

# CFA Archaeology Ltd

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*Advice on Archaeology & Planning*

*Environmental Impact Assessment*

*Intpretation, Design & Display*

*Finds/ Environmental Analysis*

*Field Evaluation & Excavation*

*Historic Building Recording*

*Site & Landscape Survey*

*Geophysical Survey*

**TulloWind Farm  
Laurencekirk  
Aberdeenshire**

**Archaeological Works**

**Report No. 1700**

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Commissioned by	Natural Power on behalf of Eneco UK
Date issued	November 2009
Version	0
OASIS Reference	cfaarcha1-68766
Planning Application No	N/A
Grid Ref	NO 7550 7175 (centred)

This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

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## CONTENTS

1.	Introduction	3
2.	Working Methods	4
3.	Archaeological Results	4
4.	Conclusion and Recommendations	5
5.	References	5

## Appendices

1.	Context Register	8
2.	Photographic Register	8
3.	Drawings Register	9
4.	Samples Register	9
5.	Finds Register	9
6.	Discovery and Excavation in Scotland Entry	10

## Illustrations (bound at rear)

Fig. 1	Site location map
Fig. 2	Archaeological features within area stripped for Turbine 7
Fig. 3	Pit 003, plan and NE-facing section
Fig. 4	Pit 006, plan and south-facing section
Fig. 5	Pit 009, plan and north-facing section
Fig. 6	Pit 011, plan and SE-facing section
Fig. 7	Pit 013, plan and SE-facing section
Fig. 8	Pit 006, south-facing section
Fig. 9	Pit 013 showing pottery <i>in situ</i>
Fig. 10	Area stripped for Turbine 7 showing natural terrace

# 1. INTRODUCTION

## 1.1 General

- 1.1.1 This report presents the results of a programme of archaeological works undertaken by CFA Archaeology Ltd (CFA) in September and October 2009 on the site of Tullo Wind Farm, near Laurencekirk, Aberdeenshire (NGR: NO 7550 7175 centred) (Fig. 1). The work was commissioned by Natural Power Consultants Ltd on behalf of Eneco UK.
- 1.1.2 A Written Scheme of Investigation (WSI) dated 02 September 2009 was produced by CFA on behalf of Natural Power. The WSI covered the requirement for an archaeological watching brief and was designed to meet the requirements of the Aberdeenshire Council Archaeology Service (ACAS). Following on from discoveries made during the watching brief at Turbine 7, an addendum (Addendum 1) to the WSI was produced on 02 October 2009 to cover the mitigation measures agreed in a verbal brief from ACAS.
- 1.1.3 A Cultural Heritage Assessment was undertaken by SUAT Ltd as part of an Environmental Statement (ES) for the project (chapter 8 in ES). Site numbers in bold in the following text refer to sites identified in the ES. This report should be read in conjunction with the aforementioned document.

## 1.2 Background

- 1.2.1 The wind farm occupies the application area shown on Figure 1, which comprises undulating improved and partially improved farmland to the west of Tullo Farm. Altitude across the application area varies between c. 180m OD at Tullo Farm to 250m at the northern end of the site. The land-use over the application area is for the most part pasture grassland used for sheep and cattle grazing.
- 1.2.2 The development comprises 7 wind turbines (Turbine 2 – Turbine 8) together with site compound and other associated infrastructure features. The access to the wind farm is from an unclassified road leading in a north-easterly direction from the B9120, utilising and upgrading an existing farm track running to the north-west of Tullo Farm.
- 1.2.3 The Cultural Heritage Assessment carried out by SUAT identified 8 sites with the potential to be affected by this development. These consisted of a The Cairn-o-Shiels (Site **8**), four areas of rig and furrow (Site **13** and Site **22**- Site **24**) and three linear cropmarks (Site **25** – Site **27**). The layout of the turbines meant that direct impacts were possible in relation to Site **22** (Turbine 6), Site **23** (Site Compound) and Site **24** (Turbine 8). The Cairn-o-Shiels is a Scheduled Ancient Monument (SAM No. 5315) and is situated just outwith the wind farm area.
- 1.2.4 No previous invasive archaeological fieldwork is known to have taken place within the proposed development area prior to this programme of works.

### **1.3 Objectives**

1.3.1 The objectives of Phase 1 of the project were to establish the presence or absence of archaeological features or deposits during groundbreaking and to mitigate any impact on those features or deposits as identified. The areas monitored consisted of the turbine bases/crane stands, site compound and a length of trackway, and are highlighted on Fig. 1.

1.3.2 Following the identification of a concentration of pits (Fig. 2) at Turbine 7, the objectives of Phase 2 of the project were:

- To excavate and record the features revealed within the stripped area at Turbine 7 to a sufficient level to enable their likely function, date and character to be reported on.
- To produce a report on the excavation
- To produce a project design for post-excavation work, and publication, if appropriate.

## **2. WORKING METHODS**

2.1 The removal of topsoil was carried out using a 360° tracked excavator equipped with a smooth bladed ditching bucket, under constant archaeological supervision. Any further work required to fulfil the terms of the brief was carried out by hand.

2.2 The stratification of all excavated areas was recorded whether or not significant archaeological deposits were identified.

2.3 All excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, photography and by completing standard CFA record forms.

2.4 The positions of all archaeological features were surveyed using industry standard electronic surveying equipment.

### 3. ARCHAEOLOGICAL RESULTS

#### 3.1 General

- 3.1.1 Numbers in bold in the following text refer to contexts, a full list of which is contained in Appendix 1.
- 3.1.2 The topsoil across the area consisted of grey-brown silt with an average depth of c. 0.3m, overlying reddish-brown sandy clay and gravel subsoil. Deeper slope-wash deposits with a depth of up to 1m were identified at the southern end of the stripped area for Turbine 7. Rubble field-drains were identified, across much of the development area, suggesting that the land had been improved in the recent past. Information obtained from a local farmer suggests that a series of substantial field drains within the area stripped for the site compound were dug by Italian prisoners of war.
- 3.1.3 There were no surviving remains of Site **22**, Site **23** or Site **24** (all rig-and-furrow) identified within the areas of soil stripping (Turbine 6, Site Compound and Turbine 8 respectively). Upstanding remains of Site **22** were identified immediately to the east of the area stripped for Turbine 6, but deep scores within the subsoil of the stripped area suggest that areas of the rig-and-furrow had been removed by plough truncation. The surviving rig-and-furrow was aligned approximately NW by SE and measured c. 12m from crest to crest. Site **23** was identified as cropmarks only, which might relate to the large rubble field drains identified within this area. The location of the development features meant that the remaining sites were avoided.

#### 3.2 Archaeological Features

- 3.2.1 The features identified within the area stripped for Turbine 7 (Fig. 2) consisted of five pits situated on a natural terrace (Fig. 10) that was both south-facing and well-draining. Situated c. 400m to the south of the Cairn-o-Shiels (Site **8**), this location provided excellent views across the lower-lying farmland to the coastline beyond. Details of the individual pits are given below.

##### *Pit 003*

- 3.2.2 Pit **003** (Fig. 3) was circular in plan with a diameter of c. 1m and a depth of 0.13m, and had shallow sloping sides and an irregular base. The primary fill (**005**) of the pit consisted of light yellowish grey sand and the upper fill (**004**) consisted of dark grey silt. There were no finds from this feature, but a soil sample was taken for analysis.

##### *Pit 006*

- 3.2.3 Pit **006** (Fig. 4 and Fig. 8) was rather irregular in plan, measuring 1.6m east to west by 0.8m north to south by 0.25m deep, and had sloping sides and a flattish base. The primary fill (**008**) of the pit consisted of reddish-brown sandy-silt and the upper fill (**007**) consisted of dark grey silt containing numerous rounded and sub-rounded stones measuring up to 0.2m across. A

quartz scraper was recovered from the base of fill **007**. Soil samples were taken for analysis.

#### *Pit 009*

- 3.2.4 Pit **009** (Fig. 5) was irregular in plan, measuring 3.1m east to west by 0.75m north to south by 0.1m deep, and had shallow sloping sides and an irregular base. The fill (**010**) of the pit consisted of light yellowish-grey sandy-silt. There were no finds from this feature, but a soil sample was retained for analysis.

#### *Pit 011*

- 3.2.5 Pit **011** (Fig. 6) was sub-rectangular in shape, measuring 1.6m north-west to south east by 0.55m by 0.17m deep, and had sloping sides and a flat base. The fill (**012**) of the pit consisted of dark grey silt containing numerous stones. The stones appeared to be considerably more angular than those contained in the surrounding subsoil and may have been fire cracked. There were no finds from this feature, but a soil sample was retained for analysis.

#### *Pit 013*

- 3.2.6 Pit **013** (Fig. 7) was irregular in shape, measuring 2.65m south-west to north-east by 1.25m by 0.17m deep, and had irregular sloping sides and an irregular base. An initial silting event (**015**) consisting of reddish-brown sandy silt had occurred at the south-western end of the pit prior to the remainder of the pit being back-filled by a dark-brown charcoal-rich deposit (**014**). A number of sherds of prehistoric pottery (Fig. 9) were recovered from deposit **014** and soil samples were retained for analysis. Details of the pottery are contained in the following section.

### **3.3 Finds (Melanie Johnson)**

- 3.3.1 A quantity of pottery was recovered from the fill of pit **013**, including 18 plain body sherds, 6 rim sherds from four different vessels, one possible lug and one possible carination. The same pit (**013**) also contained a piece of red flint. The forms and fabrics present suggest a Neolithic date for these vessels. One of the rims was decorated with an incised motif and may fall into the category of proto-Unstan ware, a later Neolithic variant of Unstan ware which is known from other sites in the north-east including Spurryhillock near Stonehaven (Alexander 1997).
- 3.3.2 A further pit (**006**) produced two pieces of quartz, one of which appears to be a scraper, a piece of possibly burnt stone and two pieces of possibly worked stone. The scraper is also likely to be Neolithic in date.

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

- 4.1 An archaeological watching brief carried out at Tullo Wind Farm identified a cluster of five pits during soil stripping at the location of Turbine 7. The pits were situated on a natural south-facing terrace c. 400m to the south of the Cairn-o-Shiels (SAM No. 5315). A subsequent excavation carried out as part of the same programme of works recovered sherds of prehistoric pottery from pit **013** and a small quartz scraper from pit **006**. The pottery is understood to date to the Neolithic period.
- 4.2 Further watching briefs may be required during topsoil stripping for an electricity substation and cable connections; this will be undertaken in due course and an addendum to this report produced. The decision regarding further mitigation lies with Aberdeenshire Council Archaeology Service.
- 4.3 Post-excavation analysis may be required in relation to the soil samples and finds recovered. A post-excavation project design will be provided under separate cover to meet the requirements of the Aberdeenshire Council Archaeology Service.
- 4.4 The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with the Aberdeenshire Council Sites and Monuments Record.
- 4.5 A summary statement of the results of this programme of works will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 6).

#### **5. REFERENCES**

Alexander, D, 1997 'Excavation of pits containing decorated Neolithic pottery and early lithic material of possible Mesolithic date at Spurryhillock, Stonehaven, Aberdeenshire', *Proc Soc Antiq Scot*, 127, 17-27.



## APPENDIX 1: Context Register

No	Feature	Description
001	N/A	Dark brown silt topsoil
002	N/A	Orange-brown sandy clay subsoil
003	003	Cut of circular pit
004	003	Upper fill of pit 003
005	003	Primary fill of pit 003
006	006	Cut of irregular pit
007	006	Upper fill of pit 006
008	006	Primary fill of pit 006
009	009	Cut of irregular pit
010	009	Fill of pit 009
011	011	Cut of sub-rectangular pit
012	011	Fill of pit 011
013	013	Cut of irregular pit
014	013	Primary fill of pit 013
015	013	Secondary fill of pit 013

## APPENDIX 2: Photographic Register

### *Digital*

Shot	Description	From	Conditions
1-4	General shots showing soil stripping for Turbine 7	Various	Overcast
5-6	Pit 006, south-facing section	South	Overcast
7-8	Pit 011, pre-excavation	NE	Overcast
9	Pit 013, pre-excavation	SE	Overcast
10-11	General shots of area stripped for Turbine 7	North	Overcast
12-13	Pit 006, south-facing section	South	Overcast
14-15	Pit 003, NE-facing section	NE	Overcast
16-17	Pit 006 post-excavation	South	Overcast
18-19	Pit 006 post-excavation	North	Overcast
20-21	Pit 003 post-excavation	East	Overcast
22-23	Pit 009, north-facing section	North	Overcast
24-25	Pit 011, south-facing section	South	Mist
26-27	Pit 011, post-excavation	East	Mist
28-29	Pit 009 post-excavation	North	Overcast
30-31	Pit 013, SE facing section	SE	Bright
32-33	Pit 013 showing pottery <i>in situ</i>	North	Bright
34-35	Pit 013 post-excavation	SE	Bright
36-47	General shots of terrace on which archaeological features are situated	Various	Bright
48-49	General shot of rig-and –furrow (Site 22)	West	Bright

### *Colour Slide (Film 1)*

Shot	Description	From	Conditions
1-2	Pit 006, south-facing section	South	Overcast
3-4	Pit 003, NE-facing section	NE	Overcast
5-6	Pit 006 post-excavation	South	Overcast
7-8	Pit 006 post-excavation	North	Overcast
9-10	Pit 003 post-excavation	East	Overcast
11-12	Pit 009, north-facing section	North	Overcast
13-14	Pit 011, south-facing section	South	Mist

15-16	Pit 011, post-excavation	East	Mist
17-18	Pit 009 post-excavation	North	Overcast
19-20	Pit 013, SE facing section	SE	Bright
21-22	Pit 013 showing pottery <i>in situ</i>	North	Bright
23-24	Pit 013 post-excavation	SE	Bright

### APPENDIX 3: Field Drawings Register

Sheet No	Drawing No	Scale	Section/Plan	Description
1	1	1:10	S	Pit 003, NE-facing section
1	2	1:10	S	Pit 006, South-facing section
1	3	1:20	P	Pit 003, Plan
1	4	1:20	P	Pit 006, Plan
1	5	1:10	S	Pit 009, North-facing section
1	6	1:20	P	Pit 008, Plan
2	7	1:10	S	Pit 011, south-facing section
2	8	1:20	P	Pit 011, Plan
2	9	1:20	P	Pit 013, Plan
2	10	1:10	S	Pit 013, SE-facing section

### APPENDIX 4: Samples Register

Sample no.	Context	Feature	Comment	Size
1	005/005	003	Fill of pit 003	1Bucket
2	007/008	006	Fill of pit 006	2Buckets
3	012	011	Fill of pit 011	1 Bucket
4	010	009	Fill of pit 009	2 Buckets
5	014	013	Fill of pit 013	2 Buckets

### APPENDIX 5: Finds Catalogue

Feature	Context	Find type	No.	Wt (g)	Notes	Spotdate
Pit 013	014	Lithic	1	26	Red flint	Neolithic?
Pit 013	014	Pottery	26	652	Includes rim and body sherds	Neolithic
Pit 006	007	Lithic	5	210	Includes quartz scraper	Neolithic?

## APPENDIX 6: Discovery & Excavation in Scotland Entry

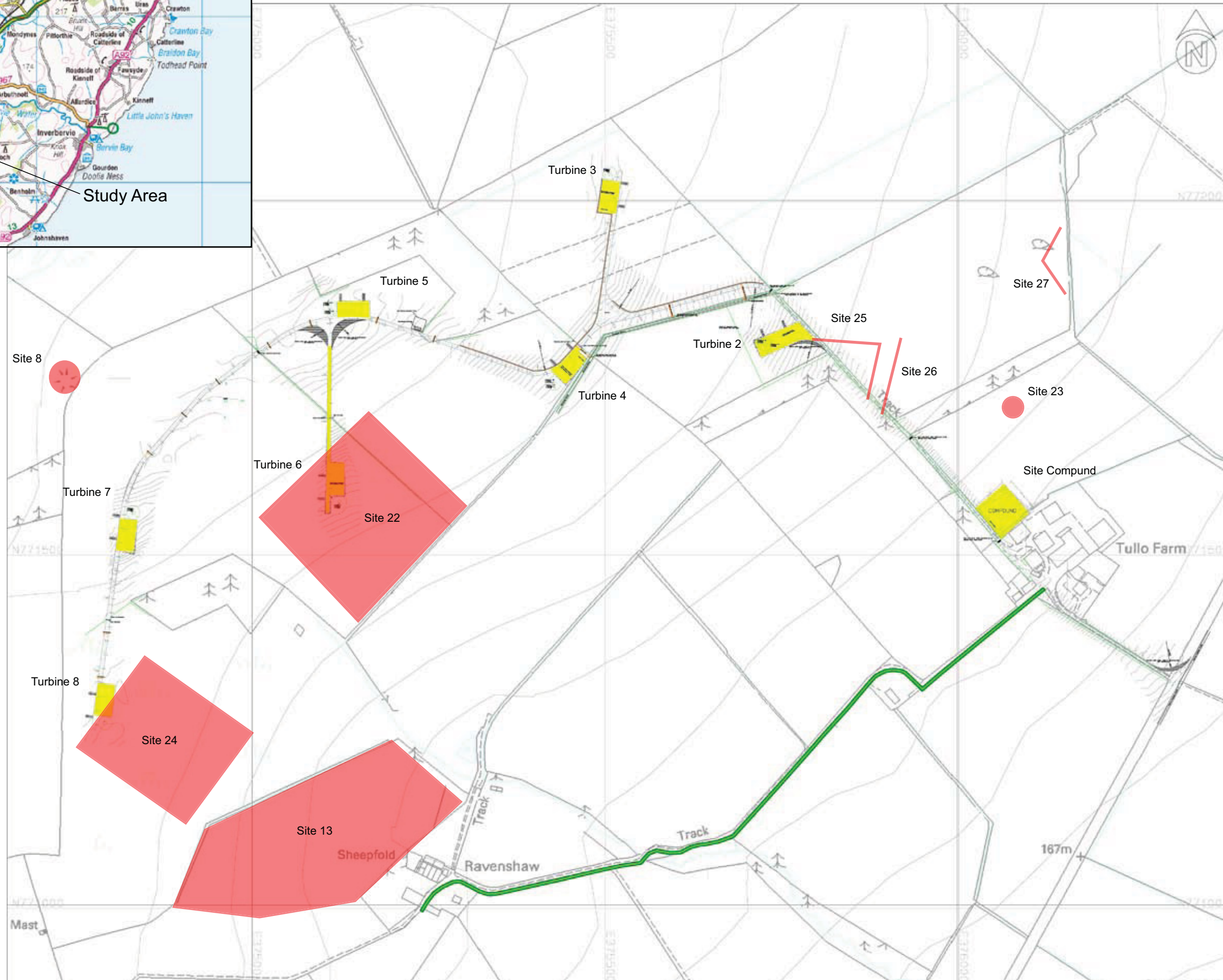
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<b>PROJECT TITLE/SITE NAME:</b>	Tullo Wind Farm
<b>PROJECT CODE:</b>	TWIF
<b>PARISH:</b>	Garvock
<b>NAME OF CONTRIBUTOR:</b>	Magnus Kirby
<b>NAME OF ORGANISATION:</b>	CFA Archaeology Ltd
<b>TYPE(S) OF PROJECT:</b>	Archaeological Works
<b>NMRS NO(S):</b>	N/A
<b>SITE/MONUMENT TYPE(S):</b>	N/A
<b>SIGNIFICANT FINDS:</b>	Pits containing prehistoric pottery
<b>NGR</b>	NO 7550 7175 (centred)
<b>START DATE (this season)</b>	September 2009
<b>END DATE (this season)</b>	October 2009
<b>PREVIOUS WORK (incl. DES ref.)</b>	N/A
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	An archaeological watching brief carried out at Tullo Wind Farm identified a cluster of five pits during soil stripping at the location of one of the turbines. The pits were situated on a natural south-facing terrace circa 400m to the south of the Cairn-o-Shiels (Scheduled Monument No. 5315). A subsequent excavation carried out as part of the same programme of works recovered sherds of prehistoric pottery from one pit and a small quartz scraper from another. The pottery is understood to date to the Neolithic period.
<b>PROPOSED FUTURE WORK:</b>	Post-excavation analysis
<b>CAPTION(S) FOR ILLUSTRS:</b>	N/A
<b>SPONSOR OR FUNDING BODY:</b>	Natural Power Consultants Ltd on behalf of Eneco UK
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
<b>EMAIL ADDRESS:</b>	cfa@cfa-archaeology.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	National Monuments Record of Scotland Aberdeenshire Council Sites and Monuments Record



Key:  
■ Sites identified in Environmental Statement  
■ Watching Brief Area



Study Area



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Fig. No: **1**      Revision: **A**

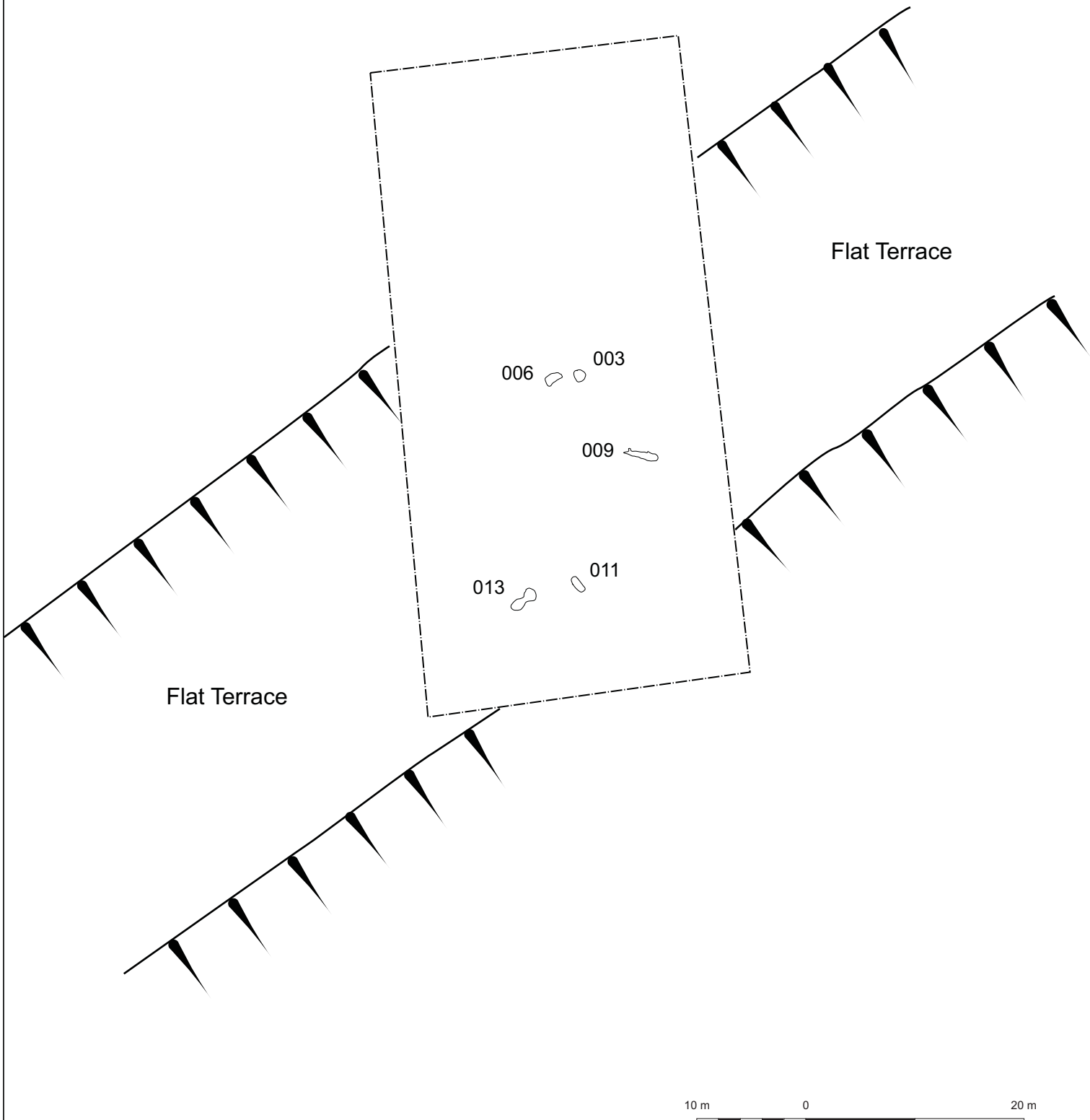
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**Location Map**


Project:  
**Tullo Wind Farm**

Scale:  
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Client:  
**Natural Power Consultants Ltd**

Drawn by: **SW**      Report No: **1700**



Key:	Fig. No:	2	Revision:	A	Client:	Natural Power Consultants Ltd
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	Project:	Tullo Wind Farm				
Scale:						 <p>CFA ARCHAEOLOGY LTD The Old Engine House Eskmills Park Musselburgh East Lothian, EH21 7PQ t: 0131 273 4380 f: 0131 273 4381 e: info@cfa-archaeology.co.uk w: www.cfa-archaeology.co.uk</p>
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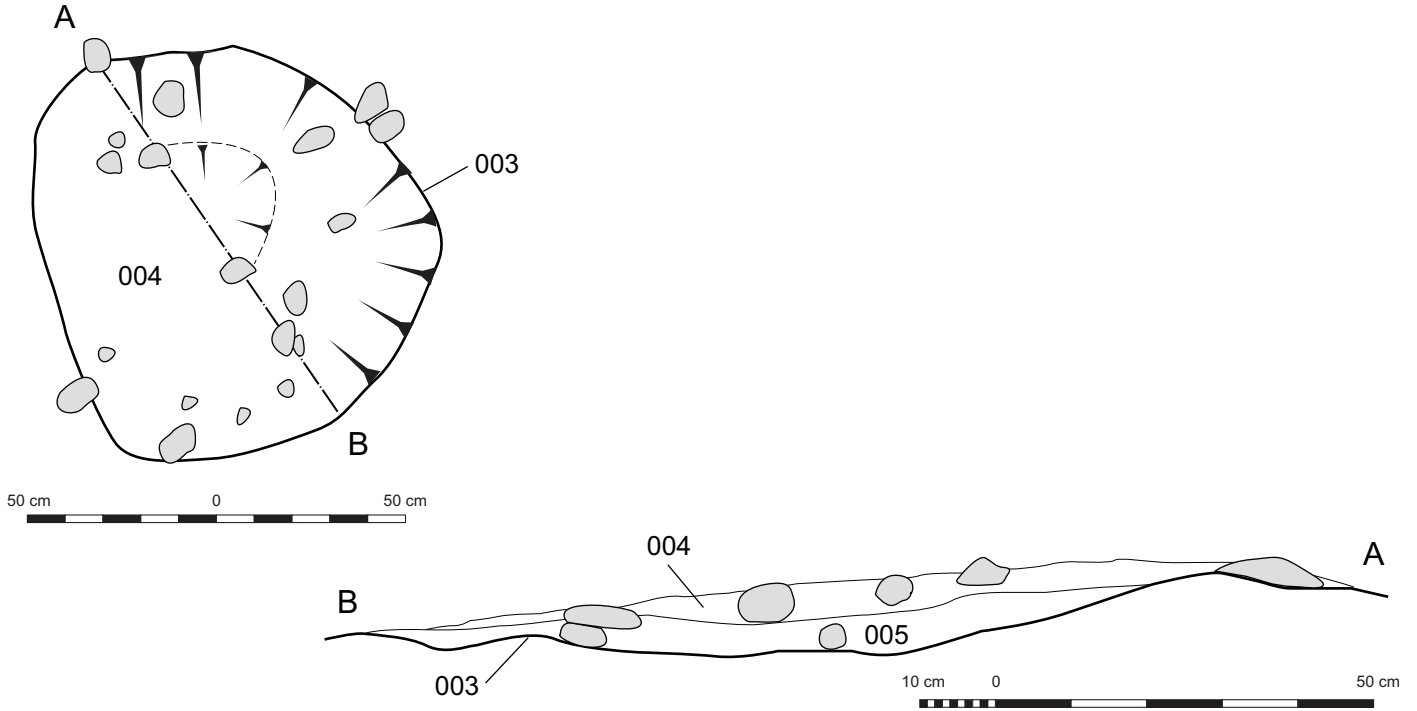


Figure 3 - Pit 003, Plan and North East-facing section

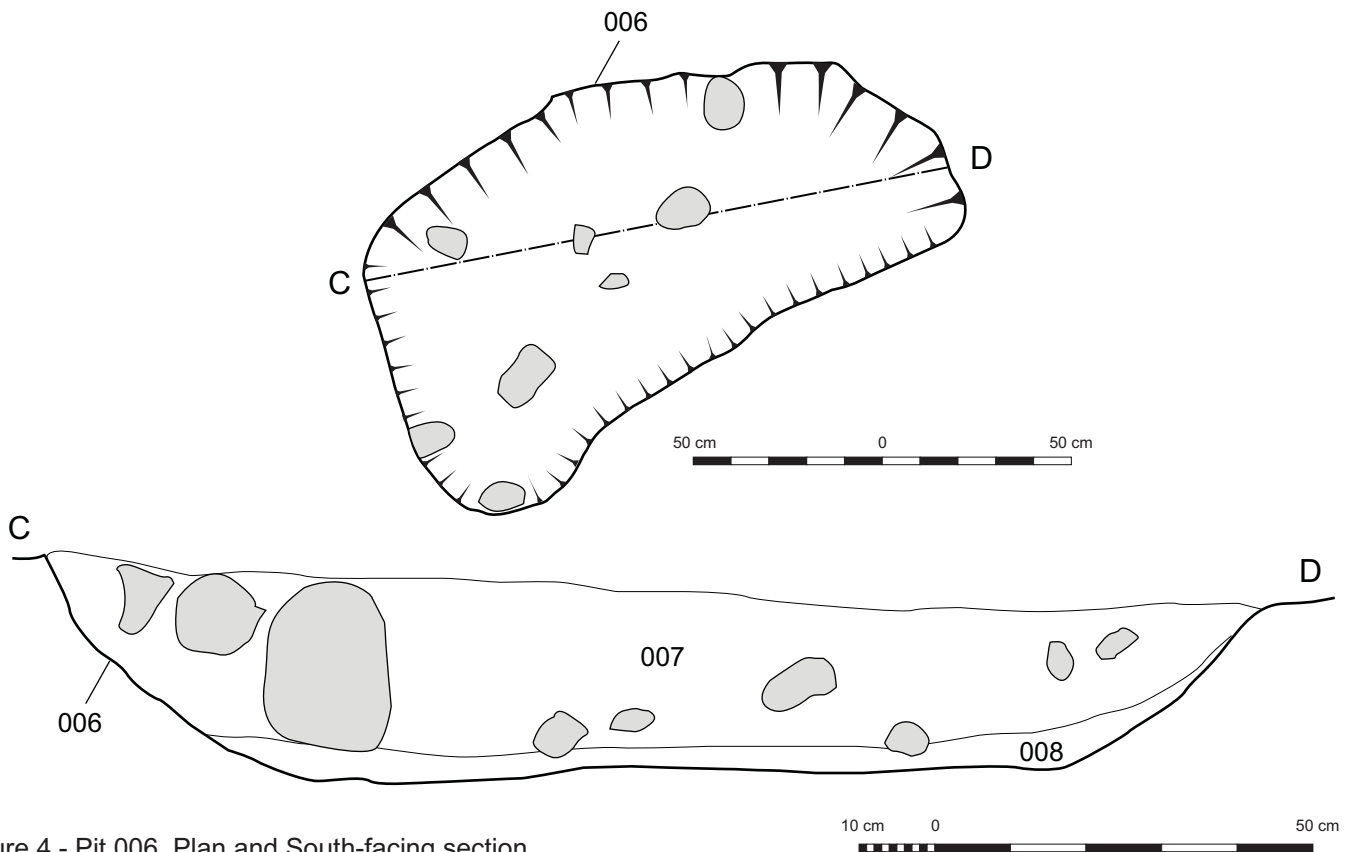


Figure 4 - Pit 006, Plan and South-facing section

Key:



Fig. No: **3-4** Revision: **A** Client: **Natural Power Consultants Ltd**

Title:

Project: **Tullo Wind Farm**



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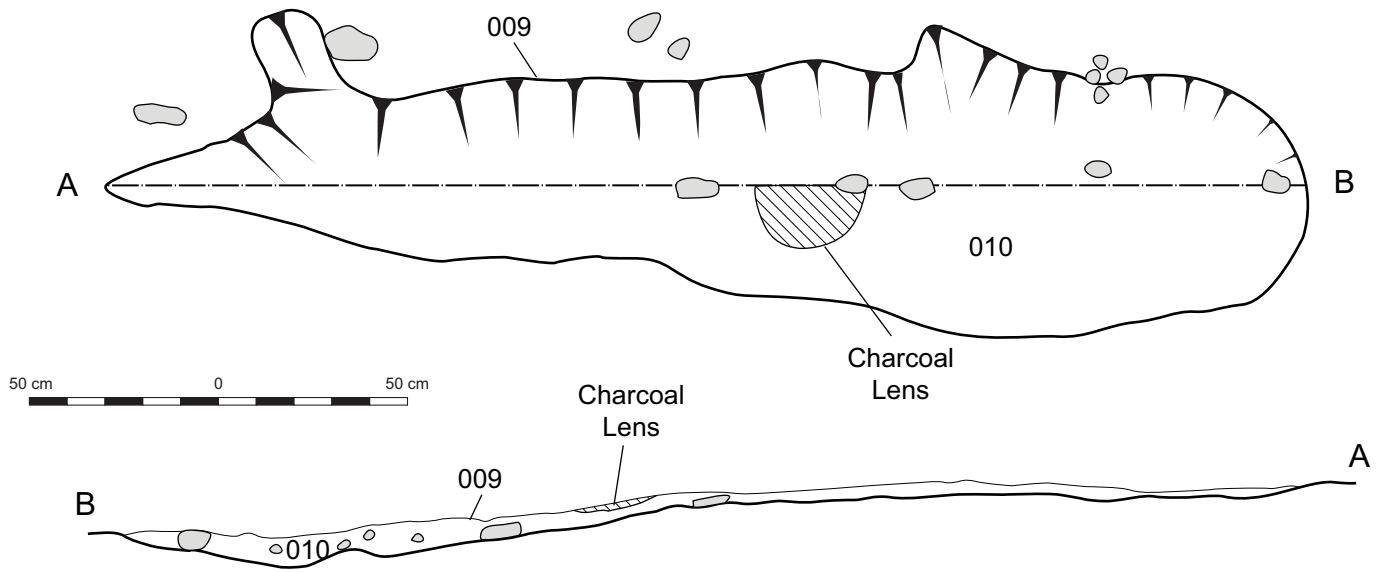


Figure 5 - Pit 009, Plan and North-facing section

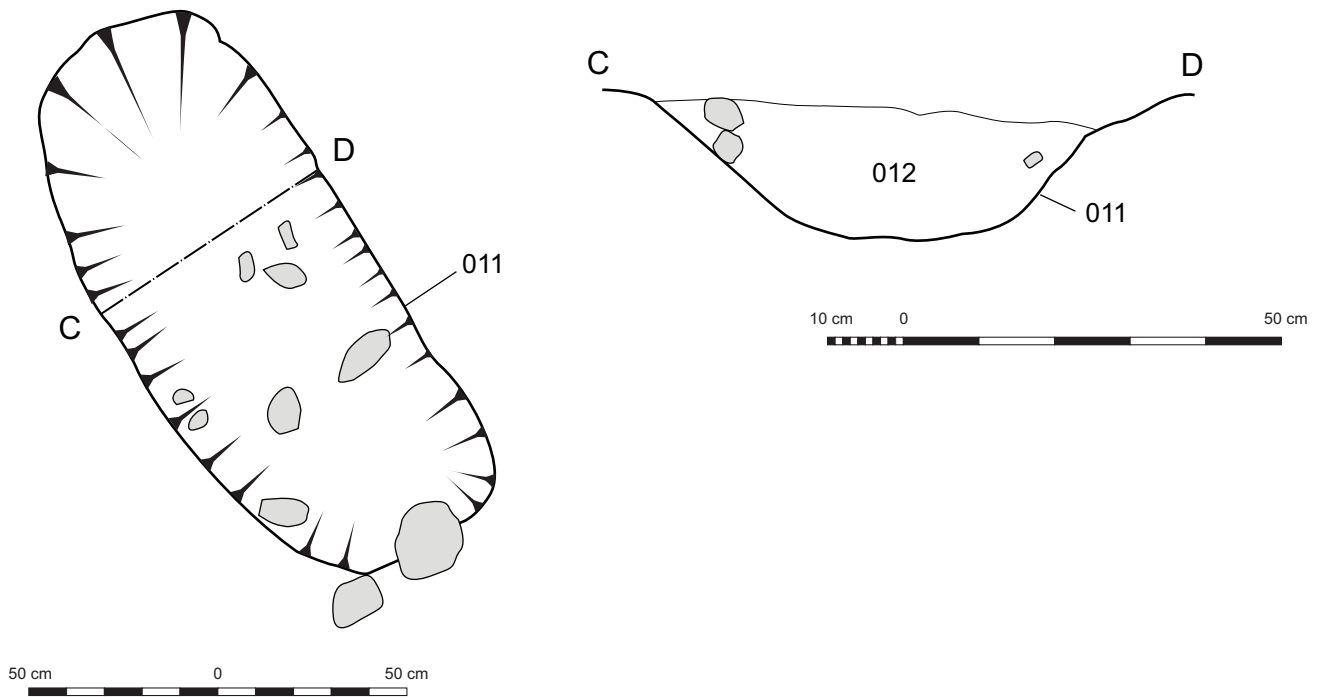


Figure 6 - Pit 011, Plan and South East-facing section

Key:



Fig. No: 5-6 Revision: A Client: Natural Power Consultants Ltd

Title:

Project: Tullo Wind Farm



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Report No: 1700

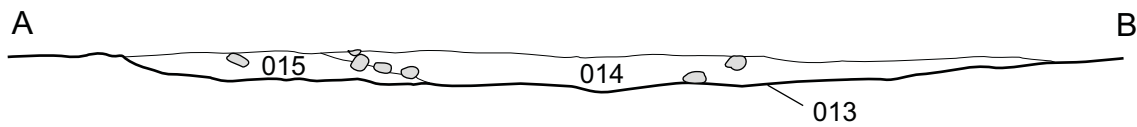
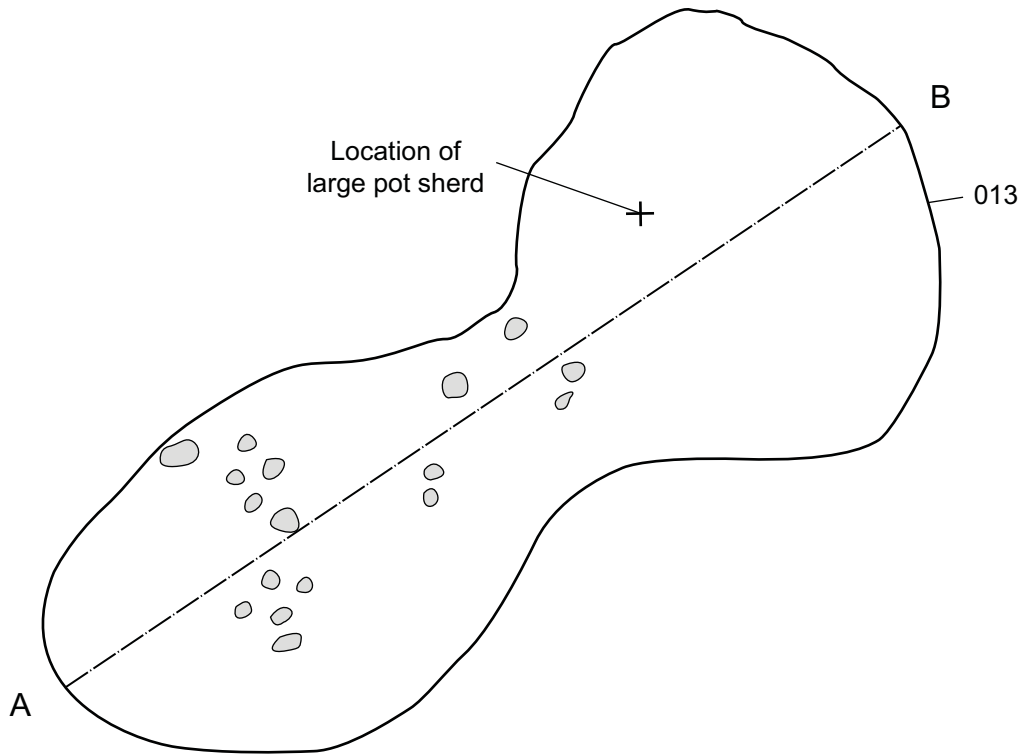
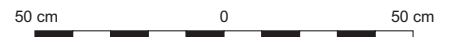


Figure 7 - Pit 013, Plan and South East-facing section



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Figure 8 - Pit 006, South facing section



Figure 9 - Pit 013, showing pottery in situ



Figure 10 - Area stripped for turbine base 7 showing natural terrace

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