

EXCAVATION AT TURBINE 38: GRIFFIN WINDFARM, PERTH \& KINROSS
for Griffin Wind Farm Ltd

04/00004/WIND

November 2011

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IIlus 1
Location map

# EXCAVATION AT TURBINE 38: GRIFFIN WINDFARM, PERTH \& KINROSS 


#### Abstract

Headland Archaeology Ltd was commissioned by Griffin Wind Farm Ltd to carry out a series of archaeological works. This report is concerned with the investigations undertaken at Turbine 38. This involved the excavation of six cairns and three linear banks that had been identified during the course of a walk-over survey of the access tracks and turbine bases; in addition, a watching brief on the installation of a cable trench in the area to the east of Turbine 38 was also undertaken which resulted in the discovery of a seventh cairn and a fourth linear bank. The cairns varied in shape and form and three were kerbed, which led to the initial tentative identification of the features as possible funerary cairns. Excavation, however, established that the cairns are likely to be the result of land clearance in order to prepare and improve the land for cultivation and pasture. The abundance of cairns suggests that intensive agricultural activity was occurring in the area.


## 1. INTRODUCTION

Headland Archaeology Ltd was commissioned by Griffin Wind Farm Ltd to carry out a programme of archaeological works in advance of the construction of the wind farm. This phase of works included excavation of a previously-unrecorded group of monuments which were identified during the course of a walk-over survey of access tracks and turbine bases in the Ballinloan section of the wind farm.

The site, located within the construction footprint of Turbine 38, comprised a cluster of six cairns and three linear stone banks. Two of the cairns were identified during the course of the walk-over survey of the access tracks and turbine bases (Illus 1); another four cairns and three linear banks were uncovered during the archaeologically monitored removal of brash and logs. During a later phase of works which involved brash and tree stump clearance for the installation of a cable trench, in the area to the south-east of Turbine 38, a seventh cairn and another linear bank were discovered.

The programme of works follows earlier phases of work, which included a desk based assessment, walk-over survey and evaluation, undertaken as part of the Archaeological Mitigation Plan. This work was undertaken in accordance with the terms of a Written Scheme of Investigation produced in 2010 and agreed with Perth and Kinross

Heritage Trust (PKHT), as archaeological advisors to Perth \& Kinross Council.

## 2. ARCHAEOLOGICAL BACKGROUND

The cairns and stone banks that were identified on the hillside lie within an archaeologically sensitive landscape. They were located within the Ballinloan area, to the east of an area previously identified as archaeologically significant in the archaeological survey that was undertaken in connection with the Environment Impact Assessment. Pitcarmick-type houses, associated field systems, cultivation remains, cairnfields and enclosures (NMRS NN94SW 28.02), believed to date to the later prehistoric and medieval period, have been recorded in this area.

Two of the previously unrecorded cairns at Turbine 38 were identified during a walkover survey in September 2010 (Scott 2010), located close together within the construction footprint of the proposed turbine and its access track. At the time of the survey, the area of the proposed turbine base and access track had been felled but the ground was still covered in brash. Following its removal during the course of the evaluation in February 2011, four further cairns and three linear dykes were uncovered. The cairns were distinctive in form, and


Illus 2
Detailed site plan
unlike the clearance cairns excavated at Turbine 26 on the western side of Ballinloan burn (Dalland report in prep), appeared to be deliberately grouped together. Their square or sub-rectangular shape, form and location led them to be tentatively identified as possibly burial cairns, and potentially of later prehistoric date, similar to Pictish square cairns which have been identified elsewhere (Scott 2011). A seventh cairn and another linear bank were uncovered during a watching-brief on the removal of brash and logs for the installation of a cable trench in the area to the south-east of Turbine 38.

## 3. OBJECTIVES

The objectives of the excavation were:

- to preserve by record archaeological remains threatened by the proposed development works.
- to undertake an appropriate level of assessment and reporting to meet the requirements of the Planning Authority.


## 4. METHODOLOGY

### 4.1 Excavation of cairns at Turbine 38

The cairns and linear banks lay within the footprint of Turbine 38 and would therefore be directly impacted upon during the construction programme.

Turf, topsoil and overlying vegetation were removed by hand from the cairns. Each cairn was fully cleaned by hand to facilitate the recording of the structures in plan (Illus 3). The cairns were half-sectioned as appropriate and stones were removed stratigraphically. Vertical photographs, subsequently rectified, were taken of each deposit using a digital camera that was mounted on an extendable pole and linked to a PC.

All archaeologically relevant deposits and structures were assigned context numbers and described on pro forma context sheets (Appendix 1). Sections were drawn as appropriate at a scale of 1:10 (Appendix 1). A photographic record was taken using black and white prints and digital photographs (Appendix 1). An overall site plan was recorded digitally using a PC running CAD software linked to a total station theodolite and related to the National Grid.

Following the removal of the cairn structure the ground beneath was fully cleaned and investigated. Sondages were excavated through the sub-cairn surface in order to allow inspection of the subsoil and to test whether any additional archaeological features were present.

Archaeological deposits were sampled systematically in accordance with Headland Archaeology Ltd standard environmental sampling practises. A minimum sample of 10 litres and maximum of 30 litres was taken from each deposit for wet sieving. The samples are catalogued in the sample register (Appendix 1) and were assessed by an environmental specialist, Sarah-Jane Haston (Appendix 2). Artefacts that were recovered during the excavations were X-rayed and then assessed by finds specialist Julie Franklin and are catalogued in Appendix 3. These will be subject to standard Treasure Trove procedures.

### 4.2 Excavation of linear banks

Turf, topsoil and overlying vegetation were removed by hand from the linear banks. The banks were then hand cleaned. Vertical photographs were taken for rectification purposes. The features were recorded digitally using a PC running CAD software linked to a total station theodolite and related to the National Grid. Standard 1m wide sections were then excavated through the banks to natural subsoil.

### 4.3 Watching brief

A watching brief was undertaken during the removal of brash and tree stumps prior to the installation of cable trenches in the area adjacent to T38, to ensure that any archaeologically significant features or deposits uncovered would be appropriately recorded.

The brash and stump removal was carried out using a $360^{\circ}$ mechanical excavator equipped with a toothed ditching bucket, operating under continuous archaeological supervision. A cairn and linear bank identified during the works were hand-cleaned, investigated, surveyed using dGPS and recorded.

Following recording, the features were half sectioned and removed under archaeological supervision, using a $360^{\circ}$ mechanical excavator equipped with a flat bladed ditching bucket.

## 5. RECORDING

All recording was in accordance with the Institute for Archaeologists standards and guidance. All contexts, small finds and environmental samples were given unique numbers and all recording was undertaken on pro forma record cards that conform to accepted archaeological norms. All stratigraphic relationships were recorded.

Digital photographs and black and white prints were taken to record archaeological contexts and to illustrate the general nature of the work. A graduated metric scale was clearly visible in record photographs of contexts. All
photographs were recorded by individual print number alongside information on the context and direction of view.

An overall site plan was recorded using Total Station survey and related to the National Grid. Hand-drawn plans of individual features at a scale of 1:20 were drawn where appropriate. Sections and elevations were drawn at 1:10 where appropriate.

All artefacts retrieved during the excavation have been catalogued and will be subject to standard Treasure Trove procedures. Bulk finds were collected by context. Small finds were recorded in a register and plotted using dGPS where appropriate. Finds were stored in appropriate conditions as advised by Headland's Finds Manager.


Illus 3
Cairns 5 \& 6 during excavation, view from SW

## 6. RESULTS

### 6.1 Excavation at Turbine 38

## IIlus 4



Cairn 2 [053]


IIlus 5
Cairn 2 [053], vertical rectified photograph
 high. Several stones [068] had been displaced by forestry ploughing on the northern and southern sides. The body of the cairn [088] comprised stones of various sizes placed against a large boulder [101] (Illus 6), which formed a central feature of the cairn. A halo of dark organic material had formed around the boulder. This was initially interpreted as a deposit filling a cut, but was latterly found to be caused by mineral washing and freeze thaw weathering processes. A kerb [069] constructed from large, angular stones was located on the south-western side of the feature (Illus 7). Natural reddish brown sandy clay lay beneath the cairn.


IIIus 8
Cairn 4 [055], vertical rectified photograph

## Cairn 4 [055]

Cairn 4, sub-rectangular in plan and aligned roughly NE-SW, was 4.4 m long, 3.9 m wide and 0.3 m high. The NW and SE sides of the cairn have been truncated by plough furrows and as a result several stones [066] were displaced in these areas. Three large flat stones [081] and a large boulder [080] were concentrated on the southwestern side of the cairn. Medium sized stones [084, 076] (Illus 8) overlay the large stones and these, in turn, were overlain by smaller stones [067], filling the centre of the cairn. Natural subsoil was located directly underneath the cairn.


IIIus 9
Cairn 5 [056], vertical rectified photograph
Cairn 5 [056]
Cairn 5, sub-rectangular in plan and aligned roughly NE-SW, was 8.4 m long, 6.2 m wide and 0.4 m high (Illus 9). Around its NE end were the remains of a kerb [103] formed of large sub-angular stones. The NW and SE sectors of the cairn have been truncated by plough furrows, resulting in disturbance and displacement of several stones [061 \& 091] in these areas. A concentration of large stones [111], positioned vertically and horizontally, was located near the centre of the cairn. These were overlain by dumps of medium sized stones [106, 102]. Interleaved with the layers of stones, and presumably formed by the percolation of organic material between them, were peaty soil deposits [075, 104]. A concentration of small angular stones [074] formed the upper surface of the cairn.
 medium sized stones [071] overlain by a deposit of slightly larger stones [064].



Illus 13
Oblique view of stone banks [131], [132] \& [133] from E

## Pit / stone-hole [082]

An amorphous, flat-based, shallow pit or stone-hole [082], $0.49 \times 0.29 \mathrm{~m}$ and 0.03 m deep, was identified immediately to the SW of Cairn 6. Several iron objects and a fragment of a copper-alloy object were recovered from the fill [083; 095] of the feature. Although overlain by stones from the adjacent cairn, it is clear that this material has been redeposited, most likely as a result of modern ploughing for forestry planting. The material, therefore, cannot help date the antiquity of the cairn itself.

## Stone banks [131], [132] \& [133]

Three stone-banks were located in the area to the north of the cairns (Illus 12 \& 13). Bank 131 was aligned northeast to south-west and was constructed of large angular stones. It was approximately 35 m long, 0.6 m high and $1.3-1.4 \mathrm{~m}$ wide at the south-eastern and north-eastern ends respectively. The central portion of the bank was up to 2.8 m wide.

Stone bank 132 was aligned roughly north-south and formed a western arm to Bank 131. It measured up to 0.4 m high and was of the same, random construction as Bank 131. Its position at the break of slope had caused it to collapse and spread more than Bank 131, and therefore it was up to 3.4 m wide in parts (Illus 13).

Stone bank 133 was located immediately to the west of Bank 132 and was similarly aligned north-south. The
bank was 10 m long, 1.2 m wide and up to 0.5 m high. It converged with Bank 132 near the north-western limit of excavation.

### 6.2 Features uncovered during watching brief at Turbine 38

## Cairn 7 [239]

Cairn 7 [239] was uncovered in the area to the southeast of the construction footprint for Turbine 38. It was 5.3 m long, 3.2 m wide and 0.2 m high, and had been truncated to north and south by plough furrows (Illus 14). It comprised a large central boulder, surrounded by subangular stones (Illus 15) and directly overlay yellowish brown sandy silt.

## Stone bank [238]

A stone bank, aligned roughly NNE-SSW, was identified to the south of Cairn 7 (Illus 16). The bank was 14.3 m long, 1.5 m wide and up to 0.55 m high. Excavation of a section across the stone bank indicated that it was up to three courses high (Illus 17) and was constructed of large angular stones.


IIIus 14
Plan of Cairn 7 [239]


IIlus 15
Cairn 7 [239], ground view, from the $E$

## 7. RESULTS OF PALAEOENVIRONMENTAL ASSESSMENT

Sarah-Jane Haston

### 7.1 Introduction

Four samples were taken for palaeoenvironmental analysis from deposits beneath Cairn 2 [125] and Cairn 3 [107], within Cairn 4 [113] and from the fill [083] of pit [082]. The aim of the assessment was to establish the palaeoenvironmental potential of the material and what evidence this material is showing us for the activities which once took place at the site.

### 7.2 Method

Samples were processed in laboratory conditions using a standard flotation method (cf. Kenward et al., 1980). All plant macrofossil samples were analysed using a stereo-microscope at magnifications of x 10 and up to $\times 100$ where necessary to aid identification.

### 7.3 Results

The results of the sample processing are provided in Appendix 2 (Retent sample results and Flotation sample results). Suitable material for AMS dating is also identified in the tables.

### 7.4 Plant remains

The concentration of charred plant remains was low with all samples found to contain rare to occasional amounts of charcoal fragments and abundant modern root/stems (see Appendix 2). The larger sized fragments (between 1 and 3 cm ) are suggestive of in-situ burning or deliberately dumped fire debris. Charcoal fragments were observed by eye to be of non-oak species. The smaller sizes of the fragments suggest that they may have been become incorporated in the sampled deposits by mechanisms such as windblow and surface run-off.

### 7.5 Plant material available for AMS

Material identified as suitable for dating is shown in Appendix 2. The sample [009] from Cairn 2 [125] contained fragments of charcoal
of a suitable size and condition for Accelerated Mass Spectrometry (AMS) dating. If charcoal was selected for dating, identification of species of wood represented would be required prior to dating.

### 7.6 Discussion

The concentration of archaeological remains recovered from the samples was very low with most samples only containing a small quantity of wood charcoal.

### 7.7 Recommendations

The charcoal fragments recovered from Cairn 2 are of a suitable size to obtain radiocarbon dating evidence for the site. If charcoal was selected, identification of the species would be undertaken and would provide information on fuel sources used. Therefore it is recommended that some material be made available for radiocarbon dating to assign an age for the stone clearance activities.


Illus 16
Stone bank [238], from the E


Illus 17
E facing section through stone bank [238]

## 8. FINDS ASSESSMENT

## Julie Franklin

### 8.1 Introduction

The majority of finds were recovered from or in the immediate vicinity of Cairn 6 . The assemblage was small, numbering 35 iron objects, 13 sherds of bottle glass, one copper alloy find and one of lead (Appendix 3). Few of the finds were closely datable, but those that were suggest a 19 th or 20 th century date.

### 8.2 Assemblage summary

## Metalwork

The ironwork was in very poor condition, covered in voluminous corrosion products. X-radiography analysis was undertaken to identify these objects to establish if they could help in the dating of the deposits from which they were recovered.

A few of the finds could be identified as nails. One large find appeared to be part of a heavy duty chain, of the kind used to secure a gate. Others were unidentifiable lumps
and fragments, although their size and weight suggest a recent origin is the more likely. The copper alloy find is similarly of uncertain function, but of probable modern date. It may be part of a container or piece of machinery. The lead find is a large lump, possibly intended for use as caulking, though unused. The majority of the metalwork was found in a possible pit or stone-hole [082] to the south-west of Cairn 6. It seems likely that this is a dump of material relating to recent agricultural activity in the area and implies the pit is of 19th or 20th century origin. This is not inconsistent with its subsequent burial with redeposited cairn material as a result of modern forestry ploughing.

## Glass

Glass sherds all derive from the same green bottle, probably a wine bottle. The shape of the base and the embossed lettering on the underside indicate a date no earlier than the late 19th century. The fragments were recovered from the layer of stones [098] that formed the upper part of Cairn 2. The fragments do not, however, help to date the construction of the cairn.

## 9. DISCUSSION

The abundance of cairns suggests that intensive agricultural activity was occurring in the area. The cairns are likely to be the result of loose bedrock and stones
cleared from the soil in order to prepare and improve the land for cultivation and pasture. The proximity of the cairns to one another suggests that the land was cleared by spade cultivation.

Although the shape and size of the clearance cairns varied greatly, the arrangement of stones within them remained constant, with large stones on the bottom, medium sized stones in the centre and small stones on the surface. Three of the cairns were kerbed on their western, down-slope side, in order to contain the cairn material and prevent it from encroaching onto the cleared ground. The size of the stones within the cairns and the evidence for their sorting implies that they are the result of initial land clearance. The unstructured nature of the stone banks suggests that they may also have been formed from field clearance as they did not appear to be collapsed stone dykes, or form any sort of barrier. Examples of linear clearance cairns have been recorded elsewhere.

Johnston (2001) expresses concern that cairnfields, built as a consequence of agricultural activity, are often disregarded and recorded as informal and unstructured in comparison with other upland features, such as burial mounds.

However, excavation evidence shows that clearance cairn structure often includes elements of careful construction similar to burial monuments. Evidence for the deliberate deposition of charred material and artefacts have also been found within clearance cairns.

The majority of finds recovered during the excavation were from a possible pit or stone-hole located to the south-west of Cairn 6 and were dated to the 19th or 20th century, providing evidence for recent activity in the area. Meanwhile, fragments of a late 19th century or
later wine bottle were recovered from the upper surface of Cairn 2.

None of the artefacts recovered provide dating evidence for the construction or period of use of the cairns. Clearly, the cairns are of some antiquity as the underlying soil profile was relatively well developed and the features were stable, solid and partially covered with moss or pinelitter. With the exception of the modern forestry plough furrows, the cairns are also relatively well-preserved. Radiocarbon-dating of charcoal from a possible buried ground surface [125] below Cairn 2 may help clarify the age of these structures.

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## APPENDICES

## Appendix 1 - Site register

## Context register

## Context no. Description

| 050 | Cairn 1. The cairn was 8.1 m long, 7.8 m wide and 0.45 m high and formed of angular and sub-rounded schistous and quartz <br> stones with sides up to $0.85 \times 0.45 \times 0.25 \mathrm{~m}$. Many of the stones had been disturbed due to later ploughing activity. Large <br> boulders were concentrated on the south side of the cairn and several stones were piled against them. |
| :--- | :--- |
| 051 | Dark brown, peaty topsoil, $0.08-0.12 \mathrm{~m}$ deep. |
| 052 | Moderately stony, sandy clay. Glacial till. |
| Cairn 2. Cairn 2. Aligned NE-SW, the cairn is 11.3 m long, 6.2 m wide and 0.4 m high. Sub-rectangular/ L-shaped cairn located <br> 4m to the NE of Cairn 1 . Part of the cairn protruded at its downslope end to form an inverted L-shape. Furrows truncated the <br> feature on the SE and NW sides. Several displaced stones [073] were located on the NW and SE edges of the cairn, the result <br> of ploughing. |  |

054 | Cairn 3. Sub-circular on plan and roughly $4.7 \times 2.6 \mathrm{~m}$ and 0.3 m high, Cairn 3 was constructed of angular and sub-angular |
| :--- |
| quartz and schistous stones. It consisted of several large stones on the south side with smaller stones around them. There |
| appears to be a kerb [069] of large angular stones on the western side of the feature. Several loose stones [068] were |
| located on the SE side of the feature (upcast from ploughing) and some were displaced by tree roots to the north. |

Cairn 4. Sub-rectangular on plan and composed of angular and sub-angular schistous and quartz stones, is roughly $4.4 \times$
3.9 m and 0.3 m high. Three large flat stones [081] were visible in the centre of the feature, with a large edge-set boulder
$[080]$ adjacent. Kerbing, formed by medium-sized stones set on edge, was located around the north side of the cairn. The feature has been truncated along its SE and NW sides by plough furrows.

| 056 | Cairn 5. Sub-rectangular on plan and aligned NE-SW, the cairn was $8.4 \times 6.2 \mathrm{~m}$ and 0.40 m high. It was truncated by plough furrows in the area to the NW of its centre and, again, along its SE edge. Several smaller stones appear to be piled against larger rocks. Several stones (probably plough drag) lay between this cairn and Cairn 6. |
| :---: | :---: |
| 057 | Cairn 6. The cairn was 4.8 m long, $3 . \mathrm{m}$ wide and 0.4 m high, formed of medium - large angular and sub-angular stones. Several stones were displaced by ploughing on the NW and SE sides. Kerb stones were located around the NE and SW sides. |
| 058 | Displaced stones of Cairn 6 [057], due to disturbance by furrows to the NW and SE. Stones vary in size from small ( $0.1 \times 0.1$ $\times 0.1 \mathrm{~m}$ ) to medium ( $0.2 \times 0.3 \times 0.1 \mathrm{~m}$ ). |
| 059 | Kerb stones from Cairn 6 . Stones are aligned in a way that suggests deliberate placement. Kerb stones vary in size from medium to large $(0.4 \times 0.3 \times 0.2 \mathrm{~m}$ to $0.65 \times 0.5 \times 0.2 \mathrm{~m})$. The stones were most visible on the north-eastern extent of the cairn although some were also visible on the western edge. |
| 060 | Displaced stones located between Cairns 5 and 6. Likely to be disturbance caused by furrows running roughly NE-SW to the north and south of the cairns. |
| 061 | Displaced stones surrounding Cairn 5 . Likely to be the result of disturbance due to furrows running to the SE and across the NW sector of Cairn 5 . Stones vary in size from small ( $0.1 \times 0.1 \times 0.1 \mathrm{~m}$ ) to large boulders $(1 \times 0.7 \times 0.5 \mathrm{~m})$. |
| 062 | Kerb stones of Cairn 6 [057], located around the NE and SW sides of the cairn. |
| 063 | Layer of small stones, forming the upper deposit of Cairn 6. Stones vary in size from small $0.05 \times 0.05 \times 0.05 \mathrm{~m}$ to medium $0.2 \times 0.3 \times 0.1 \mathrm{~m}$. The deposit extends over an area roughly $4.6 \times 2.3 \mathrm{~m}$. |
| 064 | Layer of substantial medium-sized stones and large boulders, located within kerb stones on the outer extent of Cairn 6. Located beneath deposit 063 and above deposit 071. The stones are significantly smaller and less compact than the overlying deposit. Stones vary in size from medium $0.4 \times 0.3 \times 0.2 \mathrm{~m}$ to large $0.6 \times 0.5 \times 0.4 \mathrm{~m}$. |
| 065 | Dark brownish black, loose silty pockets of soil between the stones in Cairn 6. Overlies stone layers 063 and 064 and contains abundant roots; small iron objects (SF 002-009, $011 \& 012$ ) were present in this deposit at the south-western extent of the cairn. |
| 066 | Stones located around the NE and SW ends of Cairn 4. Represents the stones disturbed by ploughing and tree roots on the western side of the cairn. Stones in this area overlie pine cones, pine litter and a relatively loose, rooty deposit. |
| 067 | Deposit of small $(0.25 \times 0.12 \times 0.09 \mathrm{~m}$ and $0.16 \times 0.08 \times 0.05 \mathrm{~m})$ stones concentrated in the central area of Cairn 4. Overlies deposit of larger stones [076 \& 084]. |
| 068 | Schist and quartz stones located on the south side of Cairn 3 - displaced by plough furrows and disturbed by tree roots. Stones varied in size, with the smallest measuring $0.22 \times 0.13 \times 0.05 \mathrm{~m}$ and largest measuring $0.42 \times 0.32 \times 0.1 \mathrm{~m}$. The stones overlay pine litter. |
| 069 | Kerb stones located on the northern edge of Cairn 3. They consisted of several large stones measuring $1 \times 0.4 \times 0.25 \mathrm{~m}$ and $0.55 \times 0.3 \times 0.08 \mathrm{~m}$. Stones comprised schists with quartz seams. No kerbs were apparent on the south side; however, it is likely that any originally present would have been disturbed during forestry ploughing. |


| Context no. | Description |
| :---: | :---: |
| 070 | Kerb stones located in Cairn 6: inner ring of kerb stones measuring approximately 2.8 m in diameter. The kerb is composed of several large stones generally measuring $0.6 \times 0.5 \times 0.3 \mathrm{~m}$. |
| 071 | Deposit of stones within inner area of Cairn 6 . Very similar to [064] and is comprised of medium-sized stones generally measuring $0.4 \times 0.3 \times 0.2 \mathrm{~m}$. |
| 072 | Displaced stones surrounding Cairn 1. Stones are displaced at northern and southern extents due to plough furrows. |
| 073 | Deposit of displaced stones in Cairn 2. The majority of stones surround the exterior of the cairn, primarily on the north and east sides. Stones vary in size from $0.35 \times 0.3 \times 0.05 \mathrm{~m}$ to $0.24 \times 0.21 \times 0.14 \mathrm{~m}$. |
| 074 | Deposit of stones comprising several medium and angular quartz and schist stones in Cairn 5 . The deposit overlies pine litter, cones and peat (075). |
| 075 | Peaty soil deposit $0.02-0.06$ m thick. Underlies [074] in Cairn 5. This may be the original vegetation covering Cairn 5 prior to ploughing and forestry. |
| 076 | Deposit of medium and large stones, 0.12 - 0.8 m thick, located in the centre of Cairn 4. |
| 077 | Peat deposit located in Cairn 4. Underlies [076] in central area of cairn. Concentrated in central area of cairn. It is possible that this may have been the original vegetation covering Cairn 4 prior to ploughing and forestry plantation. |
| 078 | Lower deposit of stones within inner kerb of stones in Cairn 6 . Contains medium sized stones measuring $0.5 \times 0.3 \times 0.2 \mathrm{~m}$. |
| 079 | Brownish orange loose silty clay deposit located within the inner kerb of Cairn 6, beneath deposit [071]. Contains abundant roots and stones and extends over an area $1.9 \times 1.6 \mathrm{~m}$ and 0.18 m thick. Upper horizon of podsol. |
| 080 | Large stone 1.4 m long and 0.57 m wide, situated at the south-western end of Cairn 4. It is aligned NW to SE and has several small stones piled against it. |
| 081 | Three large stones located in the centre of Cairn 4. The stones are angular and medium to large in size. They are situated immediately NE of (080). The stones all run parallel to one another on a roughly SW to NE alignment. |
| 082 | Possible cut for an irregular shaped pit or stone-hole located 0.60 m west of the inner kerb of Cairn 6 . Filled with [083], the feature was very shallow and its base was very flat. |
| 083 | Fill of pit or stone-hole [082]. Contains disintegrated soft stone and several fragments of heavily corroded iron (SF 013) and a fragment of copper alloy (SF 014). Same as context 095 below. |
| 084 | Concentration of sub-rounded and angular stones, with sides $0.1-0.3 \mathrm{~m}$ long. . The stones are packed vertically against the edge of stone [080] on the south-west side of Cairn 4. |
| 085 | Deposit of sub-rounded and angular medium sized stones located on the western edge of Cairn 4. |
| 086 | Small to medium and sub-angular stones situated to the southwest of [080] in Cairn 4. The stones appear to form a distinct edge on the south-west side of the cairn. |
| 087 | Layer of stones in Cairn 6 beneath what appear to be inner kerb stones. |
| 088 | Upper stone, schist and quartz deposit located in Cairn 3. |
| 089 | Thin deposit of organic peaty soil beneath (088), located in centre of Cairn 3. It varies in thickness between the stones and envelops and covers the stones in the centre of the cairn. |
| 090 | Lower layer of stones in Cairn 3 embedded in deposits 107 and 109 where they appear on the surface. Kerb stones (069) overlie some of these stones in the north-east and north. |
| 091 | Primary cairn material, Cairn 5, displaced by tree roots and forestry ploughing. |
| 092 | Upper deposit of small sub-rounded and sub-angular stones covering the centre of Cairn 1. |
| 093 | Originally interpreted as a cut, but following excavation it became apparent that the discolouration related to the podsolization process. |
| 094 | Dark greyish brown silty sand containing abundant roots and medium sized stones in Cairn 6 . Upper horizon of podsol. Same as (099). |
| 095 | Fill of pit or stone-hole (same as 083). Dark orange brown silt deposit located to the south-west of Cairn 6 and containing several iron objects (SF 017 - 020). |
| 096 | Stone deposit located in Cairn 1, beneath [092]. It was located directly beneath a deposit of smaller, loose stones. The stones were set into a loose, peaty, black silty sand [096], heavily disturbed by roots. |
| 097 | Cairn 2. Deposit of stones set into peat found beneath loose stone deposit [098] (same as deposit 116 and 124). |
| 098 | Stone deposit from Cairn 2. Several glass bottle fragments (SF 022) were recovered from this deposit. |
| 099 | Dark brownish orange silt deposit under inner kerb stone in Cairn 6. |
| 100 | Mixed brownish orange silt. Gleyed horizon from podsol profile. |


| Context no. | Description |
| :---: | :---: |
| 101 | Large schist boulder, with sides $2 . \times 1.15 \times 0.6 \mathrm{~m}$ long, with white quartz seams, forming central feature of Cairn 3 . Freezethaw processes around the stone have created a halo of dark brown and grey sandy clay silt, and some medium sized stones have also slid into gaps created, Glacial erratic forming centre of Cairn 3. |
| 102 | Medium to large stones located in Cairn 5, underlying peat deposit (075). |
| 103 | Cairn 5. Kerb stones located on the north side of the cairn, to the north and west of [102]. The stones appear to be angled towards the body of the cairn and most stones are positioned lengthwise on a broadly north-south alignment. |
| 104 | Peat deposit located in Cairn 5, underlying medium to large stones [102]. |
| 105 | Silty loam, underlying a layer of medium stones [106] in Cairn 5. |
| 106 | Medium stones located beneath peat deposit (104) in Cairn 5. |
| 107 | Dark brown organic deposit formed around stones (090), including large glacial boulder, in Cairn 3, overlies grey sandy silt (108). |
| 108 | Grey sandy clay/silt deposit found between dark brown A horizon and orange B horizon. Varies in depth and in Cairn 3 stones (090) sit on it. |
| 109 | context number not used |
| 110 | B-horizon of podsol. |
| 111 | Concentration of vertical and horizontal slabs in the centre of Cairn 5. |
| 112 | Dark brown silt deposit that had accumulated around [111] in Cairn 5. |
| 113 | Mixed mid brownish grey loam deposit, located in Cairn 4. Podsol subject to freeze thaw weathering processes, creating mixed deposit. |
| 114 | Mid grey, silty clay deposit overlying (115) in Cairn 4. Leached podsol horizon. |
| 115 | Loamy sand underlying 114 in Cairn 4. |
| 116 | Same as [097] and [124] |
| 117 | Greyish brown, sandy silt deposit located within Cairn 5. Redeposited topsoil, thrown up by forestry ploughing. |
| 118 | Large stone slab found near the centre of Cairn 5. Glacial erratic. |
| 119 | Deposit of medium to large stones located below stone layer 096 in Cairn 1. |
| 120 | Dark greyish brown silt deposit located at the south-western extent of Cairn 1. Possibly reduction/ leached horizon in podsol. |
| 121 | Light brownish grey deposit located to the south-west of Cairn 1. |
| 122 | Same as 120. |
| 123 | context number not used |
| 124 | Same as deposit [097] and [116]. |
| 125 | Mid brown loamy sand, with evidence of podsolisation. Located beneath Cairn 2. Possibly part of old ground surface. Part of podsolisation process. |
| 126 | Brownish orange silty deposit located beneath Cairn 1. |
| 127 | Mid orange sandy loam underlying Cairn 2. Site-wide natural B horizon. |
| 128 | Rock-worn scar in subsoil. |
| 129 | Pale grey sandy silt observed under orange sandy silty loam below Cairns 1, 2 and 3. Sloping and undulating surface. Natural subsoil, C-horizon. |
| 130 | Orange sandy clay silt with a very small grain. Glacial till. |
| 131 | Drystone bank aligned NE-SW, 3.5 m long, $1.3-2.8 \mathrm{~m}$ wide and 0.60 m high, and constructed with randomly deposited angular stones of various sizes. The bank narrows at its north-east end, to 1.4 m , and at the south end, to 1.3 m . The bank is more substantial in its central portion where it is up to 2.8 m across. |
| 132 | Stone bank, aligned NW-SE, and of same construction as [131]. Up to 3.4 m wide and 0.4 m high. |
| 133 | Possible short stone bank to the west of [132] aligned N-S. It comprises a poorly defined concentration of stone, heavily truncated by plough furrows. It converges with bank [132] near the north western limit of excavation. Same construction as 131 and 132. |
| 134 | Dark brown slightly sandy silt deposit located beneath topsoil to the east of stony bank [132] and permeating the interstices between the stones. Interpreted as hillwash. |

## Context no. Description

| 135 | Natural brownish orange silty sand and gravel. |
| :--- | :--- |
| 238 | Stone bank constructed of large angular stones, aligned NNE-SSW, located to the south of Cairn 7. The bank was 14.3 m long, <br> 1.5 m wide and up to 0.55 m high. Excavation of a section across the stone bank indicated that it was up to three courses high. |
| 239 | Cairn 7: Sub-rectangular on plan. It was 5.3 m long, 3.2 m wide and 0.2 m high, and had been truncated to the north and <br> south by plough furrows. It comprised a large central boulder, surrounded by sub-angular stones. |

## Drawing register

| Drawing no. | Section | Description |
| :--- | :--- | :--- |
| 17 | $1: 10$ | South facing section of Cairn 5 |
| 18 | $1: 10$ | West facing section of slot through Cairn 5 |
| 19 | $1: 10$ | West facing section under Cairn 3 and [101] |
| 20 | $1: 10$ | SE facing section under Cairn 4 (2 parts) |
| 21 | $1: 10$ | SW facing section of Kubiena tin location in Cairn 4 |
| 22 | $1: 10$ | E facing section showing location of Kubiena tins in Cairn 1 |
| 23 | $1: 10$ | SE facing section through wall (132) |
| 24 | $1: 10$ | W facing sondage through Cairn 1 |

## Photo register

22

| Picture no. | B\&W print | Digital file name | Facing | Description |
| :---: | :---: | :---: | :---: | :---: |
| 1 | x | GWPK09-Job009-01 | E | Pre-excavation shot of Cairn 1 (A1) |
| 2 | x | GWPK09-Job009-02 | E | General shot of Cairn 1(A1), covered in snow |
| 3 | x | GWPK09-Job009-03 | N | Cairn 1 (A1) - working shot |
| 4 | x | GWPK09-Job009-04 | E | Structure A7 |
| 5 | x | GWPK09-Job009-05 | W | Working shot |
| 6 | x | GWPK09-Job009-06 | N | Cleaning attempt in snow |
| 7 | $x$ | GWPK09-Job009-07 | N | Cairn 2 in snow |
| 8 | x | GWPK09-Job009-08 | NE | Working shot of Cairn 5 - South-western slot |
| 9 | x | GWPK09-Job009-09 | S | Working shot of Cairn 6 - North-eastern slot |
| 10 | x | GWPK09-Job009-10 | NE | Pre-ex of Cairn 4 |
| 11 | x | GWPK09-Job009-11 | N | Pre-ex of Cairn 4 |
| 12 | x | GWPK09-Job009-12 | W | Pre-ex of Cairn 4 |
| 13 | x | GWPK09-Job009-13 | S | Pre-ex of Cairn 4 |
| 14 | x | GWPK09-Job009-14 | E | Pre-ex of Cairn 4 |
| 15 | x | GWPK09-Job009-15 | NE | General pre-ex of Cairn 3 |
| 16 | x | GWPK09-Job009-16 | NE | General pre-ex of Cairn 3 |
| 17 | x | GWPK09-Job009-17 | W | General pre-ex of Cairn 3 |
| 18 | x | GWPK09-Job009-18 | N | Cairn 6, pre-ex following cleaning |
| 19 | x | GWPK09-Job009-19 | N | Cairn 6, pre-ex following cleaning |


| Picture no. | B\&W print | Digital file name | Facing | Description |
| :---: | :---: | :---: | :---: | :---: |
| 20 | x | GWPK09-Job009-20 | N | Cairns 5 and 6 |
| 21 | x | GWPK09-Job009-21 | N | Cairn 1, pre-ex general |
| 22 | x | GWPK09-Job009-22 | NW | Cairn 1, pre-ex general |
| 23 | x | GWPK09-Job009-23 | S | Cairn 1, pre-ex general |
| 24 | x | GWPK09-Job009-24 | SE | Cairn 1, pre-ex general |
| 25 | x | GWPK09-Job009-25 | E | Cairn 1, pre-ex general |
| 26 | x | GWPK09-Job009-26 | NE | Cairn 1, pre-ex general |
| 27 | x | GWPK09-Job009-27 | N | Cairn 1, pre-ex general |
| 28 | x | GWPK09-Job009-28 | S | Cairn 2 pre-ex |
| 29 | x | GWPK09-Job009-29 | S | Cairn 2 pre-ex |
| 30 | x | GWPK09-Job009-30 | S | Cairn 2 detail NW side |
| 31 | x | GWPK09-Job009-31 | N | Cairn 2 pre-ex |
| 32 | x | GWPK09-Job009-32 | E | Cairn 2 detail of W side |
| 33 | x | GWPK09-Job009-33 | SW | Cairn 2 pre-ex |
| 34 | x | GWPK09-Job009-34 | NNW | Cairn 2 pre-ex |
| 35 | x | GWPK09- Job009-35 | NW | Cairn 2 pre-ex |
| 36 | x | GWPK09-Job009-36 | NE | Cairn 2 general shot |
| 37 | x | GWPK09-Job009-37 | N | Cairn 6 working shot |
| 38 | x | GWPK09-Job009-38 | SE | Cairn 1-working shot- SW Slot |
| 39 | x | GWPK09-Job009-39 | NW | Cairn 1-working shot- SE Slot |
| 40 | x | GWPK09-Job009-40 | SW | Cairn 1 - working shot- NE Slot |
| 41 | x | GWPK09-Job009-41 | SE | Cairn 1 - working shot - NW Slot |
| 42 | x | GWPK09-Job009-42 | NE | Cairn 2-working shot- SW Slot |
| $43$ | x | GWPK09-Job009-43 | NNW | Cairn 2- working shot- SE Slot |
| 44 | x | GWPK09-Job009-44 | W | Cairn 2- working shot- NE Slot |
| 45 | x | GWPK09-Job009-45 | SE | Cairn 2 - working shot- NW Slot |
| 46 | x | GWPK09-Job009-46 | NE | Cairn 3- working shot-SW Slot |
| 47 | x | GWPK09-Job009-47 | SE | Cairn 3-working shot- NW Slot |
| 48 | x | GWPK09-Job009-48 | NE | Cairn 4- working shot - SW slot |
| 49 | x | GWPK09-Job009-49 | NW | Cairn 4- working shot- SE slot |
| 50 | x | GWPK09-Job009-50 | SW | Cairn 4- working shot- NE slot |
| 51 | x | GWPK09-Job009-51 | SE | Cairn 4 -working shot- NW slot |
| 52 | x | GWPK09-Job009-52 | NW | Cairn 5-working shot- SE slot |
| 53 | x | GWPK09-Job009-53 | SW | Cairn 5-working shot- NE slot |
| 54 | x | GWPK09-Job009-54 | SE | Cairn 5-working shot- NW slot |
| 55 | x | GWPK09-Job009-55 | NE | Cairn 6-working shot- SW slot |
| 56 | x | GWPK09-Job009-56 | NW | Cairn 6-working shot- SE slot |
| 57 | x | GWPK09-Job009-57 | SE | Cairn 6-working shot- NW slot |
| 58 | x | GWPK09-Job009-58 | NE | Cairn 6, [064] |
| 59 | x | GWPK09-Job009-59 | S | Cairn 6 [064] showing possible kerb stones |
| 60 | x | GWPK09-Job009-60 | S | Void |


| Picture no. | B\&W print | Digital file name | Facing | Description |
| :---: | :---: | :---: | :---: | :---: |
| 61 | x | GWPK09-Job009-61 | NE | Cairn 5 |
| 62 | x | GWPK09-Job009-62 | NW | Cairn 6- General shot |
| 63 | x | GWPK09-Job009-63 | NE | Cairn 4- pre ex with tumble removed |
| 64 | x | GWPK09-Job009-64 | SSW | Cairn 6- general shot of partially excavated cairn |
| 65 | x | GWPK09-Job009-65 | N | Cairn 6- general shot of partially excavated cairn |
| 66 | x | GWPK09-Job009-66 | NE | Cairn 6 [071] |
| 67 | x | GWPK09-Job009-67 | NE | Cairn 6 [071] |
| 68 | x | GWPK09-Job009-68 | NE | Cairn 5-working shot |
| 69 | x | GWPK09-Job009-69 | NE | Cairn 5-working shot |
| 70 | x | GWPK09-Job009-70 | N | Cairn 5-working shot showing diamond shaped stone |
| 71 | x | GWPK09-Job009-71 | NE | Cairn 6- half section showing [075] |
| 72 | x | GWPK09-Job009-72 | NW | Cairn 4 - half section |
| 73 | x | GWPK09-Job009-73 | NE | Cairn 6- showing stone layer [078] |
| 74 | x | GWPK09-Job009-74 | NE | Cairn 6- showing stone layer [078] |
| 75 | x | GWPK09-Job009-75 | N | Cairn 3- half section (S facing section) |
| 76 | x | GWPK09-Job009-76 | SE | Cairn 4 - half section showing [080], [081], [084], [085] and [086] |
| 77 | x | GWPK09-Job009-77 | NW | Cairn 6-showing [079] |
| 78 | x | GWPK09-Job009-78 | N | Shot of [082] with top level of iron fragments removed |
| 79 | x | GWPK09-Job009-79 | S | N facing section of [082] |
| 80 | x | GWPK09-Job009-80 | E | Pit [082] in foreground and inner kerb of Cairn 6 in background |
| 81 | x | GWPK09-Job009-81 | E | Cairn 3-showing possible kerb stones |
| 82 | x | GWPK09-Job009-82 | NW | Cairn 3 |
| 83 | x | GWPK09-Job009-83 | W | Cairn 3 |
| 84 | x | GWPK09-Job009-84 | SE | Cairn 3 |
| 85 | x | GWPK09-Job009-85 | NW | Cairn 6-showing half section through deposit [079] |
| 86 | x | GWPK09-Job009-86 | NW | Cairn 6-showing half section through deposit [079]- detail |
| 87 | x | GWPK09-Job009-87 | SW | Cairn 6-showing close up of coursing under kerb [070] |
| 88 | x | GWPK09-Job009-88 | S | Cairn 6-showing close up of coursing under kerb [070] |
| 89 | x | GWPK09-Job009-89 | S | Cairn 6- Fully excavated cairn with kerb remaining |
| 90 | x | GWPK09-Job009-90 | N | Cairn 5 after removal of root disturbed material |
| 91 | x | GWPK09-Job009-91 | SE | Cairn 4-showing contexts [080], [081], [084] |
| 92 | x | GWPK09-Job009-92 | NW | Cairn 4- showing contexts [080], [081], [084] |
| 93 | x | GWPK09-Job009-93 | E | Cairn 5 after removal of central stone |
| 94 | x | GWPK09-Job009-94 | N | Cairn 1- half section |
| 95 | x | GWPK09-Job009-95 | N | Cairn 1- half section |
| 96 | x | GWPK09-Job009-96 | W | Cairn 1- general shot |
| 97 | x | GWPK09-Job009-97 | N | Cairn 5-half section |
| 98 | x | GWPK09-Job009-98 | NE | Cairn 3- with kerb [069] |
| 99 | x | GWPK09-Job009-99 | NW | Cairn 3-Kerb |
| 100 | x | GWPK09-Job009-100 | SW | Cairn 3 |
| 101 | x | GWPK09-Job009-101 | SW | Cairn 3 |


| Picture no. | B\&W print | Digital file name | Facing | Description |
| :---: | :---: | :---: | :---: | :---: |
| 102 | x | GWPK09-Job009-102 | S | Cairn 3- boulder kerb |
| 103 | x | GWPK09-Job009-103 | E | Cairn 3 |
| 104 | x | GWPK09-Job009-104 | E | Cairn 3 |
| 105 | x | GWPK09-Job009-105 | N | Cairn 5-record shot |
| 106 | x | GWPK09-Job009-106 | NE | Cairn 4 -general shot after removal of [086] and [085] |
| 107 | x | GWPK09-Job009-107 | NW | Cairn 4 -general shot after removal of [086] and [085] |
| 108 | x | GWPK09-Job009-108 | W | Cairn 4 -general shot after removal of [086] and [085] |
| 109 | x | GWPK09-Job009-109 | E | Cairn 4 -general shot after removal of [086] and [085] |
| 110 | x | GWPK09-Job009-110 | NW | Cairn 3 [101] and [069] |
| 111 | x | GWPK09-Job009-111 | NE | Cairn 3 [101] and [069] |
| 112 | x | GWPK09-Job009-112 | SE | Cairn 3 [101] and [069] |
| 113 | x | GWPK09-Job009-113 | SW | Cairn 3 [101] and [069] |
| 114 | x | GWPK09-Job009-114 | NW | Cairn 6-SE facing section |
| 115 | x | GWPK09-Job009-115 | NW | Cairn 6-SE facing section |
| 116 | x | GWPK09-Job009-116 | W | Cairn 1- working shot including [092] |
| 117 | x | GWPK09-Job009-117 | NW | Cairn 2 - Section including [097] and [098] (1 of 3) |
| 118 | x | GWPK09-Job009-118 | N | Cairn 2 - Section including [097] and [098] (2 of 3) |
| 119 | x | GWPK09-Job009-119 | NNE | Cairn 2 - Section including [097] and [098] (3 of 3) |
| 120 | x | GWPK09-Job009-120 | S | Cairn 4 - Following removal of stones [069] |
| 121 | x | GWPK09-Job009-121 | W | Cairn 4 - Following removal of stones [069] |
| 122 | x | GWPK09-Job009-122 | N | Cairn 4 - Following removal of stones [069] |
| 123 | x | GWPK09-Job009-123 | SE | Cairn 6 -post ex |
| 124 | x | GWPK09-Job009-124 | NNW | Cairn 5 |
| 125 | x | GWPK09-Job009-125 | N | Cairn 5 |
| 126 | x | GWPK09-Job009-126 | SE | Cairn 5- working shot showing [105] [106] [103] and [102] removed |
| 127 | x | GWPK09-Job009-127 | SE | Cairn 3-working shot |
| 128 | x | GWPK09-Job009-128 | SW | Cairn 5-showing [111], [112] |
| 129 | x | GWPK09-Job009-129 | SE | Cairn 5 |
| 130 | x | GWPK09-Job009-130 | NW | Cairn 5 |
| 131 | x | GWPK09-Job009-131 | SW | Cairn 5 |
| 132 | x | GWPK09-Job009-132 | SE | Cairn 5 |
| 133 | x | GWPK09-Job009-133 | E | Cairn 5 |
| 134 | x | GWPK09-Job009-134 | E | Cairn 3 - W facing section through base of cairn, showing [101] |
| 135 | x | GWPK09-Job009-135 | E | Cairn 3 - W facing section through base of cairn, showing [101] |
| 136 | x | GWPK09-Job009-136 | E | Cairn 2 - pre ex of [097] cairn material |
| 137 | x | GWPK09-Job009-137 | W | Cairn 2 - pre ex of [097] cairn material |
| 138 | x | GWPK09-Job009-138 | NW | Cairn 4 - SE facing section |
| 139 | x | GWPK09-Job009-139 | NW | Cairn 4- SE facing section |
| 140 | x | GWPK09-Job009-140 | NE | Cairn 4- SW facing section |
| 141 | x | GWPK09-Job009-141 | NW | Cairn 4-working shot prior to removal of stones |
| 142 | x | GWPK09-Job009-142 | N | Cairn 1-showing deposit [119] |



| Picture no. | B\&W print | Digital file name | Facing | Description |
| :---: | :---: | :---: | :---: | :---: |
| 183 | x | GWPK09-Job009-183 | E | Cairn 3 - slot behind (101) showing B+C horizons and build up deposits around (101) |
| 184 | x | GWPK09-Job009-184 | NE | Stony linear (131) |
| 185 | x | GWPK09-Job009-185 | NE | Stony linear (131) |
| 186 | x | GWPK09-Job009-186 | SW | Stony linear (131) |
| 187 | x | GWPK09-Job009-187 | SW | Stony linear (131) |
| 188 | x | GWPK09-Job009-188 | NW | Working shot of baulk across linear (132) - E end |
| 189 | x | GWPK09-Job009-189 | SE | Working shot of baulk across linear (132) - E end |
| 190 | x | GWPK09-Job009-190 | NE | View of section through stone bank (131) |
| 191 | x | GWPK09-Job009-191 | SE | View of slot 1 through stone bank (131) |
| 192 | x | GWPK09-Job009-192 | NE | View of section (slot 2) through (131) |
| 193 | x | GWPK09-Job009-193 | SE | View of slot 2 through stone bank (131) |
| 194 | x | GWPK09-Job009-194 | N | General view of stone bank (132) |
| 195 | x | GWPK09-Job009-195 | SE | General view of stone banks (132) and (133) |
| 196 | x | GWPK09-Job009-196 | N | General view of wall/bank (132) and (133) |
| 197 | x | GWPK09-Job009-197 | S | View of section through stone bank (133) |
| 198 | x | GWPK09-Job009-198 | NNE | Half section on NE of [131] |
| 199 | x | GWPK09-Job009-199 | NE | General view of [132] |
| 200 | x | GWPK09-Job009-200 | NE | Shot showing abundance of stones [132] |
| 201 | x | GWPK09-Job009-201 | SW | Stones [132] |
| 202 | x | GWPK09-Job009-202 | SW | General view of [132] and [133] |
| 203 | x | GWPK09-Job009-203 | NW | View of slot through stone bank [132] |
| 204 | x | GWPK09-Job009-204 | NW | Shot of SE facing section of [132] |
| 205 | x | GWPK09-Job009-205 | W | Post excavation shot at T38 during Turbine construction |
| 206 | x | GWPK09-Job009-206 | W | Post excavation shot at T38 during Turbine construction |
| 207 | x | GWPK09-Job009-207 | W | Location shot of Structure [136] to West of T38 |
| 208 | x | GWPK09-Job009-208 | W | Detail shot of Structure [136] to West of T38 |
| 209 | x | GWPK09-Job009-209 | S | Detail shot of Structure [136] to West of T38 |
| 210 | x | GWPK09-Job009-210 | S | General shot of Structure [136] to West of T38 |
| 211 | x | GWPK09-Job009-211 | NE | General shot of Structure [136] to West of T38 |
| 212 | x | GWPK09-Job009-212 | W | General shot of structure with hazard tape, prior to fencing |
| 213 | x | GWPK09-Job009-213 | NW | Trench excavated in area to North-east of T38 |
| 214 | x | GWPK09-Job009-214 | S | Watching brief in area to east of T38 |
| 215 | x | GWPK09-Job009-215 | N | Brash removal and deturfing at T38 |
| 216 | x | GWPK09-Job009-216 | SW | Wall [238] General shot |
| 217 | x | GWPK09-Job009-217 | SW | Wall [238] |
| 218 | x | GWPK09-Job009-218 | SW | Wall [238] detail of northern end |
| 219 | x | GWPK09-Job009-219 | SW | Wall [238] detail of central area |
| 220 | x | GWPK09-Job009-220 | SW | Wall [238] detail of southern end |
| 221 | x | GWPK09-Job009-221 | SW | Wall [238] detail of southern end |
| 222 | x | GWPK09-Job009-222 | NW | Wall [238] General shot |



| Picture no. | B\&W print | Digital file name | Facing | Description |
| :---: | :---: | :---: | :---: | :---: |
| 264 | - | GWPK09-Job009-264 | NNW | Cairn 4 |
| 265 | - | GWPK09-Job009-265 | E | General site shot |
| 266 | - | GWPK09-Job009-266 | NNE | General site shot |
| 267 | - | GWPK09-Job009-267 | NNE | General site shot |
| 268 | - | GWPK09-Job009-268 | E | Cairns 5 and 6 pre-ex |
| 269 | - | GWPK09-Job009-269 | NNE | Working shot |
| 270 | - | GWPK09-Job009-270 | E | Panorama, working shot |
| 271 | - | GWPK09-Job009-271 | E | Site in snow |
| 272 | - | GWPK09-Job009-272 | E | Working shot of Cairns 5 and 6 in snow |
| 273 | - | GWPK09-Job009-273 | E | Panorama of Cairns 1-6 in snow |
| 274 | - | GWPK09-Job009-274 | E | Pre-ex photo of Cairn 2 |
| 275 | - | GWPK09-Job009-275 | NE | Pre-ex photo of Cairn 5 |
| 276 | - | GWPK09-Job009-276 | NNE | Cairns 1, 2 and 3, Level 1, oblique photo |
| 277 | - | GWPK09-Job009-277 | E | Cairn 1, Level 1 and Cairn 2, level 1, oblique photo |
| 278 | - | GWPK09-Job009-278 | NE | Cairn 1, Level 2, oblique photo |
| 279 | - | GWPK09-Job009-279 | E | Cairn 1, Level 3 oblique photo |
| 280 | - | GWPK09-Job009-280 | NE | Cairn 1, Level 4 oblique photo |
| 281 | - | GWPK09-Job009-281 | E | Cairn 2, Level 1 oblique photo |
| 282 | - | GWPK09-Job009-282 | E | Cairn 2, Level 1 oblique photo |
| 283 | - | GWPK09-Job009-283 | E | Cairn 2, Level 2 oblique photo |
| 284 | - | GWPK09-Job009-284 | E | Cairn 2, Level 3 oblique photo |
| 285 | - | GWPK09-Job009-285 | NNE | Cairn 3, Level 4 oblique photo |
| 286 | - | GWPK09-Job009-286 | NNW | Cairn 3, level 4 oblique photo |
| 287 | - | GWPK09-Job009-287 | E | Cairn 4, level 1 oblique photo |
| 288 | - | GWPK09-Job009-288 | E | Cairn 4, level 1, oblique photo |
| 289 | - | GWPK09-Job009-289 | E | Cairn 4, level 1 oblique photo |
| 290 | - | GWPK09-Job009-290 | E | Cairn 4, level 3 oblique photo |
| 291 | - | GWPK09-Job009-291 | W | Cairn 4, Level 4 oblique photo |
| 292 | - | GWPK09-Job009-292 | S | Cairn 4, Level 4 oblique photo |
| 293 | - | GWPK09-Job009-293 | NNE | Cairn 5, Level 1 oblique photo |
| 294 | - | GWPK09-Job009-294 | W | Cairn [131] oblique photo |
| 295 | - | GWPK09-Job009-295 | E | Cairn 5, Level 4 oblique photo |
| 296 | - | GWPK09-Job009-296 | SSE | Cairn 5, Level 5 oblique photo |
| 297 | - | GWPK09-Job009-297 | E | Cairn 5, Level 3 |
| 298 | - | GWPK09-Job009-298 | E | Cairn 6, Level 3 |
| 299 | - | GWPK09-Job009-299 | E | Cairn 6, Level 5 |
| 300 | - | GWPK09-Job009-300 | NE | Stone banks [131], [132] and [133] |
| 301 | - | GWPK09-Job009-301 | N | Stone banks [132] and [133] |
| 302 | - | GWPK09-Job009-302 | N | Stone banks [132] and [133] |
| 303 | - | GWPK09-Job009-303 | N | Stone banks [132] and [133] |
| 304 | - | GWPK09-Job009-304 | N | Stone banks [132] and [133] |



| Picture no. | B\&W print | Digital file name | Facing | Description |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 346 | - | GWPK09-Job009-346 | - | Cairn 3-Level 4- Stitched vertical photos |  |
| 347 | - | GWPK09-Job009-347 | - | Cairn 4-Level 1-stitched vertical photos |  |
| 348 | - | GWPK09-Job009-348 | - | Cairn 4-Level 2-stitched vertical photos |  |
| 349 | - | GWPK09-Job009-349 | - | Cairn 4-Level 3-stitched vertical photos |  |
| 350 | - | GWPK09-Job009-350 | - | Cairn 4-Level 4-stitched vertical photos |  |
| 351 | - | GWPK09-Job009-351 | - | Cairn 4-Level 5-stitched vertical photos |  |
| 352 | - | GWPK09-Job009-352 | - | Cairn 5-Level 1-stitched vertical photos |  |
| 353 | - | GWPK09-Job009-353 | - | Cairn 5-Level 2 b - Stitched vertical photos |  |
| 354 | - | GWPK09-Job009-354 | - | Cairn 5 -Level 2c-Stitched vertical photos |  |
| 355 | - | GWPK09-Job009-355 | - | Cairn 5 - Level 3 - stitched vertical photos |  |
| 356 | - | GWPK09-Job009-356 | - | Cairn 5 - Level 4 - stitched vertical photos |  |
| 357 | - | GWPK09-Job009-357 | - | Cairn 5 - Level 5 - stitched vertical photos |  |
| 358 | - | GWPK09-Job009-358 | - | Cairn 5 - Level 6 - stitched vertical photos |  |
| 359 | - | GWPK09-Job009-359 | - | Cairn 6-Level 1 - stitched vertical photos |  |
| 360 | - | GWPK09-Job009-360 | - | Cairn 6 - Level 2-stitched vertical photos |  |
| 361 | - | GWPK09-Job009-361 | - | Cairn 6-Level 3-stitched vertical photos |  |
| 362 | - | GWPK09-Job009-362 | - | Cairn 6 -Level 3 - Stitched vertical photos |  |
| 363 | - | GWPK09-Job009-363 | - | Cairn 6 - Level 4 - stitched vertical photos |  |
| 363 | - | GWPK09-Job009-363 | - | Cairn 6- Level 5 - stitched vertical photos |  |
| 364 | - | GWPK09-Job009-364a-j | - | Stone bank [131] |  |
| 365 | - | GWPK09-Job009-365a-e | - | Stone bank [131] | 31 |
| 366 | - | GWPK09-Job009-366a-z | - | Stone banks [132] and [133] |  |
| 367 | - | GWPK09-Job009-367 a-m | - | Stone banks [132] and [133] continued |  |
| 367 | - | GWPK09-Job009-368a-f | - | Stone banks [131], [132] and [133] stitched |  |
| 369 | - | GWPK09-Job009-369a-w | - | Stone banks [132] and [133] |  |

## Small finds register

## Small Finds no. Context no. Description

| 001 | 057 | Iron lump |
| :--- | :--- | :--- |
| 002 | 065 | Iron object |
| 003 | 065 | Lead alloy |
| 004 | 065 | Iron object |
| 005 | 065 | Iron object |
| 006 | 065 | Iron object |
| 007 | 065 | Iron object |
| 008 | 065 | Iron object |
| 009 | u/s | Iron object |
| 010 |  | Iron slag, disturbed by plough, located on south side of Cairn 4 |

## Small Finds no. Context no. Description

| 011 | 065 | Iron object |
| :--- | :--- | :--- |
| 012 | 065 | Iron object |
| 013 | 083 | Iron objects found within pit [082] |
| 014 | 083 | Copper object |
| 015 | 051 | Iron object (from furrow to SE of Cairn 2) |
| 016 | 092 | Iron object (from furrow to SE of Cairn 2) |
| 017 | 095 | Iron object |
| 018 | 095 | Iron object |
| 019 | 134 | Iron object |
| 020 | 098 | Large Iron object |
| 021 | 107 | Glass bottle fragments |
| 022 | Iron fragments |  |
| 023 |  |  |

## Sample register

| Sample no. | Context no. | Description |
| :---: | :---: | :---: |
| 001 | 083 | Fill of possible pit [082] |
| 002 | - | Void |
| 003 | 088 | Kubiena sample from beneath Cairn 4 (Tin 1) |
| 004 | 114 | Kubiena sample from beneath Cairn 4 (Tin 2) |
| 005 | 115 | Kubiena sample from beneath Cairn 4 (Tin 3) |
| 006 | - | Kubiena sample from beneath Cairn 1 (Tin 1) |
| 007 | - | Kubiena sample from beneath Cairn 1 (Tin 2) |
| 008 | 113 | Deposit - Cairn 4 |
| 009 | 125 | Loamy sand from Cairn 2 |
| 010 | 107 | Deposit from beneath boulder Cairn 3 |

## Appendix 2 - Environmental tables

## Retent sample results

| Context no. | Sample no. | Sample Vol (I) | Metal | Charcoal |  | Material available for AMS Dating | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Fe object | Quantity | Max Size (cm) |  |  |
| 83 | 1 | 10 | - | + | <0.5 | - | Charcoal not retained |
| 113 | 8 | 10 | - | ++ | 0.8 | - | - |
| 125 | 9 | 10 | - | ++ | 1 | Charcoal + | - |
| 107 | 10 | 10 | - | + | 0.5 | - | - |

Key:

+ = rare
$++=$ occasional
$+++=$ common
$++++=$ abundant
NB charcoal over 1 cm is suitable for identification and AMS dating


## Flotation sample results

| Context no. | Sample no. | Total flot <br> Vol (ml) | Plant remains | Charcoal Quantity | Charcoal <br> Max size <br> (cm) | Material available for AMS | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 083 | 1 | 20 | Uncharred root fragments ++++ | - | - | - | Archaeologically sterile |
| 107 | 10 | 60 | - | - | - | - | Archaeologically sterile |
| 113 | 8 | 20 | Uncharred root fragments ++++ | + | <0.5 | - | - |
| 125 | 9 | 20 | Fungal sclerotia + Uncharred heather stems and root fragments ++ | +++ | 1 | Charcoal + | - |

Key:

+ = rare
$++=$ occasional
$+++=$ common
$++++=$ abundant
NB charcoal over 1 cm is suitable for identification and AMS dating

Appendix 3 - Finds catalogue

| Feature | Context no. | SF | Sample | Quantity | Material | Object | Description | X-Ray | Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Topsoil | 51 | 15 | - | 1 | Iron | Nail | small | XR1 | - |
| Glacial Till | 52 | 16 | - | 1 | Iron | Shaft | thick shaft | XR4 | - |
| Cairn 2 | 98 | 22 | - | 13 | Glass | Bottle | sherds from same green bottle, embossed lettering on base, "... URCE-SOURCE SAL..." and "... RAND..." | - | L.19th-20th century |
| Cairn 4 | U/S | 10 | - | 1 | DISCARDED | - | stone picked up as iron | - | - |
| Cairn 6 | 57 | 1 | - | 1 | Iron | Lump | formless | XR5 | - |
| Cairn 6 | 65 | 2 | - | 5 | Iron | Objects | square lump, shaft, nail, fragments | XR4 | - |
| Cairn 6 | 65 | 3 | - | 1 | Lead Alloy | Lump | irregular shaped | - | - |
| Cairn 6 | 65 | 4 | - | 3 | Iron | Fragments | - | XR1 | - |
| Cairn 6 | 65 | 5 | - | 1 | Iron | Nail | shaft | XR1 | - |
| Cairn 6 | 65 | 6 | - | 1 | Iron | Bar | long object, tapering towards one end | XR4 | - |
| Cairn 6 | 65 | 7 | - | 1 | Iron | Bar | thick rectangular object | XR4 | - |
| Cairn 6 | 65 | 8 | - | 2 | Iron | Objects | shaft and hooked object | XR3 | - |
| Cairn 6 | 65 | 9 | - | 5 | Iron | Lumps | various lumps | XR3 | - |
| Cairn 6 | 65 | 11 | - | 1 | Iron | Nail | shaft | XR1 | - |
| Cairn 6 | 65 | 12 | - | 5 | Iron | Lumps | square lump and fragments | XR1 | - |
| Cairn 6 | 83 | 13 | - | 1 | Iron | Chain? | large lump, possibly part of twisted chain. Hint of large oval links visible in x-ray. Associated fragments. | XR5 | Mod |
| Cairn 6 | 83 | 14 | - | 15 | Copper Alloy | Object | curving sheet with moulded ribs on one side, possibly part of container or machinery | XR3 | Mod |
| Cairn 6 | 95 | 17 | - | 1 | Iron | Nail | large shaft and head | XR2 | - |
| Cairn 6 | 95 | 18 | - | 1 | Iron | Lump | rounded | XR2 | - |
| Cairn 6 | 95 | 19 | - | 1 | Iron | Lump | rounded | XR2 | - |
| Cairn 6 | 95 | 20 | - | 1 | Iron | Lump | large flat sub-rectangular object | XR6 | - |
| Stone Dyke | 134 | 21 | - | 1 | Iron | Shaft | long object | XR2 | - |
| Organic deposit | 107 | 23 | 10 | 2 | Iron | Fragments | nail fragments? | - | - |

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