

Project Code: GWPK09/005
Planning Ref.: 04/00004/WIND
Date of Report: January 2011
Client: Griffin Wind Farm Ltd



GRIFFIN WIND FARM, PERTH & KINROSS

Report on the Post-Felling Walkover Survey

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PROJECT SUMMARY SHEET

<i>Client</i>	GRIFFIN WIND FARM LTD
<i>National Grid Reference</i>	NN9400 4400 (CENTRE)
<i>Parish</i>	LITTLE DUNKELD
<i>Council</i>	PERTH AND KINROSS
<i>Planning Ref.</i>	04/00004/WIND
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<i>Schedule</i>	
<i>Fieldwork</i>	OCTOBER 2010 – JANUARY 2011
<i>Report</i>	NOVEMBER 2010 – JANUARY 2011

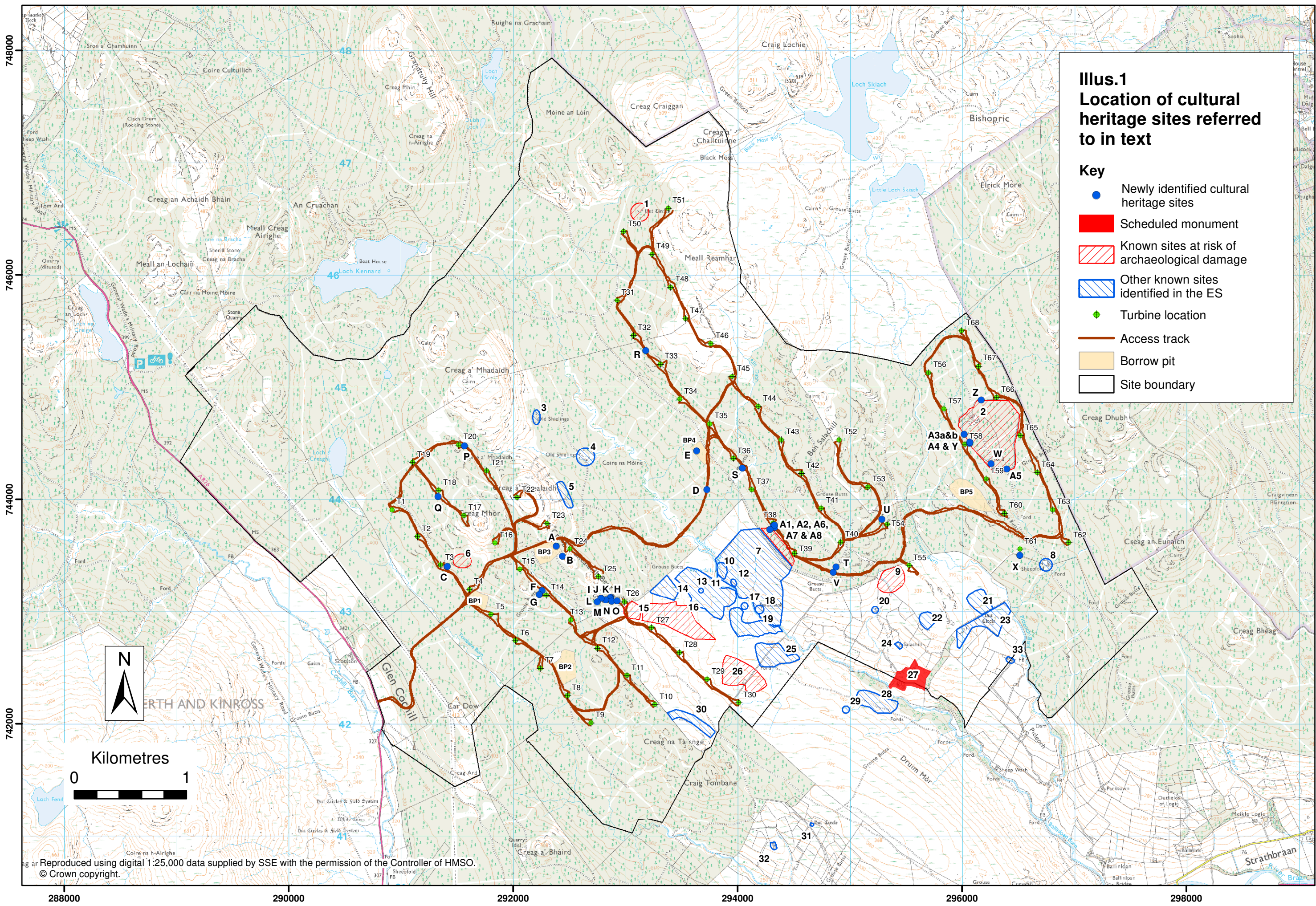
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Illus.1
Location of cultural heritage sites referred to in text

Key

- Newly identified cultural heritage sites
- Scheduled monument
- Known sites at risk of archaeological damage
- Other known sites identified in the ES
- ◆ Turbine location
- Access track
- Borrow pit
- Site boundary

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GRIFFIN WIND FARM, PERTH & KINROSS

Report on the Post-Felling Walkover Survey

by Laura Scott

1. INTRODUCTION

Griffin wind farm is located approximately 6.5km south east of Aberfeldy in Perth and Kinross. It is centred at approximately NGR NN 9400 4400. The development site is a mixture of commercial forestry, open moorland, grassland, and wet rushy pasture. The development plans include the construction of 68 wind turbine generators, six anemometer masts and access tracks. Existing forestry tracks will be upgraded and five borrow pits will be opened. Planning permission was granted for the construction of the Griffin wind farm subject to a number of archaeological conditions. In order to meet the terms of the archaeological conditions to the satisfaction of the planning authority, an Archaeological Mitigation Plan (Headland Archaeology 2009) was drawn up, to mitigate the impacts of the wind farm development on the cultural heritage resource of the development area. The Environmental Statement identified three main areas that cultural heritage resources would be directly impacted upon. These included areas of cultural heritage interest, unrecorded sites and the setting of sites of cultural heritage interest. To this end, as there was potential for the presence of currently unrecorded, above-ground, archaeological features, a post-felling walkover survey was undertaken throughout the area of the wind farm. The aim of the walkover was to ensure that any archaeological features hidden by forestry were located and recorded prior to ground breaking activities. A marking-out survey was also undertaken to protect a number of sites which were in danger of being accidentally damaged.

2. AIMS AND OBJECTIVES

The objectives of this survey were:

- a) Determine the location, extent and condition of any archaeological features within the study area through a post-felling walkover survey

- b) To undertake an appropriate programme of recording and excavation on any known, or newly-discovered archaeological site that will be unavoidably damaged by construction works
- c) To mark out newly identified sites and buffer zones for the existing sites

3. EXISTING ARCHAEOLOGICAL RECORDS

A total of thirty-three sites of archaeological and cultural heritage interest were identified in the Cultural Heritage survey that was undertaken by Entec as part of the Environmental Impact Assessment (Illus 1). Eight of these sites, Sites 1, 2, 6, 7, 9 15, 16 and 26 were located within the development area and were identified in the Written Scheme of Investigation for Archaeological works (Archaeological Mitigation Plan: Headland Archaeology Ltd 2009) as being at risk of accidental damage during the tree felling and construction works. The sites at risk of accidental damage due to proximity of construction works are listed in Table 1.

The sites identified within the development area include hut circles, buildings, cairn-fields, field systems and cultivation remains. As part of the mitigation measures the site layout was designed so that turbine locations, new access tracks and other aspects of intrusive development avoid the locations of known features of cultural heritage interest. However, in some instances the construction works were within the immediate vicinity of known features. The abandoned township of Creag Dubh/Blairnabuiag (Site 2), located within the area of Turbines 57 to 59 was one of these features. The township consists of several drystone buildings and first appears on Stobies' map of 1783. Latterly, the buildings appeared on the 1867 and 1901 Ordnance Survey maps, where they are shown as unroofed, suggesting that the site was abandoned by

Site no.	Site name	Grid ref.	Description	SMR no. / NMRS no.
1	Meall Reamhar	293100 746560	Hut circles and clearance cairns	PK1577 / NN94NW2
2	Creag Dhubh / Blairnabuiag	296130 744700	Abandoned township	PK9583 / NN94SE49
6	Creag Mhor Shieling	291540 743450	Shieling huts	PK6304 / NN94SW8
7	Ballinloan Burn	293850 743380	Field system, cultivation remains, cairn-field, enclosure	PK7364 / NN94SW28.02
9	Salachill	295300 743200	Cairn-field, track-ways	PK6823 / NN94SE44
15	Ballinloan Burn	293050 743000	Field system, cultivation remains, cairn-field	PK7352 / NN94SW23
16	Ballinloan Burn	293520 742940	Building, cairn-field, field boundary, field system, rig-and-furrow	PK6065 / NN94SW24
26	Ballinloan Burn	294050 742440	Building, cairn-field, field system, hut, mound, rig-and-furrow	PK7339 / NN94SW25

Table 1

Recorded archaeological sites considered to be at risk of accidental damage during construction works.

1867. The 1867 map also depicts a field-system, enclosures and a ring-dyke, indicating this was a farming settlement. A survey of Blairnabuiag Township was undertaken using dGPS (Dalland, forthcoming).

Several sites were identified within the development area but were unlikely to be impacted upon during the development. These sites are listed in Table 2.

The majority of sites identified were located within the central area to the south of the development (Sites 10–19, 25 & 26). The sites included Pitcarmick-type houses and associated field systems believed to date to the medieval period. However, with the exception of Sites 7, 15, 16 and 26 it was unlikely that any of these would be impacted upon. Similarly, several sites lay to the south-east of the development: these included earthworks, cairnfields and hut circles, Sites 20–24, 28 and 29. Three clusters of shielings (Sites 3–5) were located outwith the development area, to the east of Turbines 21 and 22. These sites will not be affected during the development.

4. MARKING-OUT SURVEY

In accordance with the Archaeological Mitigation Plan (2009) a marking out survey was undertaken to protect a number of known archaeological sites which were in danger of being accidentally damaged during construction works. Handheld GPS was used to locate the sites and set up buffer zones around known archaeological sites located at Blairnabuiag Township, to the east and west of Ballinloan Burn and to the north of Salachill. Buffer zones were initially set out using canes, road pins and hazard tape to be replaced with more permanent fencing.

5. POST-FELLING WALKOVER SURVEY

5.1 Methods

A post-felling walkover survey was undertaken to determine the location, extent and condition of any previously unrecorded archaeological features present within the study area. The line of the proposed access tracks and areas cleared for turbine bases were walked by up to three experienced field archaeologists. A handheld global positioning system (GPS) with an estimated accuracy of $\pm 5\text{m}$ was taken, in order to record the locations of any features identified. Features were recorded by means of a written description, measured sketch plan and digital photographs as appropriate.

5.2 Results

The major part of the field survey was undertaken between the 31st August and the 27th October; the final element, in the area of Turbines 52 and 53, was completed in January 2011. Weather conditions were generally good for the whole period. Felling methods differed throughout the survey area. In some areas timber had been left *in situ* and in others brush matt cover was extensive, which meant that the ground was obscured, making identification of potential sites difficult. A total of 35 previously unrecorded archaeological sites were recorded during the walkover (Illus 1). However, the head dyke from Blairnabuiag Township (Site 2) was recorded as three separate sites (Sites W, Y and Z) in order to pinpoint

Site no.	Site name	Grid ref.	Description	SMR no. / NMRS no.
3	Creag A'Mhudaidh	292200 744700	Three shieling huts	PK6308 / NN94SW6
4	Ballinloan Burn/ Coire Na Moine	292640 744220	Shieling	PK6307 (not recorded on NMRS)
5	Creag A' Bhealaidh	292460 744030	Shieling, Sheep fold.	PK6302 / NN94SW9
8	Pitleoch	296740 743410	Farmstead, Sheep Fold	PK7848 / NN94SE44
10	Ballinloan Burn	293850 743360	Field Boundary, Hut, Kiln, Building, Enclosure	PK7337 / NN94SW28.02
11	Ballinloan Burn	293600 743100	Pitcarmick-type building, rig and furrow, cairnfield, field, field system, settlement, bank (earthwork)	PK7348 / N94SW19
12	Ballinloan	293960 743260	Burnhut, building	PK5763 / NN94SW28
13	Ballinloan Burn	293670 743190	Enclosure	PK7349 / NN94SW19.01
14	Ballinloan Burn	293420 743150	Cairnfield. Field system, Building	PK7351 / NN94SW22
17	Ballinloan Burn	294060 743050	Sheep Fold	PK7341 / NN94SW28
18	Ballinloan Burn	294190 743010	Hut, Homestead	PK7161 / NN94W28.03
19	Ballinloan Burn	294130 742860	Pitcarmick, rig and furrow, cairnfield, field, field system, settlement, bank (earthwork)	PK7350 / NN94SW21
20	Salachill	295220 743010	Building	PK5853 / NN94SE20
21	Pitleoch Burn	296150 743030	Cairnfield, field, building, bank (earthwork)	PK7288 / NN94SE33
22	Salachill	295690 742860	Cairnfield, Hut circle.	PK7213 / NN94SE28
23	Pitleoch Burn	296300 742800	Rig and furrow, field system, Hut circle, building, bank (earthwork)	PK7289 / NN94SE32
24	Salachill	295410 742710	Farmstead	PK6516 / NN94SE13
25	Ballinloan Burn	294330 742590	Pitcarmick, rig and furrow, shieling, clearance cairn, field system, enclosure, bank.	PK7345 / NN94SW26
27	Salachill	295500 742400	Abandoned Township	PK7257 / NN94SE13
28	Druim Mor	295250 742200	Buildings, enclosure, huts, small cairns, field banks	PK5854 / NN94SE31
29	Ballinloan Burn	294960 742130	Building with rounded corners, probably related to building 28	PK7356 / NN94SW27
30	Creag Na Tairnge	293580 742000	Trackway	PK7287 / NN94SW29
31	Meikle Tombane	294650 741090	Hut circle	PK7336
32	Upper Tombane	294300 740900	Farmstead, cruck house	PK7117
33	Pitleoch	296426, 742569	Farmstead comprises five buildings arranged around a rectilinear yard.	NN94SE38

Table 2
Recorded sites within the vicinity that are unlikely to be affected by the construction works

areas where the wall had been breached or to record the condition in areas where the development encroached on the feature. Features identified during the course of the walkover survey not previously recorded on the SMR or NMRS are identified in alphabetical and alphanumeric sequence in the site gazetteer (Sites A–Z and A1–A8).

5.3 Site types

The recorded features can be classified into a limited number of site types. These include quarries, mounds, grouse butts, cairns, drystone dykes and possible structures. Full site descriptions are provided in the gazetteer.

Quarries

Three quarry pits (Sites A, B and C) were encountered on the western side of the development area, two of which (A and B) were located in Borrow Pit 3. It is likely that Site A was the ‘disused quarry’ depicted on the current Ordnance Survey map. Quarry B was very shallow in comparison to quarries A and C and may represent a prospective quarrying attempt. Quarry C was located to the east of the forestry track opposite Turbine 3 and to the south-west of the Creag Mhor Shieling (Site 6). A fourth quarry (Site A4) was identified inside the Blairnabuiag Township (Site 2).

Mounds

Four mounds (Sites D, P, S and U) were identified within the development area. However, following further investigation of these features, they were all discounted. Site D comprised a circular turf mound measuring 10–11m in diameter and 0.8m high. Investigation of this feature showed that it was a natural accumulation of peat (Dalland 2011) and therefore does not require any further work. Site P comprised a mound measuring 15m long, 8m wide and 0.8m high. Evaluation of this feature revealed that it was a natural bedrock outcrop (Dalland 2011).

Sites S and U each comprised sub-circular mounds measuring 5m long, 3m wide, 0.75m high and 3m long, 1m wide and 0.5m high respectively. Further investigation of the features showed that they were upcast from man-made drainage ditches.

A fifth group of mounds (Site N), identified outwith the development area, comprised three oval mounds containing several horizontal and vertical stacked stones. The features were located immediately adjacent to the development area and would therefore not be impacted upon during the works.

Grouse butts

Eight grouse butts (Sites F, G, K, L, M, O, T and V) were identified within the development area. Five (Sites F, G, K, O and V) were located on the tracks and would therefore be destroyed during the development. Three of the identified sites (Sites L, M and T) were located immediately adjacent

to the development area and are unlikely to be affected during this phase of works. Although all the shooting butts were constructed of flat, unbonded stones, they varied slightly in design and dimensions. Sites F, G and T were circular in plan, K and M were horse-shoe shaped, L and O were U-shaped and V was rectangular in plan. Sites T and V were both sunk into the ground. Site T was entered by means of a step located in the southern wall. Similarly, Site V was entered by means of steps built into the south-western wall. Site V, was located in boggy ground and therefore a culvert had been built into the base of the feature to channel the up-welling groundwater.

Cairns

Five features (Sites E, R, A1, A2 and A6) tentatively interpreted as cairns were identified within the development area. A concentration of stone in a rectangular arrangement (Site E) was encountered within Borrow Pit 4. The vegetation covering the feature differed markedly from the surrounding vegetation cover and several small and large angular and sub-angular stones protruded from the moss. Further investigation of this feature showed that it was a rectilinear cairn, possibly overlain by a later drystone wall (Dalland 2011).

Site R was located to the north of Turbine 33 and comprised a concentration of stones measuring 10m long, 3m wide and 0.1m high. No particular structure or layering was apparent on the surface of the feature. The site was heavily disturbed by ploughing and furrows.

Sites A1, A2 and A6 were located in the track between Turbines 37 and 38. Site A6 lay approximately 7m to the north of A1 and site A2 lay to the east. The three cairns were rectangular, with sides up to 7.6m long and standing up to 0.3m above current ground level.

Possible structures

Five features (Sites H, I, J, Q and A7) were interpreted as possible structures. Sites H, I and J were located in close proximity to each other on the track to the north-west of Turbine 26. The sites were of uncertain form and dimension as they were heavily obscured by heather and furrows ran north to south on either side of them. They comprised hollows of uncertain dimensions surrounded by large angular stones.

Site Q was located towards the base of the slope to the south west of Turbine 18. The site comprised stacked angular stones and turfs. The area was heavily disturbed by ploughing, tree planting and felling and it was therefore difficult to establish its extent. Further investigation of this site showed that it was outcropping bedrock (Scott, report forthcoming).

Site A7 was located in the forestry to the south of Site A1. It comprised an oval stone structure measuring 8m long, 6m wide and 0.55m high. The area was disturbed by furrows and tree planting.

Stone dykes

Sites W, Y and Z all represent areas where the head dyke associated with Blairnabuiag Township (Site 2) was encountered within the felled areas. In these areas the wall was recorded to establish its condition. Generally the wall was up to ten courses, 0.85–1m high and 0.4–0.7m wide.

Site X represents a stone dyke, shown on the 1st edition, 1867, Ordnance Survey map, which runs east to west to the south of Turbine 61. The dyke lies immediately adjacent to the felled area and will therefore not be impacted upon during this phase of development.

Site A8 represents a stone dyke which ran north to south on the east side of Site A7, abutting the structure on the northern side. It was 8.1m long, 0.4–0.6m wide and 0.15–0.2m high.

Shielings

Sites A3a, A3b and A5 lie just inside the head-dyke of Blairnabuiag Township. Site A3a consists of a pile of small stones measuring 5m by 2.3m and A3b measures 4m by 2.8m. Site A5 is a more substantial structure, roughly 4 x 4m and with turf-covered walls up to 0.9m high.

6. DISCUSSION

Several sites were identified during the post-felling walkover survey. Although some form of mitigation will be required for archaeological sites that cannot be preserved *in situ*, many of the sites identified require no further work.

6.1 Sites requiring no further work

Quarry sites A and B were recorded and removed during the course of the survey and therefore require no further work. Seven of the identified sites including quarry Site C, shooting butts L, M and T, mound N, mound U and stone dyke X lie adjacent to, but outwith, the proposed access track route and will therefore be unaffected by the development at this stage.

A section was machined through Mounds D and P. Evaluation of these sites showed that they were natural features formed from outcropping bedrock and the accumulation of peat (Dalland 2011). Similarly, evaluation of Site Q, a site initially interpreted as a possible structure, revealed that the site was a bedrock concentration (Scott, report forthcoming)

Upon further inspection Mounds S and U were discounted as they were found to be upcast from narrow, man-made drainage ditches.

Shooting butts F, G, K, O and V were recorded and photographed in accordance with advice received from

Perth & Kinross Heritage Trust (as archaeological advisors to Perth & Kinross Council) and no further mitigation is required.

Although Sites H, I and J were originally located within the route to Turbine 26, a revised plan of the area shows that all three sites will now be avoided and therefore preserved *in situ*.

6.2 Sites requiring further work

Eleven of the sites identified during the survey will require a higher level of investigation to characterise the features.

Intrusive investigation

The cairns – Sites E, R, A1, A2 and A6 – will be directly impacted upon during the development works and will therefore require further investigation. Preliminary investigation of Site E revealed that it is a well-defined rectangular stone cairn (Dalland 2011). Therefore unless the site can be avoided by the construction work further archaeological investigation will be required to clarify the nature and date of this feature.

Detailed survey

Six of the sites identified during the walkover survey may require further detailed survey work. Four of the sites (A3a, A3b, A4 and A5) are located in Blairnabuiag Township, and two (A7 and A8) are located in the Ballinloan Burn area. Although the sites lie outwith the construction areas, they are situated within areas that will be affected by the subsequent programme of clear-felling.

Blairnabuiag Township

Sites A3a, A3b, A4 and A5 are located within Blairnabuiag Township and comprise three shielings and a quarry. The sites will be added to the detailed survey plan and gazetteer of Blairnabuiag Township (Dalland, forthcoming).

Ballinloan Burn

Sites A7 and A8 lie to the east of Ballinloan Burn and comprise a structure (A7) and stone dyke (A8). The sites are located in close proximity to the known archaeological sites at risk of damage and may also be related to cairns A1, A2 and A6. Further detailed survey work may be required to characterise these features.

7. RECOMMENDATIONS

Further investigation is recommended for the eleven sites that will be affected by the development works. Five sites (E, R, A1, A2 and A6), will be directly affected by the construction works associated with the turbine base, tracks and associated features and six (A3a, A3b, A4, A5, A7 and A8) will be affected by the post-construction

programme of clear-felling. Where features cannot be avoided, a site-specific Written Scheme of Investigation will be produced by Headland Archaeology Ltd for approval by Perth & Kinross Heritage Trust on behalf of the planning authority.

8. REFERENCES

- Dalland, M., 2011, *Griffin Wind Farm, Perth & Kinross: report on the evaluation of Sites D, E and P*. Headland Archaeology (UK) Ltd, unpublished client report.
- Dalland, M., (forthcoming), *Blairnabuiag township: survey report*. Headland Archaeology (UK) Ltd, unpublished client report.
- Headland Archaeology, 2009, *Griffin Wind Farm Archaeological Mitigation Plan (AMP): Written Scheme of Investigation for Archaeological Works*.
- Scott, L., (forthcoming), *Griffin Wind Farm, Perth & Kinross: report on the evaluation of Sites Q, R, A1, A2 and A6*. Headland Archaeology (UK) Ltd, unpublished client report.

8.1 Cartographic

- 1867, Odnance Survey, *Perthshire, Sheet LXI*. 1:10560 (surveyed 1863–64).

9. APPENDICES

Appendix 1 – Site Gazetteer

Site A – Quarry

NN 92384 43582

A horse-shoe shaped depression, covering an area of 861m², was located at the base of a steep hill, cut into the slope in Borrow Pit 3. Although vegetation masked the edge of the feature, the central depression was clear of vegetation. A bank was located on the southern side, probably upcast from quarrying activity. It is likely that the stone in this area was quarried for the construction on the forestry road.

Site B – Quarry

NN 92439 43492

An oblong feature, covering an area of 464m², aligned roughly east to west was situated on the side of a steep hill to the east of Site A in Borrow Pit 3. The quarry was approximately 1m deep and may represent prospective mining activity.

Site C – Quarry

NN 91413 43402

A horse-shoe shaped quarry, covering an area of 207m², was located to the north east of the forestry track, opposite Turbine 3. It is likely that the quarry is associated with the construction of the local network of forestry tracks.

Site D – Mound

NN 93727 44085

A large circular, turf mound was located on the eastern side of the Ballinloan Burn in Griffin Forest. It measured 10–11m in diameter and was up to 0.8m high. Several furrows ran NE-SW through the mound. Subsequent evaluation of this feature revealed that it was a peat accumulation overlying a natural clay deposit (Dalland 2011).

Site E – Rectilinear cairn

NN 93636 44430

Site E consisted of a rectangular mound of stones, roughly 5m by 4.8m and 0.2m high. The feature was overtopped by mosses and lichens while the surrounding ground was grassy. During preliminary investigation turf was partially removed from this feature to reveal a stone core. Large rectangular boulders overlying the cairn, initially identified as a stone wall, were probably related to ploughing in the area as the way the stones were aligned along a forestry furrow indicated that they had been thrown up by the plough (Dalland 2011).

Site F – Grouse Butt

NN 92259 43186

A circular, drystone, shooting butt was located on the edge of a steep hill. The cell was 2.5m in diameter externally, 1m high and 0.5m wide internally. It opened to the south. It was constructed from flat, shale slabs, six courses high and 1m wide. The northern side of the structure was covered in heather.

Site G – Grouse Butt

NN 92233 43150

A drystone shooting butt was located to the west of Site F. It was very similar in construction to Site F and consisted of a drystone cell measuring 3m in diameter. It was 1m, six courses, high and sloped in towards the top. The cell was 0.5m wide internally.

Site H – Possible structure

NN 92870 43127

Several stones, aligned north-south, were observed along the edge of furrows to the north of Turbine 26. The stones were heavily obscured by heather and were therefore only partially visible. Although possibly structural, they could equally represent upcast from ploughing.

Site I – Possible structure

NN 92869 43118

Possible feature consisting of several stones, aligned north-south and located along the edge of furrows to the north of Turbine 26. The stones were heavily obscured by heather and, like Site H, could be structural or possibly upcast from ploughing.

Site J – Possible structure

NN 92863 43118

Possible feature, similar in form to Sites H and I. It consists of several large stones, 0.75m high, with only one course remaining, aligned north-south. The area was heavily obscured by heather. The feature, like Sites H and I, could be structural or possibly upcast from the furrows that run north to south along either side.

Site K – Grouse Butt

NN 92878 43090

A shooting butt was located towards the base of a steep hillside to the north of Turbine 26. It was composed of unbonded, flat, slate slabs, seven courses high and arranged in a horseshoe shape, open to the south-west. It was 2.7m long, 1.8m wide and 1.1m high. Its walls were 0.6m thick and it was 1.5m wide internally. The structure was covered in heather.

Site L – Grouse Butt

NN 92825 43103

A shooting butt was located towards the base of a steep hillside to the north of Turbine 26. It was very similar in construction to Sites K and M. It was U-shaped in plan and composed of 0.6m wide, substantial, flat, drystone, slate walls, open to the south-west. The structure was 2.7m long, 1.2m wide and 1.1m high and covered with heather.

Site M – Grouse Butt

NN 92783 43117

A shooting butt was located towards to base of a steep hillside, to the west of Site L. It was very similar in construction to Sites K and L. The structure was horse-shoe shaped in plan, with an opening to the south-west. It was 2.5m long, 1.7m wide and 1.1m high. Its walls were 0.57m wide and were composed of flat, unbonded, slate fragments, some six courses high. The north wall of the structure had partially collapsed. The structure was covered in heather.

Site N – Mounds

NN 92749 43085

A group of three mounds was located just outwith the development area, to the south-west of Turbine 26, on the edge of the forestry. The most northerly mound was 14m long, 4m wide and approximately 1m high. It was formed by a large pile of stones that appeared to be stacked in some areas, with vertical and horizontal stones present on the northern side. The mound was covered with mosses, lichens and heather.

The second mound lay 2m to the south-west of the large, northern mound. It was 4m long, 3m wide and 0.2m high. There was no obvious stone element to this mound and therefore may have been formed from turf.

The third mound was the smallest of the three, measuring 3m by 2m and 0.2m high. No stones were visible in this mound.

Site O – Grouse Butt

NN 92927 43094

A shooting butt was located at the base of a steep hillside. It was U-shaped in plan, with an opening to the south. It measured 3m long, 1.9m wide and 1.1m high. Internally, the cell was 1.9m wide. The northern wall was eight courses high and was composed of large flat slate slabs. The western wall was only two courses high and was composed of a large rounded stone, measuring approximately 0.8m long, 0.8m wide and 0.55m high, overlain by a 0.8m wide and 0.3m high stone.

Site P – Mound

NN 91567 44476

A mound was located in the centre of Turbine 20, at the base of a slope. It was aligned N-S and measured 15m by 8m and was 0.8m high. A drainage ditch cut through the feature on its western side. The feature was very distinct in the surrounding landscape, which was generally very flat, with the exception on the hill to the west. Evaluation of this feature showed that it was outcropping bedrock (Dalland 2011).

Site Q – Possible structure

NN 91332 44022

A stone concentration was observed towards the base of a slope located to the east of Turbine 18 and a bedrock outcrop. The feature consisted of a concentration of stones, 4m long, 2m wide and 0.1m high. It was heavily disturbed by ploughing, tree planting and felling and furrows ran north to south either side of the feature. It is possible that the stones may have been upcast from ploughing. Subsequent evaluation confirmed that the feature is not of archaeological significance (Scott, report forthcoming).

Site R – Stone concentration

NN 93182 45326

A concentration of several large stones, similar to Site Q, was located towards the base of a break in slope on the hillside. The concentration was 2.5 to 3m wide and 10m long. No particular structure or layering was visible as the area was heavily disturbed by ploughing. The presence of stones in this area was unusual as the immediate area was devoid of stone concentrations or bedrock outcrops. The site will be investigated as part of a programme of further evaluation (Scott, report forthcoming).

Site S – Mound

NN 94043 44276

A sub-circular mound, measuring 5m by 3m and 0.75m high and aligned north to south was located to the north of the river between Turbines 36 and 37. Although the mound seemed to be a turf-built structure, some vertical stones were observed within it. A narrow, water-filled ditch ran east to west to the south of the feature. The mound is likely to be upcast from the man-made ditch.

Site T – Grouse Butt

NN 94879 43396

A shooting butt was sunk into the ground on the track leading to Turbine 40. It was circular in plan and measured 1m in diameter and depth. It was entered by means of a south-facing opening and step. The cell was formed of eight courses of unbonded slate. The sides of the structure were covered with heather.

Site U – Mound

NN 95287 43821

A mound, very similar to Site S, was observed just outwith the development area, within a fire break in the forested area to the north of Turbine 54. It measured 3m long, 1m wide and was 0.5m high. A water-filled ditch ran east to west to the south of the feature. It is likely that this feature is upcast from the ditch.

Site V – Grouse Butt

NN 94852 43349

A shooting butt was located to the west of Site T. Like Grouse Butt T, this shooting butt was also sunk into the ground. It was rectangular in plan and measured 2.1m long, 1.8m wide and 1m deep. It was composed of eight courses of unbonded slate. The entrance on the south-western side was 0.6m wide. A 0.7m wide culvert ran along the base of the grouse butt from the centre of the feature northwards. The base of the feature was waterlogged and was obscured by moss, grass and bracken.

Site W – Stone dyke

NN 96260 44317

A drystone dyke was located between the forest track and felled area leading to Turbine 58. It was aligned northeast to southwest and ran beyond the limits of the felled area into the forested area. The wall was 0.85m (eight courses) high and 0.6m, wide, faced on either side with a rubble core. It was truncated on the south western side by a drain which ran east to west, continuing into the standing woodland. The wall had also partially collapsed within the forest edge on the north-eastern side. The wall is the same as Sites Y and Z and forms the head-dyke of Blairnabuiag Township.

Site X – Stone dyke

NN 96515 743500

A drystone boundary wall was located to the south of Turbine 61. The wall, which is aligned roughly east-west is located immediately adjacent to the development area, and is recorded on the 1st Edition Ordnance survey map. It was sixteen courses high, 0.3m wide and composed of randomly coursed slate.

Site Y – Stone dyke

NN 96069 44497

Drystone wall (same as Site W) forming part of the head dyke associated with Blairnabuaig Township. The wall was up to ten courses (1m) high and 0.4m wide, faced on both sides with a rubble core. It had been partially demolished in this area during the construction of the temporary access route for logging.

Site Z – Stone dyke

NN 96172 44885

Drystone wall, forming part of the northern sector of the head dyke associated with Blairnabuiag Township, the same wall as Sites W and Y). Here it was 0.73m high and 0.5m wide.

Site A1 – Cairn

NN 94320 43765

Rectangular mound of small angular and sub-angular stones, measuring 6.5m long, 6m wide and 0.3m high. Furrows cut the feature on the northern and southern sides and the north side is further obscured by brash. The site will be investigated as part of a programme of further evaluation (Scott, report forthcoming).

Site A2 – Cairn

NN 94332 43750

Rectangular mound comprised of small angular and sub-angular stones, measuring 5.2m long, 4.5m wide and 0.2m high. Furrows cut the feature on the northern and southern sides. The site will be investigated as part of a programme of further evaluation (Scott, report forthcoming).

Sites A3a and A3b: Shielings

NN 96020 44580

Site A3a consists of a rectangular spread of small stones roughly 5.0 x 2.3m, located just inside the head dyke of Blairnabuiag Township (Site 2). A second rectangular spread of small stones, roughly 4.0 x 2.8m, was identified nearby (Site A3b).

Site A4 – Old quarry

NN 96070 44510

Several spreads of small stones, aligned NW- SE, located within Blairnabuaig Township; possibly a series of small quarry pits associated with the construction of the adjacent head-dyke.

Site A5 – Shieling

NN 96400 44270

Shieling located within Blairnabuaig Township and located within present woodland. It measures 4m x 4m and is 0.9m high and has an entrance to the south-west.

Site A6 – Cairn

Rectangular mound comprised of small angular and sub-angular stones, measuring 7.6m long, 3m wide and 0.3m high. The feature is truncated on the eastern and western sides by ploughing. Trees are planted along the eastern and western sides of the feature. The site will be investigated as part of a programme of further evaluation (Scott, report forthcoming).

Site A7 – Structure

Stone-built oval structure, roughly 8 x 6m, with its longer axis aligned north – south. Internally the structure measured 5.5 x 3m, within walls 0.25–0.5m high. The feature was disturbed by furrows and tree planting.

Site A8 – Stone Dyke

Stone dyke, aligned north-south and roughly 8.1 m long, 0.4–0.6m wide and 0.15–0.2m high, abuts the north wall of structure A7.

Appendix 2 – Photo register

Photo no.	Site	Direction facing	Description
1	BP 3	NE	General shot of Borrow pit (BP) 3
2	BP 1	E	General shot of BP 1
3	A	SE	General shot of BP 1 Quarry
4	A	NE	General shot of Quarry
5	BP 1	NW	General shot of Quarry BP 1
6	B	SE	Quarry 2, BP 1
7	B	E	Quarry 2, BP 1
8	T 25	SE	Location shot of T25
9	T 25	NNE	Location shot of T25
10	T 25	SE	Location shot of T25
11	T 25	NW	Location shot of T25
12	T 25	N	Location shot of T25
13	T 24–25	N	Showing brash mats
14	T 24–25	NW	Showing brash mats
15	T 24–25	N	Working shot of track from T24–25
16	T 2	NW	Turbine 2 Location, General shot
17	C	NW	Quarry 3, General shot
18	C	NW	Quarry 3, General shot
19	Site 6	S	Site 6- Showing shielings
20	SITE 6	S	Site 6 – Showing shielings
21	T6	SW	General shot of location for Turbine 6
22	T7	S	General shot
23	BP 2	SE	General shot of BP 2 from Turbine 7
24	T8	NE	Eastern side of road for Turbine 8
25	T8	SW	T8- West side of road
26	BP 5	W	Borrow Pit 5
27	BP 5	E	Borrow Pit 5
28	BP 5	SW	Borrow Pit 5
29	BP5	S	Borrow Pit 5
30	T4	S	Turbine 4 location
31	T4	NW	Turbine 4 location
32	BP2	W	Borrow Pit 2 from Turbine 4
33	T24	E	Track to N of Turbine 24
34	–	–	Detailed shot of track
35	P	W	General shot of mound
36	–	W	Crossing river to Griffin side
37	D	NE	Mound
38	D	NE	Mound
39	D	N	Mound
40	Substation 4	NE	Substation 4, General location shot

Photo no.	Site	Direction facing	Description
41	E	N	Detail of possible wall
42	E	E	General shot of Site E
43	E	SE	General shot of Site E
44	–	N	E side of Griffin
45	–	S	E side of Griffin
46	T15	NW	General shot of Turbine 15
47	F	N	Grouse Butt
48	F	N	Grouse Butt
49	G	N	Grouse Butt
50	G	SE	Grouse Butt
51	T14	NW	Turbine 14 from Site G
52	–	S	Area between Turbines 13 and 12
53	H	N	Possible structure
54	I	SSW	Possible structure
55	J	NNE	Possible structure
56	K	N	Grouse butt
57	K	NE	Grouse butt, detail
58	L	N	Grouse butt
59	M	N	Grouse Butt
60	N	E	Detail of stacked stones
61	N	E	Detail of stacked stones
62	N	NE	General shot of Site N
63	N	W	Mound, Site N
64	N	N	General shot looking N
65	N	SW	General shot looking SW
66	N	SW	General shot of mound 3
67	O	E	Grouse Butt
68	O	E	Grouse Butt, detail
69	T26	SW	General shot over Turbine 26
70	T13 & 14	SW	General shot of area between Turbine 13 & 14 from track to Turbine 26.
71	T23	N	Track to Turbine 23
72	–	S	Track opposite BP 1
73	T23	SE	General shot of Turbine 23
74	T22	NW	Location of Turbine 22
75	T22	SW	Location of Turbine 22
76	T15	E	Track to Turbine 15
77	T15	S	Track to Turbine 15
78	T21	N	Track to Turbine 21
79	T21	N	Track to Turbine 21
80	T21	SE	Location of Turbine 21
81	P	S	General shot of mound.

Photo no.	Site	Direction facing	Description
82	P	W	General shot of mound
83	T20	W	General shot of track after Turbine 20
84	T19	NW	Location shot of Turbine 19
85	T19	N	Location shot of Turbine 19
86	T18	E	Location shot of Turbine 18
87	Q	E	Detail of possible wall
88	Q	N	General shot of Site Q
89	Q	S	General shot of Site Q
90	Q	NE	Detail
91	Q	E	Detail
92	Q	S	General shot of Site Q
93	T17	SE	Location shot of Turbine 17
94	T17	NW	Location shot of Turbine 17
95	T16	E	Location shot of Turbine 16
96	T19	NE	Track from spur 1 leading to Turbine 19
97	T19	NE	Turbine 19
98	Spur 1	S	Track from Spur 1
99	T31–32	S	Track from Turbine 31–32
100	R	S	General shot of Site R
101	R	N	General shot of Site R
102	T34	N	Bedrock outcrop at Turbine 34
103	T35	S	Location shot of Turbine 35
104	T35	SE	General shot of Turbine 35
105	T35	E	General shot of Turbine 35
106	T35	E	Track from Turbine 35 –36
107	T35	S	Track from Turbine 35–36
108	S	SE	General shot of Site S
109	S	SE	General shot of Site S
110	T 36	S	Track between Turbine 36 and 35
111	T36	N	Track between Turbines 36 and 35
112	T35	SE	Junction at Turbine 35
113	T35	N	Location shot of Turbine 35
114	T	SE	Grouse butt
115	T	E	E wall of Grouse butt
116	T	E	E wall of Grouse butt
117	T40	E	Track to Turbine 40
118	U	N	General shot of Site U
119	T54	NW	Track to Turbine 54
120	T54	NW	Track to Turbine 54
121	V	SW	General shot of Site V
122	V	SE	General shot of Site V

Photo no.	Site	Direction facing	Description
123	V	SE	General shot of Site V
124	V	NE	General shot of Site V
125	V	SW	General shot of Site V
126	T39	S	Track from Turbine 39–38
127	T39	N	Track from Turbine 39–38
128	T64	NE	Forest track to Turbine 64
129	W	NE	General shot of head dyke
130	W	E	Detailed shot of wall
131	W	E	Detailed shot of wall
132	W	E	Detailed shot of wall
133	W	E	Detail of collapsed area of wall
134	W	NE	Collapsed section of wall at NE end
135	W	NE	NE section of wall
136	W	NE	Section through wall within forested area
137	X	S	Wall
138	X	E	General shot of wall
139	X	W	Wall, General shot
140	S	SE	Site S, General shot
141	Y	W	Head dyke
142	Y	W	Damage to Head dyke
143	Y	W	Head dyke detail
144	Y	S	Head dyke detail
145	Y	E	Head dyke detail
146	Y	N	Head dyke
147	T57	N	Location shot of Turbine 57
148	T57	S	Location shot of Turbine 57
149	T67	E	Location of Turbine 57
150	Z	S	Wall of Township, near Turbine 66
151	Z	N	Wall of Township, near Turbine 66
152	T36	S	Track between T 36 and 37
153	–	–	Working shot
154	A1	E	Site A1
155	A1	E	Site A1
156	A1	NE	Site A1
157	A2	S	Site A2
158	A3	E	Site A2
159	T38	N	Location shot of Turbine 38
160	T39	S	Location shot of Turbine 39
161	T40	N	Location shot of Turbine 40
162	T44	E	Cairn from T44
163	T44	S	Location shot of Turbine 44

Photo no.	Site	Direction facing	Description
164	T45	S	Location shot of Turbine 45
165	T45	W	Location shot of Turbine 45
166	–	N	Working shot
167	T64	S	Location shot of Turbine 64
168	T64	S	Working shot
169	T65	NE	Head dyke
170	T65	S	Head dyke
171	T65	S	Head dyke detail
172	T65	W	Head dyke detail
173	T65	W	Head dyke, detail
174	T65	W	Head dyke, track detail
175	–	S	Trees overlying head dyke
176	T31	S	Location shot of Turbine 31
177	T31	SW	Location shot of Turbine 31
178	T50	N	Location shot of Turbine 50
179	T51	S	Location shot of Turbine 51
180	T51	N	Location shot of Turbine 51
181	T49	W	Location shot of Turbine 49
182	T49	SW	Location shot of Turbine 49
183	T49	SE	Location shot of Turbine 49
184	T48	N	Location shot of Turbine 48
185	T48	S	Working shot in location of Turbine 48
186	T47	N	Location shot of Turbine 47
187	T47	S	Location shot of Turbine 47
188	T47	NE	Working shot at Turbine 47
189	T47	N	Working shot at Turbine 47