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Ty Coch Hydro Scheme, Nantlle, Gwynedd.
August 2015
V 1.0

Archaeological Watching Brief and Excavation

Project Code: A0034.2

Report no. 0066

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Archaeological Watching Brief and Excavation

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Project Code: A0034.2
Date: 19/08/2015
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REGISTERED ORGANISATION CIfA

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1.0 NON-TECHNICAL SUMMARY

The excavation of revetment wall (feature 1) was inconclusive in verifying the age of the wall; however discussions with the landowner did show that the large boulders that had identified the wall as being possibly prehistoric or Roman in date were in fact put there by the landowner some ten years previously. The wall is however shown on the historic ordnance survey maps suggesting that the larger boulders had been placed up against a boundary already in existence. The excavated slot across the wall did not provide any additional dating evidence and as such all that can be stated is that the wall is of at least post-medieval date. This result is by no means dismissive of an early origin for the revetment wall, perhaps in the medieval period or prehistoric era, but merely showed there was a lack of structural or artefactual evidence to provide a conclusive origin for the walls construction.

The archaeological watching brief during the excavation of the penstock trench and easement in the boulder field (feature 14), the stony spread (feature 16), and the flat terraces (features 18, 19 and 20) did not produce any archaeological remains or artefacts. In relation to the boulder field (feature 14) and stony spread (feature 16) the underlying peat rich natural would suggest that the area was in fact very marshy, as it still is today, and thus not conducive to early habitation. That said, the archaeological assessment did identify several structures thought to be possibly prehistoric round houses or medieval long huts within the vicinity of this part of the site, although all of these features were very fragmentary and their identity was by no means certain.

The watching brief was maintained during the excavation of the penstock trench in the flat terraced areas (features 18, 19 and 20) because the archaeological assessment identified them as being unusually flat when compared with the surrounding topography. This suggested that they had been artificially levelled, perhaps as terraces for early habitation. However no archaeological remains or artefacts were uncovered in these areas suggesting that they were either naturally occurring or perhaps the result of post-medieval movement between the valley bottom farmsteads and the upland slopes. Indeed, terraces 19 and 20 are relatively small parcels of land in between a very steep slope which would have almost certainly been not conducive to habitation.

The results of the archaeological excavation and watching brief can be seen as somewhat disappointing in the lack of any archaeological remains or artefacts, and indeed its contribution to the regional research imperative and the localised historic narrative. However, the purpose of the archaeological assessment was to identify the archaeological remains within the localised environment and to mitigate for them primarily through avoidance. This was achieved through the careful rerouting of the penstock route to avoid these features.

2.0 INTRODUCTION

Aeon Archaeology was commissioned by Greenearth Hydro Ltd to carry out an archaeological watching brief and excavation during, and in advance of, a proposed hydro-electric scheme with turbine house, penstock (pipeline), and electrical cable connection.

The archaeological work was undertaken as part of mitigatory works for the installation of a new hydro-electric scheme located on the eastern bank of the Afon Ty Coch, an outfall stream of Llynnau Cwm Silyn and a tributary of the Afon Llyfni, approximately 1.4km southwest of the village of Nantlle, Gwynedd and within the Snowdonia National Park Authority (SNPA) (figure 1).

The scheme consisted of an intake weir located at **NGR SH 50850 51890** and a c.890.0m long buried penstock (pipe) initially running southwest to northeast before turning and heading northwest to a new turbine house located at **NGR SH 50660 52540**. The hydro scheme then emptied back into the Afon Ty Coch via a 4.0m long buried outfall pipe running west from the turbine. In addition a buried new power cable ran northeast from the turbine house for approximately 0.4km to a new meter and 200kVA transformer.

A mitigation brief was not prepared for this work by The Snowdonia National Park Authority (SNPA) Archaeologist, but the following statement was made a condition of full planning permission:

Prior to any work commencing (including any ground disturbance works or ground clearance) pursuant to this permission the applicant/developer shall submit to and receive written approval from the Local Planning Authority for an archaeological specification for a programme of works which must meet all relevant archaeological standards. The development shall subsequently be carried out in strict accordance with the approved programme of works unless otherwise agreed to in writing by the Local Planning Authority (condition 5, planning application NP3/22/88).

The reason for this condition was:

To ensure the implementation of an appropriate programme of archaeological mitigation in accordance with the requirements of Planning Policy Wales 2010 and Welsh Office Circular 60/96 Planning and the Historic Environment: Archaeology.

An archaeological assessment was undertaken by Aeon Archaeology (report no.0034) in March 2014 which identified a number of suspected archaeological sites and areas of archaeological potential throughout the proposed penstock route. In response to this report recent correspondence (email dated 14/04/2014) from the SNPA Archaeologist (John G. Roberts) has stated that the mitigation programme should comprise the following:

- Archaeological excavation – feature 1 (revetment wall)

- Watching brief at or in the vicinity of features – 11 (longhut), 12 (hut circle), 13 (longhut), 14 (boulder field), 15 (section of wall), 16 (stony spread), 17 (ditch) and 18, 19 and 20 (terraces).

The work undertaken adhered to the guidelines specified in *Standard and Guidance for Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014) and the *Standard and Guidance for Archaeological Excavation* (Chartered Institute for Archaeologists, 2014).

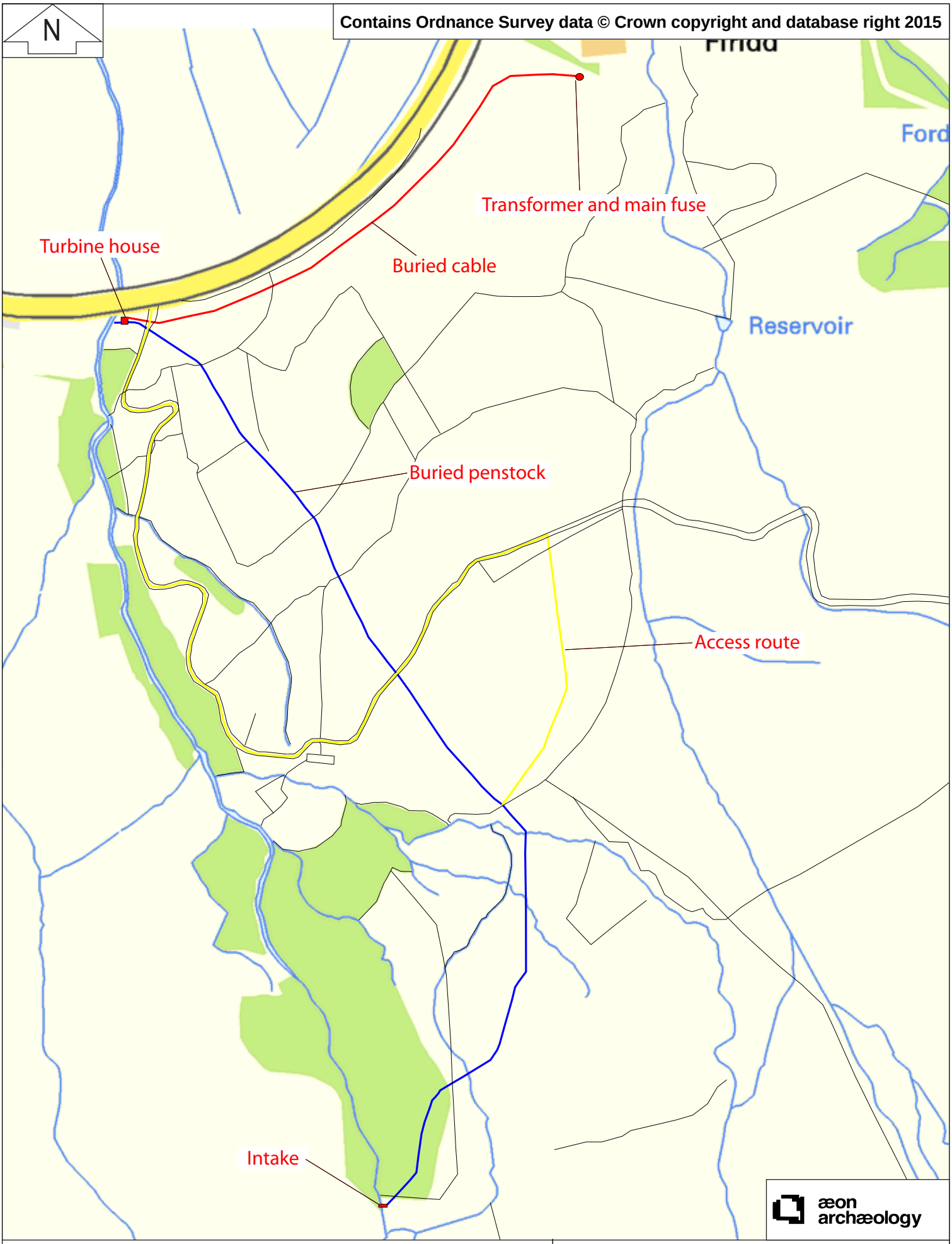

Figure 01: Location of Ty Coch hydro scheme. Scale 1:3,500 at A4.

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3.0 PROJECT AIMS

The aim of the watching brief was to characterise the known, or potential, archaeological remains uncovered during the excavation at or in the vicinity of features – 11 (longhut), 12 (hut circle), 13 (longhut), 14 (boulder field), 15 (section of wall), 16 (stony spread), 17 (ditch) and 18, 19 and 20 (terraces). The aim of the archaeological excavation was to reveal a cross section of suspected prehistoric revetment wall (feature 1) to attempt to identify its construction and origins.

The broad aims of the archaeological mitigatory works were to:

- To determine, as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains on the site, the integrity of which may be threatened by development at the site.

- To establish the nature and extent of existing disturbance and intrusion to sub-surface deposits and, where the data allows, assess the degree of archaeological survival of buried deposits of archaeological significance.

- To allow the Snowdonia National Park Authority Archaeologist to make an informed decision on the need for and scope of any further archaeological works that may be required on future projects within proximity to the scheme.

The detailed objectives of the archaeological watching brief were to:

- Insofar as possible within methodological constraints, to explain any temporal, spatial or functional relationships between the structures/remains identified, and any relationships between these and the archaeological and historic elements of the wider landscape.

- Where the data allows, identify the research implications of the site with reference to the regional research agenda and recent work in Gwynedd.

An Archaeological Written Scheme of Investigation (WSI) was written by Aeon Archaeology and submitted to Greenearth Hydro Ltd and the Snowdonia National Park Authority in April 2014. This formed the basis of a method statement submitted for the work. The archaeological excavation and watching brief were executed in accordance with this WSI.

The management of this project has followed the procedures laid out in the standard professional guidance *Management of Archaeological Projects* (English Heritage, 1991), *Management of Research Projects in the Historic Environment Project Manager's Guide* (English Heritage 2006), and in the Institute for Archaeologists *Archaeological Evaluation* (Institute for Archaeologists, 1994, rev. 2001 & 2008). Five stages are specified:

Phase 1: project planning
Phase 2: fieldwork
Phase 3: assessment of potential for analysis and revised project design
Phase 4: analysis and report preparation
Phase 5: dissemination

The current document reports on the phase 4 analysis and states the means to be used to disseminate the results. The purpose of this phase is to carry out the analysis identified in phase 3 (the assessment of potential phase), to amalgamate the results of the specialist studies, if required, with the detailed site narrative and provide both specific and overall interpretations. The site is to be set in its landscape

context so that its full character and importance can be understood. All the information is to be presented in a report that will be held by the Gwynedd Historic Environment Record (HER) so that it can be accessible to the public and future researchers. This phase of work also includes archiving the material and documentary records from the project.

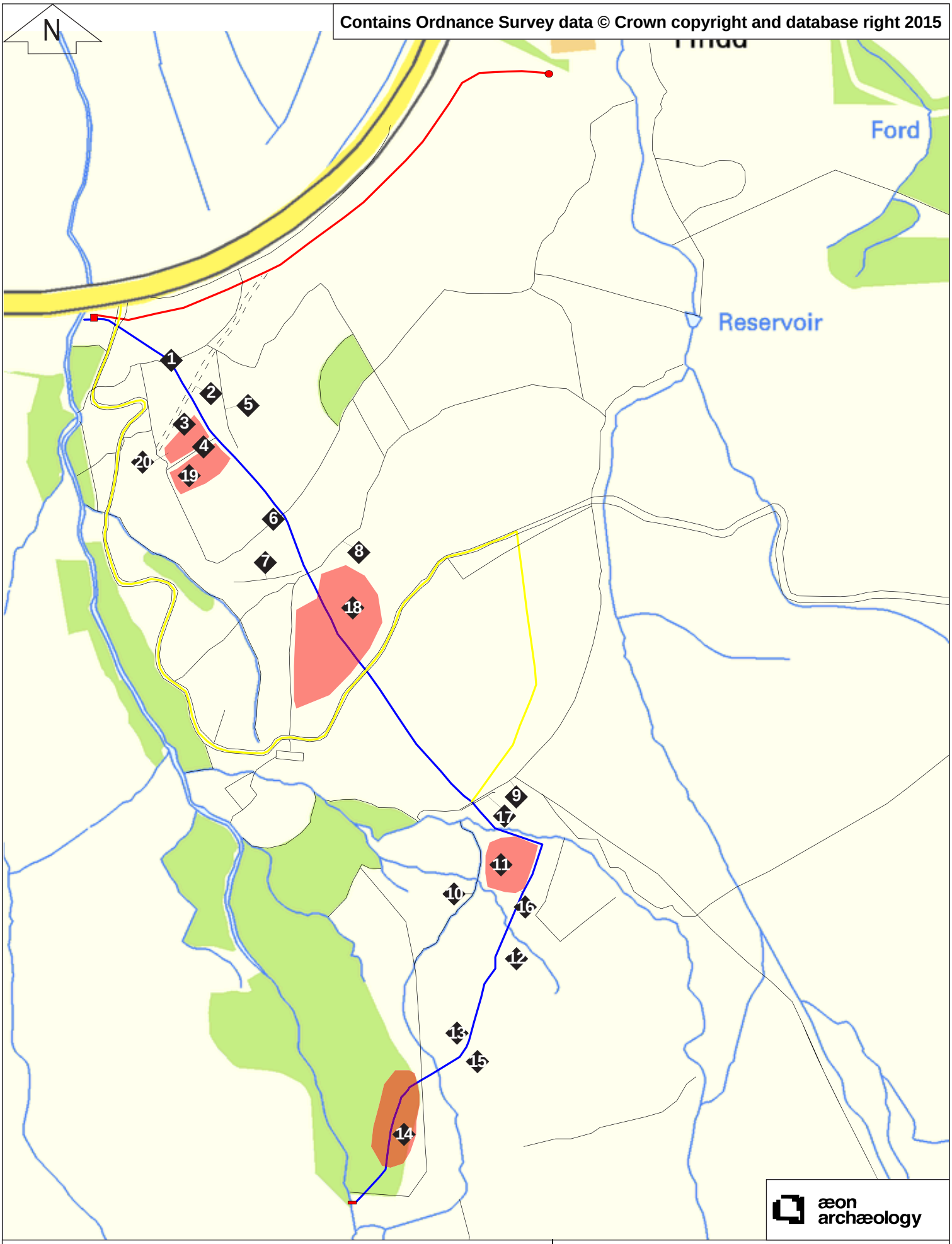

Figure 02: Location of archaeological sites identified in the archaeological assessment (black diamonds and red shaded areas) (numbers refer to the feature number) Scale 1:3,500 at A4.

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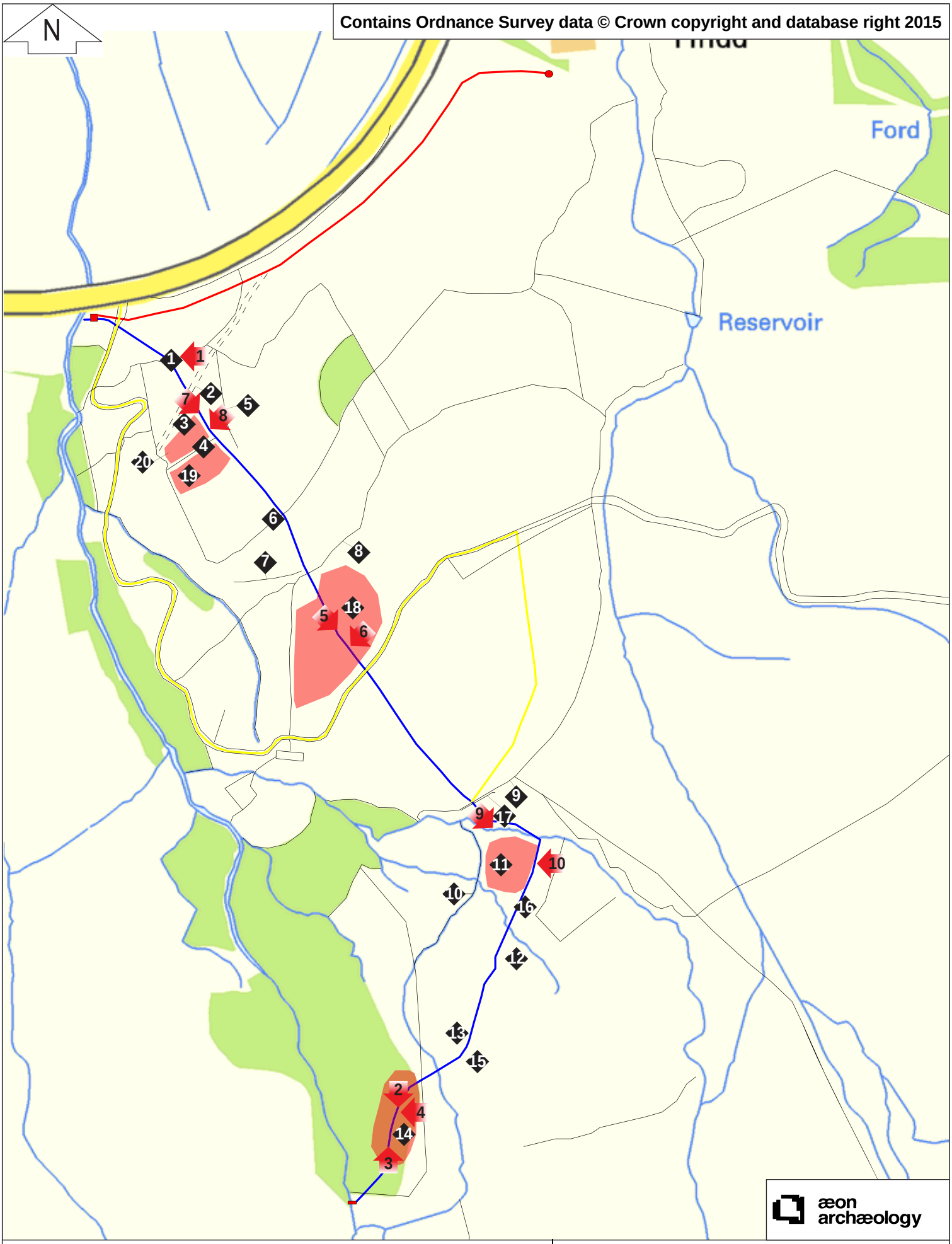

Figure 03: Location and orientation of photographs (numbered arrows refer to plate number). Scale 1:3,500 at A4.

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4.0 METHODOLOGY – ARCHAEOLOGICAL EXCAVATION

The targeted archaeological excavation was sited to cover the entire footprint of the penstock trench as it would pass through the revetment wall feature 1, as well as extending either side to allow enough space for identification, cleaning, and recording of the wall section. The trench measured approximately 2.0m in width through the wall with a metre either side.

Removal of the stone cobbles was to be undertaken by a mechanical excavator with a toothed bucket; with the limit of excavation being limited to the uppermost archaeologically significant layer other than the wall remains itself.

All identified archaeological contexts were to be excavated manually unless otherwise agreed with the SNPA Archaeologist in advance. All modern overburden and non-archaeological subsoils were to be removed down to the level of the first recognisable archaeological horizon. All archaeological contexts subsequently located were to be adequately sampled in order to define their function, date, and relationship to adjacent features.

The archaeological works were to be surveyed with respect to the nearest Ordnance Survey datum point and with reference to the Ordnance Survey National Grid. Any pits, deposits, features and structures within them were to be accurately located on a site plan prepared at most appropriate and largest scale.

A written record of the excavation and all identified features was to be completed via Aeon Archaeology pro-formas.

Any subsurface remains and the revetment wall section were to be recorded photographically, with detailed notations, measured drawings, and a measured survey if deemed necessary. The photographic record was to be maintained using a digital SLR camera (Canon 550D) set to maximum resolution (72dpi) with photographs taken in RAW format and later converted to TIFF format for long-term storage and JPEG format for presentation and inclusion in the archive.

5.0 METHODOLOGY – ARCHAEOLOGICAL WATCHING BRIEF

5.1 Watching Brief

The Chartered Institute for Archaeologists (CIfA) defines an archaeological watching brief as:

'*A formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed*.' (CIfA 2014)

The Snowdonia National Park Authority Archaeologist requested (pers. comm) that a watching brief be maintained during the excavation of the penstock trench within the vicinity of features – 11 (longhut), 12 (hut circle), 13 (longhut), 14 (boulder field), 15 (section of wall), 16 (stony spread), 17 (ditch) and 18, 19 and 20 (terraces). This entailed that an appropriately qualified archaeologist was present during all associated ground disturbance.

All soil removal was undertaken using a mechanical excavator fitted with a toothless ditching bucket except for where a large quantity of stone required removal whereby a toothed bucket was used. A photographic record was maintained throughout, using a digital SLR camera (Canon 550D) set to maximum resolution and any subsurface remains were to be recorded photographically, with detailed notations and measured drawings being undertaken if required.

In the event of archaeological discovery features were to be excavated by hand and fully recorded using Aeon Archaeology pro-formas, digital photographs, and plan and section drawings taken at a suitable scale (usually 1:20 for plan drawings and 1:10 for section drawings).

The archive produced is held at Aeon Archaeology under the project code **A0034.2**.

5.2 Data Collection from Site Records

A database of the site photographs was produced to enable active long-term curation of the photographs and easy searching. The site records were checked and cross-referenced and photographs were cross-referenced to contexts. These records were used to write the site narrative and the field drawings and survey data were used to produce an outline plan of the site.

All paper field records were scanned to provide a backup digital copy. The photographs were organised and precisely cross-referenced to the digital photographic record so that the Gwynedd Historic Environment Record (HER) can curate them in their active digital storage facility.

5.3 Artefact Methodology

All artefacts were to be collected and processed including those found within spoil tips. They would be bagged and labelled as well any preliminary identification taking place on site. After processing, all artefacts would be cleaned and examined in-house at Aeon Archaeology. If required artefacts would be sent to a relevant specialist for conservation and analysis.

The recovery policy for archaeological finds was kept under review throughout the archaeological watching brief. Any changes in recovery priorities would be made under guidance from an

appropriate specialist and agreed with the Client and Snowdonia National Park Authority Archaeologist. There was a presumption against the disposal of archaeological finds regardless of their apparent age or condition.

5.4 Environmental Samples Methodology

The sampling strategy and requirement for bulk soil samples was related to the perceived character, interpretational importance and chronological significance of the strata under investigation. This ensured that only significant features would be sampled. The aim of the sampling strategy was to recover carbonised macroscopic plant remains, small artefacts particularly knapping debris and evidence for metalworking.

Advice and guidance regarding environmental samples and their suitability for radiocarbon dating, as well as the analysis of macrofossils (charcoal and wood), pollen, animal bones and molluscs would be obtained from Oxford Archaeology if required.

5.5 Report and dissemination

A full archive including plans, photographs, written material and any other material resulting from the project was prepared. All plans, photographs and descriptions were labelled, and cross-referenced, and will be lodged within a suitable repository to be agreed with the archaeological curator within six months of the completion of the project.

A draft copy of the report has been sent to the client and upon written approval from them paper and digital copies of the report will be sent to the regional HER (x1) (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, LL57 2RT), the Snowdonia National Park Authority (SNPA) Archaeologist (x3), and the Royal Commission on the Ancient and Historic Monuments in Wales (RCAHMW) (x1). Copies of all notes, plans, and photographs arising from the watching brief will be stored at Aeon Archaeology under the project code **A0034.2** with the originals being lodged in a suitable repository to be agreed with the archaeological curator.

Any artefacts arising from the fieldwork were to be lodged with the Gwynedd Museum and Art Gallery, Bangor, Gwynedd.

6.0 HISTORY OF THE SITE

(Reproduced from Aeon Archaeology report 0034; further information including mapping and provisional phase drawings are presented in the archaeological assessment Aeon Archaeology report 0034)

The site is located within the Dyffryn Nantlle Registered Landscape of Outstanding Historic Interest (HLW (Gw) 9), designated primarily for the range and quality of its extensive relict archaeological remains, mainly dating from the prehistoric, Romano-British, and medieval periods. In addition, there are extensive post-medieval slate quarries and associated spoil tips.

There is evidence of human occupation within the Nantlle valley since the Bronze Age, and it is likely that the copper deposits at Drws y Coed, approximately 2.3km to the east of the proposed development area, acted as a catalyst for that occupation. Evidence from the Bronze Age is however mostly limited to a scatter of burial cairns (PRN 599, 138, 2780, 1429, 3345, 1829, and 600) and burnt mounds (PRN 1388, 126, and 1389) across the northern slopes of the Nantlle valley.

Physical evidence becomes more frequent in the Iron Age and Romano-British periods. Approximately 84.0m to the south of the hydro intake is a prehistoric hut circle measuring 5.0m in diameter, with an entrance on the east-north-east side. The hut circle is built on a slight platform and the dry-stone walls comprise of large unworked stones that have been built into irregular double-thickness courses that measure 1.0m in width and 0.50m in height (Coflein).

Further physical evidence of the prehistoric period has been identified higher up on the upland slopes and approximately 550.0m southeast of the hydro intake, where a hut circle settlement (NPRN: 287228) was identified by Oxford Archaeology North in 2006. The site consists of a hut circle measuring 8.0m in diameter and situated upon a raised, levelled platform on the edge of a natural plateau on the north facing slope of the Nantlle Valley. The hut circle has an entrance that is aligned due east of the centre of the circle. The dry-stone walls comprise of large unworked stones and large earthfast stones that have been built into irregular courses that measure 1.30m wide by 0.60m high. The shallow plateau below the hut has been subject to significant stone clearance and there is a wall that delineates an enclosure around its edge. The enclosure consists of double thickness dry-stone wall that comprise of medium to large unworked stones that have been built into irregular courses and measure 1.0m in width by 0.50m in height.

Approximately 570.0m to the southwest of the proposed hydro intake is a group of ten sub-rectangular stony mounds (NPRN: 287258) that cover an area of flat cleared ground on the stony hillside. These have been interpreted as possible prehistoric stone cairns, although alternative identification has been provided as medieval hut platforms. In addition, and approximately 750.0m southwest of the hydro intake, is a prehistoric field-system and settlement that is overlain by a modern west-east enclosure wall (NPRN: 287260, 287261, 287266). In the area to the north of the wall lies the corner of the field-system and a smaller sub-rectangular stock enclosure that measure 32.0m in length by 25.0m in width. The dry-stone walls and banks consist of medium sized unworked stones that have been built into irregular courses and measure 1.5m in width and 0.40m in height. In the area to the south of the wall lies two-thirds of the field system consisting of separate northwest to southeast orientated sub-rectangular fields. There is a putative funerary cairn (NPRN: 287275) and a series of

three rectangular house platforms (NPRN: 287274) that lie within one of the field plots (Oxford Archaeology North, 2006).

Numerous hut circle sites are found clinging to the northern and southern upland valley slopes between the slate quarry of Pen yr Orsedd in the west and Fron quarry in the east. A large area of the south-western slopes of Mynydd Mawr is included within the Scheduled Ancient Monument of *Hut Circles and field systems north east of Gelli Ffrydiau* (CN 179), and incorporates several clusters of hut circles with associated relict field walls enclosing paddocks. These sites constitute part of a wider relict historic landscape, in which evidence of various periods of settlement and land-use can be recognised. The group value of these early settlements is of particular importance and can be seen as being of national, if not international importance.

The extensive remains of Romano-British settlement within the Nantlle valley strongly suggest that the area was being exploited at this time for its resources. This would almost certainly have included the quarrying of slate and most likely the mining of copper ore. Undoubtedly food production both on the valley bottom and slopes would also have taken place, and would likely have played an important role in supplying the Roman fort of Segontium at Caernarfon.

The Early Medieval period is poorly represented within this part of northwest Wales and there are no known sites within 1.0km of the proposed pipeline. By the 12th and 13th centuries the kingdom of Gwynedd was divided into administrative *commotes,* administered through a network of local centres governed by a royal court or *Llys*. The township of a commote associated with a llys was known as the *maerdref*, in which the Prince's agent would reside.

The component parts of a llys included the royal hall and other buildings associated with the residence, as well as the royal demesne worked by bond tenants, and the settlements of these tenants which constituted small hamlets. One such llys was located at Baladeulyn in Nantlle, although the precise location of the llys is not known. The llys and royal lands became the property of the English King upon the conclusion of the conquest of Wales (Aeon Archaeology report 0004).

Approximately 770.0m to the southwest of the proposed hydro intake is a group of three medieval sub-rectangular house platforms (NPRN: 287274). They consist of grass-covered and stone wall retained platforms set within a field plot within a prehistoric field-system (NPRN: 287260). They each measure up to 7.0m in length by 2.5m in width and one has a small annexe that measures 5.0m long by 2.0m wide. Several similarly shaped mounds that may be clearance cairns lie to the east (NPRN: 287258). A second sub-rectangular structure believed to be a medieval long-hut (NPRN: 287272) lies further to the southwest and approximately 970.0m from the proposed hydro intake. This structure measures 6.0m in length by 3.0m in width and survives to foundation level.

Two further medieval long-huts (NPRN: 287280 and 287281) are recorded on the National Monument Record as lying approximately 620.0m and 980.0m to the east of the penstock route respectively. In addition, the Gwynedd Historic Environment Record records two long-huts (PRN: 6348) located to the south of Dyffryn Nantlle and approximately 990.0m west of the penstock route.

The proposed route of the hydro-electric scheme is depicted in detail on the first, second and third edition 25" county series Ordnance Survey maps of 1889, 1900 and 1916 respectively (figures 5, 6, and 7). All three maps depict the area much as it exists today, with the exception that the B4418 road had not been constructed by this point in time. The farms of Fridd and Ty Coch are shown on all three

maps, and the existing field boundaries are all shown. The only feature of note that is depicted is a structure, possibly a sheepfold or small cottage, towards the centre of the proposed penstock route and in close proximity to it. This structure is no longer visible and must have been demolished sometime after the production of the third edition map in 1916.

7.0 STATUTORY AND NON-STATUTORY DESIGNATIONS

The scheme lies within or in proximity to the following statutorily designated areas:

- Within the Snowdonia National Park Authority (SNPA).

- Approximately 738.0m east of the post-medieval *Ty Mawr East Slate Quarry Winding Engine House* Scheduled Ancient Monument (CN300).

- Approximately 783.0m southeast of the post-medieval *Dorothea Quarry, Pyramids, Inclines, Mill & Winding Houses, etc* Scheduled Ancient Monument (CN199).

- Approximately 887.0m southeast of the post-medieval *Cloddfa'r Lon Slate Quarry* Scheduled Ancient Monument (CN302).

8.0 ARCHAEOLOGICAL EXCAVATION – REVETMENT WALL (feature 1)

8.1 Description (figures 1-3; plate 1)

A tracked excavator with toothless ditching bucket excavated a 4.0m wide easement for the hydro penstock trench through the suspected prehistoric revetment wall (feature 1) located at NGR SH 50716 52507.

The wall measured 1.3m in height by 2.0m in width and ran from southwest to northeast. It was constructed from dry-stone bonded large sized sub-angular cobbles and boulders, and divided two fields. The wall was depicted on the first, second and third edition 25" Ordnance Survey maps of 1889, 1900 and 1916 respectively, although the use of such large stones within a revetment is often indicative of prehistoric or Roman lynchets and given the high frequency of sites from those eras within the localised landscape of Dyffryn Nantlle, it was considered a high possibility that the revetment also dated to this period.

The excavation removed all of the boulders and cobbles within the easement and excavated through a 0.1m deep mid red-brown silt-clay topsoil horizon with occasional small sub-rounded cobbles on to a reasonably firm, mid/light yellow-brown clay natural substrata. The wall revetted the natural slope and was constructed directly on to the topsoil horizon with frequent small and medium sized sub-rounded cobbles on the northern downward slope. In places the massive size of the incorporated boulders appeared to lie directly on to the natural substrata, although this was almost certainly a result of compression by the stones through the particularly thin topsoil horizon.

No clear structural element to the wall could be identified aside from a degree of sorting, with larger boulders laid on the upward slope side. Furthermore, the wall was not constructed within any foundation cut and no lenses or relict soil horizons could be identified within the wall section.

8.2 Discussion

The lack of any structural element to the revetment wall, related relict stratigraphy, or artefactual evidence means that the origin of the wall was not identified during the excavation. Indeed, it is not unusual for prehistoric walls to exhibit very little structural form however discussions with the landowner during the excavation works revealed that the wall was in fact constructed as part of a phase of field clearance by them approximately ten years ago. This explanation does not account for the depiction of the wall on the historic Ordnance Survey maps but does explain the larger boulders on the southern upward slope of the wall.

The revetment wall may still have prehistoric or Roman origins, however the characteristics that suggested this have been shown to be modern in date. Once the large boulders are removed from the wall all that is left is a structure of dry-stone bonded small and medium sized cobbles with no clear form, which is similar to all of the other field walls within the study area. Without the identification of any prehistoric or Roman settlement activity in close proximity it would therefore appear that the revetment wall is likely to be post-medieval in date.

Plate 1: East facing section of revetment wall (feature 1), from the east. Scale 1.0m.

9.0 QUANTIFICATION OF RESULTS

9.1 The Documentary Archive

The following documentary records were created during the archaeological watching brief:

Record Sheets	3
Watching brief day sheets	4
Digital photographs	20

9.2 Environmental Samples

No environmental samples were taken as part of the watching brief as no suitable archaeological deposits were encountered.

9.3 Artefacts

No artefacts were recovered during the archaeological watching brief.

10.0 RESULTS OF THE ARCHAEOLOGICAL WATCHING BRIEF

10.1 Location 14 (Boulder Field) (plates 2-4)

The archaeological watching brief was maintained while a tracked excavator with toothless ditching bucket excavated a 3.5m wide easement for the penstock trench between chainage 0-100m (NGR SH 50853 51889 – SH 50900 51979). The boulder field had been identified in the archaeological assessment as an area with good potential for stone-built round-houses belonging to the prehistoric or Roman periods.

The trench was excavated to a depth of 0.7m through a 0.5m deep deposit of medium and large sized rounded and sub-rounded glacial cobbles on to a firm mid grey clay with frequent shale and small cobble inclusions natural glacial substrata.

No archaeological deposits, structures or features were identified during the watching brief and no artefacts were recovered.

10.2 Location 18 (Flat Terrace) (plates 5 and 6)

The archaeological watching brief was maintained while a tracked excavator with toothless ditching bucket excavated a 0.6m wide penstock trench between chainage 525-600m (NGR SH 50859 52282 – SH 50818 52351). The flat terrace had been identified in the archaeological assessment as an area that appeared to have been artificially levelled and thus conducive to early habitation.

The trench was excavated to a depth of 0.7m through a 0.25m deep mid red-brown silt-clay topsoil and a >0.45m deep mid-orange silt-sand natural substrata that became increasingly shaley towards the northern and steepest end of the trench.

No archaeological deposits, structures or features were identified during the watching brief and no artefacts were recovered.

10.3 Locations 19 and 20 (Flat Terraces) (plates 7 and 8)

The archaeological watching brief was maintained while a tracked excavator with toothless ditching bucket excavated a 0.6m wide penstock trench between chainage 700-775m (NGR SH 50772 52427 – SH 50729 52483). The flat terraces had been identified in the archaeological assessment as an area that appeared to have been artificially levelled and thus conducive to early habitation.

The trench was excavated to a depth of 0.7m through a 0.25m deep mid red-brown silt-clay topsoil and a >0.45m deep mid-orange silt-sand natural substrata with frequent shale inclusions.

No archaeological deposits, structures or features were identified during the watching brief and no artefacts were recovered.

Plate 02: Location 14 (boulder field) trench, from the north. Scale 1.0m.

Plate 03: Location 14 (boulder field) trench, from the south. Scale 1.0m.

Plate 04: East facing section of location 14 (boulder field) trench, from the east. Scale 0.5m.

Plate 05: Location 18 (flat terrace) trench, from the northwest. Scale 0.5m.

Plate 06: Northeast facing section of location 18 (flat terrace) trench, from the northeast. Scale 0.5m.

Plate 07: Locations 19 and 20 (flat terraces) trench, from the northwest. Scale 0.5m.

Plate 08: Northeast facing section of locations 19 and 20 (flat terraces) trench, from the northeast. Scale 0.5m.

10.4 Locations 16 (Stony Spread) (plates 9 and 10)

The archaeological watching brief was maintained while a tracked excavator with toothless ditching bucket excavated a 1.5m wide penstock trench between chainage 100-385m (NGR SH 50900 51979 – SH 50939 52183). The stony spread had been identified in the archaeological assessment as an area in close proximity to a suspected medieval long-hut (feature 11) and as such the potential for further associated structural remains was considered reasonably high.

The trench was excavated to a depth of 0.7m through a 0.2m deep dark black-grey peatey silt-clay topsoil and a >0.5m deep mixed sub-angular large cobbles and light grey clay natural substrata.

No archaeological deposits, structures or features were identified during the watching brief and no artefacts were recovered.

Plate 09: Location 16 (stony spread) trench, from the northwest. Scale 0.5m.

Plate 10: East facing section of location 16 (stony spread) trench, from the east. Scale 0.5m.

11.0 CONCLUSION AND RECOMMENDATIONS

The excavation of revetment wall (feature 1) was inconclusive in verifying the age of the wall; however discussions with the landowner did show that the large boulders that had identified the wall as being possibly prehistoric or Roman in date were in fact put there by the landowner some ten years previously. The wall is however shown on the historic ordnance survey maps suggesting that the larger boulders had been placed up against a boundary already in existence. The excavated slot across the wall did not provide any additional dating evidence and as such all that can be stated is that the wall is of at least post-medieval date. This result is by no means dismissive of an early origin for the revetment wall, perhaps in the medieval period or prehistoric era, but merely showed there was a lack of structural or artefactual evidence to provide a conclusive origin for the walls construction.

The archaeological watching brief during the excavation of the penstock trench and easement in the boulder field (feature 14), the stony spread (feature 16), and the flat terraces (features 18, 19 and 20) did not produce any archaeological remains or artefacts. In relation to the boulder field (feature 14) and stony spread (feature 16) the underlying peat rich natural would suggest that the area was in fact very marshy, as it still is today, and thus not conducive to early habitation. That said, the archaeological assessment did identify several structures thought to be possibly prehistoric round houses or medieval long huts within the vicinity of this part of the site, although all of these features were very fragmentary and their identity was by no means certain.

The watching brief was maintained during the excavation of the penstock trench in the flat terraced areas (features 18, 19 and 20) because the archaeological assessment identified them as being unusually flat when compared with the surrounding topography. This suggested that they had been artificially levelled, perhaps as terraces for early habitation. However no archaeological remains or artefacts were uncovered in these areas suggesting that they were either naturally occurring or perhaps the result of post-medieval movement between the valley bottom farmsteads and the upland slopes. Indeed, terraces 19 and 20 are relatively small parcels of land in between a very steep slope which would have almost certainly been not conducive to habitation.

The results of the archaeological excavation and watching brief can be seen as somewhat disappointing in the lack of any archaeological remains or artefacts, and indeed its contribution to the regional research imperative and the localised historic narrative. However, the purpose of the archaeological assessment was to identify the archaeological remains within the localised environment and to mitigate for them primarily through avoidance. This was achieved through the careful rerouting of the penstock route to avoid these features.

12.0 SOURCES

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