



ROSS & CROMARTY ARCHAEOLOGICAL SERVICES

Waste Water Treatment Works, Crossapol, Tiree Trial Trenching Evaluation



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Fieldwork was conducted by Lynn Fraser. We would like to thank Scottish Water for commissioning the work and Lachlan Brown for his work on site. Mapping is reproduced by permission of Landmark Information Group under RoCAS licence LIG1044. Aerial imagery and other background mapping are reproduced under ESRI licensing and provided by the World Imagery layer. This is an unpublished report.

Summary

An archaeological trial trenching evaluation prior to the upgrade of the waste water treatment plant at Crossapol, Tiree was carried out on 25th November 2013. The trial trenching evaluation requirement was a result of consultation between Scottish Water and West of Scotland Archaeology Service prior to development of the site. Eight trenches covering approximately 7% of the site were excavated. There were no archaeological features or finds uncovered. No further work is recommended as a result of this evaluation.

1.0 Introduction

1.1 General information

An archaeological trial trenching evaluation was conducted by Ross and Cromarty Archaeological Services (RoCAS) on 25th November 2013 in advance of development work by Scottish Water to upgrade the waste water treatment plant at Crossapol, Isle of Tiree.

The trial trenching requirement arose due to the site lying in an area within which a number of upstanding features have been identified by aerial imagery. There was the potential for further features to be situated within the development site that were not easily identified through the aerial imagery and for buried archaeological features. The purpose of the trial trenching evaluation was to identify the presence or absence of any archaeologically significant remains on the site prior to its development.

1.2 Aims and objectives

Trial trenching aims to identify the location, character, extent, quality and preservation of any features or objects of archaeological importance that would be damaged or destroyed by development. The results inform a strategy for the safeguarding where possible, and recording where necessary of any archaeological features or finds identified¹. The aim was to evaluate the likely impact of the development on any identified archaeological remains to aid the planning authority's decision making process. The *Scottish Planning Policy 2010* and PAN2/2011 describe how archaeology should be managed when considering planning decisions and determining conditions for developments that have an impact on the historic environment².

The specific objectives were:

- To establish the presence or absence of archaeological remains within the proposed development area
- To remove by hand any overburden in order to expose the archaeological deposits
- To excavate, sample and record any features or to propose arrangements for their safeguarding, where possible
- To sample deposits for post-excavation work, including environmental analysis and dating

¹ Highland Council 2012

² The Scottish Government, 2010 and 2011

- To make recommendations for further measures necessary to mitigate the impact of the development
- To make recommendations for post-excavation work

2.0 Site Location

The development site is centred at approximately Ordnance Survey National Grid Reference NL 99860 43708 at Crossapol, Isle of Tiree (Figure 1). The proposed site is located between the south side of the B8065 and the shore. The underlying geology is Scourian Gneisses with superficial deposits of wind-blown sand³.

3.0 Archaeological and Historical Background

Tiree is an island rich in prehistoric, Post Medieval and world war era sites.

Although no sites have been specifically recorded from within the area that would be affected by the proposal, a number have been identified in the surrounding landscape. The footings of numerous rectangular buildings, present on the strip of land between the shore and the road in the area to the north-east of the development site, represent the remains of a WWII army camp. Contemporary waste dumps have been identified eroding from the sand dunes along the foreshore.

A range of features have been recorded from the wider landscape surrounding Crossapol, indicating that the area has been occupied from prehistory onwards. For example, a grass-covered mound, possibly representing a prehistoric burial monument, was recorded in 1903 from the area between the road and beach at Crossapol. There is also a record of cup-marked stones having been identified in the vicinity.

4.0 Methodology

4.1 Desk-based assessment

A desk-based assessment was conducted prior to commencement of the evaluation in order to assess the archaeological potential of the area based on previously recorded sites and any historical documentation. The purpose of the desk-based assessment was to understand the historical context of the site and assist in the formulation of a strategy for the archaeological fieldwork⁴.

The drawings of the area, as supplied by the client, were checked in detail against the Ordnance Survey 1:25000 Map, the West of Scotland Archaeology Service Sites and Monuments Record (SMR), the National Monuments Record of Scotland and Historic Scotland's records of scheduled monuments and listed buildings. Online aerial photographs, using Microsoft Bing mapping at ArcGIS online, were also checked for any relevant site information. The map collections of the National Library of Scotland (NLS) were studied online. Other literary sources were also consulted.

³ BGS, 2013

⁴ IfA, 2012(a)



Figure 1: Site location⁵

⁵ Reproduced under ESRI licensing and provided by the World Imagery layer. Contains Ordnance Survey data. Crown copyright and database rights 2013.

4.2 Trial trenching

Eight trenches totalling 208m², 7% of the total site area (2,931m²), were excavated (Table 1) across the development site (Figure 2).

The topsoil was removed by a mechanical excavator equipped with a flat-bladed ditching bucket to reveal the subsoil surface. This activity was conducted under constant archaeological supervision.

All fieldwork was conducted in accordance with *Institute for Archaeologists' (IfA) Code of Conduct*⁶.

4.3 On-site recording

All on-site recording was carried out according to standard IfA procedures⁷, using written records and sketch drawings where necessary.

Trench positions and all archaeological features were plotted using ArcPad GIS software and GPS with sub-metre accuracy on a handheld Windows Mobile-based computer.

4.4 Photography

The development site was recorded using high resolution digital photography prior to the start of works and throughout the trial trenching evaluation. An Index of Photographs is included in this report.

Table 1: List of Trenches

Trench	Alignment	Dimensions (m)	Area (m ²)	Depth (m)	Features
1	NNW-SSE	22 x 1.5	33	0.75 – 1.5	-
2	NNW-SSE	4 x 3	12	0.75	-
3	NNE-SSW	23 x 1.5	34.5	0.75	-
4	WNW-ESE	25 x 1.5	37.5	0.75	-
5	NE-SW	26 x 1.5	39	0.75	-
6	NNE-SSW	5 x 4	20	0.75	-
7	NNE-SSW	4 x 4	16	0.75	-
8	NNE-SSW	4 x 4	16	0.75	-

⁶ IfA, 2012(b)

⁷ IfA, 2008

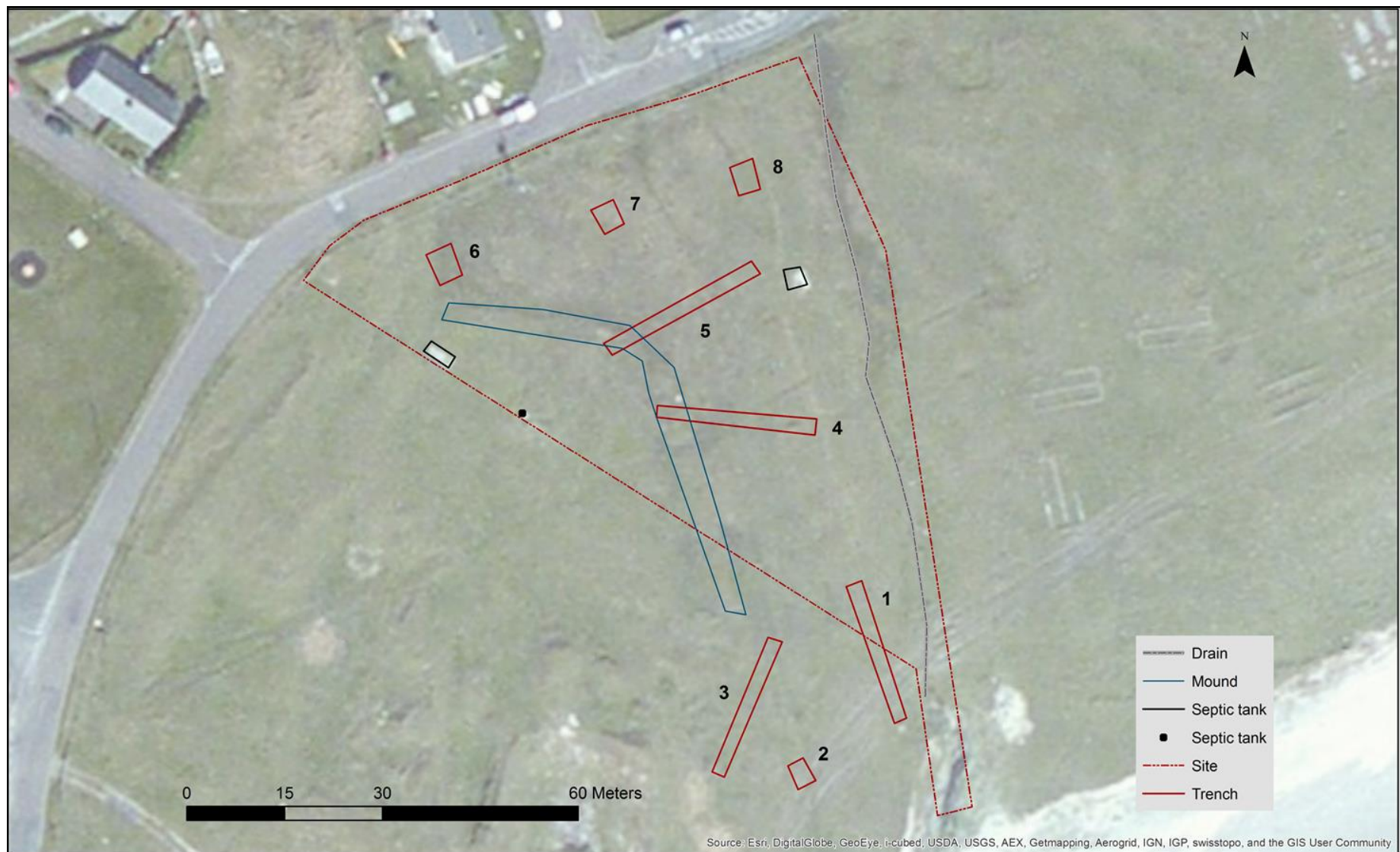


Figure 2: Trench plan⁸

⁸ Reproduced under ESRI licensing and provided by the World Imagery layer.

5.0 Results

5.1 Desk-based assessment

5.1.1 Historical mapping

Historical maps were consulted at the National Library of Scotland online⁹.

The early maps such as Blaeu's Atlas of Scotland 1654, Herman Moll's map of 1745 and John Thomson's Atlas of Scotland 1832 do not depict the study area in sufficient detail to note particular features.

1st Edition OS 25-inch to the mile – Argyll and Bute Sheet LXIV.16 (Tiree), surveyed 1877, published 1880

This depicts the development site as rough scrubland.

2nd Edition OS 25-inch to the mile – Argyll, Sheet 064.16, surveyed 1898, published 1899

There is no change from the 1st edition map.

5.1.2 West of Scotland Archaeology Service Sites and Monuments Record (SMR)

The West of Scotland Archaeology Service SMR was consulted online¹⁰ and the following site was recorded within the landscape adjacent to the development area:

WoSAS Pin: 60080 Military Camp NL 99942 43643

On a grassy strip of land between the shore and the road, stand the footings of numerous rectangular buildings associated with a WWII army camp. The structures are built of brick and concrete and have concrete roofs. Some remain in use as stores. WWII army refuse dumps are eroding from the sand dunes along the foreshore. The exposure extends for over 100m. The dumps contain broken up building materials, glass, metal, utensils and batteries.

5.2 Trial trenching evaluation

The archaeological trial trenching evaluation was conducted during a mild day with a slight breeze and a little rain towards the end of the day.

The depth of the trenches varied from 0.75m to 1.5m. The topsoil was a thin layer of approximately 0.15m of dark brown loam, which overlay clean wind-blown sand. Each of the trenches was dug to the depth of the water table. Due to the site not being marked out and initial problems with the GPS unit, part of trench 1 and the whole of trenches 2 and 3 fall outwith the development area.

⁹ NLS, 2013

¹⁰ Highland HER, 2013

The site was slightly undulating with a low curvilinear mound in the western half of the area, which was suggestive of anthropological activity. This mound was cut in two places by trenches 4 (Plate 1) and 5 revealing that it was an entirely natural feature.

An outflow pipe from the western septic tank was encountered in trench 1. Old electricity and telephone cables were revealed in trench 5. There were no archaeological features or finds identified during the evaluation.

6.0 Discussion

Despite the development site's proximity to the WWII camp and the potential for buried archaeology, no archaeological features or finds were identified. The presence of clean wind-blown sand beneath the thin topsoil suggests that this particular area has not been the subject of anthropogenic activity at any time in the past.

7.0 Recommendations

Based on the results of the trial trenching evaluation further mitigation is not recommended.



Plate 1: The west end of trench 4 showing the natural mound

8.0 References

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APPENDIX 1: Index of Photographs

No.	Direction facing	Feature No.	Notes	Taken by	Date
1	NW	-	View of the site prior to trial trenching	LF	25/11/2013
2	SSE	-	Drain in trench 1	LF	25/11/2013
3	SSE	-	Drain in trench 1	LF	25/11/2013
4	NNW	-	Trench 1 Post-ex	LF	25/11/2013
5	NW	-	Trench 2 Post-ex	LF	25/11/2013
6	NNE	-	Opening up trench 3	LF	25/11/2013
7	W	-	Trench 6 Post-ex	LF	25/11/2013
8	NE	-	Trench 7 Post-ex	LF	25/11/2013
9	SSW	-	Trench 8 Post-ex	LF	25/11/2013
10	SW	-	Trench 5 Post-ex	LF	25/11/2013
11	WNW	-	Old electrical and telephone cables in trench 5	LF	25/11/2013
12	S	-	Old electrical and telephone cables in trench 5	LF	25/11/2013
13	E	-	Trench 4 Post-ex	LF	25/11/2013
14	SE	-	Section mound at W end of trench 4	LF	25/11/2013