

**SITE U14/2025, WAIKITE ROAD,  
WELCOME BAY:  
ARCHAEOLOGICAL INVESTIGATION (HNZPT  
AUTHORITY 2016/665)**

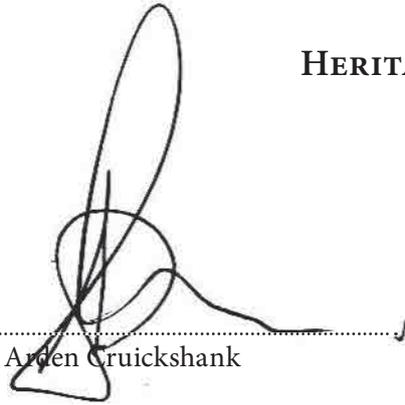
**REPORT TO  
CLIVE AND JAN WATTS  
AND  
HERITAGE NEW ZEALAND POUHERE TAONGA**

**ARDEN CRUICKSHANK**

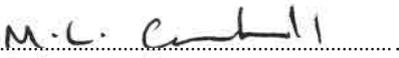
**SITE U14/2025, WAIKITE ROAD,  
WELCOME BAY:  
ARCHAEOLOGICAL INVESTIGATION (HNZPT  
AUTHORITY 2016/665)**

**REPORT TO  
CLIVE AND JAN WATTS  
AND  
HERITAGE NEW ZEALAND POUHERE TAONGA**

Prepared by:

  
.....  
Arden Cruickshank

Reviewed by:

  
.....  
Matthew Campbell

Date: 21 July 2016

Reference: 13-0535



This report is made available by CFG Heritage Ltd under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/>.

**Hard copy distribution**

Clive and Jan Watts  
New Zealand Historic Places Trust, Tauranga  
CFG Heritage Ltd (file copy)  
New Zealand Archaeological Association (file copy)  
Ngati He

This report is provided electronically  
Please consider the environment before printing

# SITE U14/2025, WAIKITE ROAD, WELCOME BAY: ARCHAEOLOGICAL INVESTIGATION (HNZPT AUTHORITY 2016/665)

ARDEN CRUICKSHANK

Clive and Jan Watts have subdivided their former rural property at Waikite Road and three sections, 111, 113 and 115 Waikite Road (Lots 8, 9 and 10 DP 324620), remain undeveloped. An archaeological site, recorded as U14/2025 in the New Zealand Archaeological Association (NZAA) Site Recording Scheme (SRS). The property was assessed by Matthew Campbell of CFG Heritage in 2013 and 2015 (Campbell 2015) and an archaeological authority was applied for from heritage New Zealand Pouhere Taonga (HNZPT) under section 44 of the Heritage New Zealand Pouhere Taonga Act 2014. Authority 2016/665 was granted on 4 February 2016, and excavations on the property were monitored by Arden Cruickshank of CFG Heritage Ltd and Aroha Ririnui of Ngati He on 17 March 2016.

## Background

### *Pre-European*

Archaeological sites recorded in the Wai o Rakei Valley consist of middens, pit/terrace sites often containing midden, and artefact find spots of obsidian. Pa are recorded on coastal promontories to the north, and on hills to the south (Figure 1).

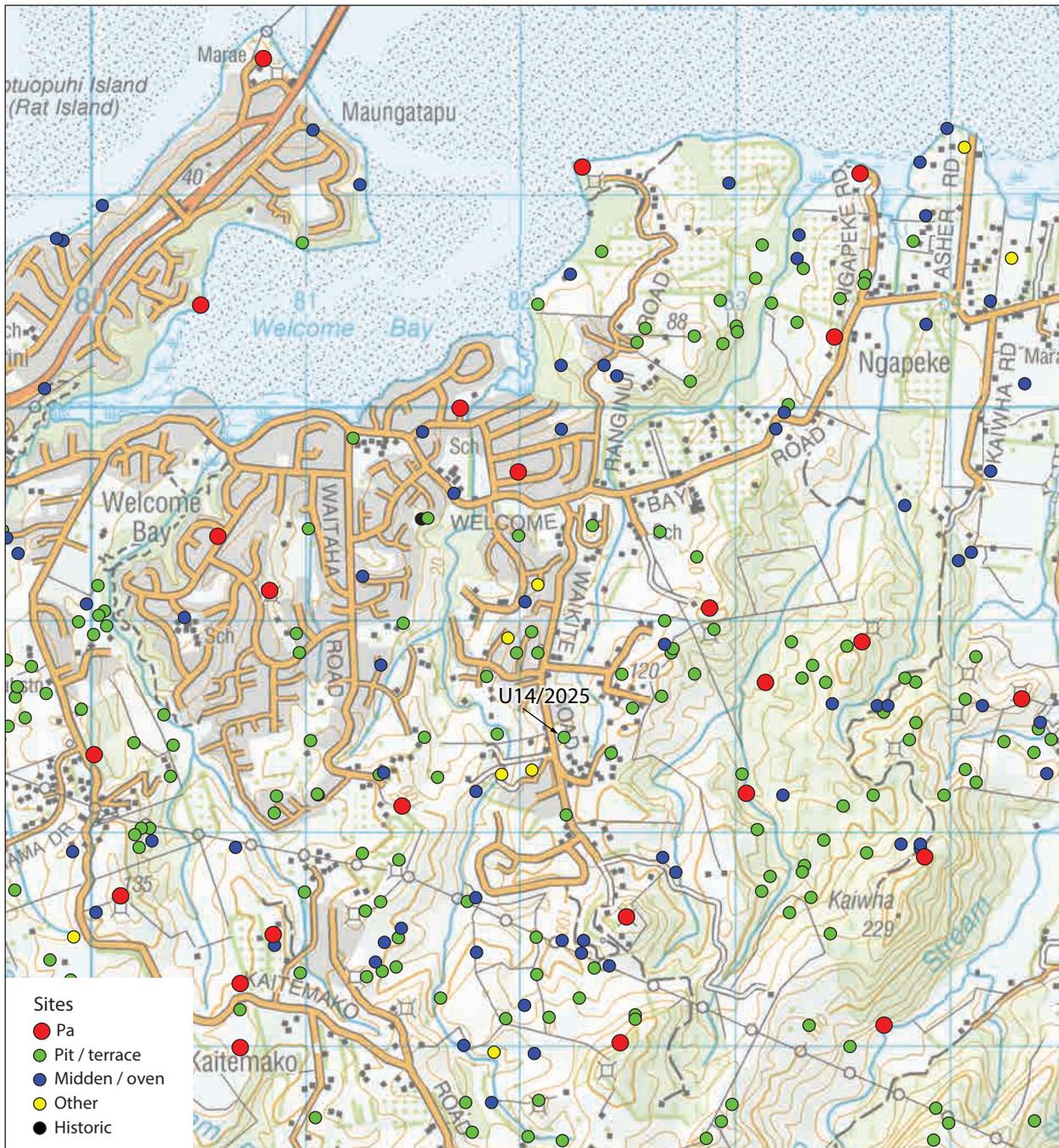
Two sites further up the Wai o Rakei Valley, U14/2065 and U14/3269, at 166 Waikite Road were investigated by CFG Heritage in 2008. The excavations revealed kumara storage pits and midden, and dated from the late 15th to early 17th centuries (Harris and Campbell 2009). Further down the valley similar archaeology was found by Hooker at U14/2032, U14/2037, U14/2029 and U14/2031 (Hooker 2000, 2005). All these sites are relatively small, but pa further up the valley indicate that occupation was potentially intensive and the excavated sites may not be typical.

### *Historic*

Although European traders and explorers had been interacting with Maori in the Bay of Plenty since the late 18th century, settlement did not start in earnest until the arrival of Christian missionaries. The C.M.S schooner *Herald* was probably the first European vessel to enter Tauranga Harbour, which entered in 1826, and again in 1828 (Stokes, 1980:45). The first mission was set up in the 1830s at Te Papa, with a standing presence from 1838 onwards. where the mission house is still standing on Mission Road.

The first organised trade in the region began in 1830 when Phillip Tapsell settled at Maketu as a flax agent for Sydney based firm Jones and Walker. This became a large operation, employing hundreds of local Maori in the cultivation and preparation of the fibre (Stokes 1980: 53).

Although flax became a profitable industry for Maori and the European traders, the first collective industry to bring European labourers to the area was forestry. During the 1880s large tracts of forest in the ranges passed into government hands, and milling began to slowly bring people into the area. This carried on



1. Location U14/2025  
and other archaeological sites recorded in the vicinity.

building and developing until the outset of the First World War, when the industry began to decline.

European farming began during the 1870s after witnessing the successes that local Maori had with pigs and crops. This was intensified, until cattle and sheep began to get ill and die from apparent starvation in lush and productive paddocks. The cause of this 'bush sickness' was long thought to be an iron deficiency in the soil, but after exhaustive investigation by the DSIR it proved to be a cobalt deficiency in soils formed from Taupo and Kaharoa ash. This was easily rectified

through the addition of cobalt to fertilisers, and this allowed the region to flourish agriculturally (Stokes 1980 :237).

### *Previous archaeological investigation*

There are 44 recorded archaeological sites within 1 km of the properties, all of which are associated with pre-European occupation of the area. Twenty-six of these are recorded as pit/terrace sites, and ten are recorded as midden/oven sites. These two constitute the two most common pre-European sites in New Zealand. The remainder consisted of 5 pa and 3 artefact find spots.

U14/2025 was recorded in 1984 by Young and Sorrenson during a student teaching project as “Rua – 750mm x 750mm x 350mm deep. Stones – 6 m east of rua. Embedded in semi circle, in ground. Semi circle’s diameter – 1m. Moss covered”. A site inspection by Ken Phillips in 2002, when it was inspected from the road only, located the site “on the south side of a row of old pines” (see Site Record Form for U14/2025, appended to this report). The 1997 aerial photos available on Mapi, the Tauranga City online map server (<http://gismob.tauranga.govt.nz/Html5/index.html?configBase=mapi>) show this row of pines to be along the southern boundary of the properties. This indicates that the site is not located on Lots 8, 9 and 10 DP 324620.

The aerial photo from the SRS (unknown date but earlier than the 1977 aerial photos available on Mapi, shows U14/2025 marked by a pinprick just on or over the brow of the hill, which places it on the adjacent section, 121D Waikite Road (Lot 1 DPS 74252) roughly 25 m south of the property boundary (Campbell 2015).

The properties were assessed by Ray Hooker in 2009. He did not relocate the site and five shovel test pits in the vicinity of the recorded location did not reveal any archaeological material. The site was assessed again by CFG Heritage Ltd in 2015.

At the southern boundary of the properties, where the grid reference in the Site Record Form places the site, there is a terrace about 5 m wide and 20 m long that appears to be at least partly artificial. A water tank was previously located on this terrace, and its installation will have modified the terrace, but it would have been the best location for pre-European Maori occupation. There is some imported beach sand associated with the tank site and this contains crushed beach shell – although some nearly whole pipi (*Paphies australis*) shells were visible these are probably beach shells and not midden. The former tank location is the only place on the properties where the soil is visible, and includes a shallow profile.

The properties had previously been under kiwifruit which was removed some time ago, and some trees have been recently removed. The ground surface has shallow humps and hollows that probably relate to horticulture – any pre-European archaeological features will be masked by historic activities. No evidence of the site was relocated. The description in the original site record form is rather ambiguous – 350 mm is not a very deep rua and is more reminiscent of tree throw. A circular arrangement of stones is a most unusual site feature.

No evidence of the site or any associated features were relocated. Combined with the evidence from the aerial photos and Ken Phillips 2002 site update, U14/2025 was almost certainly located on the adjacent lot on what is now 121D Waikite Road (Lot 1 DPS 74252) but this has been contoured to build the house currently on it, it seems most probable that U14/2025, if it was a site at all, has been destroyed.

### **Methodology**

Four trenches were exposed using a 12 tonne hydraulic excavator with a 2 m weed bucket (Figure 1). The trenches ceased when sterile soil was reached. Potential features were excavated by hand and samples were taken where appropriate.



2. Map of the properties showing the location of the trenches.

## Results

The main trench, which measured 73 x 4 m went along the top ridge of the property, in an area which was identified as being the most likely to have any archaeological features. Rows of postholes were uncovered, remnants of the kiwifruit vines which were removed from the property in previous years. These postholes were filled with clean sand. Rabbit burrowing was also noted.

In the eastern end of the trench a large amount of redeposited shell was uncovered below the surface. This extended for approximately 22 m, and consisted of crushed cockle and pipi shell intermixed with charcoal. A single firescoop (Feature 1) was uncovered beneath this shell, and appeared to contain similar material.

In the easternmost portion of the trench, a natural depression was identified which was filled with similar material to the redeposited midden in the topsoil. This depression measured 5 x 2 m and was 200–300 mm deep. It had a clay cap placed over the top, and topsoil had built up above it. A fragmented sheep tibia was uncovered within this infilled depression, but no other historic material was noted.

The remaining three trenches were excavated across likely positions for house platforms, to see if any further deposits of midden or other associated features could be located. No other pre-European Maori or historic features or material were found.



3. Feature one prior to excavation. Note the redeposited shell in the foreground and modern post to the right of the feature.



4. View west of the infilled depression with a small test pit in centre.



5. The depth of the deposit and the clay cap located 400–500 mm above the base of the depression. The topsoil above had sparse shell mixed into it, along with miscellaneous farming rubbish.

### Faunal analysis

A ten litre bulk sample was taken from the fill of Feature 1 for analysis. The majority of the sample consisted of tuangi cockle (*Austrovenus stutchburyi*) (83%), followed by horn shell (*Zeacumantus lutulentus*) (6%) and pipi (*Paphies australis*) (4%). Lesser numbers of mud snails (*Amphibola crenata*) and large wedge shells (*Macomona liliana*) were observed, along with a number of whelks which could not be identified beyond the family Buccinidae.

All of the species that were identified from this sample occur within an estuarine environment, and would all exist within the Tauranga Harbour. These species were all likely collected within the Te Tahuna o Rangataua / Welcome Bay harbour.

### Charcoal analysis

The charcoal retrieved from the 10 litre bulk sample was sent to Dr Rod Wallace of the Department of Anthropology, University of Auckland for species identification. There were only two species of wood identified within the firescoop, tutu (*Coriaria arborea*) and hebe (of the family *Plantaginaceae*). This indicates that the area was most likely covered with bracken, with the only wood suitable for burning belonging to these two species. This is usually the result of prior forest clearance.

### Chronology

A sample of tuangi cockle was sent to the radiocarbon dating laboratory at The University of Waikato for radiometric dating. This sample returned a late date, between cal AD 1680 and 1830.

### Discussion

The western Bay of Plenty has one of the highest densities of pre-European archaeological sites in New Zealand. The foothills around Welcome Bay are no exception, with numerous sites related to horticulture, storage and occupation identified. Although only one secure archaeological feature was uncovered at this site, the evidence of redeposited midden which is probably an indication of further features to the south which have been destroyed (Campbell 2015).

The fire scoop was used to cook shellfish, most likely obtained from Te Tahuna o Rangataua / Welcome Bay. They used locally sourced wood to cook the food, which indicates that the area was most likely covered with scrub and bracken. The dating sample came back with a late date, indicating occupation after the mid-17th century.

Although it could be argued that the fire scoop represents a single event, it is only about 25 m from where the U14/2025 was probably located (Campbell 2015) and is probably the surviving edge of that otherwise destroyed site, as well as being part of a larger landscape of occupation in the Wai o Rakei Valley and Te Tahuna o Rangataua / Welcome Bay. Other shallow features associated with the site have probably been truncated through agricultural practices, but storage pits would have survived, meaning that if any were associated with the site they were located to the south of the 11–115 Waikite Road.

## References

- Campbell, M. 2015. 111–115 Waikite Road, Welcome Bay, Tauranga: archaeological assessment. Unpublished CFG Heritage Ltd report to Clive and Jan Watts.
- Harris, J. and M. Campbell 2009. Archaeological investigations at U14/2065 and U14/3269, Balintoy Park, 166 Waikite Road, Welcome Bay. Unpublished CFG Heritage Ltd report to The New Zealand Historic Places Trust and Hugh Green Ltd.
- Hooker, R. 2000. Archaeological investigation at Grandview Estate Subdivision, Waikite Road, Welcome Bay, Tauranga. Unpublished ArchSearch Consultancy report to The New Zealand Historic Places Trust.
- Hooker, R. 2005. Archaeological investigation at sites U14/2028(4), U14/2029 and U14/2031, Chong and Pittams property, Waikite Road, Welcome Bay. Unpublished ArchSearch Consultancy report to The New Zealand Historic Places Trust.
- Hooker, R. 2009. Report on archaeological inspection, Lots 9 & 10 DPS 324620, 113, 115 Waikite Road. Unpublished ArchSearch Consultancy report to C. Watts.
- Stokes, E. 1980. *A History of Tauranga County*. Dunmore Press, Palmerston North.

## APPENDIX A CHARCOAL ANALYSIS

A charcoal sample from excavations at site at U14/2025, Welcome Bay, Tauranga was submitted for identification. The results are given below.

*U14/2025*

Tutu	15
Hebe	5

### Discussion

The samples indicate Tutu and Hebe were the only woody species available for fire-wood suggesting bracken fern vegetation was probably dominant locally.

## APPENDIX B RADIOCARBON RESULTS



### Radiocarbon Dating Laboratory

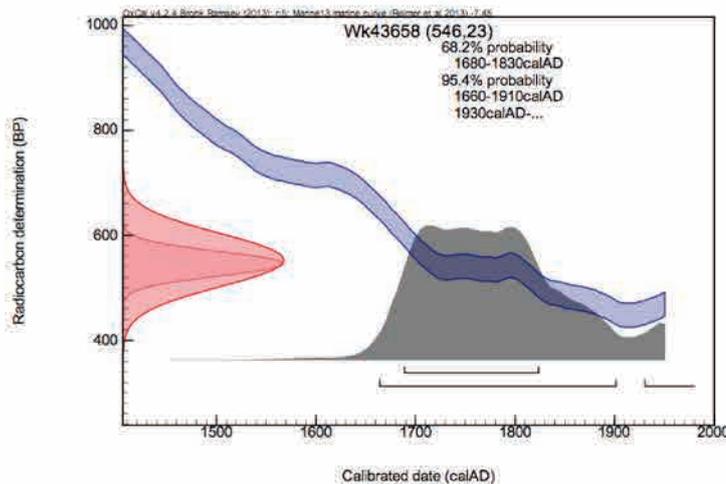
#### Report on Radiocarbon Age Determination for Wk- 43658

Private Bag 3105  
Hamilton,  
New Zealand.  
Ph +64 7 838 4278  
email c14@waikato.ac.nz  
Monday, 11 July 2016

<b>Submitter</b>	M Campbell
<b>Submitter's Code</b>	U14/2025 Sample 1
<b>Site &amp; Location</b>	,
<b>Sample Material</b>	Austrovenus stutchburyi
<b>Physical Pretreatment</b>	Surfaces cleaned. Washed in an ultrasonic bath. Tested for recrystallization: aragonite.
<b>Chemical Pretreatment</b>	Sample acid washed using 2 M dil. HCl for 120 seconds, rinsed and dried.

$\delta^{13}\text{C}$	$0.4 \pm 0.2 \text{‰}$	(CRDS)
$\text{D}^{14}\text{C}$	$-65.7 \pm 2.7 \text{‰}$	
$\text{F}^{14}\text{C}\%$	$93.4 \pm 0.3 \%$	
<b>Result</b>	<b><math>546 \pm 23 \text{ BP}</math></b>	

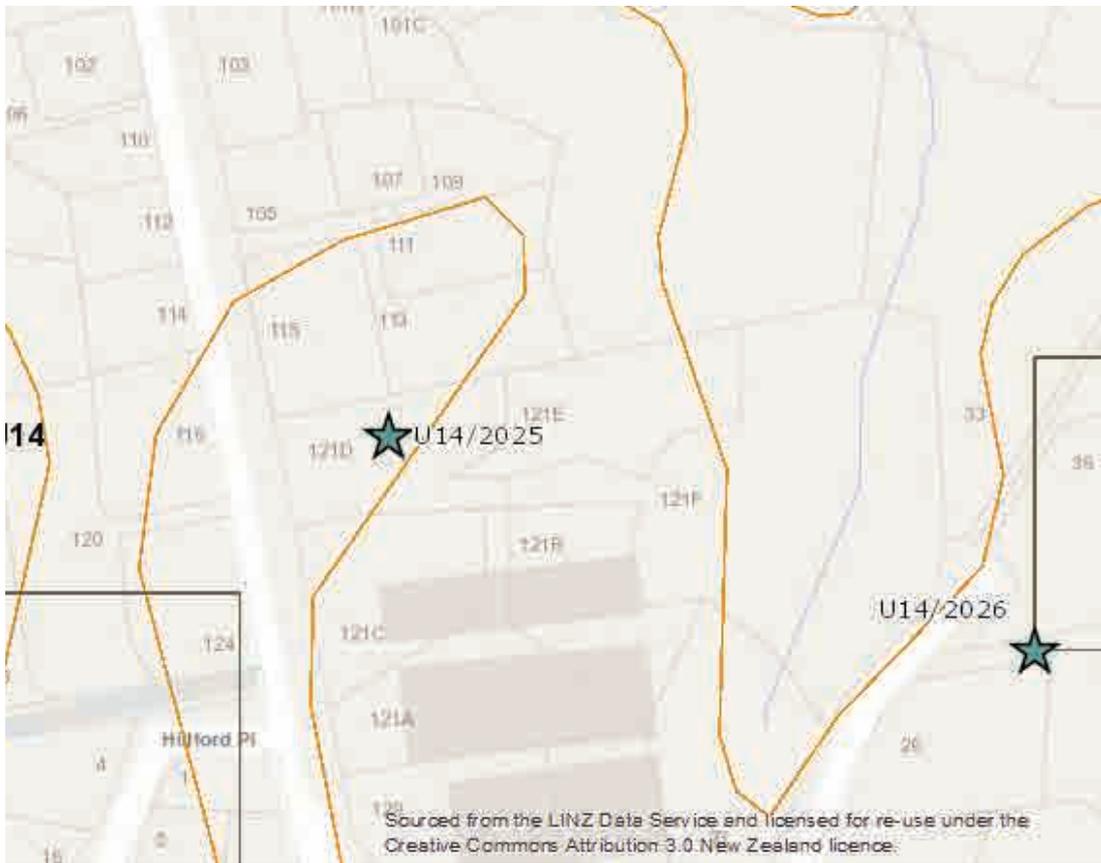
#### Comments



- Explanation of the calibrated Oxcal plots can be found at the Oxford Radiocarbon Accelerator Unit's calibration web pages (<http://c14.arch.ox.ac.uk/embed.php?File=explanation.php>)
- Result is *Conventional Age or Percent Modern Carbon (pMC)* following Stuiver and Polach, 1977, Radiocarbon 19, 355-363. This is based on the Libby half-life of 5568 yr with correction for isotopic fractionation applied. This age is normally quoted in publications and must include the appropriate error term and Wk number.
- Quoted errors are 1 standard deviation due to counting statistics multiplied by an experimentally determined Laboratory Error Multiplier.
- The isotopic fractionation,  $\delta^{13}\text{C}$ , is expressed as ‰ wrt PDB and is measured on sample  $\text{CO}_2$ .
- $\text{F}^{14}\text{C}\%$  is also known as *Percent Modern Carbon (pMC)*.

7/11/16

# APPENDIX C SITE RECORD FORM



**1 of the site**

old pines.

a. There was a rua (750 x 750 x 350) and a stone circle that were last visited in 2002 but have d through subdivision development.

**1 this site**

**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION**

<b>SITE RECORD HISTORY</b>	<b>NZAA SITE NUMBER: U14/2025</b>
<p><b>Site description</b></p> <p>Updated 15/09/2015 (Field visit), submitted by matthewcampbell, visited 02/10/2013 by Matthew Campbell Grid reference (E1882200 / N5818455)</p> <p>The site location has been updated to reflect the description in Ken Phillips' 2002 update which places it south of the row of pines that formerly marked the property boundary. The marked up aerial photo from the original 1984 survey also places it over the brow of the hill on 1221D Waikite Road.</p> <p><b>Condition of the site</b></p> <p>Updated 15/09/2015 (Field visit), submitted by matthewcampbell, visited 02/10/2013 by Matthew Campbell</p> <p>Updated 17/07/2015 (other), submitted by emmabrooks</p> <p>Site of a traditional Ngati He pa site. The site was viewed from the road. It has been recently inspected by Ngati He and HPT re a proposed 9-lot subdivision.</p> <p><b>Statement of condition</b></p> <p>Updated: 04/11/2015, Visited: 02/10/2013 - Destroyed - Evidence must be provided 121D Waikite Road has been levelled during development and the site has been destroyed. There is no evidence of the site on 113 and 115 Waikite Road immediately to the north.</p> <p><b>Current land use:</b></p> <p><b>Threats:</b></p>	

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

<b>SITE RECORD INVENTORY</b>	<b>NZAA SITE NUMBER:</b> U14/2025
------------------------------	-----------------------------------

Supporting documentation held in ArchSite

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION <b>SITE RECORD FORM (NZMS260)</b>		NZAA METRIC SITE NUMBER <b>U14/2025</b> DATE VISITED <b>27 January 1984</b> SITE TYPE <b>Rua and Stones</b> SITE NAME: MAORI OTHER													
NZMS 260 map number <b>U14</b> NZMS 260 map name <b>Tauranga</b> NZMS 260 map edition <b>1st</b>															
Grid References Easting <b>2792410</b>		Northing <b>6379980</b>													
1. Aids to relocation of site (attach a sketch map) <b>40m east of Waikite Road, 70m north of Honeyfield's stables, on south side of pine shelterbelt. On high ridge top overlooking gully. Kaitemako.</b>															
2. State of site and possible future damage <b>Clear of vegetation.</b>															
3. Description of site (Supply full details, history, local environment, references, sketches, etc. If extra sheets are attached, include a summary here) <b>Rua = 750mm x 750mm, 350mm deep.                  Stones = 6m east of rua. Embedded in semi circle, in ground.                  Semi circle's diameter = 1m. Moss covered.</b>  <i>Marked 300m north of stables</i>															
4. Owner Address		Tenant/Manager Address													
5. Nature of information (hearsay, brief or extended visit, etc.) <b>Brief visit.</b>  Photographs (reference numbers, and where they are held)  Aerial photographs (reference numbers, and clarity of site) <b>Air Maps 154044</b>															
6. Reported by <b>Young, Sorrenson</b> Address <b>C/ NZHPT</b>		Filekeeper Date <i>RA Reynolds</i> <b>23 MAR 1984</b>													
7. Key words															
8. New Zealand Register of Archaeological Sites (for office use) NZHPT Site Field Code															
Latitude S <table border="1"> <tr><td>c</td><td>P</td></tr> <tr><td>A</td><td>W</td></tr> <tr><td>-</td><td>-</td></tr> </table> Type of site Local environment today Land classification		c	P	A	W	-	-	Longitude E <table border="1"> <tr><td>B</td><td>D</td></tr> <tr><td>A</td><td>A</td></tr> <tr><td>H</td><td>C</td></tr> </table> Present condition and future danger of destruction Security code Local body		B	D	A	A	H	C
c	P														
A	W														
-	-														
B	D														
A	A														
H	C														



NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

**Site Information NZAA Metric Site Number U14/2025**

NZMS 260 map		Site	
Edition	1997	Type	Rua and stones
Number	U14	Maori Name	
Name	Tauranga	Other Name	
Grid Reference - OLD Easting	.2.7 9 2 4 1.0	OLD Northing	.6.3 7 9 9 8.0
Grid Reference - New Easting		New Northing	
Grid Reference - GPS Easting		GPS Northing	
Land Owner	Watts?	Valuation Number	
Address		Legal Description	
Date first recorded	27/01/1984	Date of visit	1/05/2002
Required for a Council	YES	Council Name	Tauranga District
Aids to relocation	On the south side of a row of old pines.		
Current site condition	Intact. This is the site of a traditional Ngati He pa site. The site was viewed from the road. It has been recently inspected by Ngati He and HPT re. q proposed 9-lot subdivision.		
Current land use	Residential / pastoral.		
Threats	Development.		
Iwi Hapu	Ngati He		
Person providing update	Ken Phillips	File Keeper	Jan Worrall
Address	PO BOX 855, Whakatane.	File Date	
Number of Photos	0	Maps Drawing Photos attached	<input type="checkbox"/>
Recommendations			
Additional Information			
Special Notes			