IN THE MATTER of the Resource Management Act 1991 (**RMA**)

AND

IN THE MATTER of **Private Plan Change 28** to the Nelson Resource Management Plan

JOINT WITNESS STATEMENT (JWS) IN RELATION TO:

HERITAGE

16 May 2022

Expert Conferencing Held on: 16 May 2022

Venue: Online

Independent Facilitator: Marlene Oliver

Admin Support: Jessica Marchbanks

1 Attendance:

1.1 The list of participants is included in the schedule at the end of this Statement.
Note: Planners were invited to attend.

2 Basis of Attendance and Environment Court Practice Note 2014

2.1 All participants agree to the following:

(a) The Environment Court Practice Note 2014 provides relevant guidance and protocols for the expert conferencing session;
(b) They will comply with the relevant provisions of the Environment Court Practice Note 2014;
(c) They will make themselves available to appear before the Hearing Panel;
(d) This statement is to be filed with the Hearing Panel and posted on the Council's website.

3 Matters considered at Conferencing – Agenda and Outcomes

3.1 Updated Information

Robin Miller and Amanda Young have jointly prepared an addendum report title "Maitahi Valley Farm Building, 7 Ralphine Way, Maitai Valley, Nelson" dated 11 May 2022. A copy of that report is **attached** to this JWS.

Amanda Young explained that her first report dated 17 December 2020 was prepared as an initial assessment of the potential significance of the buildings as part of a wider overall analysis of heritage on the whole PPC 28 area. This initial report has been refined in the updated joint report prepared with Robin Miller, in particular it better describes the significant modifications made to the structures which detract from its original condition and integrity. This is in reflection of the specialist input from Robin Miller, particularly in the areas of materials and construction.

Robin Miller was commissioned to provide a review of Amanda Young's high level report and to particularly refine the phasing of alterations to the buildings and their relative age. Robin Miller confirmed that there is a lack of credible information to enable him to accurately age the buildings. Robin Miller's updated memorandum of 6 April 2022 is **attached** to this JWS.

In addition to focusing on the buildings, Robin Miller confirmed that the joint report of 11 May 2022 also considered the evaluation criteria in the NRMP.

Amanda Young and Robin Miller confirm that their current findings and recommendations are those recorded in the updated 11 May 2022 report.

3.2 **Heritage Analysis**

The Heritage Experts agree that under the Heritage New Zealand Pouhere Taonga Act 2014, an archaeological authority is legally required for modification or destruction of any archaeological site. The 11 May 2022 addendum report states "however, any pre-1900 components fall under the blanket protection given to archaeological sites in the Heritage New Zealand Pouhere Taonga Act 2014".

The Heritage Experts agree that the buildings and structures are not identified nor protected as heritage items in the NRMP.

Given the current lack of protection under the NRMP, Robin Miller and Amanda Young consider that the recommendations they have made appropriately mitigate the loss of heritage values and provide a positive heritage outcome.

The Heritage Experts agree that there is no statutory requirement to protect built historic heritage resources within the PPC 28 area and therefore the recommendations put forward by Robin Miller and Amanda Young are reasonable in the circumstances.

4 PARTICIPANTS TO JOINT WITNESS STATEMENT

4.1 The participants to this Joint Witness Statement, as listed below, confirm that:

(a) They agree that the outcome(s) of the expert conferencing are as recorded in this statement; and
(b) They agree to the introduction of the attached information; and
(c) They have read Appendix 3 of the Environment Court's Practice Note 2014 and agree to comply with it; and
(d) The matters addressed in this statement are within their area of expertise; and
(e) As this session was held online, in the interests of efficiency, it was agreed that each expert would verbally confirm their position to the Facilitator and this is recorded in the schedule below.

Confirmed online 16 May 2022

EXPERT'S NAME	PARTY	EXPERT'S CONFIRMATION REFER PARA 4.1
Amanda Young (H)	Applicant	Yes
Robin Miller (H)	Applicant	Yes
Ann McEwan (H)	S42A NCC	Yes
Mark Lile (P)	Applicant	Yes

Maitahi Valley Farm Buildings, 7 Ralphine Way, Maitai Valley Nelson

Addendum Report

Jointly prepared by:

Robin Miller & Amanda Young

11 May 2022 - Updated

Purpose

This report is an addendum to the following initial heritage and archaeological documents:

a) Amanda Young's report entitled 'Historical & Archaeological Assessment for CCKV Maitai Dev Co LP and Bayview Nelson Limited (17 December 2020)' [Young 2020]; and
b) Robin Miller's project memo 'Maitahi Property/Nelson Plan Change 28 - Investigations into selected heritage structures – timber woolshed/barn, concrete chimney and concrete/stone wall remnants' (14 March/updated 06 April 2022) [Miller 2022].

In brief, Amanda Young's report prepared the background material and initial advice on the Plan Change 28 area and Robin Miller's report was then commissioned by the applicant to investigate specific matters raised regarding the age, materials and design of the woolshed, chimney and nearby masonry wall remnants.

The purpose of this addendum is to collate the two reports and to:

i. Make any clarifications or amendments to the initial reports that are necessary as a result of further information coming to light since the preparation of the Young 2020 report;
ii. Provide a joint assessment of the heritage values of the farm buildings/structures based upon a format and criteria familiar to Nelson City Council; and
iii. Make recommendations on measures that can be incorporated into Plan Change 28 to mitigate any adverse effects on the identified heritage values as a result of the proposed Plan Change.

This addendum report does not cover any archaeological features outside of the Maitahi Valley farm buildings' site as these will be addressed under the provisions of the Heritage New Zealand Pouhere Taonga Act 2014. This addendum deals specifically with the heritage values of the farm buildings/structures for the purposes of the Resource Management Act 1991.

Clarifications

The following changes and clarifications to the Young 2020 report are made based on the further examination of the buildings/structures and expert analysis in Miller 2022:

- Page 17. It is agreed that the standing chimney is not part of the original ca.1842 cob cottage but more likely to date to one of the twentieth century renovations.
- Page 18. In the conclusion, the specific mention of the chimney being pre-1900 is incorrect. It appears to be post-1900 and therefore that particular feature does not fall under the provisions of the *Heritage NZ Pouhere Taonga Act 2014.*

Assessment of the heritage values of the farm buildings/structures

The buildings/structures that are the subject of this assessment are the woolshed and the concrete chimney that stands on the site of the building formerly known as Edendale, which was burnt down in 1991. The property address, description, materials and history are set out in the initial heritage and archaeological documents (Young 2020 and Miller 2022) and, for brevity, are not repeated here.

The farm buildings/structures are not included in the Nelson Resource Management Plan Appendix 1 list of heritage buildings, places and objects.

The farm buildings/structures are not included in the New Zealand Heritage List/Rārangi Kōrero.

The farm buildings/structures have not yet been added to the NZAA site recording scheme. However, any pre-1900 components fall under the blanket protection given to archaeological sites in the *Heritage NZ Pouhere Taonga Act 2014.*

The legal description is Part Sec 11 District of Brook Street & Maitai and Part Sec 8 Square 23, described within Record of Title NL11A/1012.

The heritage value criteria below are taken from 'Nelson Plan Heritage Methodology - A Revised Methodology for Identifying and Assessing the Heritage Significance of Buildings, Places, Areas and Objects (June 2015)' by Dr Ann McEwan & Dr Greg Mason.

Historic & Social Significance

Criteria: The heritage item has historic significance associated with a notable person, event, time period or activity. The building, place, area or object demonstrates an important reflection of the social patterns of its time.

The property is associated with the Richardson family, a well-known and prominent Nelson family. As part of the Maitai Run, it was owned by the family from ca.1842 to 1969.

Ralph Richardson senior was a large landowner, member of the Legislative Council (1854 – 1856) and the magistrate for Nelson. Ralph junior, his son, was the elected Minister of Parliament for Nelson Suburbs (1871 – 1873) and Captain of the Nelson Naval Brigade (including serving at Parihaka) as well as being a distinguished businessman. His widow Effie was a well-known character and dominant personality in Nelson society at the start of the 20th century. Their daughter Ralphine (Queenie) was equally prominent and one of Nelson's largest landowners. The family has a Nelson street named after them. They are associated with the development of pastoral farming in the Nelson region.

The chimney has an association with the later 20th century development and enlargement of Edendale. Edendale was the first homestead on the Maitai Run. It was built about 1842 and lived in initially by the farm managers and various lease holders. It was also used by the Richardson family (for example, during the summer and during times of intensive activity on the farm such as shearing). In 1914 the Richardson family took over full-time possession of Edendale with members of the family living there until the Maitai Run was sold in 1969. There were two periods of 20th renovations and it is likely that the chimney dates from the latter part of this period and it is not associated with the original cob cottage on the site. Accordingly, it has some historic significance as a relatively contemporary remnant of the demolished building, but not as a structure in its own right.

The woolshed also has historical association with the Richardson family. The family has advised that it incorporates the remains of a hop kiln and recent building investigations have concluded that the oldest part of the woolshed may indeed be the remnants of a timber hop store or processing space dating from around 1900; these types of structures were typically constructed adjacent to a hop drying kiln/furnace. The brewing industry, including the growing and drying of hops, was important to Nelson from the earliest years of colonial settlement, and remains part of Nelson's identity.

The woolshed building has been modified and developed to include (likely) early 20th century shearing boards with pens and a wool store/shearers' room that is thought to date from the early to mid-20th century. These parts include shearing equipment and graffiti associated with members of the Richardson family.

Accordingly, the buildings/structures, in particular the woolshed, have historic and social significance to Nelson.

Cultural & Spiritual Significance

Criteria: The heritage item contributes to the distinguishing characteristics of a way of life, religion, philosophy, custom, practice or other belief. A group or community holds the building, place, area or object in high esteem. The heritage item has special significance to the tangata whenua.

This criterion is not considered to be applicable.

Architectural & Aesthetic Significance

Criteria: The heritage building, place, area or object is a significant example of a particular style, time period or designer.

This architectural & aesthetic criterion are not considered to be applicable.

Technological & Craftsmanship Significance

Criteria: The heritage building, place, area or object is a significant example of technological processes, developments or methods.

This criterion is not considered to be applicable.

Archaeological Significance

Criteria: The heritage building, place, area or object provides or has the potential to reveal important archaeological information and physical evidence of pre-1900 human activities.

The site of the woolshed, chimney and associated structures have the potential to reveal significant archaeological information. There may be sub-surface evidence of the ca.1842 Edendale. Any evidence of the earliest form of Edendale has archaeological significance through its association with the Richardson family and its early date of construction. Archaeological investigation of the woolshed may be able to confirm the pre-1900 use of the woolshed site, together with the use of the earliest part of the building that still remains. Any evidence of the processing of hops would provide information not otherwise available, and provide physical evidence to illustrate the 19th – early 20th century growing and processing of hops in the Maitai Valley.

Scientific Significance

Criteria: The heritage building, place, area or object has important educational value and has the potential to provide further information through research.

This criterion is not considered to be applicable.

Group, Landmark and Contextual Significance

Criteria: The heritage building, place, area or object makes a significant contribution to its surroundings in terms of scale, space, structure, form, materials, texture and colour. The heritage building, place, area or object is an important landscape feature of a particular area and in the community consciousness.

The woolshed and the chimney form part of an historical landscape with a number of buildings and structures relating to the Richardson family and the Maitai Run. The Richardson family, in particular Mrs Effie Richardson, are a well-known part of the history of the Maitai Valley and figure largely in the community consciousness. The woolshed, and any surviving remains of a hop kiln, is a rare extant agricultural feature in Nelson.

Summary of Heritage Significance

Primarily, the heritage values recorded above relate to the woolshed and the association of the site with the Richardson family. The evidence for the identified values for the woolshed is partly based on word of mouth and interpretation of what can be seen on site without destructive investigations and material analyses. The credibility of this evidence could be determined by archaeological investigations. Although parts of the woolshed are in poor condition, overall, the building has a good degree of integrity. There is much less integrity to the potential remains of the hop kiln building and there is no surface evidence of a historic building at the site that used to be Edendale.

Consideration of the potential heritage group (as defined in the Nelson City Council District Plan 'Appendix 1 Heritage Buildings, places & Objects')

Dr. Ann McEwan has requested that this document considers which group the buildings/structures would fall into were they included in Table 1.2 of Appendix 1.

Both writers of this document feel uncomfortable with this request as the buildings/structures are not included in Table 1.2 and should, therefore, not be given regulatory consideration as if they were. However, as a purely academic exercise, a review of their heritage values in accordance with the evaluation criteria in AP1.1.xii indicates that they would be a Group C item.

Group C is defined as buildings, places and objects 'whose protection and retention are desirable'.

Recommendations

The Plan Change proposal will result in the demolition of the assessed buildings/structures as part of the plan to create a new residential subdivision on the Maitahi property site. From a heritage conservation perspective, the buildings have lost their original and past uses leaving them redundant. Realistically, they are not considered to have the potential for viable adaptive reuse due to their agricultural nature and their condition.

The identified heritage values to be mitigated are the historic and social and archaeological significance of the structures.

Given the findings of the initial reports, the recommended mitigation measures are as follows:

1. **Salvage of some woolshed building components**

   It is recommended that the shearers' graffiti on the rusticated weatherboard clad walls to Woolshed Part A1 and Part B (refer Miller 2022) is salvaged as complete timber wall panels for adaptive reuse and presentation.

   It is further recommended that the shearing equipment and the ground floor windows to Part A1 are also salvaged. Plus any timber and building materials that are recoverable and reusable.

   Photographs of these items are included in Miller 2022.

   The salvaged items should be carefully removed from the building, repaired, and securely stored in a dry environment for reuse (see 3. below)

2. **Archaeological investigations and recording of the woolshed and Edendale sites**

   It is recommended that prior to demolition the existing buildings, structures and chimney are recorded by digital 3D scanning inside and outside and a 3D model produced.

   Archaeological recording should also take place during demolition and timber species analysis should be carried out.

   In ground archaeological investigations of the woolshed and Edendale sites should be carried out post-demolition.

3. **Incorporation of the results of 1 & 2 above into the character and physical development of the Plan Change 28 proposals**

   The salvaged items and the information produced from archaeological investigations and recording should be incorporated into the proposed new development. Examples of how this can be done include:

   - Providing the design of the proposed development with information on the history and character of the area that will enable local distinctiveness to be achieved;
   - Incorporating the information into local recreational activities, such as cycle and walking trails;
   - Designating historically relevant names to new roads and parts of the development;
   - Using the salvaged materials to provide local character and distinctiveness to village centre facilities, such as a pub or community rooms.

Robin Miller NDAT BSc DipBldgCons MRICS MNZIBS IHBC
Director
Chartered & Registered Building Surveyor
RICS Certified Historic Building Professional
LBP Design Level 2 BP 133157
For and on behalf of Origin Consultants Ltd
Architecture *Heritage* *Archaeology*

Phone 03 442 0300 / 021 426 699
Office 9 Arrow Lane, Arrowtown
Post PO Box 213, Queenstown 9348
Web www.originteam.co.nz

Amanda Young MA(Hons)
Archaeological Consultant

Phone 021 758 964
Office 308 Wakapuaka Rd, RD1, Nelson
Web amandayoungarchie@gmail.com

PROJECT MEMO. 01

TO:	Mark Lile, Landmark Lile Limited mark@landmarklile.co.nz
PROJECT NAME:	Maitahi Property/Nelson Plan Change 28
ORIGIN PROJECT #:	789
CLIENT:	CCKV Maitai Dev Co LP and Bayview Nelson Limited
SUBJECT:	Investigations into selected heritage structures – timber woolshed/barn, concrete chimney, and concrete/stone wall remnants
DATE:	14 March 2022 (draft). Updated 6 April 2022

INSTRUCTIONS

As per the short-form agreement dated 10 February 2022, the instructions are to provide heritage building advice regarding the shearing shed/possible hop kiln and chimney at Maitahi for the purposes of the proposed Plan Change 28 application. The scope of work comprises:

- Inspection of the buildings/structures for the purposes of identification of their development and use;
- Advice on their heritage values to supplement the information already provided in the Amanda Young report dated 17 December 2020;
- Preparation of a written report (to be confirmed after the site visit).

As agreed at the site visit, this report has been prepared in the form of a memo for distribution within the client team and to supplement Amanda' report.

INSPECTION

Inspection of the buildings was undertaken by me on 28 February 2022 in the company of Mark Lile. The inspection was non-invasive/non-destructive and was undertaken from ground level around the site. No testing or analysis of materials has taken place.

INFORMATION RECEIVED

The information received to date has been:

- Historical & Archaeological Assessment, Amanda Young, 17 December 2020; and
- Private Plan Change Request to the Nelson Resource Management Plan, Landmark Lile, 24 August 2021.

BRIEF DESK-BASED VIEW OF THE SITE

A review of the site and its historical context is included in the Amanda Young report. In review:

The description of Edendale has been provided by members of the Richardson family:

- L Richardson, (1995) "Ralphine Richardson," *Journal of the Nelson and Marlborough Historical Societies 2*(6). Available here: http://nzetc.victoria.ac.nz/tm/scholarly/tei-NHSJ05_06-t1-body1-d4.html; and
- Via a series of emails/correspondence with Amanda Young.

In Richardson (1995), the original cob cottage was reputedly constructed in 1842 on a terrace overlooking the Maitai River, and then expanded to become a more substantial dwelling. Richardson (1995) reported that "below Edendale was an old hop-kiln which serviced the adjacent hop-garden, with additions, it was to form the shearing shed."

Richardson also reported that, in the early 1940s, a portion of Edendale was moved to the Maitai roadside.

Family members remembered the remaining portion of Edendale comprising two rooms, a kitchen, and a smaller storeroom. There was also a steep staircase up to a small bedroom upstairs. The cottage was restored in 1962 and burned down circa 1991. The Richardson family recalled the hop-kiln turning into the shearing shed.

A desk-based review of historic aerials carried out by Origin shows a building at the location of the chimney from 1948 (earliest aerial) to the 1980s (Figure 1-Figure 4).

The shearing shed does not appear to have changed in size or appearance, and in 1948, there were holding pens visible in front of the shed.

Papers Past searches confirm there were hops on the Matai Run and, thus, the potential for a hop kiln on the site is confirmed.

PHOTOGRAPHIC INFORMATION

Numbers in brackets relate to photos/images in the Appendix. In the aerial images, the house on the site where the chimney stands is circled in red whilst the shearing shed is in blue.

Figure 1. Retrolens, SN379, 1948.

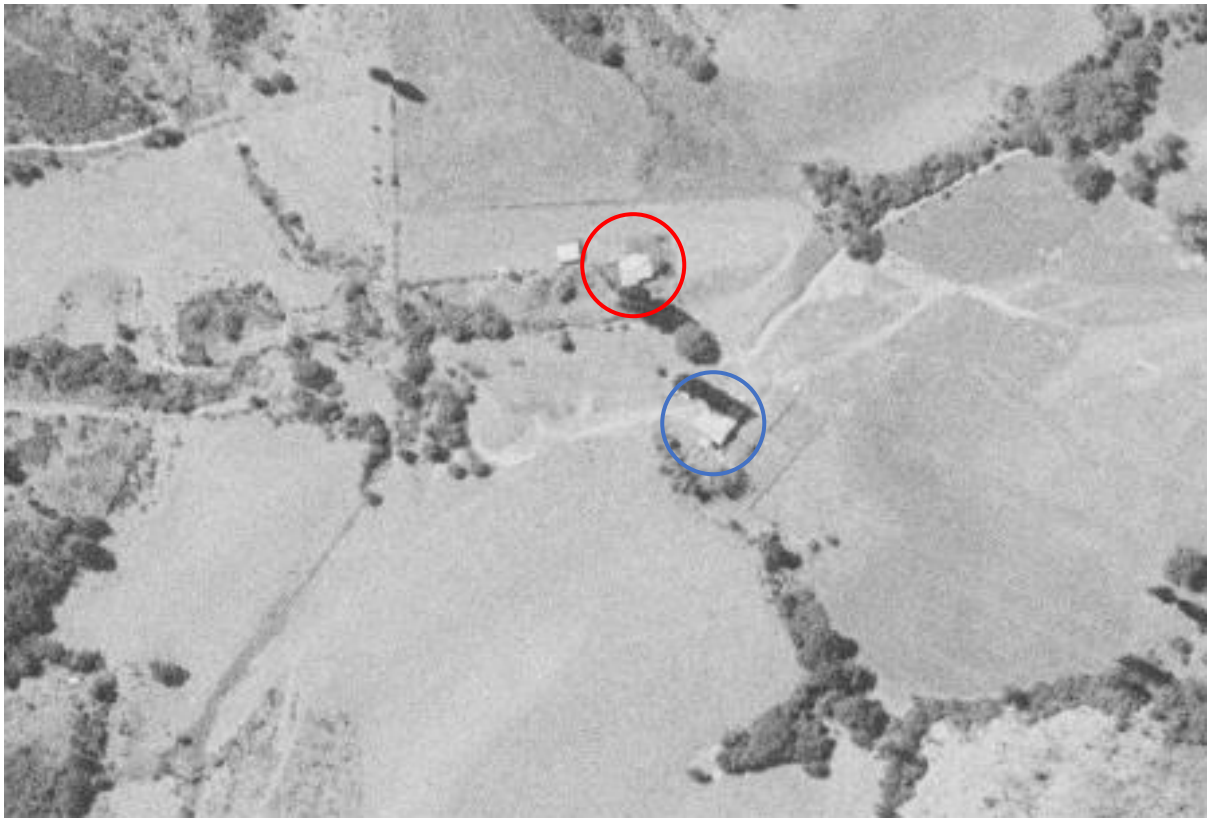

Figure 2. Retrolens, SN1009, 1960.

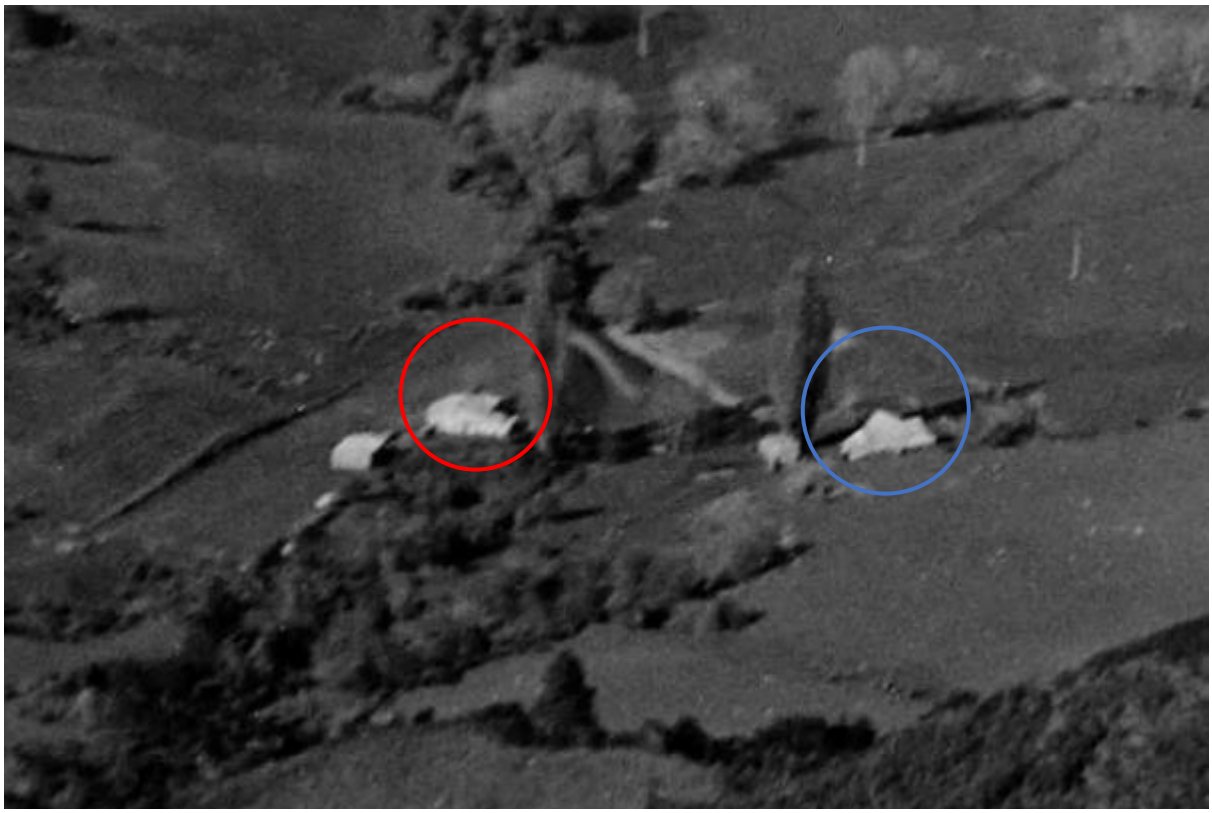

Figure 3. National Library, Whites Aviation, Buildings on Maitai Valley Run in 1960.
https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE37835055&dps_custom_att_1=emu

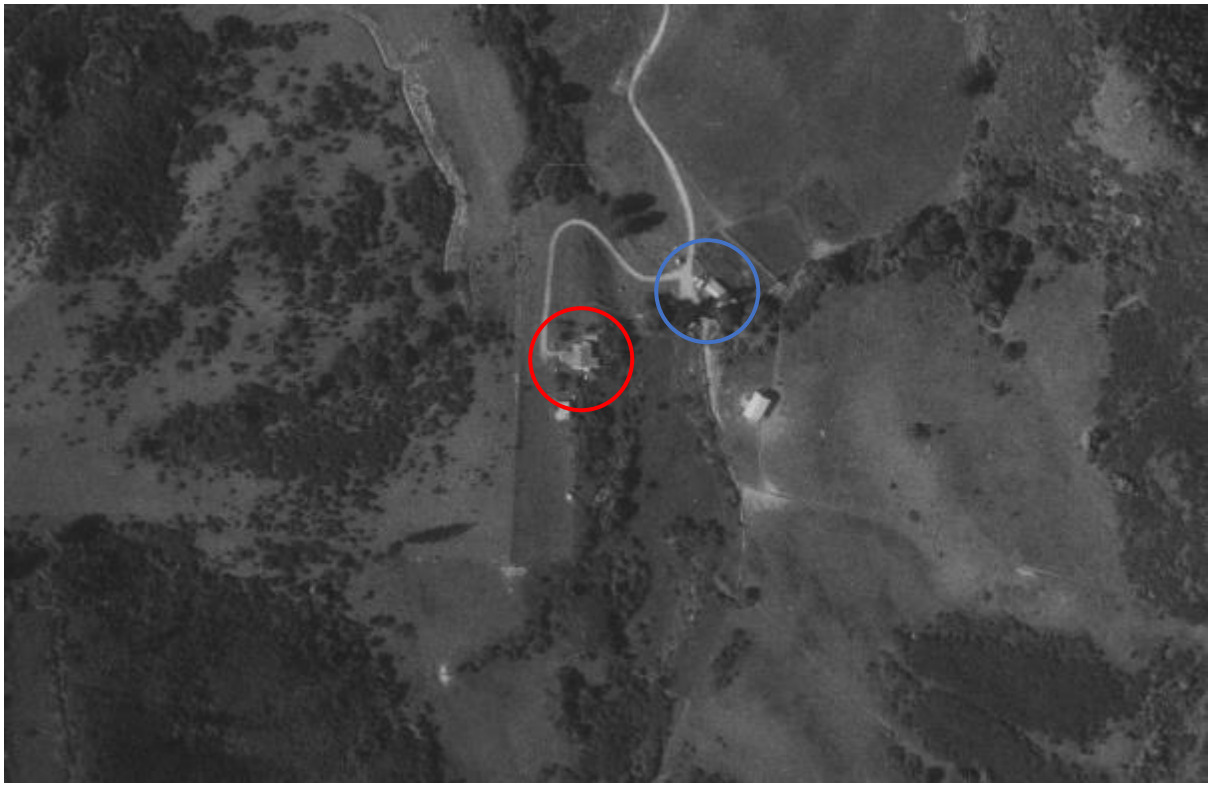

Figure 4. Retrolens, SN8262, 1983.

SITE INVESTIGATIONS – CHIMNEY

The chimney (1) comprises a concrete base measuring approximately 1250 x 1300mm and 600mm high. On top of this is a concrete fireplace and flue measuring approximately 600 by 1170mm with a cast-in nib, which forms the opening to the fireplace and mantle (measuring approximately 1200 by 1220 by 130mm). Above the fireplace, the chimney tapers into a rectangular flue approximately 600mm high on top of which is a c.900mm circular flue of approximately 250 / 300mm in diameter. This has a rusty steel sheet cladding to the top.

Approximately 100mm below the level of the hearth there are bottom plate sockets (2 & 9) on either side of the chimney which indicate the external wall type and the approx. earlier floor level.

The profile of the concrete shuttering can be seen in the chimney, together with (on the inside face of it) the profile of rusticated weatherboards, which were the external cladding for the building when the chimney was cast onto it (2-4). The lines of the rusticated weatherboards can be seen as regular horizontal, slightly curved projections, in the concrete above the fireplace opening and down each side of it.

The chimney is constructed of grey cement and rounded aggregate concrete. Reinforcing can be seen both in the base and where two holes have been formed in the side of the chimney (7 & 8). These holes are likely where pipework ran through the fireplace cheek, probably to connect to the fire to a wetback heating system.

There are a number of indications that the chimney is not particularly old;

- Whilst cement was imported into New Zealand from around the mid-19th century, it was more akin to a hydraulic lime. The make-up of the concrete seems dense, well mixed with gravel, and grey in colour. All of these features are representative of a 20th century cement binder and concrete mix.
- The form of the concrete has a good degree of precision indicating that it was cast with experience and knowledge and was not an early experimentation with the technology.
- The concrete has steel reinforcing in it. Whilst experimentation was being carried out with reinforcement in the late 19th century, reinforcement of concrete is really a 20th century technique and did not become the norm until after c.1910.

- The lintel over the fireplace opening is supported by a c.¾ inch / 20mm diameter hollow steel pipe (5), which visually appears to be a 20th century component. When it was cast into the concrete, it appears to have had a bent galvanised wire nail hooked into it (6). A nail such as this typically dates from after the Second World War.

The information from the historical record is that the original cob (earth) cottage was constructed in 1842. There is on-site evidence that this chimney is not related to the original cottage, namely:

A. The concrete construction of the chimney and its reinforcement suggest that it dates from the 1920's at earliest, but more likely the mid-20th century period; and
B. When it was cast, the chimney was adhered to a timber-framed structure clad with rusticated weatherboards, not a cob (earth)-type building.

My experience of cob (earth-built) buildings is that when they decay and dissolve, they leave an earthen footprint in the ground where they stood. Such an outline is not visually apparent on site (without excavation to investigate).

My conclusion from the above on-site evidence is that the chimney is a structure dating from (at earliest) the first half of the 20th century and that it relates to a timber-framed and rusticated weatherboard clad building that has since been lost.

SITE INVESTIGATIONS – WALL REMNANTS

On the terrace not far from the chimney are some piles of concrete rubble, which appear to have been dumped there. These seem to comprise former walls. There is concrete walling that has had rounded stones/small boulders cast into one face with this face then being finished with a grey cementitious 'ribbon-style' pointing (10). This has smooth-surfaced steel reinforcing rods cast into it (11). There are a number of examples within the rubble of galvanised steel piping running through the walling (12); typically, this might be done for drainage purposes where a wall was intended to retain ground behind it. There is a further type of concrete walling that consists of plain cast concrete only (13); but this time with modern deformed steel bar reinforcing. There are also some concrete blocks and, close to the chimney, a lump of concrete rubble that has had a white ceramic sanitary fitting cast on to it and a sewer pipe inset.

Whilst it is difficult to date these piles of rubble other than to say that they appear to be mid-20th century or later, as a style, rounded stones/boulders cast into the face of concrete walling was quite popular in the 1960s/1970s period. Plain/smooth-surfaced reinforcing bar was first produced around the turn of the 20th century, but the deformed steel bar reinforcing appears to be no older than the late 20th century.

This rubble could have come from anywhere, but if it is local to the site, a rectangular building to the west side of the homestead appeared on the site between 1948 and 1960 (see figures 1 & 2), remained present in 1983 (see figure 4), but is no longer there today. There also appears to have been some form of wall to the north of the house that is quite prominent in figures 3 & 4.

SITE INVESTIGATIONS – WOOLSHED/BARN

The front elevation of the woolshed features a gable with central door, symmetrically-placed ground floor windows either side, and two roof space windows above. This elevation faces roughly in a south-westerly direction. For ease of reference in this report, this is described as the south elevation.

The building comprises three parts, which are shown in (15) to (18). Firstly, there is Part A, which is the long rectangular structure that runs south/north. The south gable has the central door, symmetrically-placed ground floor windows either side, and two roof space windows above. This can be split into two sections: Part A1 is the southern end and Part A2 the northern end.

Part B is the corrugated iron-clad addition on the west side of Part A.

Part C is the lean-to on the east side of Part A.

Building Part A1 (approx. 6.1m/20ft x 5.8m/19ft in plan)
This is a roughly square single storey building with three original external walls clad with rusticated weatherboards and the fourth wall is an internal wall to Part A2. On the west external wall, abutting the southwest corner, there are some rusticated timber weatherboard remnants that would seem to be the earlier wall cladding.

The wall framing is 4 x 2 inch studs at approximately 450mm centres for the three former external walls and then the fourth wall, the internal wall, has much wider stud spaces at about a metre or more (typical for a lesser structural internal wall). This part of the building (19) has a suspended timber floor in two sections with a joint running the length of Part A1 from near the centre of the entrance door. There is a joint in the ridge beam roughly over the internal wall which could mean the ridge is original but then the rafters appear to be younger and some of them have been spliced onto the feet of an earlier rafter which sits on the wall plate. This suggests that there are the remnants of an older roof frame here and then the roof was modified with a newer structure when the roof to the adjoining Part A2 was added on. Only one manufacturer's mark was evident on one of the roofing sheets - "Tupper's Pyramid." Accordingly, this is unreliable as dating evidence.

Looking at the south external elevation, the cladding is a weathered, orange-coloured rusticated weatherboard with timber piles visible along the bottom edge of the cladding. At ground floor level there are two, three-light mullion windows in timber frames with the remains of pressed pattern glass in them (22 & 23). The pattern is (or is very similar to) 'Muranese' (also sometimes known as 'Florentine'), which was first made by Chance Bros in England in the late 19th century. This is a late Victorian/Edwardian material and pattern, the use of which continued well into the early 20th century. There is a similar boarded over window in the west wall (24) and signs in the framing of a matching window in the east wall opposite.

Between the two windows is the door opening which has been widened on the left-hand side; this explains why the overall fenestration doesn't initially appear to be symmetrical. The door is a ledged timber door clad with tongue, grooved, and beaded vertically hung boards. It is held in place with three simple, metal strap hinges.

At first floor level, there are two windows which have the remains of more modern units in them. This style of window is not uncommon in Nelson and the earliest examples seem to date from the 1920s. They have a toplight split into triangles and glazed with pressed pattern glass (25). It appears the light below was a large single pane. There is a similar triangulated window in the east wall of Part A2.

Inside the walls are partly clad with timber sarking boards behind a partial modern softboard cladding. However, to most areas the studs and rear face of the weatherboards are exposed. There are dragon ties in three of the building corners but not the north-east one. Dragon ties are a form of stiffener for wall top plates and are typically installed across an external corner to help support and brace the roof structure. No evidence could be seen of Part A1 previously having a second floor.

Building Part A2 (approx. 6.1m/20ft x 5.658m/18.5ft in plan)
The wall studs are quite widely spaced (approximately 1200mm) and the building is clad with vertically-hung sheets of corrugated iron except for a small part of the wall which adjoins the lean-to (Part C). Here the stud spacing is similar at about 1100 - 1200mm but the external face of the studs is clad with tongue & groove sarking boards. These are not rusticated but appear to be reasonably old and indicate that the middle section of the lean-to is the oldest part of it (this is also shown in figure 2 / 1960). This is further indicated by the construction of the lean-to wall where the middle section has a double wall plate at the top of the studs and the framing at either end just has a single plate.

Building A2 has a part timber lined floor for the shearing board (20) and timber slats in the pen areas. At the far north end of the building, there is a part concrete and part earth floor. The roof to Part A2 comprises widely spaced timber rafters with flat sarking boards used for the purlins and an unmarked corrugated iron cladding on top.

On the northeast external corner of Part A2, there are a few remains of a former rusticated timber weatherboard cladding that pre-dates the corrugated iron wall cladding.

Part A2 contains some old shearing machinery.

Building B (approx. 9.15m/30ft x 5.8m/19ft in plan)
This is the shearers' room or wool storage space (21). It has timber framed walls lined internally with modern softboards and a cladding of corrugated iron. The roof comprises 4 x 2 inch pitched timber rafters overlaid with timber sarking boards and corrugated iron. The stud spacing is around about 900 to 1000mm and the rafter spacing is a little less at around 700mm. This part of the building has a suspended timber floor.

The overall impression is that it is a structure from the second half of the 20th century except for the rusticated weatherboards on the now internal wall to Part A1. Above these rusticated weatherboards is a section of vertical corrugated iron cladding (on the Part B side), but there is no framing behind this which indicates that building A previously had a pitched roof here rather than a gable.

Building Part C (approx. 2.9m/9.5ft x 11.5m/37.5ft in plan)
This is the lean-to which is long and narrow running full length of the building and open at both ends. As described above, the middle section is older section and the two ends are post-1960. The lean-to has a timber slatted floor in the southern section and earth to the north.

Discussion
As noted in the Amanda Young report, Richardson (1995) stated that "below Edendale was an old hop-kiln which serviced the adjacent hop-garden, with additions, it was to form the shearing shed."

Typically, the design of hop-kilns has a number of characteristics, including:
- Round or square in plan;
- Two-storey – ground floor for a fire and a first floor for laying out and drying the hops; and
- Some form of high tapering flue or roof cowl for letting the heat out.

Te Ara describes a hop-kiln at Upper Moutere as follows[1]:

> *This early hop kiln at Neudorf, near Upper Moutere, was built in the Fachwerk (or half-timbered) style common in northern Germany. Hop kilns are distinctive buildings with ventilation cowls at the apex of a corrugated-iron roof. The cowls were some 5 to 6 metres above the hops, which were dried by passing a warm current of air over them, reducing their weight by around 90%. Kilns were heated by coke and charcoal. Coke was shipped from Westport to Motueka and then carted to Upper Moutere. Charcoal was made locally.*

There are a few hop-kilns in the area/region that are included in the Heritage New Zealand List:
- https://www.heritage.org.nz/the-list/details/5150
- https://www.heritage.org.nz/the-list/details/1667
- https://www.heritage.org.nz/the-list/details/5149
- https://www.heritage.org.nz/the-list/details/9308

All show these same/similar characteristics.

With regard to the subject woolshed, the old part of the building is Part A. Of this Part A1 seems to contain the most remaining heritage fabric. It is roughly 20 x 20 ft square and this shape gives it a footprint that could be indicative of a kiln; however, there are other features that are not representative of a kiln per se. The following comments are made assuming that the Richardson's reference to a hop kiln being present refer to solely the drying/furnace structure of a 'kiln.'

Firstly, it is timber-framed. Whilst some kilns undoubtedly were built of timber, many had walls of masonry or earth which were less combustible.

[1] https://teara.govt.nz/en/photograph/29073/upper-moutere-fachwerk-style-hop-kiln.

Secondly, the south wall is gabled, which (from a construction perspective) would not have fitted well with a fully hipped or conical roof. The original roof appears to have been replaced, but from what could be seen on site, there is no sign of the building having had an upper floor either.

Part A1 also has (or had) many windows. In addition to the three-light ground level windows in the south wall, there is a similar window in the west wall (boarded over with rusticated weatherboards externally), and signs of a similar positioned window in the east wall (again boarded over). Glazed windows to a kiln would seem an unlikely feature, unless they were a later modification.

A wider description of the term 'hop kiln' might include the buildings/spaces that are associated with the hop-drying process, such as a shed to receive the harvested 'green' bines and the spaces needed to cool, press, and bag the dried hops. Thus, it is possible that the woolshed site incorporates one of these spaces associated with the wider term for a 'hop-kiln' and that archaeological evidence of the actual kiln/furnace remains in the ground. Building A (1&2) could have originally been a barn or other storage/work space associated with the harvested bines or the dried product from the kiln; but the structures that make up the woolshed today do not themselves appear to incorporate an actual kiln. There is some minor darkening of timbers (more could be revealed if modern linings are removed), but (as seen) there is little to no evidence of a furnace being within Part A1.

The reason for the pressed pattern glass in the windows in unknown. Typically, this sort of glass was used for privacy purposes, such as to sidelights around entrances to houses and sometimes to churches and commercial buildings. It may simply have been that a suitable quantity of this form of glass was available at little or no cost at the time when glass was needed.

It would seem likely that the oldest elements of Part A are pre-1900 (or border 1900), but these have been heavily modified since. Based on what could be seen on site, the modifications include:

- Change of the roof to Part A1 and potentially A2;
- Fitout of the interior as a woolshed, including floors;
- 1920s windows installed and, possibly, Muranese pressed pattern glass added to some ground level windows (this could be original if the building dates from the turn of the 20th century or early 20th century);
- Part A walls reclad externally with weatherboards and corrugated iron;
- The shearing board extended outward on the east side of Part A2 by approx. 150mm;
- Building Part B added in the mid-20th century; and
- Additions to the lean-to (Building Part C) post 1960.

The heritage values of the building will depend upon an assessment against the criteria used by, say, Heritage New Zealand or the local Council for the assessment of heritage significance. However, whilst there is an old building at its core, there is much about the woolshed that is only of low constructional or technological significance in my view. The presence of a hop-kiln on the site, and the story behind it, is most likely to be drawn out by archaeological investigations.

There are some features of social/historical value, such as the original external walls of Building Part A1 and the shearers' graffiti that appears on the east wall and the roller doors to Part B. Some of the woolshed shearing equipment may also have similar value. These elements are likely to be worthy of adaptive reuse (26-28).

Robin Miller
Director
Chartered & Registered Building Surveyor
RICS Certified Historic Building Professional
LBP Design Level 2 BP 133157
For and on behalf of Origin Consultants Ltd
Architecture *Heritage* *Archaeology*

Phone 03 442 0300 / 021 426 699
Office 9 Arrow Lane, Arrowtown
Post PO Box 213, Queenstown 9348
Web www.originteam.co.nz

PHOTOGRAPHS (ORIGIN 28 FEBRUARY 2022)

Photo 1 The concrete chimney and hearth.

Photo 2 Bottom plate pocket for a framed wall with the rusticated weatherboard line adjacent on the right.

Photo 3 Rusticated weatherboard imprints where the concrete was cast against them.

Photo 4 Rusticated weatherboard imprints in the concrete above mantel level.

Photo 5 Hollow steel rod cast into the concrete to act as a lintel over the fireplace opening.

Photo 6 Galvanised steel wire nail attached to the steel rod lintel (likely post 1945).

Photo 7 Holes in the side of the fireplace likely to be for pipework (wetback, etc). Wire reinforcing exposed in the holes.

Photo 8 Wire reinforcing in the concrete foundation/base of the chimney.

Photo 9 Bottom plate and weatherboard imprint in the concrete on the other side of the chimney to that shown in photo 2.

Photo 10 Some of the concrete and stone rubble.

Photo 11 A pile of the concrete and stone rubble with reinforcing rods.

Photo 12 One of the galvanised steel (likely drainage) pipes running through the concrete.

Photo 13 Plain (no stone) reinforced concrete rubble.

Photo 14 Concrete rubble incorporating the base of a white ceramic sanitary fitting and a sewer pipe.

Photo 15 The south elevation with the timber weatherboard-clad gable to Building Part A. Building Part B is the corrugated iron-clad addition on the right. The lean-to on the left is Building Part C.

Photo 16 Looking from the north, the gable to Building Part A on the right and Building Part B on the left. Building Part C is hidden behind the small concrete block building and water tank on the right.

Photo 17 The east elevation with the gable to Building Part B on the left and the northern end of Building Part A on the right.

Photo 18 The lean-to (Building Part C) on the right behind the fence and gate.

Photo 19 Interior of Part A1 looking south.

Photo 20 Interior of Part A2 looking north.

Photo 21 Interior of Part B looking west.

Photo 22 One of the three-light mullion windows at ground floor level to the south elevation (with remaining piece of pressed pattern glass).

Photo 23 The other three-light ground floor south elevation window (with pressed pattern glazing).

Photo 24 Blocked up three-light window on the west side of Part A1.

Photo 25 Upper gable windows to the south elevation (with triangulated toplight glazing c.1920s)

Photo 26 Shearers' graffiti (mostly from 1960s) on the now internal wall between Part A1 and Part B.

Photo 27 Shearers' graffiti on the roller door to the south elevation of Part B.

Photo 28 Shearing equipment in Part A2.