago found the following:
 - a. Based on the information examined during this investigation, no evidence was found that HAIL activities have historically been, or are currently being, undertaken on the part of the Site proposed to be mined. Consequently, the provisions of the NES do not apply to these parts of the Site.
 - b. Soil sampling and analysis did not identify any contaminants that exceed the predicted natural background levels along the mining perimeter.
 - c. There is highly unlikely to be a risk to human health or the environment from soil contamination due to past historical activities in the area proposed to be mined.

² 16 November 2023, The letter stated “10. Confirm if the stockyard area is excluded from mining operations”.

- d. The NES does apply to the former landfill site, contained in the area not proposed to be mined (HAIL.00338.01). Any proposed disturbance of this land will require a full site investigation and consents to disturb a HAIL site/ contaminated land from both CODC and ORC.
- e. Our further investigation of historic and existing stockyard areas which are within an expanded proposed mining area from that considered in our original site investigation was undertaken in November of 2023.
- f. This further investigation comprised the collection of 21 soil samples across the two locations. The results of sampling and analysis indicate that contaminant concentrations at all sampling locations are consistent with the predicted background levels.
- g. All contaminant concentrations reported were found to be well below the applicable human and environmental health guidelines and the site soils are highly unlikely to present a risk to human or environmental health.



Ciaran Maurice KEOGH

Dated 29 April 2024