

CFA Archaeology Ltd

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Site & Landscape Survey

Geophysical Survey

**Muirhall Wind Farm
South Lanarkshire**

Archaeological Works

Report No. 1827

 0131 273 4380

 0131 273 4381

 info@cfa-archaeology.co.uk

 www.cfa-archaeology.co.uk

CFA ARCHAEOLOGY LTD

The Old Engine House
Eskmills Business Park
Musselburgh
East Lothian
EH21 7PQ

Tel: 0131 273 4380
Fax: 0131 273 4381
email: info@cfa-archaeology.co.uk
web: www.cfa-archaeology.co.uk

Author	Phil Moore BA
Illustrator	Graeme Carruthers MA MAAI&S
Editor	Melanie Johnson MA PhD FSA Scot MIfA
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standard operating procedures.

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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) between March and June 2010 at the site of Muirhall Wind Farm, Nr Auchengray, South Lanarkshire (NGR: NT 00519 53618 centred). The work was commissioned by Natural Power.
- 1.1.2 A Written Scheme of Investigation (WSI) dated 20th November 2008 for this programme of works was produced by Headland Archaeology on behalf of Muirhall Windfarm Ltd. The WSI was designed to meet the requirements of the West of Scotland Archaeology Service (WoSAS).

1.2 Background

- 1.2.1 The wind farm is situated within the development area shown on Fig. 1, and covers 242ha² of gently undulating upland landscape at an altitude of 275m AOD. The area is predominantly bog and is known as Stallashaw Moss. There were small areas of improved, enclosed grazing land to the north of the development area, near to the settlements of Polkelly and Greenfield. To the east and west the site is bound by 20th century forestry plantation.
- 1.2.2 The development comprised six wind turbines together with associated infrastructure features which included a construction compound to the north of the development area, a series of access roads and the turbine stances and associated crane platforms.
- 1.2.3 A desk-based assessment (Bain 2008), which included the results of a walkover survey, identified the remains of a small rectilinear post-medieval enclosure (site HA10) in and around a small copse (Fig. 1) in proximity to development features. The WSI required the site to be fenced off for the duration of construction works in order that it was not subject to accidental damage.

1.3 Objectives

- 1.3.1 The objective of the works was to mitigate against the potential for disturbance to unknown archaeological remains that may survive within the site, by allowing an opportunity to identify such remains and to secure their preservation by record.
- 1.3.2 This was to be achieved by:
- Protection of above ground sites likely to be affected by construction works
 - Monitoring of all substantial areas of soil stripping
 - Analysis and publication of results (if appropriate)

2. WORKING METHODS

- 2.1 The removal of topsoil was carried out using 360° tracked excavators equipped with smooth bladed ditching buckets, 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 perimeter of the rectilinear post-medieval enclosure (HA10) was demarcated using canes and bunting by the watching brief archaeologist. This perimeter was then cordoned off with netlon fencing erected by the main contractor.

3. ARCHAEOLOGICAL RESULTS

- 3.1 Areas monitored during the watching brief were the site compound, areas of cut access track and turbine bases 1-3 (Fig. 1). The remaining turbine bases (4-6) were not monitored as no further topsoil stripping occurred for these bases due to the floating type construction adopted for their crane hardstanding and the piling mat for their foundations. The construction of floating access tracks was not monitored.
- 3.2 Mid to dark-grey clayey-silty topsoil was removed during the construction of the site compound and site access formation (Fig. 2). It was located within an area of enclosed, improved grazing at lower datum. The topsoil was 0.2m to 0.3m in depth and was sterile and homogenous. The natural substrate in this area was a sandy clay with inclusions of gravel and medium to large stone fragments and cobbles. Rubble and ceramic field drains were noted during topsoil removal for the construction compound.
- 3.3 Throughout Stallashaw Moss, the predominant deposit was soft, greyish-brown fibrous peat. Some variations were noted around T1, where the peat was mid-to-dark grey and more humic than recorded elsewhere. The peat deposits varied in depth with a maximum recorded depth of c. 5m at T1 (Fig. 3). The shallowest deposit of peat were 0.6m recorded at T3, with the average depth across site in the region of c. 2m.
- 3.4 The natural substrate on Stallashaw Moss was greyish-blue boulder clay which provided a clearly visible contrasting horizon. The natural substrate at higher datum around T3 was pale orange sandy clay.
- 3.5 No archaeological features or deposits were uncovered during the watching brief.

- 3.6 A small rectilinear post-medieval enclosure was cordoned off by the main contractor. This meant the feature was unaffected by the programme of works.

4. CONCLUSION

- 4.1 A programme of archaeological works was carried out at Muir Hall Wind Farm. The programme of works involved the fencing off of a rectilinear post-medieval enclosure (site HA10). The site remained unaffected throughout the construction process.
- 4.2 The watching brief monitored the removal of soil and peat deposits on the site compound and site access formation, on lengths of cut access tracks, and three turbine bases. The estimated maximum depth of the peat was c. 5m.
- 4.3 No other archaeological features or deposits were uncovered during the programme of works
- 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 South Lanarkshire Council Sites and Monuments Record.
- 4.5 A summary statement to be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 2) will be sufficient to disseminate the results of this programme of works.

5. REFERENCES

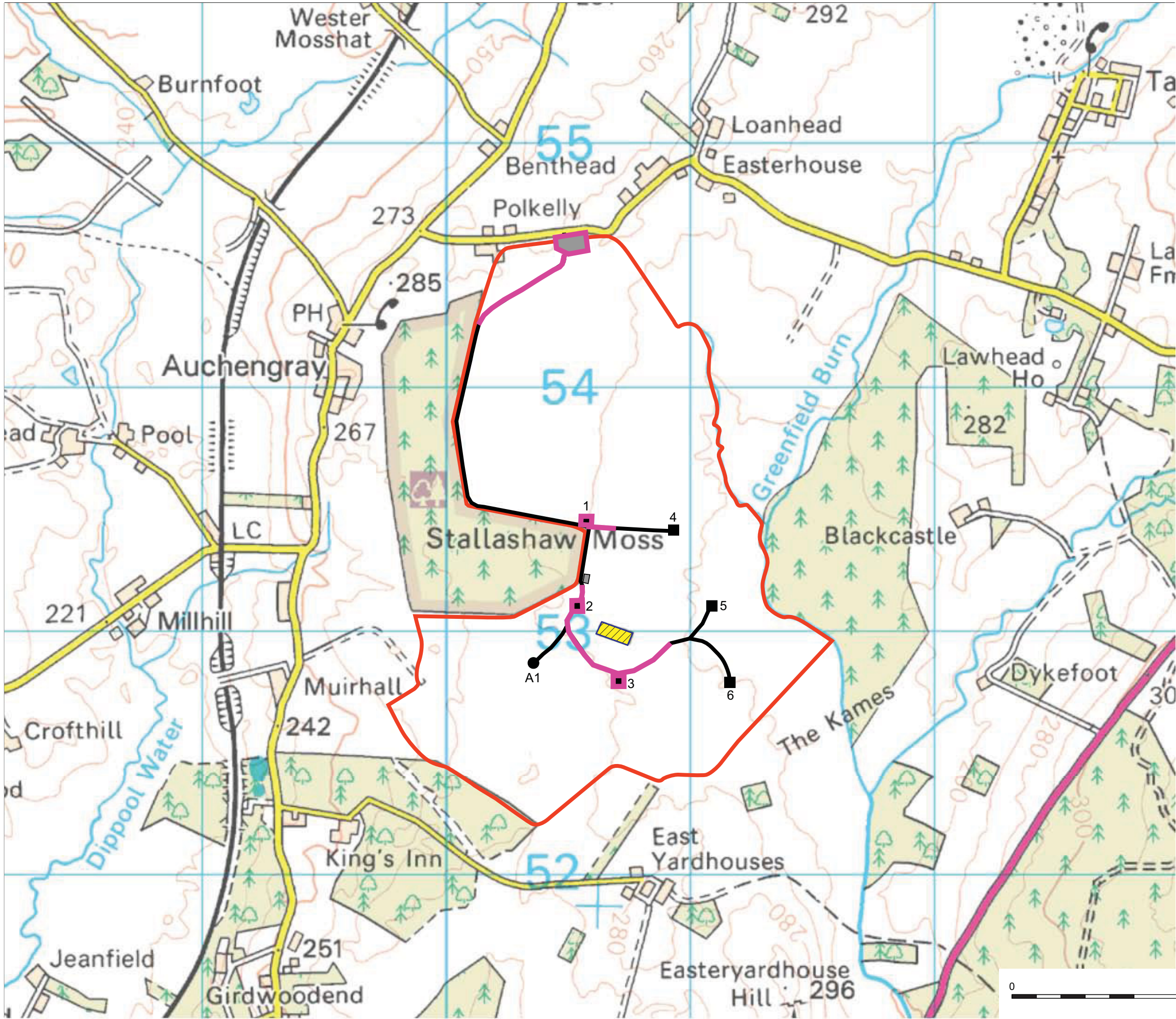
Bain, K 2008 *Muir Hall Wind Farm: Desk Based Assessment*. Headland Archaeology Ltd.

APPENDIX 1: Digital Photographic Register

Digi No	Contexts/description	Taken from	Conditions
1-2	General shots of area of proposed compound	S-SW	Snow-Bright
3-4	General shots of area of proposed compound	N-NW	Snow-Bright
5-7	General shots of topsoil removal during groundbreaking for site compound	N-W	Snow-Bright
8	Shot of rubble field drain	S	Bright
9-10	Shot of ground surface after the removal of topsoil for site compound	NW	Bright
11	Shot of proposed route of access track from site compound	NE	Bright
12	Shot of proposed route of access track from site compound	SW	Bright
13	Shot of proposed route of access track from site compound	N	Bright
14	Shot of groundbreaking for access track from site compound	N	Bright
15	Shot of dry-stone wall before breakthrough	S	Bright
16	Working shot of topsoil and peat removal	NW	Bright
17-20	Shot of access track from compound after topsoil removal	various	Bright
21	Working shot of topsoil and peat removal	SE	Overcast
22	Shot of proposed access route prior to floating of road	NE	Overcast
23	General shot of natural substrate after topsoil removal for turning circle nr compound	E	Overcast
24	General shot of road access track	E	Bright
25	Working shot of topsoil removal and track construction	-	Bright
26	Working shot of topsoil removal and track construction T4	W	Bright
27	Working shot of topsoil removal for crane stance	NW	Bright
28	Working shot of topsoil removal	N	Overcast
29	Shot of access track after construction	W	Overcast
30	Working shot topsoil removal for access tracks to turbine locations	-	Overcast
31	Gravelly outcrop exposed during topsoil removal	N	Overcast
32	Working shot of peat removal	-	Overcast
33	Shot of peat deposit and natural substrate nr T1	E	Overcast
34	Working shot of access for T1	NW	Overcast
35	Working shot of access for T1	W	Bright
36	Trench section showing peat and natural substrate	-	Overcast
37	Topsoil removal for T1 crane pad	NW	Overcast
38	Working shot of topsoil removal for access track nr T3	SW	Overcast
39	Working shot of peat removal and natural substrate nr T3	-	Overcast
40	Shot of fibrous peat deposits being removed nr T1	E	Overcast
41	Shot of fibrous peat deposits being removed nr T1	S	Overcast
42	Shot of groundbreaking nr T1	S	Overcast
43	Shot of greyish-blue boulder clay natural nr T1	-	Bright
44	Shot of topsoil and peat removal at T1 crane stance	S	Bright
45	Shot of peat deposit during groundbreaking at T1	-	Bright

APPENDIX 2: Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	South Lanarkshire Council
PROJECT TITLE/SITE NAME:	Muir Hall Wind Farm, South Lanarkshire: Archaeological Works
PROJECT CODE:	MUFL
PARISH:	Carnwath
NAME OF CONTRIBUTOR:	Stuart Mitchell
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Archaeological Works
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	None
NGR	NT 00519 53618
START DATE (this season)	March 2010
END DATE (this season)	June 2010
PREVIOUS WORK (incl. <i>DES</i> ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>CFA Archaeology conducted a programme of archaeological work at Muir Hall Wind Farm, South Lanarkshire.</p> <p>The programme of works included the fencing off of a small, rectilinear enclosure of probable post-medieval date.</p> <p>The removal of topsoil and peat deposits was monitored during groundbreaking works for the construction of access tracks and turbine bases. Peat deposits up to c.5m in depth were recorded.</p> <p>No archaeological features or deposits were uncovered during the archaeological work.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	Natural Power for Muirhall Windfarm Ltd
ADDRESS OF MAIN CONTRIBUTOR:	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
EMAIL ADDRESS:	cfa@cfa-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	<p>National Monuments Record of Scotland</p> <p>South Lanarkshire Council Sites and Monuments Record</p>



- Key:
- Turbine Location
 - Anemometer Mast
 - Access Tracks
 - Construction Compound and Site Buildings
 - Site boundary
 - Cultural heritage site
 - Watching brief areas

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

Fig. No:	1	Revision:	A
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Title:
Site location and plan

Project:
Muirhall Windfarm, South Lanarkshire

Scale:
1:15,000 @ A3

Client:
Natural Power

Drawn by: GC Report No: XXXX



Fig. 2 Stripped area of site compound after topsoil removal



Fig. 3 General view of topsoil stripping for access tracks



Key:	Fig. No:	2-3	Revision:	A	Client:	Natural Power	 <div>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</div>		
	Title:								
	Project: Muirhall Windfarm, South Lanarkshire								
Scale:							Drawn by: GC	Page No:	Report No: 1827



Fig. 4 Peat deposits and natural substrate at Turbine 1

Key:	Fig. No:	4	Revision:	A	Client:	Natural Power			 <div>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</div>		
	Title:										
	Project: Muirhall Windfarm, South Lanarkshire										
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