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**Kingsburn Windfarm,
Fintry, Stirling**

Archaeological Mitigation Works

Report No. 3282

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**Kingsburn Windfarm,
Fintry, Stirling**

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1. INTRODUCTION

1.1 General

This report presents the results of a programme of archaeological mitigation works carried out by CFA Archaeology Ltd (CFA) at Kingsburn Windfarm, in the Gargunnoch Hills to the north-east of Fintry, Stirling (Fig. 1) (NGR: NS 6799 8997 (centred)). The work was carried out between February and April 2015 and was commissioned by Natural Power Consultants Ltd.

1.2 Background

Both the Written Scheme of Investigation¹ (WSI) and this report contain reference numbers which refer to gazetteer entries in the Earlsburn North Wind Farm Environmental Statement² (ES). This report should therefore be read in conjunction with the WSI and the ES.

A Cultural Heritage chapter was produced to form part of the ES for the proposed Earlsburn North Wind Farm³. The cultural heritage chapter identified eight sites of cultural heritage interest within the development area. Five of these (Sites 1-5), comprising a cairn, a grouse butt, a building and enclosure, a quarry and a turf bank respectively, were identified as being in close proximity to the development and mitigation was proposed for Sites 1-2. No mitigation measures were recommended for the remaining sites as the development was assessed as having no direct effect on them.

The WSI was agreed in advance of works starting with the Stirling Council Archaeology Service (SCAS). There were no formal archaeological planning conditions imposed on the development but the client wished to carry out the proposed mitigation from the ES, Chapter 6, *Cultural Heritage*. Mitigation to protect Site 3 was included at this stage as it lay in close proximity to the access track, and Site 5 was included as its projected alignment would be crossed by the access track.

1.3 Objectives

The objectives of the mitigation works were:

- To ensure the preservation of Sites 1-3 through the provision of demarcated buffer zones.
- To maintain a watching brief during groundbreaking works within agreed areas of the windfarm.
- To conduct tool-box talks for personnel working in the areas around Sites 1-3.
- To propose further work as necessary depending on the results of the above tasks.
- To report on the results.

¹ CFA Archaeology Ltd, 08 September 2014 *Kingsburn Windfarm (Earlsburn North), Stirlingshire (Planning Ref. 08/00104/FUL). Archaeological Watching Brief. Written Scheme of Investigation*

² The Earlsburn North Wind Farm is now known as Kingsburn Wind Farm.

³ Earlsburn North Wind Farm Environmental Statement produced by RDC Scotland Ltd.

2. WORKING METHODS

CFA follows the Chartered Institute for Archaeologists' Code of Conduct, Standards and Guidance for archaeological watching briefs⁴.

2.1 Site demarcation

Sites 1-3 (Fig. 1) were demarcated for the duration of the works. The width of the buffer zone around each site varied according to the proximity of the works but a buffer of at least 5m was used where possible. Site 4, a quarry (Fig. 5), was not demarcated as it is modern in origin and was assessed in the ES as being of *Lesser* archaeological importance.

2.2 Watching Brief

A targeted watching brief was undertaken during the formation of the access roads adjacent to archaeologically sensitive areas. These are shown on Fig. 1. These included:

- on the access road adjacent to Turbine 8 and Turbine 8 itself due to the proximity of the works to Site 1.
- where the access road passed Sites 2-4, including an area to the north and south of these sites.
- where the projected alignment of Site 5, a turf bank, would cross the access road between just north-west of Turbine 2 and just north-west of Turbine 3.

2.3 Toolbox Talks

Appendix 1 of the WSI includes the document 'Guidance in Relation to Archaeology'. Construction staff working near to Sites 1-5 were appraised of its contents.

⁴ Cifa 2014 'Standard and Guidance for an Archaeological Watching Brief'. Chartered Institute for Archaeologists.

3. ARCHAEOLOGICAL RESULTS

3.1 General

All of the work took place at or above 400m AOD. Most of the area was covered by mostly shallow blanket peat but areas of acidic grassland are also present. Small patches of green grass (often with loose stones) in the heathery peat were seen to relate to near-surface, frost-shattered bedrock. Elsewhere, bedrock was frequently exposed and consisted of mostly smooth volcanic basalt. Glacial striae were present on many of these outcrops.

3.2 Site Demarcation and Additional Description

Sites 1-3 were demarcated for the duration of the works.

Site 1 consists of a small stone cairn at NS 69397 90687. This site lies approximately 20m to the north-east of Turbine 8 (Fig. 2). Three stone piles are depicted on the Ordnance Survey First Edition map⁵, marking the alignment of the Parish boundary. However, field survey for the ES identified only the easternmost of the three, as a pile (3m x 2m x 0.5m high) of unworked stone blocks on the line of a modern post and wire fence. No trace was detected of the two other stone piles previously recorded in this area, which appear to have been removed.

Site 2 consists of a stone-built shooting butt at NS 67440 90867, which included a number of large dressed stones in the wall. This butt is the south-easternmost of a line of nine grouse butts shown on current Ordnance Survey maps. The well preserved structure is 3m long x 2m wide and 1m high; the wall is 0.3m thick. This example was unusual in that the other shooting butts in the line were made of wood and were sunk into the peat. The existing estate track passed within 1m of this site (Fig. 3).

Site 3 consists of a roofed bothy set within a stone-walled enclosure at NS 67410 90745. Field survey identified a well preserved, single-storey stone-built bothy measuring 7m long x 5m wide externally with a rectangular stone-walled enclosure attached to the north side (9m x 5m) and a sub-rectangular stone-walled enclosure 22m x 7m on its south side. There are two doorways in the north side of the building. The building is presently roofed and in use as a gamekeeper's bothy and for shooting parties. The existing estate track passed within 2m of the enclosure wall (Fig. 4).

3.3 Watching Brief

A targeted watching brief was undertaken.

Owing to the close proximity of Site 1, the new access road adjacent to Turbine 8 and Turbine 8 itself were also monitored. This area contained peat with a depth of up to 1.5m in between knolls of lumpy bedrock. No archaeological remains were recorded.

The upgrading of the estate track, from just north of Site 2 to just south of Site 4, was

⁵ Ordnance Survey First Edition Map. 6" to the mile. Stirlingshire, Sheet XVI (includes: Balfour; Fintry; Gargunnoch; Kippen; St Ninians). Survey date: 1861. Publication date: 1865.

monitored. To the north of Site 2 and to the south of Site 4, the existing track was widened. A new road was made to the east of Site 2 (Fig. 6) and to the west of Site 3 (Fig. 7) to remove the bends. This then passed to the west of Site 4 before rejoining the original estate track alignment. No archaeological remains were revealed.

The formation of a new access road between just north of Turbine 2 and just north of Turbine 3 was monitored (Fig. 9), as the projected alignment of Site 5 (Fig. 8) would cross this area. Site 5 is a linear bank running SSW for 250m from near the summit of Ling Hill, down-slope to Backside Burn, between NS 67264 89281 and NS 67211 89038. The bank measured 2m wide x 0.5m high and appears to denote a boundary between the farmsteads of Backside and Burnfoot.

During an initial walkover, it was noticed that an Ordnance Survey Benchmark had been cut into bedrock at the northern end of the boundary bank (Site 5, Fig. 8). Despite the area being named as Ling Hill on the maps, no heather is present. Peat depth is typically less than 0.5m overlying natural boulder clay with frequent knolls of bedrock. No continuation of this boundary bank was present and no other archaeological remains were recorded.

4. CONCLUSIONS

The archaeological mitigation work at Kingsburn Wind Farm was successfully completed. None of the known sites were affected by the development and no new archaeological remains were revealed. No further work is recommended.

In line with the WSI a summary statement covering the results of this overall evaluation project will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 2).

In line with the WSI, the project archive, comprising all CFA record sheets, digital photographs, maps and reports, will be deposited with the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) and copies of reports will be lodged with the Stirling Council Sites and Monuments Record (SMR).

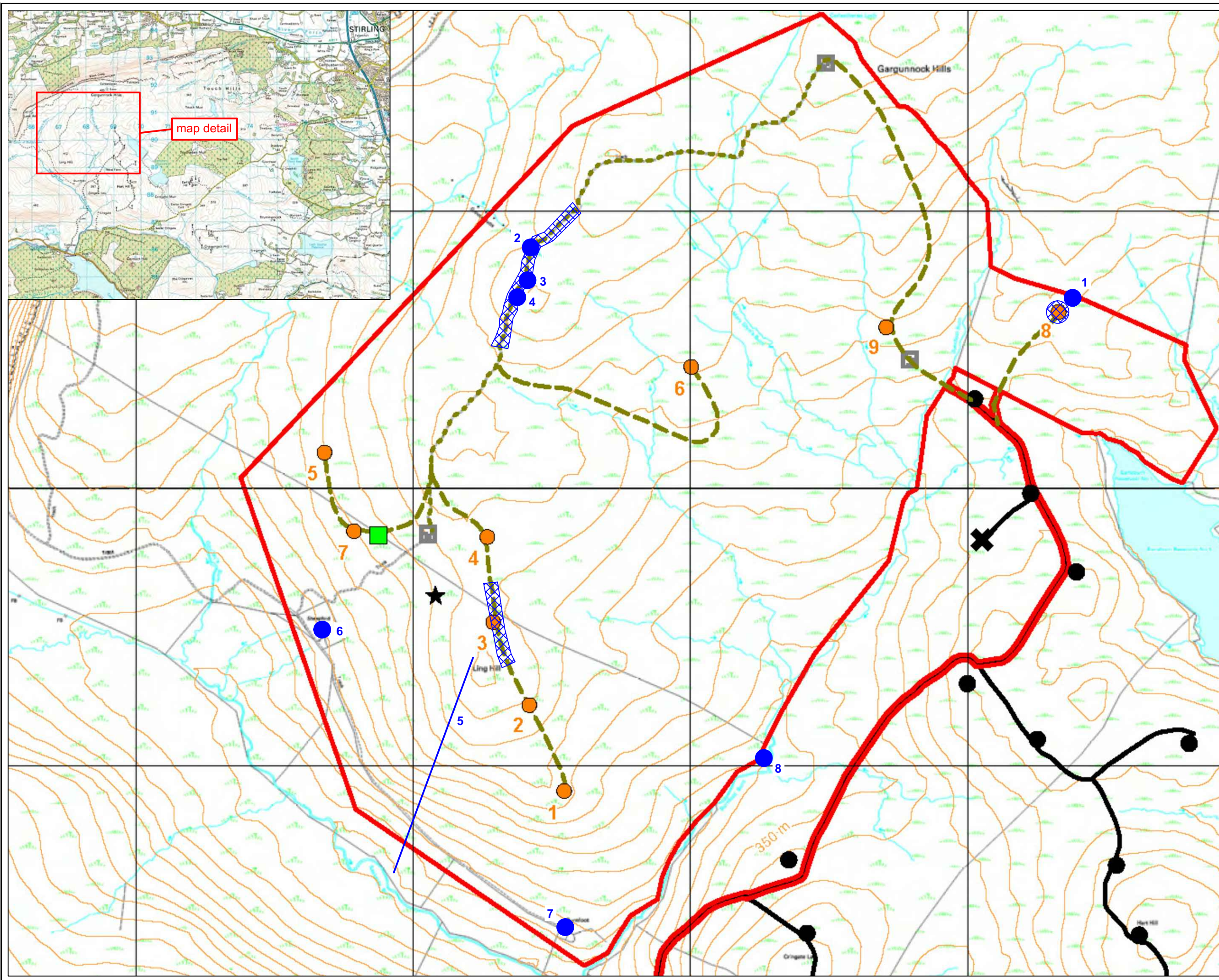
APPENDIX 1: Digital photographs taken during mitigation works

Photo No.	Description	Taken from
Marking Out		
1-2	Possible new site on access road to T8	S & W
3-4	Cairn Site 1	SW
5	Possible new site on access road to T8	N
6-7	Shooting Butt Site 2	SW
8-10	Bothy & Enclosure Site 3	SW
11-12	Bothy & Enclosure Site 3	N
Watching Brief		
13-14	General view of Sites 2-4 watching brief area	NE
15	General view of Sites 2-3 prior to road upgrading	NNE
16	General view of Site 2 prior to road upgrading	NE
17-19	Working shots showing the new road running to the east of Site 2	Various
21	General view of Site 4	SSW
22-24	General view of the watching brief area to the south of Site 4	Various
25	General view of Site 5	NNE
27-29	The NW end of the watching brief area between T3 and T2	S
41-45	Views of the access road near T3	Various
56	Burnfoot Farm, Site 7	NE
57-59	Burnside Farm, Site 6 and brick oven/kiln	SW
63	View NNW towards the location of T3	SSE
74-75	General site views including the access road to NE of T7	SE
78	Working shots	Various
93-96	General views of Site 8	Various
97-98	General site views including the access road to NE of T7	SE
99-101	Plan views of the benchmark at the NNE end of the boundary Site 5 and a view of Site 5 with the benchmark in the foreground	Various
102-104	Working shots	Various
105-106	Peat profile between T3 and T2	Varied
107-109	Working shots	Various
110-113	General views of Site 8	Various
114-119	Working shots, the completion of the access road to T2	Various
120-123	Working shots of the new access road through deep peat to the west of Sites 3-4	Various
124-126	Working shots, the completion of the access road to T2	Various
129-131	Working shots of the new access road through deep peat to the west of Sites 3-4	Various
132	Shattered bedrock knoll near Turbine 8	-
133	General view of the access road at Turbine 8 showing the depth of the peat and bedrock knoll	S












All photographs will form part of the deposited site archive.

APPENDIX 2: Discovery and Excavation in Scotland Entry

LOCAL AUTHORITY:	Stirling
PROJECT TITLE/SITE NAME:	Kingsburn Windfarm, Fintry
PROJECT CODE:	KINF
PARISH:	Gargunnoch, St Ninians
NAME OF CONTRIBUTOR:	Ian Suddaby
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Archaeological Mitigation Works
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	None
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	NS 679 899
START DATE (this season)	February 2015
END DATE (this season)	April 2015
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Archaeological Mitigation Works were carried out during the construction phase of Kingsburn Wind Farm. Three known sites were fenced off prior to construction works to protect them from accidental damage (a parish boundary marker, a shooting butt and a bothy), and a watching brief was undertaken in targeted locations. No archaeological remains were revealed.
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Natural Power Consultants Ltd
ADDRESS OF MAIN CONTRIBUTOR:	CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ.
EMAIL ADDRESS:	cfa@cfa-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS, Reports lodged with SMR and NMRS.



Key:

-  Development Area
-  New haul roads
-  Watching Brief Areas
-  Turbine bases
-  Archaeological Sites
-  Proposed substation
-  Proposed borrow pit locations
-  Proposed permanent Met Mast
-  Existing Earlsburn Wind Farm Turbine bases
-  Existing Earlsburn Windfarm track
-  Existing permanent Met mast



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Fig. No: 1 Report No: 3282

Title:
 Location plan and site plan

Project:
 Kingsburn Windfarm, Fintry,
 Stirlingshire

Client:
 Natural Power Consultants
 Ltd

Scale at A3:
 1:12500

Drawn by:	Checked:	Date:
GC	SW	28/04/2015

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Fig. 2 Site 1, a stone boundary marker



Fig. 3 Site 2, a grouse butt, adjacent to the existing track



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Title:	Fig. 2 - 3	Report: 3282	Drawn: GC	CKD: SW	Date: 06/07/15
	Client: Natural Power Consultants Ltd				
Project: Kingsburn Windfarm, Fintry, Stirling					



Fig. 4 Site 3, a bothy, adjacent to the existing track



Fig. 5 Site 4, a modern quarry



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Client:	Natural Power Consultants Ltd				
Project:	Kingsburn Windfarm, Fintry, Stirling				



Fig. 6 The new access road passing to the east of Site 2



Fig. 7 The new access road passing to the west of Site 3



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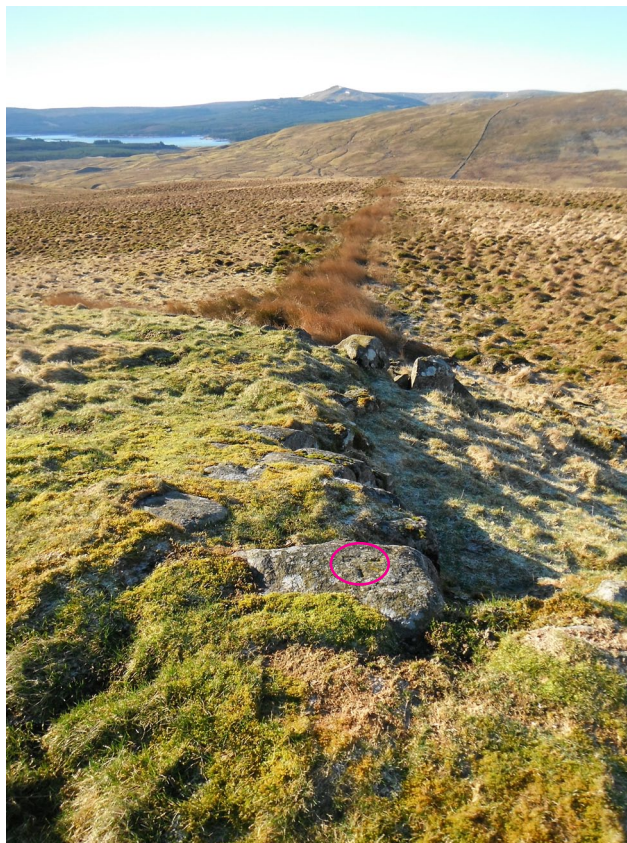


Fig. 8 General view of Site 5, a turf bank, from the summit of Ling Hill. The Ordnance Survey Benchmark arrow can be seen on the bedrock in the foreground (circled)



Fig. 8 General view of the watching brief area between Turbines 2 and 3



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Title:	Fig. 8-9	Report: 3282	Drawn: GC	CKD: SW	Date: 06/07/15
	Client: Natural Power Consultants Ltd				
Project: Kingsburn Windfarm, Fintry, Stirling					