



aeon archaeology

**Gelli Ffrydiau Hydro-Electric Scheme 1,
Nantlle, Gwynedd.
September 2013**

Archaeological Watching Brief
Project Code: A0005.2
Report no. 0025



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Archaeological Watching Brief
Aeon Archaeology
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Project Code: A0005.2

Date: 30/09/2013

Client: Greenearth Hydro

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1.0 Non Technical Summary

1.0 NON-TECHNICAL SUMMARY

The archaeological trial trench at Gelli Ffrydiau confirmed the presence of buried archaeological remains in the form of a revetment wall/ lynchet created by the deliberate field clearance and deposition of stones on the downward slope of the trackway (feature 4), thus creating the revetment. There were no traces of the terrace cut for the trackway within the trial trench and it may have eroded away or simply not existed at this point. The presence of the revetment wall/ lynchet does however confirm that buried remains associated with the hut circle SAM (Cn179) continue outside of the designated SAM polygon as far as the eastern tributary of the Afon Drws y Coed.

A similar conclusion can be drawn from the discovery of a suspected relict wall and post-hole during the watching brief in the northernmost field. There was some doubt to the validity of these features due to the high concentrations of naturally occurring stone within the topsoil and substrata horizons. However, these features are considered to be more likely than not archaeological in origin, and most likely represent a continuation of the relict field systems of the SAM (Cn179) westward outside of the existing SAM polygon.

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2.0 Introduction and Acknowledgements

2.0 INTRODUCTION AND AKNOWLEDGEMENTS

Aeon Archaeology was commissioned by Greenearth Hydro to carry out an archaeological watching brief as a condition of a planning application (ref: **NP3/22/29B**) during the construction of a new hydro-electric pipeline. The scheme included a power house located at the farm of Gelli Ffrydiau (NGR **SH 52257 53550**) and a 504.0m long penstock (buried pipe), running northeast from the farm to an intake weir located on a tributary of the Afon Drws-y-Coed (NGR **SH 52467 53964**) (Figure.1).

The watching brief was maintained during the excavation of the pipe trench within the northernmost field which lies in close proximity to the Roman *Hut Circles and field systems north east of Gelli Ffrydiau* Scheduled Ancient Monument (CN179; PRN 2791).

In addition, an archaeological test pit was excavated across the projected path of a probable Roman relict revetment wall and trackway (feature 4; PRN 36395) in the southernmost field (NGR **SH 52305 53723**), which was identified in the archaeological desk-based assessment (Aeon report. 0004).

The scheme consisted of a 180mm (external diameter) HDPE black plastic pipe buried to a depth of 500mm. Approximately 30.0m length of pipe was required to run through the Scheduled Ancient Monument polygon of the *Hut Circles and field systems north east of Gelli Ffrydiau* (Cn179) and it had been agreed with the Snowdonia National Park Authority (SNPA) archaeologist and Cadw that this section of pipe would be run overground. The pipe did not require any excavation or anchoring at this point and was disguised by covering it with a small amount of soil and hessian fabric impregnated with grass seed.

An archaeological desk-based assessment was carried out by Aeon Archaeology in January 2013 (Aeon report 0004) that identified twelve sites of archaeological interest within close proximity to the pipeline corridor, as detailed below. These sites are depicted on figure 1.

Table 1. Archaeological features

Number	Name	PRN	NGR
1	Relict field boundary enclosure SAM CN179	36392	SH 52436 53982 – SH 52314 54008
2	Possible hut circle	36393	SH 52351 53844
3	Relict field boundary enclosure SAM CN179	36394	SH 52330 53893 – SH 52323 53814
4	Relict revetment wall and trackway SAM CN179	36395	SH 52305 53726 – SH 52246 53734
5	Relict field boundary wall SAM CN179	36396	SH 52194 53748 – SH 52261 53721
6	Quarry scoop	36397	SH 52291 53704
7	Weir	36398	SH 52295 53635
8	Former field boundary wall	36399	SH 52255 53631 – SH 52210 53612
9	Enclosure	36400	SH 52266 53637
10	Relict field boundary	36401	SH 52351 53856
11	Drainage gulley SAM CN179	36402	SH 52355 53885
12	Field boundary wall	36403	SH 52321 53811

The following people and organisations are thanked for their help and contribution to the project. Liam Brown of Greenerth Hydro; Geraint Ellis of Gelli Ffrydiau; Ian Halfpenny of Cadw; and John G. Roberts of the Snowdonia National Park Authority (SNPA).

Figure 1: Location of hydro-electric scheme, trial trench and intensive watching brief area. Scale 1:2,500 at A4.(Sites identified during the desk based assessment shown in blue; sites identified from aerial photographs shown in green; penstock route shown in red; SAM polygons outlined pink).



3.0 Project Aims

3.0 PROJECT AIMS

The aim of the works was to monitor and where relevant characterise the known, or potential, archaeological remains uncovered during the excavation of the archaeological test pit and during the watching brief of the new pipeline trench.

A design brief was not produced by the SNPA Archaeologist for the archaeological watching brief and test trench; however the following was made a condition of planning permission:

‘Prior to any work commencing (including any ground disturbing works or site 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’ (Roberts, J.G. 13th May 2013)

The broad aims of the archaeological watching brief were:

- 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 the site works.
- To assess the degree of archaeological survival of buried deposits of archaeological significance.

The detailed objectives of the archaeological watching brief were determined to be:

- 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 Project Design (appendix II) was written by Aeon Archaeology and submitted to Greenearth Hydro, the SNPA, and Cadw in June 2013. This formed the basis of a method statement submitted for the work. The archaeological watching brief and test trench was undertaken in accordance with this Project Design.

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 *Standard and Guidance for an archaeological watching brief* (1994 rev. 2001 and 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 and the Royal Commission on the Ancient and Historic Monuments in Wales (RCAHMW) 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.



4.0 Methodology

4.0 METHODOLOGY

4.1 Watching Brief

(Reproduced from IFA. 2001. *Institute for Archaeologists 1994 rev. 2001 and 2008 Standard and Guidance for an archaeological watching brief*)

The definition of an archaeological watching brief is 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. The programme will result in the preparation of a report and ordered archive.

This definition and standard do not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains *in situ*.

An archaeological watching brief is divided into four categories according to the IFA. 2001. *Institute for Archaeologists 2001 Standard and Guidance for an archaeological watching brief*:

- comprehensive (present during all ground disturbance)
- intensive (present during sensitive ground disturbance)
- intermittent (viewing the trenches after machining)
- partial (as and when seems appropriate).

An intensive watching brief was maintained during the excavation of the new hydro-electric pipe trench in the northernmost field.

4.2 Hand excavated trial trench

A hand excavated trial trench measuring approximately 0.7m in width and 6.0m in length was excavated by hand across the projected path of the relict revetment wall and trackway (feature 4 Aeon Archaeology report 0004). The trench was to be excavated to a depth whereby archaeological remains were encountered or if none were found, until the natural glacial substrata was reached. If the proposed length and width of the trial trench was considered not suitable to fully characterise the nature of the archaeological remains then the trench was to be extended by hand until a suitable amount of the archaeological remains were exposed.

The trench was excavated by hand using mattocks, shovels, hoes and trowels and the removed spoil was checked for any archaeological artefacts. The trench and all exposed archaeological remains were to be cleaned by hand and fully recorded with scale drawings, descriptions, and photographs using a Canon 550D SLR set to maximum resolution.

4.3 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.

4.4 Artefact Methodology

All artefacts were to be collected and processed including those found within spoil tips. Finds numbers would be attributed and 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.

4.5 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.

4.6 Storage and curation

All artefacts recovered would be the property of the landowner but it is strongly recommended that these are donated to a museum for long-term storage. Acceptance of this report by the client is taken as agreement to this transfer of ownership to a museum; to be confirmed with the Gwynedd HER and GAPS.

4.7 Report and dissemination

This report will be placed in the public domain by submitting it to the Gwynedd HER within 6 months of completion unless the client specifically requests the report to remain confidential for a longer period. The report will also be archived with the Royal Commission on the Ancient and Historical Monuments in Wales (RCAHMW).



5.0 History of the site

5.0 HISTORY OF THE SITE

(Reproduced from Aeon Archaeology report 0004)

5.1 Prehistoric and Roman Period

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 2.2km 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 valley.

Physical evidence becomes more frequent in the Iron Age and Romano-British periods.

Approximately 350.0m to the east of the penstock route lies the *Small Fort near Nantlle* prehistoric hillfort Scheduled Ancient Monument (CN178). The monument is situated on a rocky knoll on the western end of a small ridge and is constructed from large stone slabs laid flat and forming an irregular heptagon measuring approximately 22.0m in diameter. An entrance into the fort is located towards the centre of the western side and is now in a ruinous state.

Numerous hut circle sites are found clinging to the upland 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 and in close proximity to the study area 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 proposed penstock route runs through approximately 30.0m of the south-eastern limit of the Scheduled Ancient Monument area belonging to the *Hut Circles and field systems north east of Gelli Ffrydiau* (CN 179). This scheduled area comprises a land take of approximately 0.53km² and includes the remains of at least twelve separate hut circle settlements belonging primarily to the Romano-British period.

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.

5.2 Early Medieval and Medieval Periods

The Early Medieval period is poorly represented within the Nantlle valley. However, 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 (Govannon report 277). The llys and royal lands became the property of the English King upon the conclusion of the conquest of Wales.

The nearest surviving remains of the Medieval period to the proposed development site includes a possible long hut (PRN 6495) at SH53705350; a platform house (PRN 1412) at SH53975461; and a Medieval field system (PRN 7986) at SH52255479.

5.3 Post Medieval Period

The property of Gelli Ffrydiau is first mentioned in the will of James David, yeoman of Gelli Ffrydiau, dated 1712 (Bangor probate records 1576-1858), in which he bequeathed the property to his wife Angharad Humphries. In addition to this he bequeathed sums of money to his five children and two grandchildren, the former of which included Angharad James. She was noted as being highly educated and was a celebrated early female Welsh poet. Several of her original manuscripts survive in the National Library of Wales and they include an elegy to her son who had died when sixteen years old and another to her husband in the form of an imaginary dialogue. She was also fluent in Latin and learned in the law of the land. She played the harp and according to local tradition would gather her family and servants together to dance before retiring each night. Angharad James moved to Dolwyddelan when she was twenty years old after marrying William Prichard, a man far older than herself, who farmed Cwm Penamnen. She continued to farm after she was widowed until her death in 1749.

Part of the land belonging to Gelli Ffrydiau is Rhos Pawl, which is located on the southern side of the valley. Local tradition has it that a lad from Gelli Farm fell in love with a girl from Talmynedd Uchaf, but the girl's father did not approve of the match. The lad pleaded with the father for his daughter's hand in marriage and in the end he agreed on one condition, that the lad would spend a freezing night naked on top of Rhos Pawl, remaining there until morning. The father expected that the lad would give up on the pursuit of his daughter, but instead he accepted the challenge. The lad took a post with him, as well as an axe and mallet and repeatedly hammered the post into the ground through the night to keep his body warm, while the girl kept a lantern burning in her window throughout the night. He succeeded in keeping his body temperature high and thus presented himself to the father and his daughter in the morning, thus winning her hand in marriage (www.nantlle.com).

The property of Gelli Ffrydiau is next mentioned in a sale catalogue dated the 28th June 1808, when it was put up for sale by auction along with the tenant Robert Davies, a sixty-five year old farmer. The landowner at the time is not mentioned and it is not clear who bought the property.

The Llandwrog (upper) parish tithe map of 1849 depicts the proposed development area rather similarly to how it exists today. The site is depicted as a long strip of land lying to the north of the farm of Gelli Ffrydiau, and flanked to the east and the west by tributaries of the Afon Drws-y-Coed. The land is shown as being divided into two large fields (2151 and 2152) with common land north of the *fridd* wall. The lower of the two fields (2151) is shown as one large field, whereas today the field is divided in two by a north-south field wall. Two smaller fields (2149 and 2150), both of which are in existence today, are depicted either side of the B4418.

Table 2. The tithe apportionment of 1849

Plot	Landowner	Tenant	Plot Name	A/R/P
2149	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Buarth (pasture)	10/3/3
2150	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Cae'r ardd goch (meadow)	4/1/30
2151	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Cae'r allt (pasture)	18/1/4
2152	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Nant (pasture)	32/1/34

As can be seen from the 1849 tithe apportionment (table 1), the proposed development site was owned by William Lewis Hughes, Lord Dinorben of the Kinnel Hall estate in Denbighshire. He inherited the estate from his father Edward Hughes upon his death in 1815. Edward Hughes had made the family money after marrying Mary Lewis, the daughter of his employer, the Rector of Trefdraeth in Anglesey. She had inherited on the death of her uncle the house of Llysduelas in Anglesey, as well as a 'baron hill' nearby. This hill later became known as the Mynydd Parys (Parys Mountain) copper mine and jointly earned Edward Hughes and Sir Nicholas Baylys a fortune through the demand for copper. Through this Edward Hughes built up a prodigious Estate, the jewel of which was the purchase of Kinnel in 1786.

William Lewis Hughes was made Baron Dinorben of Kinnel in 1831, as well as being MP for Wallingford, Aide de Camp to Queen Victoria, Colonel of the Anglesey Militia, and a champion of the poor, founding a free school for local girls in the grounds of Kinnel Hall in 1830. He died in 1852 and was succeeded by his only surviving son William Lewis Hughes, second Lord Dinorben. He however was invalided and unmarried, and died with no children only eight months after succeeding his father thus leaving the title extinct (www.KinnelEstate.co.uk).

The property of Gelli Ffrydiau is mentioned in the Welsh census of 1841 when the farm was tenanted by Catherine Prichard recorded as an eighty year old farmer. Catherine would almost certainly have been a descendant of the marriage between Angharad James and William Prichard in the previous century or through her marriage into the Prichard family. She is recorded as living with her son William (aged fifty) and daughter Mary (aged thirty-five). The property was also home at this time to six agricultural labourers, one shepherd, and one house servant. By the time of the tithe apportionment of 1849 the primary tenant is Catherine Davies and it can only be assumed that Catherine Prichard had remarried or changed her name at the ripe old age of eighty eight. By the time of the Welsh census of 1851 the farm of Gelli Ffrydiau was tenanted by Mary Davis, presumably the former Mary Prichard, daughter of Catherine Prichard Davies.

The tithe apportionment of 1849 names the southernmost field (2149) as *buarth* or playground. This suggests that the field was being utilised by the local school *Ysgol Baladeulyn* located approximately 500.0m to the west. The names of the remaining fields all relate to the terrain of the site.

By the production of the first edition county series Ordnance Survey map in 1889 the proposed development site is depicted more like it exists today. The first large field to the north of the farm had been subdivided by a north-south field wall with a sheepfold constructed in its north-western corner. Moreover, the weir (feature 7, see section 5.6) had been built across the stream, which by way of a sluice and leat fed water to an overshot wheel for the churning of butter and the threshing of gorse (pers comm. Geraint Ellis, landowner). By this point the current farm house had been built to the south of the original Gelli Ffrydiau house. This building does not appear to be depicted on the 1849 tithe map and it is probable that it was constructed sometime in the mid to late 19th century. The original farmhouse became dilapidated and was demolished in 2005.

The second and third edition county series Ordnance Survey maps of 1900 and 1915 respectively, depict the study area the same as the first edition map, and there appears to have been little development of the farm between this time.



6.0 Quantification of results

6.0 QUANTIFICATION OF RESULTS

6.1 The Documentary Archive

The following documentary records were created during the archaeological watching brief and hand excavated trial trench.

Context sheets	9
Watching brief day sheets	1
Drawings	3
Digital photographs	34

6.2 Environmental Samples

No environmental samples were taken as part of the watching brief or hand excavated trial trench as no suitable archaeological deposits were encountered.

6.3 Artefacts

No artefacts were recovered during the archaeological watching brief or hand-excavated trial trench.



7.0 Results of the hand-excavated trial trench and archaeological watching brief

7.0 RESULTS OF THE HAND-EXCAVATED TRIAL TRENCH AND ARCHAEOLOGICAL WATCHING BRIEF

A hand-excavated trial trench was placed across the projected route of the Romano-British trackway and revetment wall (feature 4) which had been identified in the desk-based assessment report (Aeon report. 0004). In addition an intensive watching brief was maintained during the excavation of the new pipe trench in the northernmost field (figure 1).

The location and orientation of photographs are shown on figure 5. Where relevant context numbers have been provided in brackets, the details of which are presented in appendix I.

7.1 Hand excavated trial trench

Trial Pit 1 (9th August 2013)

An archaeological trial trench measuring 0.7m in width by 6.0m in length and orientated north to south, was excavated by hand at the location of the proposed hydro-electric pipe trench and to the immediate east of a suspected Romano-British trackway and revetment wall (figure 1; plate 1) (NGR SH 52305 53723 – SH 52307 53731).

The trench was excavated through a 0.25m deep moderately soft dark grey-brown clay-silt topsoil layer (1001) straight on to the natural glacial substrata which comprised a firm light brown-orange clay (1002). Due to the thin and poor soils associated with upland areas and the steep mountain slopes, a subsoil layer had not developed at this location.

Located towards the southern half of the trench a stony layer (1003) was encountered which comprised a 0.25m deep deposit of small and medium sized angular cobbles (figure 2 and 3; plate 2 and 3). The stony deposit was cleaned and recorded, and then a 0.4m wide sondage orientated north to south was placed across the western trench baulk. This ascertained the depth of the deposit as well as confirming that the stones were not structural in form, but rather a deliberate deposition on the downward slope of the suspected trackway.

No evidence could be found for the existence of the suspected trackway (feature 4) and it is probable that it had either eroded away or that the terrace cut had become so slight at this point that it was not visible within the trial trench. The stony deposit (1003) however indicated that field clearance had taken place, with the deposition of stones immediately south and down-slope of the trackway terrace creating a deliberate lynchet and reinforcing the southern edge of the trackway.

There were no artefacts recovered from any of the deposits within the trench and no suitable bulk samples were identified for further analysis. However, the discovery of the remains of the relict revetment wall/ lynchet, which is clearly visible on the surface as it runs northwest to the entrance to the hut circle settlement SAM (Cn179), confirms the survival of remains associated with the SAM as far east as the stream. Moreover, the trial trench appears to confirm that field clearance had taken place on this part of the steep mountain slopes and that one of the original access routes to the hut circle settlement was by this route, perhaps crossing the stream to the immediate east.

7.2 Archaeological Watching Brief

23rd August 2013

An intensive watching brief was maintained during the excavation of the new hydro-electric pipe trench within the northernmost field (figure 1; plate 4). The trench ran southwest from a new intake weir located at NGR SH 52467 53964 to a field boundary marking the southern limit of the field at NGR SH 52343 53802. The trench measured approximately 1.0m in width and varied in depth from approximately 0.5m to 1.0m.

The trench was excavated in spits using a tracked excavator with toothless bucket, with the route of the trench having been pre-agreed with Cadw and the SNPA archaeologist to avoid all archaeological features identified in the archaeological desk-based assessment (Aeon report.0004). The trench was excavated through a 0.25m deep moderately soft dark grey-brown clay-silt topsoil (2001) and partially through the glacial substrata which consisted of a firm light brown-grey clay (2002) of >1.0m in depth.

The only archaeological features observed and recorded during the watching brief were a suspected wall (2003; PRN 38197) and a possible post-hole [2004] (PRN 38198) located at NGR SH 52432 53954 (figures 1 and 4; plate 5). The possible wall consisted of a 0.3m deep and 1.2m wide deposit of loose small, medium and large sized angular cobbles observed within the pipe trench section. The identification of this feature was made particularly difficult by a high frequency of naturally occurring angular stones within both the topsoil and glacial substrata horizons and there is the possibility that this was a naturally occurring feature.

The suspected wall was not clearly discernible in the opposing (northwest facing) trench section, although it is unclear whether this is because the wall had terminated by this point or simply that it had been damaged by flood waters and erosion in proximity to the tributary of the Afon Drws y Coed.

To the immediate northeast of the suspected wall (2003) a possible post-hole [2004] was also observed in section. This consisted of a cut measuring 0.35m in width by 0.4m in depth with steep and slightly concaved sides and a flat base. The post-hole appeared to be partially filled by a moderately soft dark-brown clay-silt (2005) and then completely filled and overlain by what may be a demolition spread (2006) from wall (2003), that consisted of small and medium sized angular cobbles. Identification of the suspected post-hole was also made difficult by the high concentration of naturally occurring stone and there is a possibility that this feature may in fact be a natural stone hole.

There were no artefacts recovered from either the suspected wall (2003) or post-hole [2004] and when the fill (2005) of the post-hole was excavated it was found to occupy a small slither of the feature which had almost been entirely removed by the machining of the trench (plate 6).



Plate 01: Relict revetment wall and trackway (feature 4), from the east. Scale 1.0m.

Figure 2: Plan of trial trench 1 showing stony spread (1003).

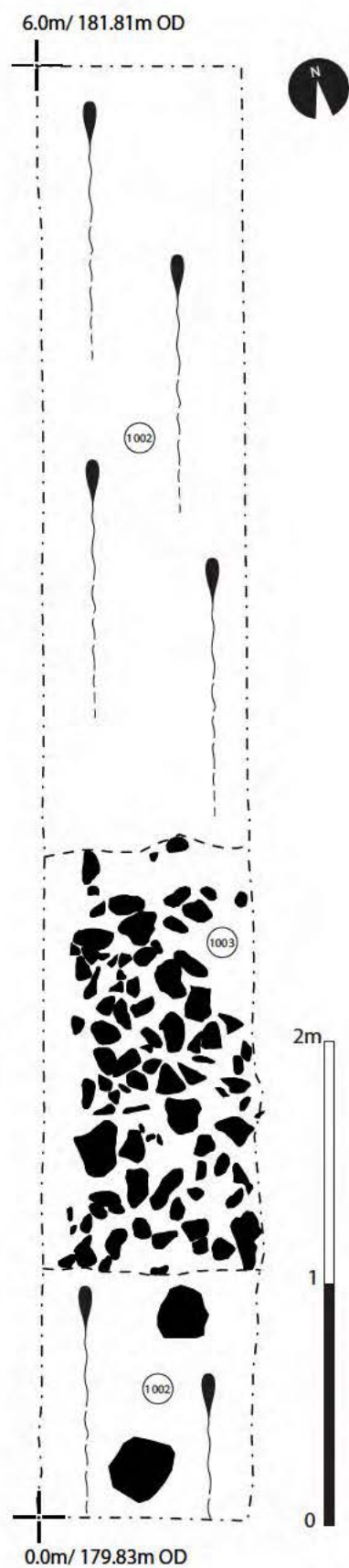


Plate 2: Trial trench 1 showing stony spread (1003), from the south. Scale 0.5m.

Figure 3: East facing section of trial trench 1 showing stony spread (1003).

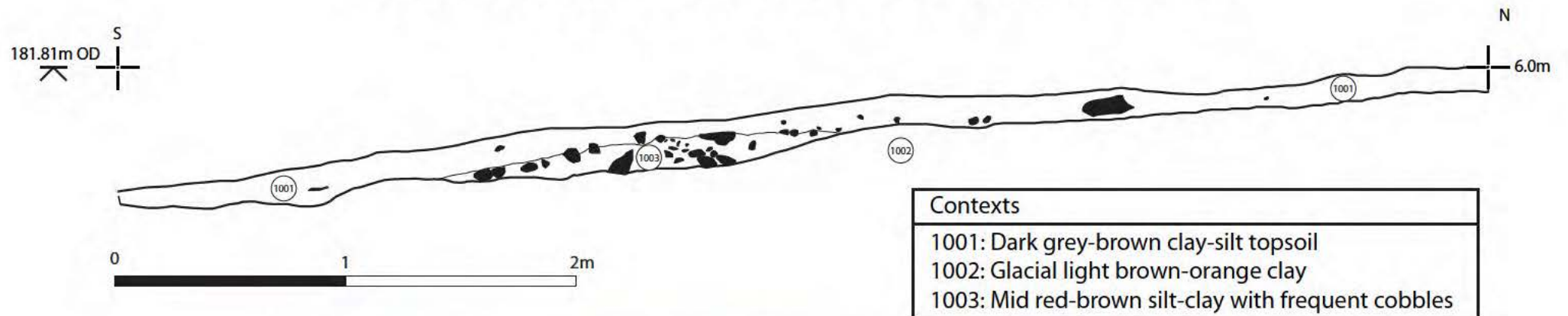


Plate 3: Trial trench 1 showing stony spread (1003), from the east. Scale 1.0m.



Plate 04: New hydro-electric pipeline trench, from the northeast.

Figure 4: Southeast facing section of Hydro-electric trench showing possible wall (2003) and post-hole [2004].

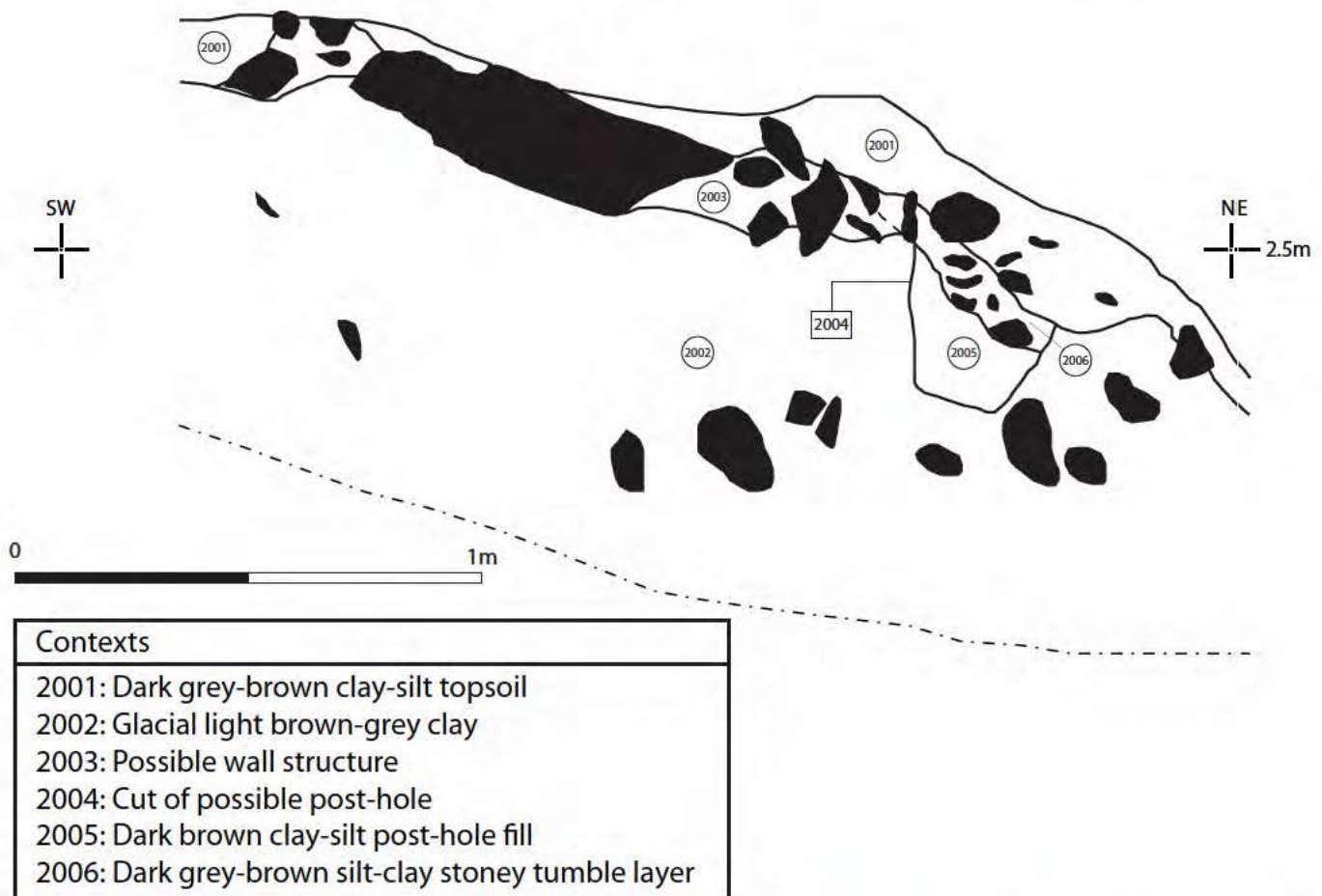


Plate 5: Southeast facing section of Hydro-electric trench showing possible wall (2003) and post-hole [2004]. Scale 1.0m.

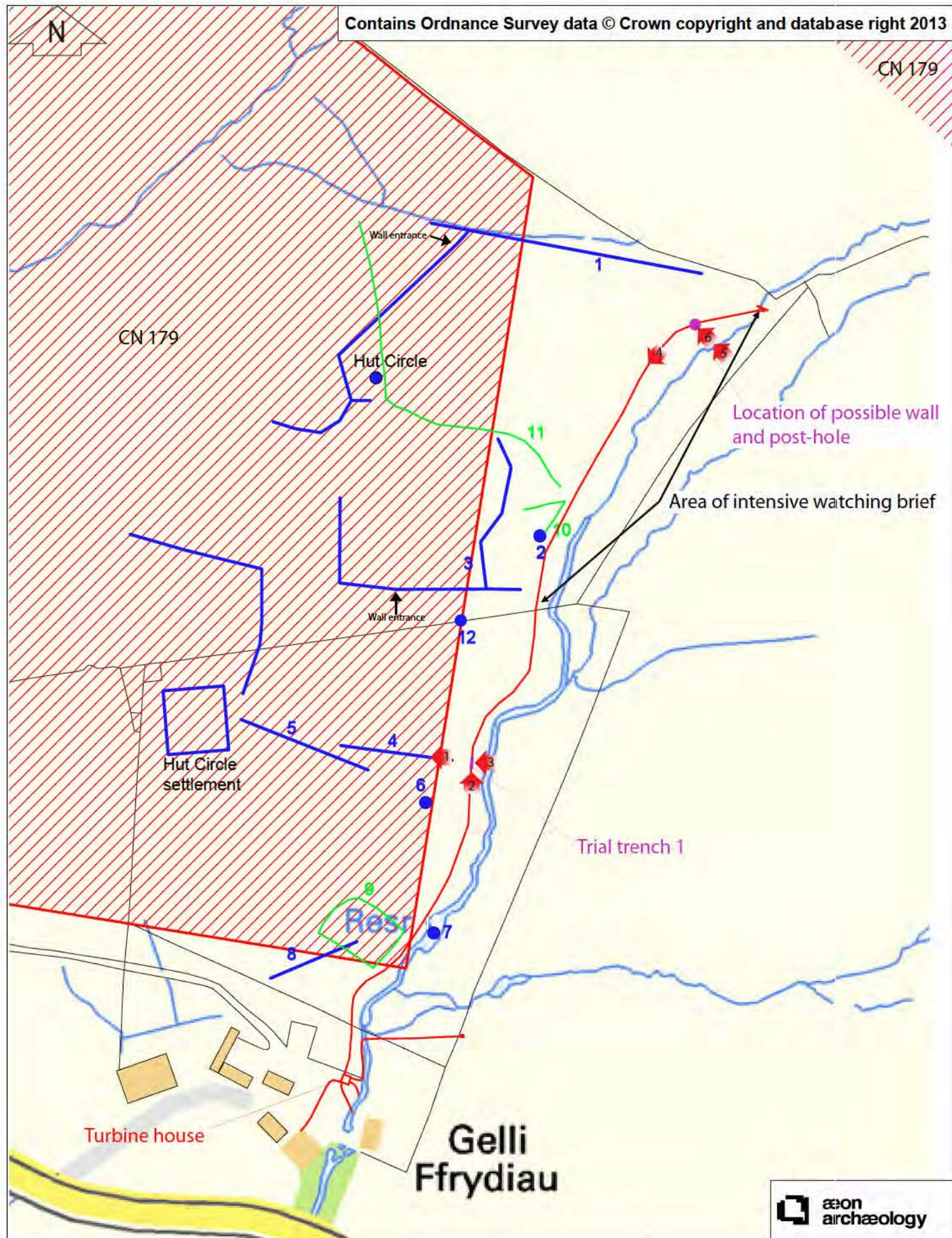


Figure 5: Location and orientation of photographs. Scale 1:2,500 at A4.
(Numbered arrows refer to plate number)



Plate 06: Possible post-hole [2004] post excavation, from the southeast. Scale 0.5m.



8.0 Conclusion and recommendations

8.0 CONCLUSION AND RECOMMENDATIONS

The archaeological trial trench at Gelli Ffrydiau confirmed the presence of buried archaeological remains in the form of a revetment wall/ lynchet created by the deliberate field clearance and deposition of stones on the downward slope of the trackway (feature 4), thus creating the revetment. There were no traces of the terrace cut for the trackway within the trial trench and it may have eroded away or simply not existed at this point. The presence of the revetment wall/ lynchet does however confirm that buried remains associated with the hut circle SAM (Cn179) continue outside of the designated SAM polygon as far as the eastern tributary of the Afon Drws y Coed.

A similar conclusion can be drawn from the discovery of a suspected relict wall and post-hole during the watching brief in the northernmost field. There was some doubt to the validity of these features due to the high concentrations of naturally occurring stone within the topsoil and substrata horizons. However, these features are considered to be more likely than not archaeological in origin, and most likely represent a continuation of the relict field systems of the SAM (Cn179) westward outside of the existing SAM polygon.

The hut circle settlement and relict field systems at Gelli Ffrydiau have not been included within a detailed survey and it is acknowledged that associated remains clearly continue outside of the designated area. It is therefore clear that the entire site would benefit from such a survey and it is recommended that any further works within the area are subject to a similar form of archaeological mitigation.



9.0 Sources

9.0 SOURCES

OS Maps

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Appendix I: Details of recorded contexts

APPENDIX I – DETAILS OF RECORDED CONTEXTS

Context Number	Form	Description	PRN
1001	Topsoil – trench 1	0.25m in depth moderately soft dark grey-brown clay-silt with occasional small angular pebble inclusions.	None.
1002	Glacial substrata – trench 1	Unknown depth firm light brown-orange clay with very infrequent large rounded cobble inclusions.	None.
1003	Stony deposit – trench 1	0.25m in depth small and medium sized angular cobbles with occasional moderately loose mid red-brown silt-clay infill.	36395
2001	Topsoil – Watching Brief	0.25m in depth moderately soft dark grey-brown clay-silt with fairly frequent small, medium and large sub-angular cobble inclusions.	None.
2002	Glacial substrata – Watching Brief	Unknown depth firm light brown-grey clay with infrequent small angular cobble inclusions.	None.
2003	Stony deposit (wall) – Watching Brief	0.3m in depth small, medium and large angular cobbles with occasional firm dark grey-brown silt-clay infill.	38197
2004	Post-hole – Watching Brief	A 0.35m wide and 0.4m deep cut with steep slightly concaved sides and a flat base. Filled by (2005) and (2006).	38198
2005	Primary fill of Post-Hole [2004] – Watching Brief	0.4m depth moderately soft dark-brown clay-silt fill.	38198
2006	Secondary fill of Post-Hole [2004] and demolition spread from wall (2003) – Watching Brief	0.1m depth moderately loose grey-brown silt-clay with fairly frequent small and medium sized angular cobbles.	38198



Appendix II: Project design for archaeological watching brief

PROJECT DESIGN FOR ARCHAEOLOGICAL WATCHING BRIEF AND HAND EXCAVATED TRIAL TRENCH

PROJECT CODE: A0005

SITE: Gelli Ffrydlau (scheme 1), Nantlle, Gwynedd

NGR: From 252467/ 353964 to 252257/ 53550

PLANNING REF: NP3/22/29B

DATE: 21st March 2013

PREPARED FOR: Greenearth Hydro

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1. INTRODUCTION

Aeon Archaeology has been asked by Greenearth Hydro to provide a cost and project design for carrying out an archaeological watching brief and hand excavated trial trench to fulfil the conditions (condition 5) of a planning application (ref: NP3/22/29B) for a proposed micro hydro-electric scheme. The proposed scheme is to include a power house located at the farm of Gelli Ffrydiau (NGR **SH 52257 53550**) and a 504.0m long penstock (buried pipe), running northeast from the farm to an intake weir located on a tributary of the Afon Drws-y-Coed (NGR **SH 52467 53964**).

The pipe will be made from 180mm (external diameter) HDPE black plastic buried to a depth of 500mm where possible. Approximately 30.0m length of pipe will be required to run through the Scheduled Ancient Monument polygon of the *Hut Circles and field systems north east of Gelli Ffrydiau* (Cn179) and it had been agreed with the Snowdonia National Park Authority (SNPA) archaeologist and Cadw that this section of pipe will be run overground. The pipe will not require any excavation or anchoring and the pipe will be disguised by covering it with a small amount of soil and hessian fabric impregnated with grass seed.

A mitigation brief has not been prepared for this work by Cadw or the SNPA archaeologist, however after consultation on site it was agreed that an intensive watching brief would be maintained during groundworks in the most northern field. Furthermore, it was agreed that a hand excavated trial trench would be placed across the projected route of the relict revetment wall and trackway SAM (feature 4) in proximity to the proposed pipe route.

It is recommended that the content of this design be approved by the Cadw and the SNPA archaeologist prior to the commencement of works.

Reference will be made to the guidelines specified in Standard and Guidance for Archaeological Watching Brief (Institute for Archaeologists, 1994, rev. 2001 and 2008) and IFA Standard and Guidance for Archaeological Evaluation (Institute of Field Archaeologists, 1994, rev. 2001 & 2008).

2. STATUTORY AND NON-STATUTORY DESIGNATIONS

The proposed development area was included within the Caernarfon-Nantlle Historic Landscape Characterisation report by the Gwynedd Archaeological Trust (report 402) and an archaeological desk-based assessment was undertaken of the proposed scheme by Aeon Archaeology in February 2013 (report 0004). The site lies within or in close proximity to the following areas/ sites:

- (i) Within the Snowdonia National Park Authority (SNPA).
- (ii) Listed within the Register of Landscapes of Outstanding Historic Interest in Wales (ICOMOS UK) *Dyffryn Nantlle* Historic Landscape Area (HLW(Gw)9), specifically within the *Mynydd Cilgwyn- Moel Tryfan- Moel Smytho* Historic Landscape Character Area (HLCA 14).
- (iii) Partially within and in close proximity to the Roman *Hut Circles and field systems north east of Gelli Ffrydiau* Scheduled Ancient Monument (CN179; PRN 2791).
- (iv) Approximately 350.0m west of the *Small Fort near Nantlle* prehistoric hillfort Scheduled Ancient Monument (CN178; PRN 2781).
- (v) Approximately 400.0m southeast of the Roman *hut group, Geulan, northeast of Nantlle* (CN179; PRN 2789 and 2794).

- (vi) Approximately 700.0m southeast of the *enclosure southeast of Caeronwy-Uchaf* Scheduled Ancient Monument (CN179; PRN 2798).
- (vii) Approximately 800.0m south of the Roman platform hut southeast of Castell-Caeronwy Scheduled Ancient Monument (CN179; PRN 2792).
- (viii) Approximately 850.0m southeast of the *enclosure northeast of Caeronwy-Uchaf* Scheduled Ancient Monument (CN179; PRN 2797).
- (ix) Approximately 850.0m southeast of the *enclosure east of Caeronwy-Isaf* Scheduled Ancient Monument (CN179; PRN 2799).
- (x) Approximately 1.0km southeast of the *enclosure northeast of Caeronwy-Isaf* Scheduled Ancient Monument (CN179; PRN 2795).
- (xi) Approximately 832.0m southeast of the grade II Listed Building of *Caeronwy-isaf* (ref: 22405).
- (xii) Approximately 835.0m southeast of the grade II Listed Building of the *Cowhouse at Caeronwy-isaf* (ref: 22407).
- (xiii) Approximately 1.4km east of the three *Pen yr Orsedd quarry blondins* Scheduled Ancient Monuments (CN208).

3. ARCHAEOLOGICAL BACKGROUND

3.1 Prehistoric and Roman Period

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 2.2km 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 valley.

Physical evidence becomes more frequent in the Iron Age and Romano-British periods. Approximately 350.0m to the east of the penstock route lies the *Small Fort near Nantlle* prehistoric hillfort Scheduled Ancient Monument (CN178). The monument is situated on a rocky knoll on the western end of a small ridge and is constructed from large stone slabs laid flat and forming an irregular heptagon measuring approximately 22.0m in diameter. An entrance into the fort is located towards the centre of the western side and is now in a ruinous state.

Numerous hut circle sites are found clinging to the upland 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 and in close proximity to the study area 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 proposed penstock route runs through approximately 30.0m of the south-eastern limit of the Scheduled Ancient Monument area belonging to the *Hut Circles and field systems north east of Gelli*

Ffrydiau (CN 179). This scheduled area comprises a land take of approximately 0.53km² and includes the remains of at least twelve separate hut circle settlements belonging primarily to the Romano-British period.

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.

3.2 Early Medieval and Medieval Periods

The Early Medieval period is poorly represented within the Nantlle valley. However, 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 (Govannon report 277). The *llys* and royal lands became the property of the English King upon the conclusion of the conquest of Wales.

The nearest surviving remains of the Medieval period to the proposed development site includes a possible long hut (PRN 6495) at SH53705350; a platform house (PRN 1412) at SH53975461; and a Medieval field system (PRN 7986) at SH52255479.

3.3 Post Medieval Period

The property of Gelli Ffrydiau is first mentioned in the will of James David, yeoman of Gelli Ffrydiau, dated 1712 (Bangor probate records 1576-1858), in which he bequeathed the property to his wife Angharad Humphries. In addition to this he bequeathed sums of money to his five children and two grandchildren, the former of which included Angharad James. She was noted as being highly educated and was a celebrated early female Welsh poet. Several of her original manuscripts survive in the National Library of Wales and they include an elegy to her son who had died when sixteen years old and another to her husband in the form of an imaginary dialogue. She was also fluent in Latin and learned in the law of the land. She played the harp and according to local tradition would gather her family and servants together to dance before retiring each night. Angharad James moved to Dolwyddelan when she was twenty years old after marrying William Prichard, a man far older than herself, who farmed Cwm Penamnen. She continued to farm after she was widowed until her death in 1749.

Part of the land belonging to Gelli Ffrydiau is Rhos Pawl, which is located on the southern side of the valley. Local tradition has it that a lad from Gelli Farm fell in love with a girl from Talymignedd Uchaf, but the girl's father did not approve of the match. The lad pleaded with the father for his daughter's hand in marriage and in the end he agreed on one condition, that the lad would spend a freezing night naked on top of Rhos Pawl, remaining there until morning. The father expected that the lad would give up on the pursuit of his daughter, but instead he accepted the challenge. The lad took a post with him, as well as an axe and mallet and repeatedly hammered the post into the ground through the night to keep his body warm, while the girl kept a lantern burning in her window throughout the night. He succeeded in keeping his body temperature high and thus presented himself to the father and his daughter in the morning, thus winning her hand in marriage (www.nantlle.com).

The property of Gelli Ffrydiau is next mentioned in a sale catalogue dated the 28th June 1808, when it was put up for sale by auction along with the tenant Robert Davies, a sixty-five year old farmer. The landowner at the time is not mentioned and it is not clear who bought the property.

The Llandwrog (upper) parish tithe map of 1849 depicts the proposed development area rather similarly to how it exists today. The site is depicted as a long strip of land lying to the north of the farm of Gelli Ffrydiau, and flanked to the east and the west by tributaries of the Afon Drws-y-Coed. The land is shown as being divided into two large fields (2151 and 2152) with common land north of the *fridd* wall. The lower of the two fields (2151) is shown as one large field, whereas today the field is divided in two by a north-south field wall. Two smaller fields (2149 and 2150), both of which are in existence today, are depicted either side of the B4418.

Table 1. The tithe apportionment of 1849

Plot	Landowner	Tenant	Plot Name	A/R/P
2149	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Buarth (pasture)	10/3/3
2150	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Cae'r ardd goch (meadow)	4/1/30
2151	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Cae'r allt (pasture)	18/1/4
2152	William Lewis Hughes, Lord Dinorben	Catherine Davies of Gelli Ffrydiau	Nant (pasture)	32/1/34

As can be seen from the 1849 tithe apportionment (table 1), the proposed development site was owned by William Lewis Hughes, Lord Dinorben of the Kinmel Hall estate in Denbighshire. He inherited the estate from his father Edward Hughes upon his death in 1815. Edward Hughes had made the family money after marrying Mary Lewis, the daughter of his employer, the Rector of Trefdraeth in Anglesey. She had inherited on the death of her uncle the house of Llysduelas in Anglesey, as well as a 'baron hill' nearby. This hill later became known as the Mynydd Parys (Parys Mountain) copper mine and jointly earned Edward Hughes and Sir Nicholas Baylys a fortune through the demand for copper. Through this Edward Hughes built up a prodigious Estate, the jewel of which was the purchase of Kinmel in 1786.

William Lewis Hughes was made Baron Dinorben of Kinmel in 1831, as well as being MP for Wallingford, Aide de Camp to Queen Victoria, Colonel of the Anglesey Militia, and a champion of the poor, founding a free school for local girls in the grounds of Kinmel Hall in 1830. He died in 1852 and was succeeded by his only surviving son William Lewis Hughes, second Lord Dinorben. He however was invalided and unmarried, and died with no children only eight months after succeeding his father thus leaving the title extinct (www.KinmelEstate.co.uk).

The property of Gelli Ffrydiau is mentioned in the Welsh census of 1841 when the farm was tenanted by Catherine Prichard recorded as an eighty year old farmer. Catherine would almost certainly have been a descendant of the marriage between Angharad James and William Prichard in the previous century or through her marriage into the Prichard family. She is recorded as living with her son William (aged fifty) and daughter Mary (aged thirty-five). The property was also home at this time to six agricultural labourers, one shepherd, and one house servant. By the time of the tithe apportionment of 1849 the primary tenant is Catherine Davies and it can only be assumed that Catherine Prichard had remarried or changed her name at the ripe old age of eighty eight. By the time of the Welsh census of

1851 the farm of Gelli Ffrydiau was tenanted by Mary Davis, presumably the former Mary Prichard, daughter of Catherine Prichard Davies.

The tithe apportionment of 1849 names the southernmost field (2149) as *buarth* or playground. This suggests that the field was being utilised by the local school *Ysgol Baladeulyn* located approximately 500.0m to the west. The names of the remaining fields all relate to the terrain of the site.

By the production of the first edition county series Ordnance Survey map in 1889 the proposed development site is depicted more like it exists today. The first large field to the north of the farm had been subdivided by a north-south field wall with a sheepfold constructed in its north-western corner. Moreover, the weir (feature 7, see section 5.6) had been built across the stream, which by way of a sluice and leat fed water to an overshot wheel for the churning of butter and the threshing of gorse (pers comm. Geraint Ellis, landowner). By this point the current farm house had been built to the south of the original Gelli Ffrydiau house. This building does not appear to be depicted on the 1849 tithe map and it is probable that it was constructed sometime in the mid to late 19th century. The original farmhouse became dilapidated and was demolished in 2005.

The second and third edition county series Ordnance Survey maps of 1900 and 1915 respectively, depict the study area the same as the first edition map, and there appears to have been little development of the farm between this time.

4. ARCHAEOLOGICAL AIMS

The **watching brief** will consist of the following:

- Observation of groundworks excavation associated with the proposed hydro-electric pipeline in the northern most field;
- A written and photographic record of any archaeological features revealed by the work.
- Preparation of a full archive report.

If archaeological remains are encountered during the watching brief it may be necessary to suspend development work in that area. The client should have a suitable contingency in place in case of such a scenario.

5. PROGRAMME OF WORK

5.1 Archaeological Watching Brief

(Reproduced from IFA. 2001. *Institute for Archaeologists 1994 rev. 2001 and 2008 Standard and Guidance for an archaeological watching brief*)

The definition of an archaeological watching brief is 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. The programme will result in the preparation of a report and ordered archive.

This definition and *Standard* do not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains *in situ*.

An archaeological watching brief is divided into four categories according to the IFA, 2001. *Institute for Archaeologists 2001 Standard and Guidance for an archaeological watching brief*:

- comprehensive (present during all ground disturbance)
- intensive (present during sensitive ground disturbance)
- intermittent (viewing the trenches after machining)
- partial (as and when seems appropriate).

An **intensive** watching brief is to be maintained during all ground disturbance works.

A photographic record will be maintained throughout, using a digital SLR camera (Canon 550D) set to maximum resolution and any subsurface remains will be recorded photographically, with detailed notations and a measured survey using a handheld GPS (Satmap Active 10). The archive produced will be held at Aeon Archaeology under the project code (A0005).

5.2 Hand excavated trial trench

A hand excavated trial trench measuring approximately 1.0m in width and 2.0m in length will be excavated by hand across the projected path of the relict revetment wall and trackway (feature 4 Aeon Archaeology report 0004). The trench will be excavated to a depth whereby archaeological remains are encountered or if none are found, until the natural glacial substrata is reached. If the proposed length and width of the trial trench is not suitable to fully characterise the nature of the archaeological remains then the trench will be extended by hand until a suitable amount of the archaeological remains are exposed.

The trench will be excavated by hand using mattocks, shovels, hoes and trowels and the removed spoil will be checked for any archaeological artefacts. The trench and any exposed archaeological remains will be cleaned by hand and fully recorded with scale drawings, descriptions, and photographs using a Canon 550D SLR set to maximum resolution.

6.0 FURTHER ARCHAEOLOGICAL WORKS

- The discovery of substantial buried archaeological remains during the watching brief may result in the requirement for a wider programme of archaeological mitigation. This may require the submission of revised quotes to the client.
- This design does not include a methodology or cost for examination, conservation and archiving of finds discovered during the watching brief, nor of any radiocarbon dates required, nor of examination of palaeoenvironmental samples. The need for these will be identified in the post-fieldwork programme (if required), and a new design will be issued for approval by the Development Control Archaeologist.

7.0 ENVIRONMENTAL SAMPLES

If necessary, relevant archaeological deposits will be sampled by taking bulk samples (a minimum of 10.0 litres and maximum of 30.0 litres) for flotation of charred plant remains. Bulk samples will be taken from waterlogged deposits for macroscopic plant remains, small bones, and small artefacts.

8.0 HUMAN REMAINS

Any finds of human remains will be left *in-situ*, covered and protected, and both the coroner and the Snowdonia National Park Authority Archaeologist informed. If removal is necessary it will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. This will be applied for should human remains need to be investigated or moved.

9.0 SMALL FINDS

All finds are the property of the landowner but it is recommended that finds are donated to an appropriate museum for conservation and research. Furthermore, the client agrees to granting access to all finds recovered by Aeon Archaeology for analysis, study and publication as necessary.

Initial identification of artefacts will be carried out by Aeon Archaeology, but additional conservation and analysis will be undertaken by a suitably qualified specialist, if required.

The cost for examination, conservation and archiving of finds discovered during the watching brief are not included within this quote.

If well preserved materials are found it may be necessary to employ additional staff. Furthermore, it may be necessary to suspend work within a specific region of the site, or across the whole site, while conservation and excavation/recording takes place. Aeon Archaeology accepts no responsibility for any costs incurred from delays as a result of unexpected archaeological finds.

The cost for the additional staff, resources, and time required to excavate/ record unexpected archaeological finds/ features are not included within this quote and a separate project design and costs will be submitted to the client if necessary.

10.0 REPORT PRODUCTION

Following completion of the watching brief as outlined above, a report will be produced incorporating the following:

- Non-technical summary
- Introduction
- Project Design
- Methodology
- Archaeological Background
- Description of the results of the watching brief
- Summary and conclusions
- Bibliography of sources consulted.

Illustrations will include plans of the location of the study area and archaeological sites. Historical maps, when appropriate and if copyright permissions allow, will be included. Photographs of relevant sites and of the study area where appropriate will be included.

A draft copy of the report will be sent to the SNPA archaeologist, Cadw, and to the client prior to production of the final report.

11. ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled, and cross-referenced, and lodged in an appropriate place within six months of the completion of the project. The location is to be agreed with the SNPA Archaeologist.

Copies of the report will be sent to the regional HER (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, Gwynedd LL57 2RT) and SNPA x2 and RCAHMS x1. Digital copy of the complete project archive on digital optical disk to each of the previous three organisations (SNPA x2) including a PDF version of the complete report.

7. PERSONNEL

The work will be managed and undertaken by Richard Cooke, Archaeological Contractor and Consultant at Aeon Archaeology.

8. MONITORING

Monitoring visits can be arranged during the course of the project with the clients and with the appropriate Development Control archaeologist.

9. HEALTH AND SAFETY

Aeon Archaeology has a Health and Safety Policy Statement which can be supplied upon request. Furthermore, site-specific Risk Assessments and Method Statements are compiled and distributed to every member of staff involved with the project prior to the commencement of works.

10. INSURANCE

Liability Insurance – Towergate Insurance Policy 000467

- Employers' Liability: Limit of Indemnity £10m in any one occurrence
- Public Liability: Limit of Indemnity £2m in any one occurrence
- Legal Defence Costs (Health and Safety at Work Act): £250,000

The current period expires 30/09/13

Professional Indemnity Insurance – Towergate Insurance Policy 2011025521290

- Limit of Indemnity £500,000 any one claim

The current period expires 30/09/13

11. SOURCES CONSULTED

Aeon Archaeology report 0004

Reproduction of Client Drawing 12062003LB

Standard and Guidance for Archaeological Evaluation (Institute of Field Archaeologists, 1994, rev. 2001 & 2008).

Standard and Guidance for Archaeological Watching Brief (Institute for Archaeologists, 1994, rev. 2001 and 2008).

COST ESTIMATE

1. Hand excavated trial trench	1 day (08:00am-18:00pm)	
2. Intensive Watching Brief	1 day (08:00am-18:00pm)	
3. Report, illustration and archiving	2 days	

By commissioning Aeon Archaeology to undertake this work the client agrees to be invoiced directly at the end of each calendar month for works to date or once the project concludes, whichever occurs first. In addition, the client agrees to pay the invoice no more than 1 calendar month after issue from Aeon Archaeology.

