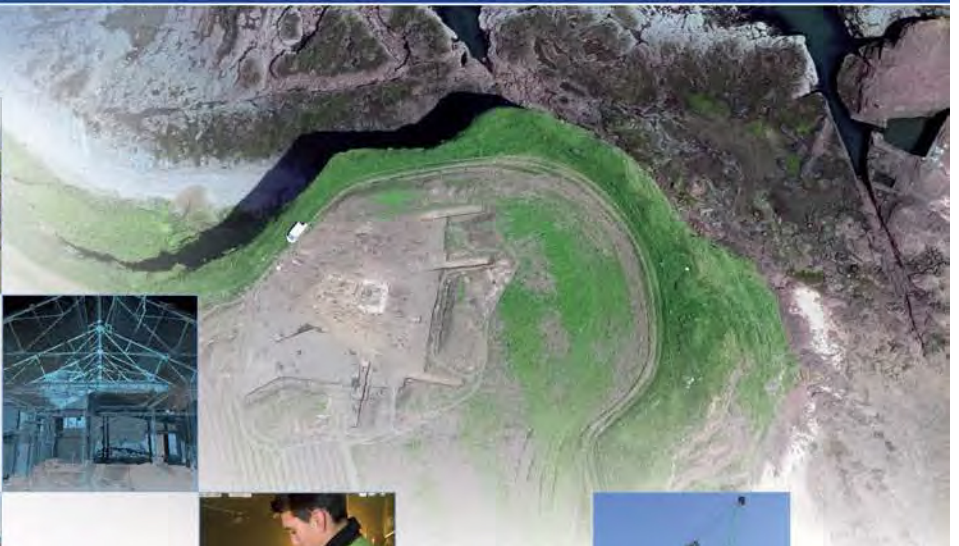


Tullymurdoch Wind Farm, Perthshire: Archaeological Evaluation Report

AOC Project 23144

15th October 2015



AOC
Archaeology
Group



ARCHAEOLOGY

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CONSERVATION

Tullymurdoch Wind Farm, Perthshire:

Archaeological Evaluation Report

On Behalf of:	ARCUS Consultancy Services Ltd Suite 1C Swinegate Court East York YO1 8AJ For: RDS Element Power Ltd
National Grid Reference (NGR):	NO 20619 53907
AOC Project No:	23144
OASIS Entry No:	222097
Prepared by:	Steven Watt
Date of Fieldwork:	26 th – 27 th August 2015
Date of Report:	1 st October 2015

This document has been prepared in accordance with AOC standard operating procedures.

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Draft/Final Report Stage: Draft	Date: 1 st October 2015

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Summary

AOC Archaeology was commissioned by ARCUS Consultancy Services Ltd on behalf of RDS Element Power Ltd to carry out an archaeological evaluation in the area of Tullymurdoch, Perthshire in advance of a wind farm development. The site boundary encompasses an area of 94.5 ha and is open moorland used for grazing bounded by commercial forestry.

The evaluation consisted of 20 30m x 2m trenches at key points of the wind farm development. The topsoil was revealed to be relatively shallow varying from 0.15m - 0.45m across the site. The natural subsoil was variable however generally consisted of a mottled grey orange sandy clay. No significant archaeological features or finds were uncovered during the evaluation works.

A topographic survey of Area C has confirmed the findings of an earlier walkover survey identifying and accurately locating a number of hut circles and clearance cairns lying within field systems in the form of ditches and banks.

1 INTRODUCTION

1.1 Background

- 1.1.1 AOC Archaeology was commissioned by ARCUS Consultancy Services Ltd on behalf of RDS Element Power Ltd to carry out an archaeological evaluation in the area of Tullymurdoch, Perthshire ahead of a wind farm development. The site lies within the administrative area of Perth and Kinross Council, which is advised on archaeological matters by the Perth and Kinross Heritage Trust (PKHT). The archaeological works were conducted in accordance with the principles set out in *Scottish Planning Policy* (2014) and *Planning and Archaeology 2/2011* (2011) and to a Written Scheme of Investigation undertaken by ARCUS Consultancy Services Ltd in May 2015.

1.2 Location

- 1.2.1 The site is located to the northwest of Alyth centered approximately on NGR: NO 20619 53907. The site boundary encompasses an area of 94.5 ha. The area is that of open moorland used for grazing with commercial forestry bounding it.

1.3 Archaeological Background

- 1.3.1 Archaeological activity is present in the vicinity of the proposed wind farm consisting of prehistoric hut circles, field systems and cairns and the medieval remains of field boundaries, including one building and rig and furrow (ARCUS 2015). The post medieval period is also well represented in the wider area through numerous listed buildings comprising of various bridges, houses, castles, churches and mills. Three main sites are located within the site boundary of the wind farm development, although none of these will be affected by the development. They include a series of medieval rig and furrow and other enclosures at Craighead, more rig and furrow and field boundaries at Forest of Alyth and prehistoric hut circles and a field system at Tullymurdoch (*ibid*).

2 OBJECTIVES

- 2.1 The main objectives of the archaeological evaluation was to identify the nature and extent of any archaeological features that may have survived below-ground. A further objective was to protect the archaeological resource on the site by investigating one of the main sites (Site C) through a topographic survey and also to fence off this as well as two other sites within the wind farm development area.

3 METHODOLOGY

3.1 Evaluation

- 3.1.1 The original methodology set out by ARCUS (2015) consisted of twenty-three 30 m x 2 m trenches in key locations of the wind farm development (Figure 2). These were as follows:

Trenches 1 – 7	All turbine bases and hardstanding
Trench 8	Site compound and access track
Trenches 9 – 23	Upgraded access tracks

- 3.1.2 Due to the presences of a wind mast, Trench 5 could not be excavated (Plate 1). Trenches 14 & 15 could also not be undertaken due to the presences of livestock in the field. Trench 16 could only be partially excavated due to its location in the flood plain of a burn. All other trenches were fully excavated.

- 3.1.3 The evaluation was undertaken by a 16-tonne excavator with a 2m wide bladed ditching bucket. All excavation was undertaken in shallow units/spits until the first significant archaeological horizon or natural subsoil was reached. All machine excavation was supervised by an experienced field archaeologist and according to AOC Archaeology Group's standard operating procedures. The trenches were backfilled at the end of each day.



Plate 1: Wind mast at location of Trench 5

3.2 Topographic Survey

- 3.2.1 The topographic survey was focused on the area of "Site C" (Figure 3) which is situated half a kilometre NNE of Tullymurdoch farm buildings. The survey was carried out on 4th August 2015 using a Trimble R6 DGPS system using the "VRS Now" correction service.

4 RESULTS

4.1 Evaluation Results

- 4.1.1 The weather during the evaluation was generally fair allowing for good archaeological visibility. In total, the evaluation involved the excavation of 20 trenches, totalling 1166 m² or 583 linear metres (Figure 2).
- 4.1.2 The soil make-up throughout the development area consisted of approximately 0.35m of dark brown clay/peat loam topsoil overlying predominantly medium-grey orange sand and clay. There was little evidence of improvement works to the land with very few rubble drains noted in any of the trenches. No significant archaeological remains were uncovered.



Plate 2: General post-excavation shot of Trench 13

4.2 Topographic Survey

- 4.2.1 "Site C" covers an area of more than 5.5 ha but the area included within the development site boundary is only around 2.6 ha, and the real area of archaeology recorded on the day is less still. Eleven sites were recorded in the topographic survey, all of which were identified during the original walkover survey. These include three hut circles, three boundary banks related to field use and five single or groups of clearance cairns.
- 4.2.2 Sites 119, 122 and 142 are hut circles (Figure 4) which vary in external diameter from 8 m (Site 119) to almost 17 m (Site 142). All the sites are composed of a circular earth and stone bank which remains to a height of less than 0.3 m and has a clear entrance at some point. Site 119 has its entrance on the NW side whereas the entrance for Site 122 is on the SE. Site 142 differs from the others in that it is made up of two hut circles. One is the largest of all the hut circles on site and measures 16.8 m in external diameter with a SSW entrance and the other, situated on the SE of the large hut circle measures 10.8 m diameter and has a SSE entrance. The order of construction for Site 142 is unclear on the ground. It could be speculated that the largest hut circle was constructed first and the second is a later annex, however this could only be justified with excavation. The larger hut circle has a second bank internally concentric to the west side of the main bank, which is commonly found in hut circles of Perthshire. An entire concentric bank would have existed originally in the hut circle but now only the half arc in the W and NW remains. Site 119 has the vestigial remains of a drystone bank joining it on the N side.
- 4.2.3 All the hut circle banks are quite spread and overgrown with turf. Stones are evident on all the sites but are lying haphazardly with no clear built wall-faces visible. All the sites have suffered erosion both naturally and from livestock. Sites 119 and 142 have clear sheep tracks crossing them and Site 122 has number of little dug voids across it.
- 4.2.4 Sites 145 and 146 are earth and stone banks with associated ditches which are related to field systems. The banks remain in height up to 0.5 m and have clearly been interrupted and moved for the track that runs N-S

through the site. Site 146 is oriented NW-SE and runs for 65 m within the development site boundary, although it continues beyond to the SE. At the eastern end of it where it hits the site boundary it joins Site 145. Site 145 starts from this point and travels for 88 m in a SW direction, although it is interrupted by the aforementioned track and also again by a possibly earlier track. It then changes in orientation to continue on for a further 33m within the site boundary and then beyond.

- 4.2.5 Site 155 is the vestigial remains of a drystone field boundary. It remains only as single stones which are almost entirely overgrown with grass. The boundary runs in a curvilinear fashion in a NW-SE direction for 30m between the westernmost point of Site 146 and the N side of Site 119.
- 4.2.6 Sites 120, 121, 123, 124 and 125 are clearance cairns. All the sites are single clearance cairns except Site 121 which is a group of two and Site 123 which encompasses a group of six. All the clearance cairns are sub-circular or sub-oval in shape, remain to a height of less than 0.5 m, vary in dimension between 7 m x 6 m (Site 120) and 2.5 m x 2.5 m (NW cairn of Site 123), and are grass covered with occasional visible stones.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 No archaeological finds or features were identified in the evaluation trenches.
- 5.2 The topographic survey has accurately located and identified a number of features within Area C, (as shown Figure 3) which will require fencing off prior to construction works being undertaken along with previously identified sites at Area A and Area B. A watching brief on any road widening through Area C will also be required due to the potential for damage to Site 145 (field and bank) and Site 155 (stone boundary wall).
- 5.2 A general archaeological watching brief is also required as a condition of the planning consent, which will be undertaken when the development commences. The extent of this watching brief will be determined by the Perth & Kinross Heritage Trust.

6 REFERENCES

ARCUS Consultancy Services Ltd 2015 *Tullymurdoch Wind Farm Written Scheme of Investigation*, Unpublished Client Method Statement

Scottish Government 2014 *Scottish Planning Policy* (2014)

Scottish Government 2011 PAN 2/2011 Planning & Archaeology

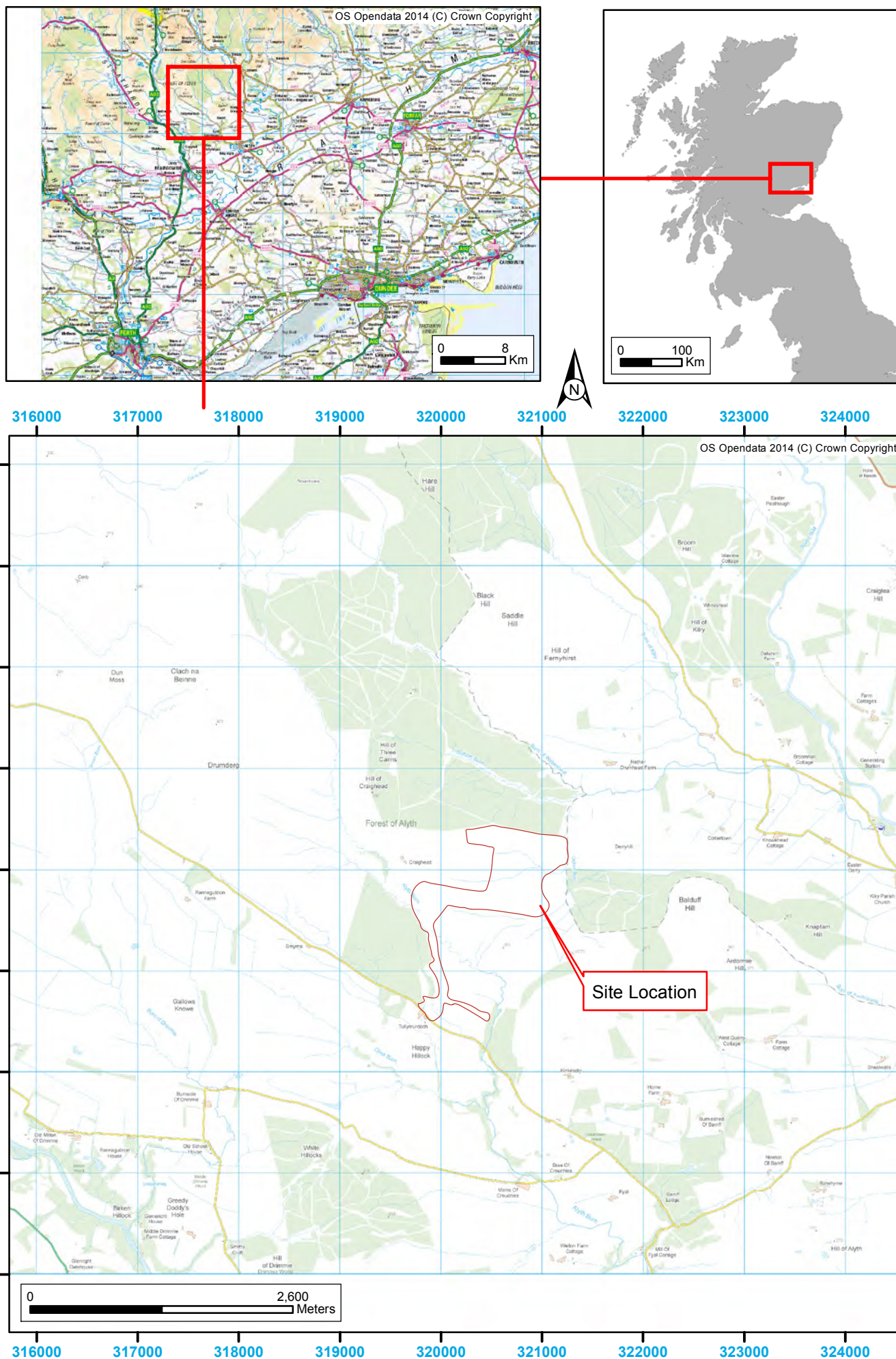


Figure 1: Site Location Plan

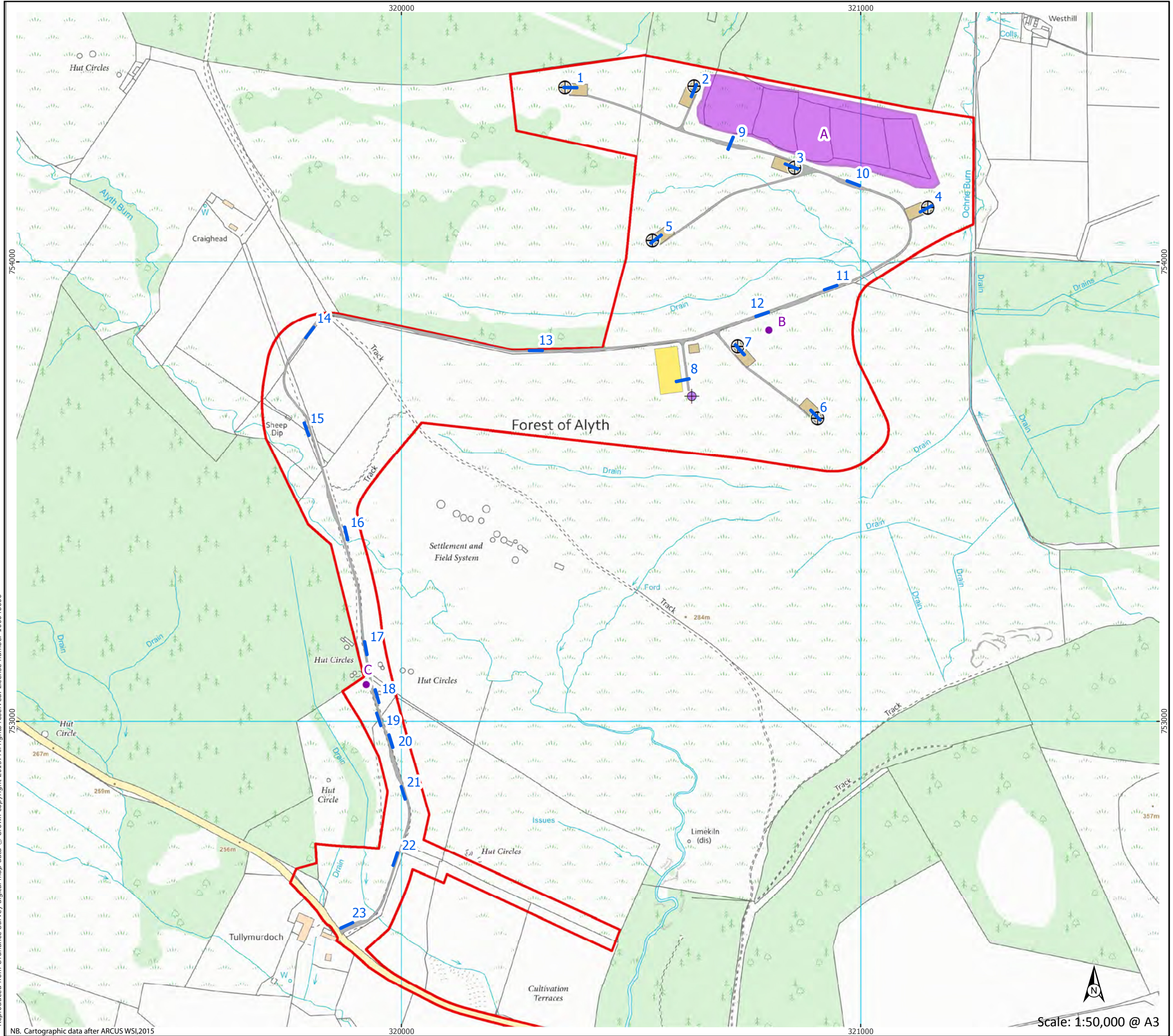
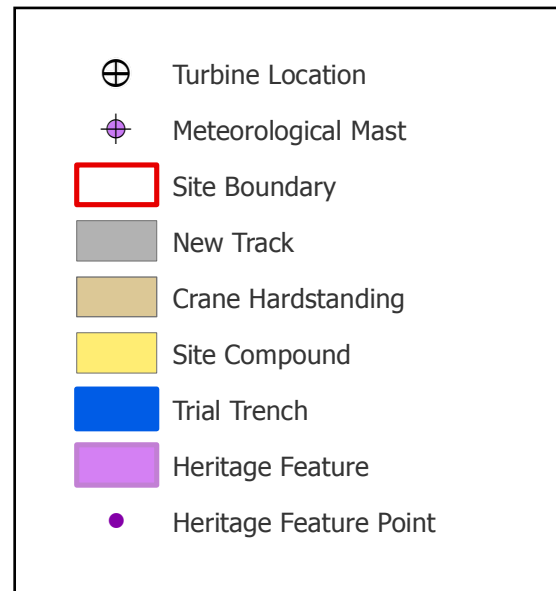


Figure 2: Location plan of trenches and archaeological features A, B & C



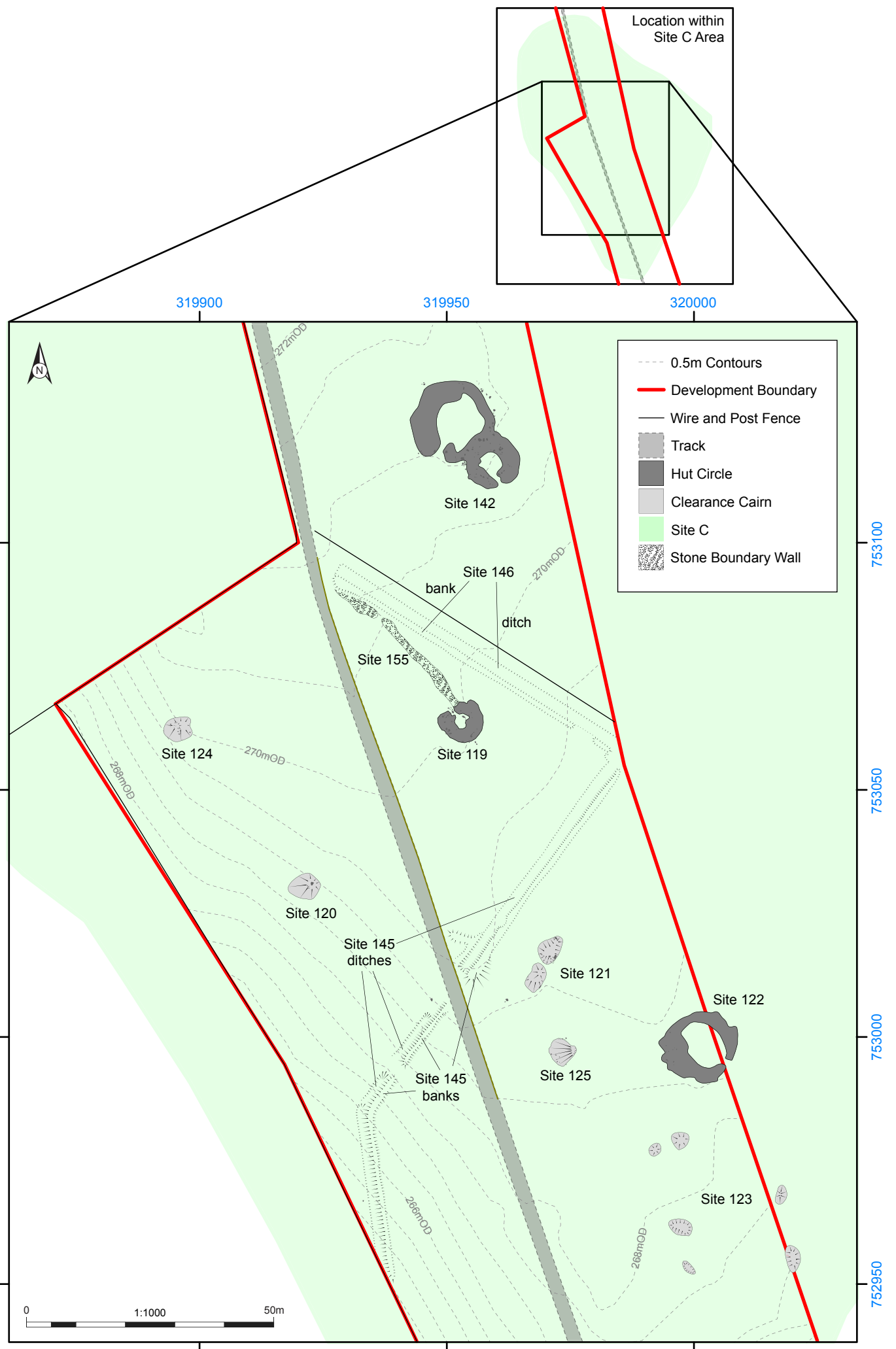


Figure 3: Topographical Survey of Archaeological Features Identified within the Site C Area

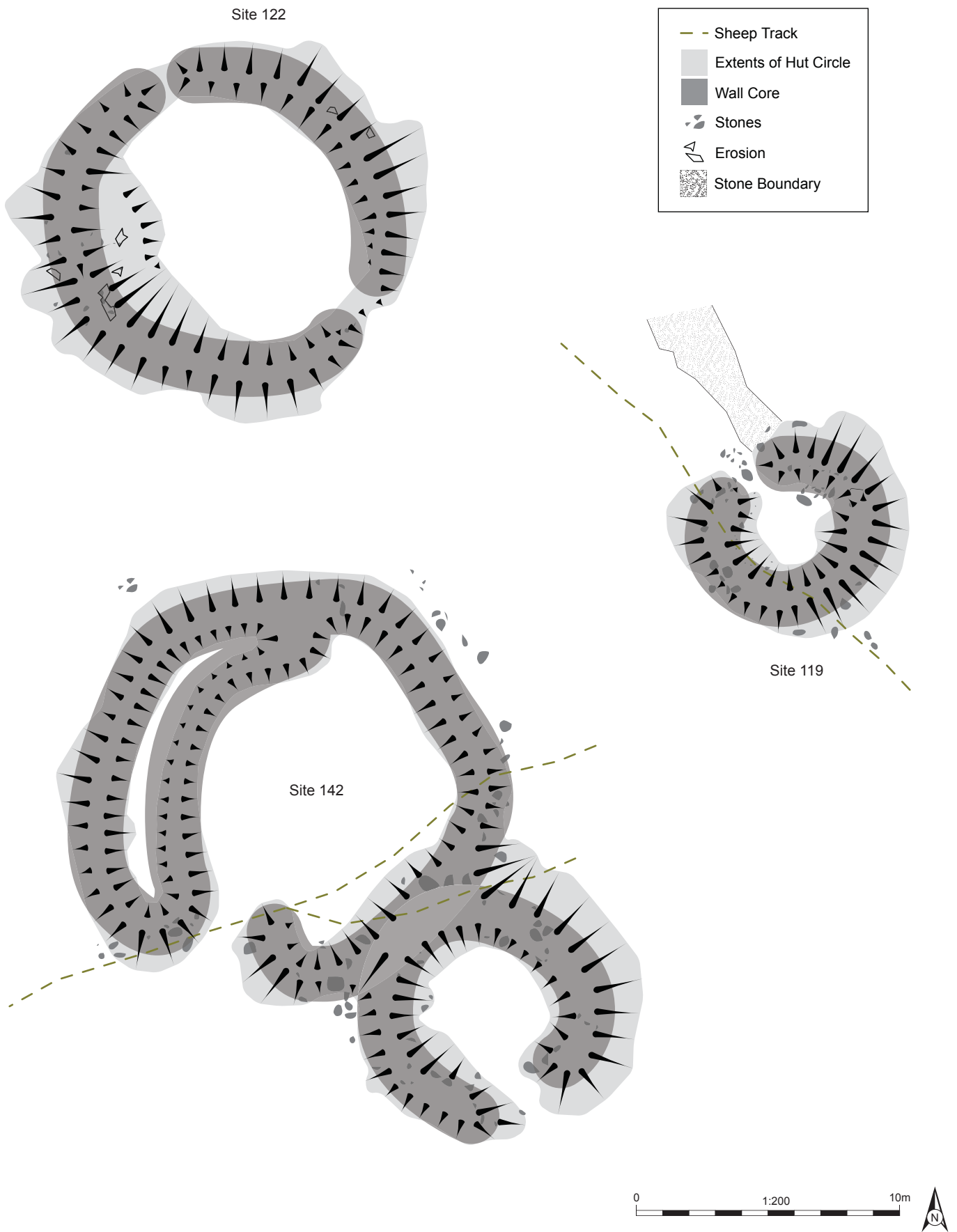


Figure 4: Plans of Hut Circles, Sites 119, 122 and 142

Tullymurdoch Wind Farm, Perthshire:

APPENDICES

APPENDIX 1: Trench Descriptions

Trench 1

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	W to E
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.25 m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Grey compact clay with patches of sand
<i>Finds</i>	None

Trench 2

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	N to S
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.2m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light grey orange sandy clay
<i>Finds</i>	None

Trench 3

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NW to SE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.3m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light brown grey sandy clay turning to a medium orange sandy clay from c.17m
<i>Finds</i>	None

Trench 4

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	SW to NE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.35
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light mottled grey sandy clay turning to medium grey orange sandy clay with patches of gravel for 5m at 7m
<i>Finds</i>	None

Trench 5

Could not excavate – wind mast on location

Trench 6

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NW to SE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.35m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Mottled orange grey clay with gravel patches
<i>Finds</i>	None

Trench 7

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NW-SE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.20m
<i>Significant Features</i>	None
<i>Other Features</i>	Recent test pit, c.1.0m wide, WNW-ESE
<i>Natural Subsoil</i>	Bright orange sandy clay with gravel
<i>Finds</i>	None

Trench 8

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NW to SE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.25m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Mottled light grey orange sandy clay
<i>Finds</i>	None

Trench 9

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	N to S
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.45m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light brown grey clay with some medium rounded stones and patches of gravel
<i>Finds</i>	None

Trench 10

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	W-E
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.35
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Mottled orange grey clay
<i>Finds</i>	None

Trench 11

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	SW to NE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.20m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light yellow grey sandy clay with gravel turning to a bright orange sandy/clay with gravel at 24m
<i>Finds</i>	None

Trench 12

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	W to E
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.20m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light grey orange clay sand with gravel
<i>Finds</i>	None

Trench 13

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	N to S
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.25m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Bright medium grey orange sandy with gravel
<i>Finds</i>	None

Trench 14

Could not excavate – livestock on location

Trench 15

Could not excavate – livestock on location/slope not suitable for excavator

Trench 16

<i>Dimensions</i>	13 m by 2 m
<i>Total Area</i>	26 m ²
<i>Excavated Orientation</i>	NW to SE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat –
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Medium brown grey clay
<i>Finds</i>	None
<i>Notes</i>	In flood plain, could not fully excavate

Trench 17

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NNW to SSE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.25
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Medium brown orange sand and gravel
<i>Finds</i>	None

Trench 18

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NNW to SSE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.25m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Bright orange sand and gravel
<i>Finds</i>	None

Trench 19

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NNW to SSE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.22m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Medium brown orange sand and gravel
<i>Finds</i>	None

Trench 20

<i>Dimensions</i>	30 m by 2m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	SE to NW
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.15m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Bright orange brown sand and gravel with clay turning to light grey clay at 22.05 to 24.0m
<i>Finds</i>	None

Trench 21

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NNW to SSE
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.25m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light yellow grey clay with patches of orange sandy gravel
<i>Finds</i>	None

Trench 22

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NNE to SSW
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.30m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Light orange grey sandy clay
<i>Finds</i>	None

Trench 23

<i>Dimensions</i>	30 m by 2 m
<i>Total Area</i>	60 m ²
<i>Excavated Orientation</i>	NE to SW
<i>Soil Make-up</i>	Topsoil – Dark brown silty loam/peat – 0.25m
<i>Significant Features</i>	None
<i>Other Features</i>	None
<i>Natural Subsoil</i>	Mid grey-orange clayey gravel
<i>Finds</i>	None

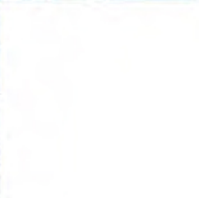
APPENDIX 2: Photographic Register

Digital Images

Frame	Description
1-3	General shots of site
4	Initial ground breaking of Trench 13
5-7	Post-excavation of Trench 13
8-11	Location shot of Trench 5 – Wind mast in way
12-13	Post-excavation Trench 1
14-15	General shots of Trench 1 location
16	Post-excavation Trench 2
17-21	General shots of northern area of site
22-23	Post-excavation Trench 9
24	Post-excavation Trench 3
25	Post-excavation Trench 10
26	Post-excavation Trench 4
27-30	General shots
31-32	Post-excavation Trench 11
33	Post-excavation Trench 12
34	Post-excavation Trench 8
35-37	General shots of Area of Trenches 6-8
38	Post-excavation Trench 7
39-41	General shots of site
42	Post-excavation Trench 6
43-44	General shot looking towards trackway
45-47	Location shot of Trench 15 – unable to excavate
48	Post-excavation Trench 16
49-55	Location shot of flood plain that Trench 16 was located
56	Post-excavation Trench 17
57	General shot of Hut Circle
58	Post-excavation Trench 18
59-63	Shots of Hut Circle near Trench 18
64	Post-excavation Trench 19
65	Trench 16 backfilled
66	Post-excavation Trench 20
67-68	Post-excavation Trench 21
69	Post-excavation Trench 22
70	Post-excavation Trench 23

APPENDIX 3: Discovery and Excavation in Scotland Report

LOCAL AUTHORITY:	Perth and Kinross Council
PROJECT TITLE/SITE NAME	Tullymurdoch Wind Farm
PROJECT CODE:	23144
PARISH:	Alyth
NAME OF CONTRIBUTOR:	Steven Watt
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Archaeological Evaluation
NMRS NO(S)	NO25SW 31, MPK5084, MPK12921, MPK4112
SITE/MONUMENT TYPE(S):	Hut circles, field boundaries, enclosures
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	NO 20619 53907
START DATE (this season)	26 th August 2015
END DATE (this season)	27 th August 2015
PREVIOUS WORK (incl. DES ref.)	None
MAIN DESCRIPTION: (May include information from other fields)	<p>(NARRATIVE) AOC Archaeology was commissioned by ARCUS Consultancy Services Ltd on behalf of RDS Element Power Ltd to carry out an archaeological evaluation in the area of Tullymurdoch, Perthshire in advance of a wind farm development. The site boundary encompasses an area of 94.5ha and is open moorland used for grazing bounded by commercial forestry.</p> <p>The evaluation consisted of 20 30m x 2m trenches at key points of the wind farm development. The topsoil was revealed to be relatively shallow varying from 0.15m - 0.45m across the site. The natural subsoil was variable however generally consisted of a mottled grey orange sandy clay.</p> <p>No significant archaeological features or finds were uncovered during the works.</p>
PROPOSED FUTURE WORK:	Watching Brief, Topographic Survey
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	ARCUS Consultancy Services, Suite 1C Swinegate Court East, York, YO1 8AJ
ADDRESS OF MAIN CONTRIBUTOR:	Edgefield Road Industrial Estate, Loanhead, Midlothian, EH20 9SY
EMAIL ADDRESS:	admin@aocarchaeology.com
ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS



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