

**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)

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**Evidence of Victoria Ross on behalf Hawkeswood Mining Limited**

**(Archaeology)**

**Dated 29 April 2024**

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## Introduction

1. My full name is Victoria Ross. I am a Principal Archaeologist and Team Leader for New Zealand Heritage Properties. I hold a Bachelor of Arts and First Class Honours in Anthropology from the University of Otago, Master of Arts in Archaeology from La Trobe University, and have s45 approval under the Heritage New Zealand Pouhere Taonga Act 2014.
2. I have over 5 years' experience as a consultant archaeologist. During this time, I have worked across a range of site types, including Māori archaeological and cultural landscapes, Pākehā domestic, commercial and industrial sites, buildings archaeology, and mining landscapes. These works have ranged in location from Greymouth and Kaikoura in the north, to Bluff in the south, including works in the Catlins and central Otago. My role on these projects has ranged from field archaeologist, surveyor (both assistant and lead), buildings recorder, and lead archaeologist (both as the s45 approved person and in place of the s45 approved person).
3. New Zealand Heritage Properties was instructed by Barry MacDonell, on behalf of Hawkeswood Mining, in August 2023 to undertake an archaeological assessment of the project area to assess the archaeological potential of the project area, consider the impact the proposed works may have on any archaeological sites, and provide recommendations, including seeking an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014. The initial work on the project was led by my colleague, Megan Lawrence, and I took over the project in January 2024 as the result of her impending maternity leave. I am familiar with the area to which the application for resource consent relates. I have visited the site on one occasion, on 28 February 2024. Visits to the site were also undertaken by NZHP archaeologists Megan Lawrence and Oliver Walne on 25-26 September 2023.

4. 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**

5. I was not the primary author of the Archaeological Assessment, but I updated and made edits to the Archaeological Assessment before it was finalised. I adopt and agree with the opinions expressed in the Archaeological Assessment.
6. My evidence will address the following:
  - a. Scope of archaeological assessment;
  - b. Archaeological and heritage landscape;
  - c. Recommendations and mitigation; and
  - d. Matters raised by submissions.
7. This evidence will cover the scope of the archaeological assessment, the results of the desktop research and field survey that informs on the recorded or potential archaeological and heritage values within the project area, and the recommendations made by New Zealand Heritage Properties including support to apply for an archaeological authority under the HNZPTA 2014 and mitigation methods to offset the modification or destruction of archaeological sites.

### **Scope of Archaeological Assessment**

8. The archaeological assessment was prepared in accordance with the HNZPT guideline (2019) on preparing an archaeological assessment. The report was prepared to assess the archaeological potential of the project area and to

consider the impact that the proposed works will have on any archaeological sites. The report was completed using both desktop-based research, as well as on-site field survey to determine the presence and condition of any archaeological features.

## **Archaeological and Heritage Landscape**

### Recorded Archaeological Sites

9. The archaeological assessment identified two previously recorded archaeological sites, and two sites that were identified during fieldwork and recorded as a result of the assessment, that will be impacted by the proposed works.
10. G43/232 is a gold-mining site, first recorded in 2011, at the southwest edge of the project area. The site originally recorded a series of dredge tailings, dredge channels, sluice faces and a pond; however, modification and damage has taken place over the 20<sup>th</sup> and 21<sup>st</sup> centuries, resulting in the removal of much of the site. At the time of the Assessment, a series of damaged sluice faces were visible, along with modern tailings. As a result of its current state and history, NZHP assessed the site to have **low-moderate** archaeological values. The only value assessed as high was its contextual value as part of the wider mining landscape. The site will be moderately impacted, with only a small portion of the archaeological features extending into the project area, which have been previously modified.
11. G43/233 is a gold-mining site, first recorded in 2011, at the northwest edge of the project area. The site records a series of widespread tailings, both pre and post 1900, which have been further modified in the 21<sup>st</sup> century by the creation of the Clutha Gold Cycle Trail. NZHP assessed the site to have **moderate** archaeological values, as it was in good condition, had high contextual value, and high amenity value. The proposed works will have a major impact on the archaeological values of the site, as nearly the entire footprint of the tailings will be destroyed; however, a small area, up to 10m wide and 140m long, will be retained, as this sits outside the project area.

12. G43/285 records gold-mining features related to the Kitto family across the centre of the project area, identified during fieldwork and recorded as a result of the archaeological assessment. This site records a series of pre-1900 water races and wooden posts along with historic evidence of mining, which has been modified in the 20<sup>th</sup> and 21<sup>st</sup> centuries. NZHP assessed the site to have **moderate** archaeological values overall, with high contextual value and moderate information potential as more features could be encountered. The impact of the proposed works on this site will be moderate, based on the previous modification, and portion of the visible features outside of the project area.
13. G44/159 records evidence of historic domestic occupation, at the southern end of the project area, recorded as a result of the archaeological assessment. This site records the location of a scatter of artefacts within recently disturbed soils at the top of a hill, which was interpreted to be potential evidence of rubbish pits. NZHP assessed that the site had **low** archaeological values, as it was in poor condition, but did have moderate contextual value and information potential. The visible scatter of the site is anticipated to be entirely destroyed by the proposed works; however, archaeological recording during removal may provide information not available previously.
14. Based on the documentary evidence, the assessment identified there was further potential for unrecorded archaeological remains to be encountered throughout the project area – including further sites relating to mining landscapes and historic-domestic occupation, as well as sites relating to manawhenua lifeways.
15. There are no scheduled items on the Central Otago District Plan within the project area, nor are there any listed places on New Zealand Heritage List/Rārangī Kōrero. No wāhi tūpuna were found to be recorded on available district plans or management plans.

### Potential for unrecorded archaeological sites

16. The research identified there was evidence for manawhenua activity within the wider landscape, based on recorded archaeological sites outside of the project area, in the area along the Clutha/Mata-Au and nearby hills. While there are no recorded sites of interest to manawhenua within the project area, the sites G43/2 and G44/12 are evidence of the presence of Māori in the wider landscape. G43/2 is recorded approximately 730m northwest of the project area, and G44/12 is recorded approximately 230m southeast of the project area.

### **Recommendations and Mitigation**

17. I confirm that I agree with the recommendations and mitigation measures included in the archaeological assessment.
18. As the proposed works will affect site G43/232, G43/233, G43/285 and G44/159, as well as potential unrecorded sites, an archaeological authority under Section 44 of the HNZPTA 2014 must be obtained from HNZPT prior to any modification of the site.
19. I have submitted an application for an archaeological authority to HNZPT, on behalf of Hawkeswood Mining, which has been accepted for processing as of 22 March 2024. Mitigation measures outlined in the below paragraphs form part of the scope of the applied for archaeological authority.
20. I recommend archaeological monitoring of all topsoil stripping where there is potential to encounter and affect archaeology. High risk areas are identified in Fig 9-4 in the archaeological assessment. These areas are determined based on documentary and physical evidence of archaeological features, with a 10m buffer zone.
21. Topsoil stripping, in red zones as defined above, should be undertaken over consecutive days, at the beginning of each stage of works and prior to any other earthworks taking place in this stage.

22. These works should be undertaken using a hydraulic excavator (as opposed to bulldozer), with archaeological features recorded by the archaeologist(s) as they are exposed.
23. Two test trenches (shown as orange zones in Fig 9-3 of report) should be excavated to identify any earlier archaeological remains present beneath flood deposits around the vicinity of the Tima Burn. These test trenches should be 1.5m wide and 2.5m deep, to surpass recorded depth of archaeology in adjacent site G44/12. An invitation will be extended to manawhenua to attend site for the test trenching, as the potential for unrecorded Māori archaeology is highest in these locations. Test trenching will be supervised by an archaeologist.
24. If archaeological deposits are encountered in these test trenches, these will be left in situ, until a new authority is sought for excavation of these sites. For clarity, the scope of the archaeological authority applied would not authorise the disturbance of any archaeological material found in the test trenches (except as relates to the work to create the test trench).
25. Should a buried topsoil be encountered within the test trenching, NZHP believes there is potential for intact archaeological deposits relating to pre-1900 Māori activity to remain in the surrounding layer. Therefore, no further earthworks should occur in this area until a separate archaeological authority is sought providing an opportunity to make an informed assessment of archaeological values and the potential effects on archaeology in this area. No mining will take place in the vicinity of the Tima Burn until it is determined that there is no potential for intact archaeological material relating to pre-1900 Māori activity.
26. Beyond the red (archaeological monitoring) and orange (test trenches) zones, works should operate under On-Call Protocols. This is based on either lack of physical evidence for archaeological remains in these areas, as required by HNZPTA 2014, or evidence of extensive post-1900 modification of the earth, indicating prior disturbance or removal of archaeological features.

27. The On-Call Protocols dictates that where an authority is in place, should archaeological material be encountered while an archaeologist is not on site, works should halt, the archaeologist be immediately notified and no works are to continue until the archaeologist has given instruction.
28. I consider these areas have a low risk of encountering archaeological features and therefore stand over monitoring by the archaeologist is not recommended.
29. Any archaeological features or deposits encountered must be recorded to current best practice, and any remains of structures recorded to a minimum Level II standard as defined in HNZPT's guide, *Investigation and Recording of Buildings and Standing Structures* (2018).
30. Several visible artefactual remains were noted during the survey. This includes the dredge bucket (POI 23) and spindle axle (POI 38) associated with archaeological sites G43/232 and G43/233, as well as two dredge buckets (POI 19) and haul rope (POI 26) identified adjacent to early twentieth century locations.
31. The historic items should be salvaged, stored securely during works, and reinstated as part of the rehabilitation close to the cycleway.
32. Hawkeswood Civil has identified that during rehabilitation they wish to erect interpretive signs outlining the history of the project area and the outstanding features (including G43/232 and G43/233), so that some physical remnants of the twentieth century heritage will survive, along with public interpretation of the long history of the site.
33. I recommend that the Applicant, project / site manager(s), and all contractors involved in earthworks undergo an archaeological briefing outlining their requirements under the HNZPTA 2014 prior to any works commencing.
34. I recommend that work be guided by an Archaeological Management Plan (AMP) to ensure that archaeological requirements and involvement are clearly outlined.



35. There are currently no known sites of interest to manawhenua within the project area; however, NZHP has identified that there is potential for sites to be encountered through the project area, and especially near the Tima Burn. As such, NZHP recommends that if archaeological material of Māori origin is discovered at any stage, all work must stop within 20m of the find. NZHP will assist the authority holder in contacting all relevant parties including Hokonui Rūnanga, Te Rūnanga o Ōtākou, Kāti Huirapa Rūnanga ki Puketeraki and HNZPT and in accordance with the Archaeological Management Plan. An invitation should be extended to manawhenua to attend site should archaeological material potentially of Māori origin be discovered.

### **Matters Raised by Submissions**

36. The submissions from Aukaha and Kāi Tahu note that a heritage assessment was not undertaken prior to the excavation of a test pit (point 8.5). They also identify that this work occurred between two recorded sites of Māori origin (G44/12 and G43/2 – both recorded as midden/ oven sites) and identify concerns regarding destruction and modification of archaeological sites in a landscape that has a long history of occupation and use by Kāi Tahu (point 8.6).

37. I can confirm that G44/12 is located closest to the project area at 230m to the southeast; this site records an umu (oven) that was discovered on a river terrace above the Mata-Au. The site was initially recorded in 1973 by Stephen Bagley as five ovens disturbed by ploughing. The site record form was updated in 2022 by Shar Briden who reports that an oven was found by a farmer 2m below the surface. Briden also notes that there were significant flood deposits across the lower terrace.

38. G43/2 is 730m north of the project area; again, this site was recorded by Stephen Bagley in 1973. A scatter of flaked stone artefacts and oven stones was identified on the terrace above the Mata-Au. No sites were recorded within the project area; however, the sites that were recorded were brought to Bagley's attention by local farmers and rabbiters.

39. During my colleague's on-site survey, no sites of Māori origin were identified within the project area. However, as the project area adjacent to the Tima Burn is a similar landform to near G44/12, they considered the potential for archaeology to be buried below flood deposits like those found at G44/12. This led to the recommended test trenches in this area to determine if there is evidence for a buried topsoil as per paragraphs 23 – 25 above. I agree that this mitigation is an appropriate method to manage risk of unrecorded Māori archaeology, and that should any be found, the requirement for an additional Archaeological Authority provides opportunity for specific assessment of archaeological value, further consultation with manawhenua, and determination of appropriate mitigation. This mitigation has been discussed with Heritage New Zealand Pouhere Taonga, and forms part of the applied for archaeological authority recommendations.
40. Kā Rūnaka have noted there are wāhi tūpuna that the project area falls within, and that these are proposed for inclusion on the Central Otago District Plan. At the time of writing I have not seen a copy of any information relating to this matter. As the consultant archaeologist, it is not my place to assess the cultural values of the land and the impact of the project on these values.
41. The submissions from Aukaha and Kāi Tahu also identify concerns about the limitations of the archaeological survey in areas too steep, where transects could not be spaced 15m apart (point 8.6). I can confirm that the deviation from the survey methodology only occurred in an area of heavy post-1900 disturbance, and the potential for intact archaeological remains in these areas is therefore considered low. This was further mitigated by additional archaeological and historical research that examined the post-1900 modification in more detail to confirm if any surface features were present at these locations. No such evidence was found.

## **Conclusion**

42. The overall impact of the proposed works on recorded domestic and mining archaeology will be major; however, with the mitigation recommended in the assessment, the overall adverse effects will be reduced.
43. I consider that the information loss of pre-1900 mining and domestic archaeology is suitably mitigated, and positive measures will be taken, including the retention of physical remains from the mining history of the site which will be actively displayed along with interpretation panels, in areas visible to the adjoining cycle trail.
44. I consider the effects on potential (unrecorded) pre-1900 Māori archaeology is suitably mitigated given that pre-1900 Māori archaeology will be avoided.

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**Victoria Ross**

Dated 29 April 2024