

# Fridd Uchaf, Rhyd Ddu, Gwynedd, SPEN.

February 2018 V 1.0





Archaeological Watching Brief Project Code: A0107.3 Report no. 0156



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Report no. 0156 v1.0 Archaeological Watching Brief

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#### **1.0 NON-TECHNICAL SUMMARY**

Aeon Archaeology was commissioned by Scottish Power Energy Networks, to carry out an archaeological watching brief as part of the undergrounding of a new electricity cable at Fridd Uchaf, hereafter the site, located approximately 1.5km south of Rhyd Ddu, Gwynedd within the Snowdonia National Park Authority.

The archaeological watching brief uncovered post-medieval deposits associated with peat drying practices and field clearance. A former linear earthwork of probable post-medieval date was breached by the works but this was not subject to archaeological watching brief.

#### 2.0 INTRODUCTION

Aeon Archaeology was commissioned by Scottish Power Energy Networks (SPEN), hereafter the Client, to carry out an archaeological watching brief as part of the undergrounding of a new electricity cable at Fridd Uchaf, hereafter the Site, located approximately 1.5km south of Rhyd Ddu, Gwynedd within the Snowdonia National Park Authority (SNPA) (NGR: SH 57625 51591).

A mitigation brief was not prepared for this scheme by the SNPA Archaeologist or the Gwynedd Archaeological Planning Service (GAPS) Development Control Archaeologist but the following statement was provided by email correspondence to the Client (email dated 3<sup>rd</sup> February 2017):

There are no known sites of archaeological interest recorded on the Historic Environment Record or on the National Monument Record so far as I am aware from a cursory check. However there are some possible earthworks/features on the ground. I'm not sure exactly what they represent and they're pretty vague, but they include a couple of low banks and a relict wall (S side of road) and some grassed over wall footings (N side of road). There's nothing visible on the surface that suggests to me that there is potential for features of sufficient interest/importance that further (pre-works) investigation is required or that the work should be modified, but a watching brief would provide reassurance that were significant features to be encountered they would be identified and properly recorded.

The watching brief was maintained during intrusive groundworks, as detailed below.

A written Scheme of Investigation (WSI) was undertaken by Aeon Archaeology in July 2017 (appendix I) which outlined the principle aims of the watching brief and the methods by which they would be met. This formed the basis of a method statement submitted for the work.

An archaeological assessment of the cable route was undertaken by Aeon Archaeology in March 2017 (report 0120) that identified fourteen archaeological sites within the 75.0m wide assessment corridor extending away from the A4085 road, all of which were post-medieval in date with the exception of two probable peat-drying platforms and a former trackway which could be medieval in origin.

The assessment ascertained that the proposed scheme will directly impact upon four archaeological features, a mound, a field boundary wall, a linear earthwork, and a cairn recorded on the Gwynedd HER. One additional site, a bridge, is also likely to be impacted upon. All of these features, with the exception of the mound and cairn, are of post-medieval date and as such are considered to be of *negligible* importance. The identity of the mound could not be ascertained with certainty. It was suspected to be upcast material from roadworks that had grassed over and as such be of post-medieval date and negligible importance. Moreover, the cairn recorded on the Gwynedd HER appeared to be a natural glacial deposit and also therefore of negligible importance. The precautionary principle however dictates that as there is uncertainty to their origin then a watching brief should be maintained during the breaching of both features.

The assessment also highlighted an increased potential for the location of preserved palaeoenvironmental remains within the suspected underlying peat deposits along the route of the scheme. As such it was recommended that an archaeological watching brief be maintained during trenching along the length of the scheme. The management and protection of the historic environment in Wales is set out within the following legislation:

- The Planning (Listed Buildings and Conservation Areas) Act 1990 (As amended)
- The Historic Environment (Wales) Act 2016
- The Town and County Planning Act 1990
- The Ancient Monuments and Archaeological Areas Act 1979
- The Town and Country Planning (General Permitted Development Order) 1995 (As amended)

The Historic Environment (Wales) Act is the most recent legislation for the management of the Historic Environment and amends two pieces of UK legislation — the Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990. The new Act has three main aims:

- to give more effective protection to listed buildings and scheduled monuments;
- to improve the sustainable management of the historic environment; and
- to introduce greater transparency and accountability into decisions taken on the historic environment.

Planning Policy Wales sets out the land use planning policies of the Welsh Government. Chapter 6 covers the historic environment and emphasises that the positive management of change in the historic environment is based on a full understanding of the nature and significance of historic assets and the recognition of the benefits that they can deliver in a vibrant culture and economy.

Various principles and polices related to cultural heritage and archaeology are set out in the Planning Policy Wales which guide local planning authorities with respect to the wider historic environment.

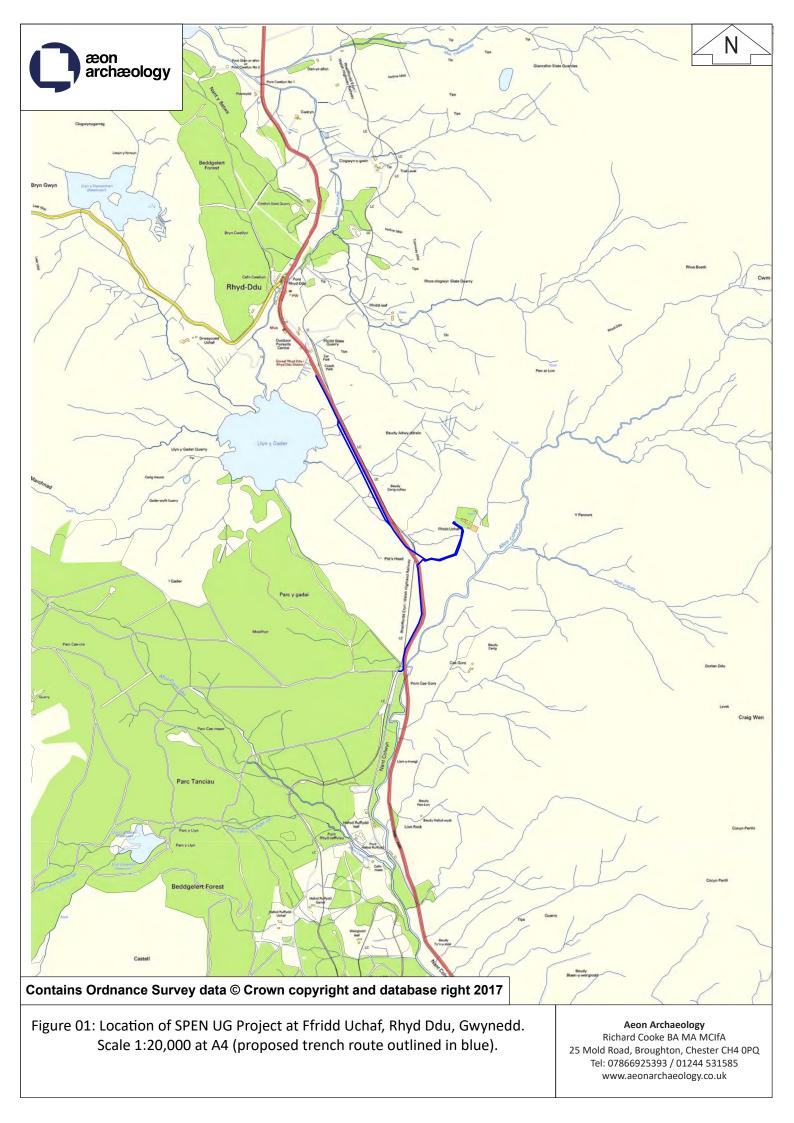
The following paragraphs from Planning Policy Wales are particularly relevant and are quoted in full:

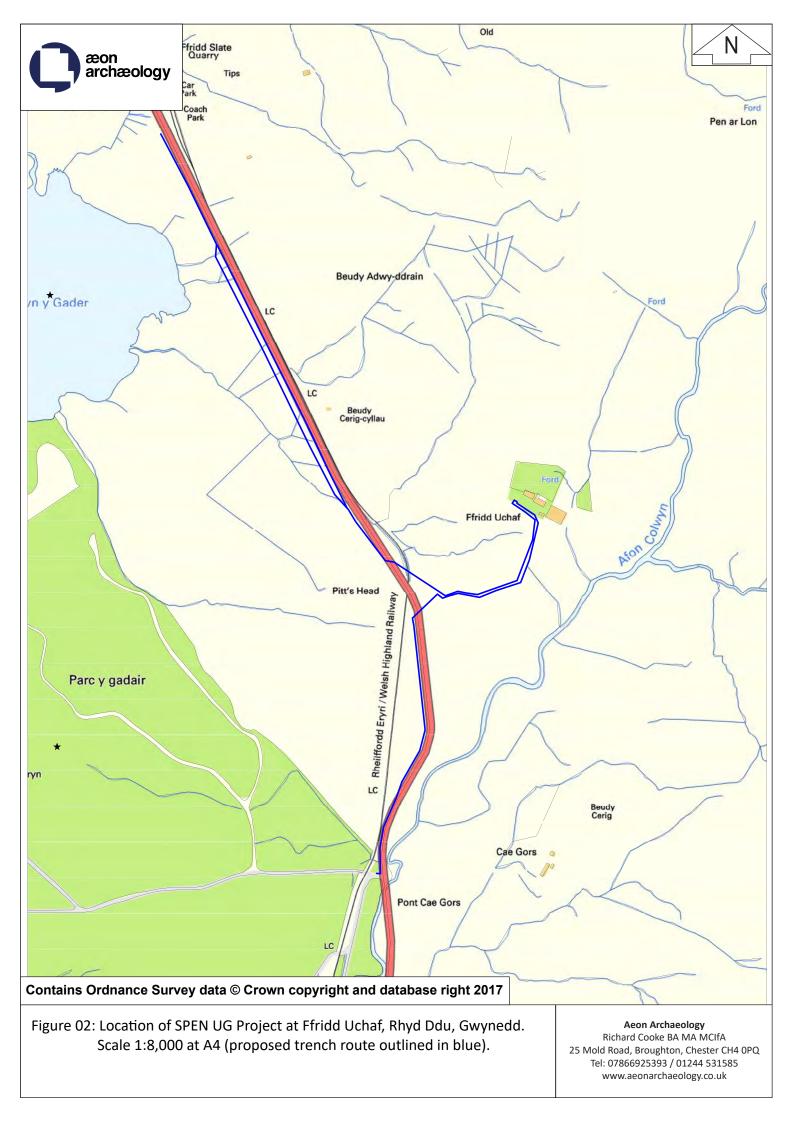
Paragraph 6.5.5 concerns planning applications: The conservation of archaeological remains is a material consideration in determining a planning application, whether those remains are a scheduled monument or not. Where nationally important archaeological remains, whether scheduled or not, and their settings are likely to be affected by proposed development, there should be a presumption in favour of their physical protection in situ. It will only be in exceptional circumstances that planning permission will be granted if development would result in an adverse impact on a scheduled monument (or an archaeological site shown to be of national importance) or has a significantly damaging effect upon its setting. In cases involving less significant archaeological remains, local planning authorities will need to weigh the relative importance of the archaeological remains and their settings against other factors, including the need for the proposed development.

Planning Policy Wales is supplemented by a series of Technical Advice Notes (TAN). Technical Advice Note 24: The Historic Environment contains detailed guidance on how the planning system considers the historic environment during development plan, preparation and decision making on planning and listed building consent applications. TAN 24 replaces the following Welsh Office Circulars:

- 60/96 Planning and the Historic Environment: Archaeology
- 61/96 Planning and the Historic Environment: Historic Buildings and Conservation Areas
- 1/98 Planning and the Historic Environment: Directions by the Secretary of State for Wales

Reference will be made to the guidelines specified in Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014).





#### 3.0 PROJECT AIMS

The aim of the watching brief works was to characterise the known, or potential, archaeological remains uncovered during under grounding associated with the cable trench at the site.

The broad aims of the archaeological watching brief 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 SNPA/GAPS 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.

The management of this project has followed the procedures laid out in the standard professional guidance *Management of Research Projects in the Historic Environment Project Manager's Guide* (English Heritage 2006; rev 2015), and in the Chartered Institute for Archaeologists *Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014). Five stages are specified:

Phase 1: project planningPhase 2: fieldworkPhase 3: assessment of potential for analysis and revised project designPhase 4: analysis and report preparationPhase 5: dissemination

The current document reports on the phase 4 analysis and states the means to be used to disseminate the results. In this instance it was not necessary to prepare a revised project design as alluded to in Phase 3; as there was a paucity of evidence recovered in Phase 2 as the archaeological features only offered minimal potential for analysis and therefore did not warrant any alteration to the initial project design.

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 National Monuments Record retained by 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 - ARCHAEOLOGICAL WATCHING BRIEF

#### 4.1 Watching Brief

The CIfA maintains a standard for archaeological watching brief which states that:

An archaeological watching brief will record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of conduct and other relevant by-laws of CIfA.

An archaeological watching brief is defined by the CIfA as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (CIfA 2014a). The watching brief will take place within a specified area within the Site where there is a possibility that archaeological deposits may be disturbed or destroyed.

The CIfA further identifies the purpose of a watching brief as allowing, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established in advance of development or other potentially disruptive works.

It is also important to note that a watching brief provides an opportunity, if needed, for a signal to be made to all interested parties, before the destruction of the archaeological materials, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

A watching brief is, therefore, not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

All soil removal was undertaken using a mechanical excavator fitted with a toothless ditching bucket. A photographic record was maintained throughout, using a digital SLR camera (Canon 6000D) 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 A0107.3.

#### **4.2 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.

#### 4.3 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 the SNPA/GAPS Archaeologist. There was a presumption against the disposal of archaeological finds regardless of their apparent age or condition.

#### 4.4 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.

#### 4.5 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, the SNPA/GAPS Archaeologist, and the RCAHMW. Copies of all notes, plans, and photographs arising from the watching brief will be stored at Aeon Archaeology under the project code **A0107.3** with the originals being lodged in a suitable repository to be agreed with the archaeological curator.

#### **5.0 QUANTIFICATION OF RESULTS**

#### **5.1 The Documentary Archive**

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

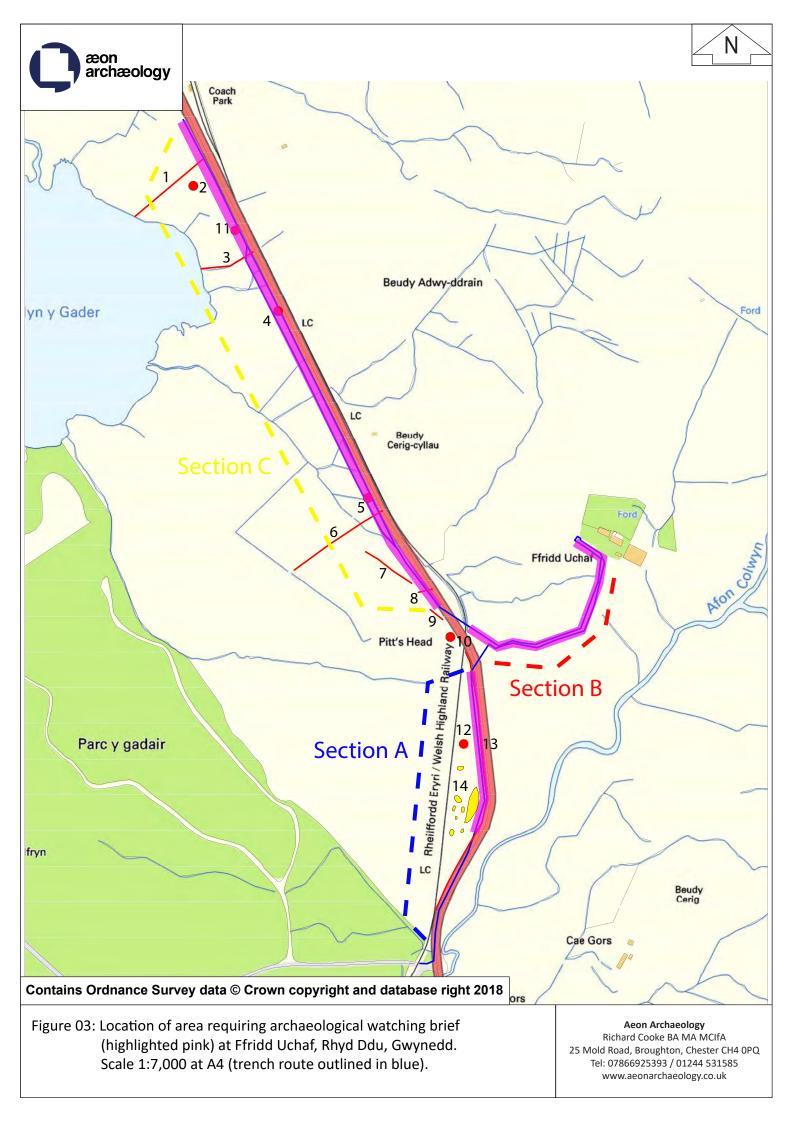
Watching brief day sheets	8
Context sheets	5
Digital photographs	44

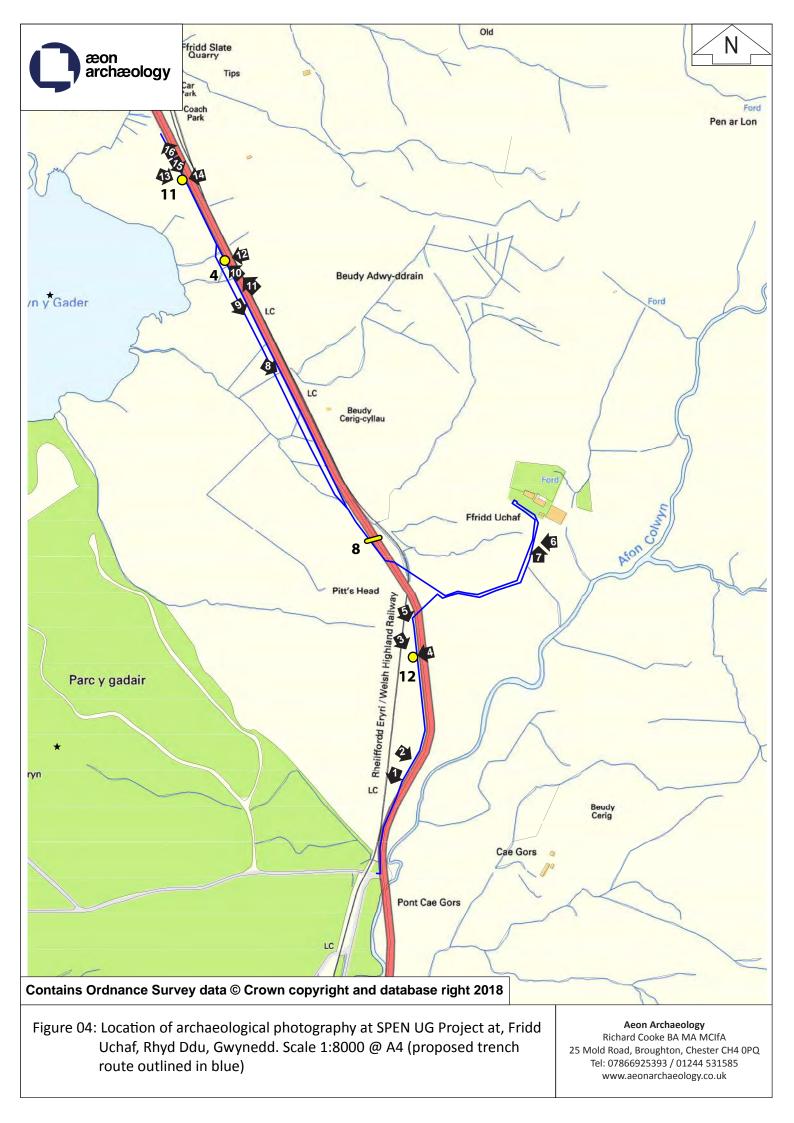
#### **5.2 Environmental Samples**

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

#### **5.3 Artefacts**

No artefacts were recovered during the archaeological watching brief.





#### 6.0 RESULTS OF THE ARCHAEOLOGICAL WATCHING BRIEF

The archaeological watching brief was maintained by Richard Cooke BA MA MCIfA and Josh Dean BA ACIfA, as archaeological consultants and contractors for Aeon Archaeology. The site was attended on 11<sup>th</sup>-13<sup>th</sup>, and the 18<sup>th</sup>- 21<sup>st</sup> December 2017.

The cable trench was excavated in three separate phases. Section A ran from just west of the A4085 road (to the northwest of Afon Colwyn) located at NGR SH 57564 50919 to SH 57635 51445 south of Pitt's head. Section B ran from SH 57684 51455 east of the Ffridd Uchaf drive entrance to the immediate southwest of the property at SH 57831 51690 and back towards the A4085 (east of Pitt's head) at SH 57663 51478. Section C ran from northeast of Pitt's head at SH 57587 51558, following the route of the A4085 northwest to the immediate southwest of the Coach park at NGR SH 57127 52438.

The following sections of the works were subject to archaeological watching brief; the entirety of Section A, a small portion of Section B and approximately 50-60% of Section C. In reference to the scheme as a whole it is estimated that approximately 60-65% of the project was carried out under watching brief conditions.

#### 6.1 Section A (Southern Portion) (figures 3 & 5; plates 1-5)

Section A began just west of the A4085 (northwest of Afon Colwyn) at NGR **SH 57564 50919** and ran northwest to NGR **SH 57635 51445** for approximately 0.52km. The trench measured to an average depth of 1.0m along its length by 0.30m in width, and was orientated northwest to southeast. The trench was excavated through a 0.10m deep loose, dark grey-brown clay-silt topsoil with occasional medium sized sub-angular and angular cobble inclusions (101) onto a 0.25m deep dark black-brown peat (103) which lay above a blue-grey clay natural glacial substrata (104) interspersed with patches of shale.

Approximately 0.40km from the southern extent of this trench at NGR **SH 57633 51311** the trench cut through feature 12; a former peat drying platform (Figure 05). The platform measured approximately 4.30m in length when viewed in section. The trench cut through a 0.10m deep loose, dark grey-brown clay-silt topsoil with occasional medium sized sub-angular and angular cobble inclusions (101) onto a 0.45m deposit of dark black-brown peat (103). Below this there was a 0.15m mottled grey/black horizon peat-clay horizon before the blue-grey clay natural (104) became visible, this natural was interspersed with patches of shale. There was no clear structure to the peat drying platform and it is probable that it was the result of the excavation of the surrounding peat that led to it becoming a platform elevated within its surroundings. No artefacts were recovered during the watching brief.



Plate 01: Post-excavation of Cable trench near Afon Colwyn - from the northeast - no scale





Plate 02: Generic section of cable trench - from the west - scale 1m





Plate 03: Pre excavation of Feature 12 - Peat drying platform - from the northwest - scale 1m





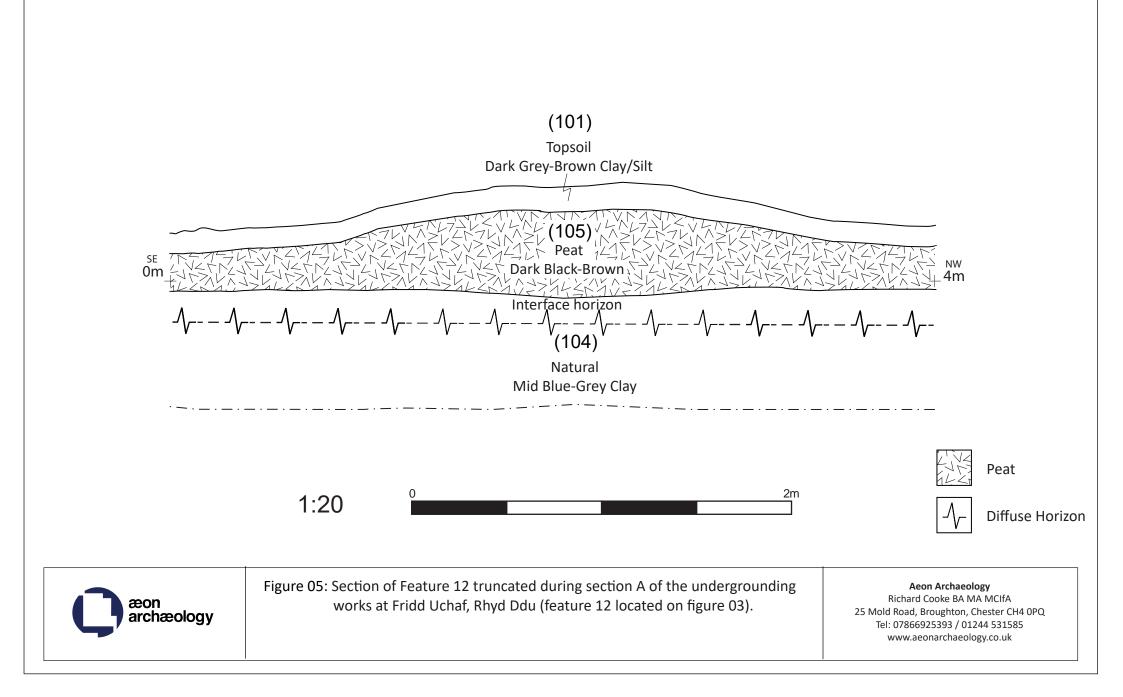
Plate 04: Section of Feature 12 - Peat drying platform - from the northeast - scale 1m





Plate 05: Post-excavation of Cable trench - near Pitt's Head and reception pit for directional drill - from the northwest - scale 1m





#### 6.2 Section B (Eastern Portion) near Fridd Uchaf (figures 3; plates 6-7)

Section B began east of the Ffridd Uchaf drive entrance at NGR **SH 57564 50919** and ran northeast to a point immediately southwest of the Ffridd Ucahf's garden wall at NGR **SH 57831 51690** and subsequently ran back southwest and west toward the railway bridge at NGR **SH 57663 51478.** Along this section the ground began to rise upslope toward the mountain. Section B ran for approximately 0.80km and was orientated east then north, before returning on its original course. The majority of the cable trench within section B was not monitored as part of the watching brief except for a portion of the excavation near the trackway for Fridd Uchaf. The trench at this point measured to an average depth of 0.80m along its length and was 0.30m wide. The trench cut through 0.15m deep loose, dark grey-brown clay-silt topsoil with occasional medium sized sub-angular and angular cobble inclusions (101) onto a 0.65m deposit of very friable mid orange-brown clay-silt (105). Below this there was the blue-grey clay natural (104). The material (105) below the topsoil differed from the peat on the valley floor below and may represent glacial till or perhaps is evidence of land improvement via imported soils.



Plate 06: Cable trench across trackway near Fridd Uchaf - from the south - scale 1m





Plate 07: Section of cable trench across trackway near Fridd Uchaf - from the west - scale 1m



#### 6.3 Section C (Northern Portion) near Fridd Uchaf (figures 3; plates 8-12)

Section C ran from just to the northeast of Pitt's head at **SH 57587 51558** and generally followed the route of the A4085 northwest for 0.98km before finishing to the immediate southwest of the Coach park at NGR **SH 57127 52438**. The initial third of this part of the cable trench excavation had already been excavated despite the requirement for a watching brief to be maintained in proximity of linear earthwork Feature 8, as stipulated in the Aeon archaeology WSI (A0107.3); furthermore during these excavations Feature 8 was breached and subsequently backfilled without any formal archaeological record being completed.

The remainder of the excavation was commenced under watching brief conditions and began near the stream at **SH 57356 51960** southwest of *Beudy Adwy-ddrain* hill. The excavation cut through a 0.10m deep loose, dark grey-brown clay-silt topsoil with occasional medium sized sub-angular and angular cobble inclusions. Below this at the base of the slope the peat deposits were at times greater than 1.00m in depth. As the excavation continued to the northwest and upslope towards the mound - feature 4 the peat deposits became less substantial and the rising bedrock was observed.

The excavation was successfully routed around feature 4 however the proximity of the trench was close enough to truncate the base of the slope of the mound. In section the trench cut through a 0.25m deep deposit of loose, dark grey-brown clay-silt topsoil with very rare small sized sub-angular and angular boulder inclusions (101). Below this there was a blue-grey clay natural glacial substrata (104). The area near feature 4 has access to the A4085 via a gateway which is devoid of stones when compared to the remainder of the field which is strewn with grass-covered glacial erratics. It is therefore probable that the mound is the result of post-medieval field clearance in order to improve access. Further to the northwest the watching brief was maintained during the excavation of the cable trench across the Cairn, East of Llyn y Gader (feature 11). This feature had been identified on the Historic Environment Record as a potential prehistoric burial cairn, however upon excavation it became clear that the feature was the result of a natural rise in the bedrock causing a localised hillock.



Plate 08: Excavation of cable trench across the stream running southwest of Beudy Adwy Ddrain - from the northwest - scale 1m





Plate 09: Excavated cable trench from slope to northwest of stream looking toward Pitt's head (in distance) - from the northwest - no scale





Plate 10: Pre-excavation of Feature 4 - unidentified Mound - from the southeast - scale 1m





Plate 11: Post-excavation of Feature 4 - route around unidentified Mound - from the southeast - scale 1m





Plate 12: Section of ground near to Feature 4 - unidentified Mound - from the southwest - scale 1m





Plate 13: Pre-excavation of area/Feature 11 - Cairn, east of Llyn y Gader - from the northwest - scale 1m





Plate 14: Section of area/Feature 11 - Cairn, east of Llyn y Gader - from the north - scale 1m





Plate 15: Post-excavation of area/Feature 11 - Cairn, east of Llyn y Gader - from the southeast - scale 1m





Plate 16: Post-excavation of area to northeast of Llyn y Gader - from the southeast - no scale



#### 7.0 CONCLUSION AND RECOMMENDATIONS

The archaeological watching brief as part of the cable undergrounding works for SPEN at Ffridd Uchaf, Rhyd Ddu uncovered post-medieval deposits associated with peat drying practices and field clearance. Furthermore the watching brief enabled for feature 11, previously identified as a possible prehistoric burial cairn, to be reclassified as being of natural origin. A former linear earthwork of probable post-medieval date was breached by the works but this was not subject to archaeological watching brief.

The results of the archaeological watching brief, although limited, met the aims and expectations of the archaeological mitigatory response insofar as the above ground archaeological remains were avoided by the scheme and where this was not possible a suitable record was made to ensure preservation by record.

#### 8.0 SOURCES

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English Heritage, 1991. Management of Archaeological Projects (MAP2)

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English Heritage, 2011. The Settings of Heritage Assets

The Charetered Institute for Archaeologists, 2014 Standard and Guidance for Archaeological Watching Brief

## 9.0 APPENDIX I: WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL WATCHING BRIEF



# Ffridd Uchaf, Rhyd Ddu, Gwynedd, SPEN.

Written Scheme of Investigation for Archaeological Watching Brief.

July 2017 v1.0



Project Code: A0107.3

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#### **1.0 INTRODUCTION**

Aeon Archaeology has been commissioned by Scottish Power Energy Networks (SPEN), hereafter the Client, to provide a written scheme of investigation (WSI) for carrying out an archaeological watching brief as part of the undergrounding of a new electricity cable at Fridd Uchaf, hereafter the Site, located approximately 1.5km south of Rhyd Ddu, Gwynedd within the Snowdonia National Park Authority (SNPA) (NGR: SH 57625 51591).

A mitigation brief was not prepared for this scheme by the SNPA Archaeologist or the Gwynedd Archaeological Planning Service (GAPS) Development Control Archaeologist but the following statement was provided by email correspondence to the Client (email dated 3<sup>rd</sup> February 2017):

There are no known sites of archaeological interest recorded on the Historic Environment Record or on the National Monument Record so far as I am aware from a cursory check. However there are some possible earthworks/features on the ground. I'm not sure exactly what they represent and they're pretty vague, but they include a couple of low banks and a relict wall (S side of road) and some grassed over wall footings (N side of road). There's nothing visible on the surface that suggests to me that there is potential for features of sufficient interest/importance that further (pre-works) investigation is required or that the work should be modified, but a watching brief would provide reassurance that were significant features to be encountered they would be identified and properly recorded.

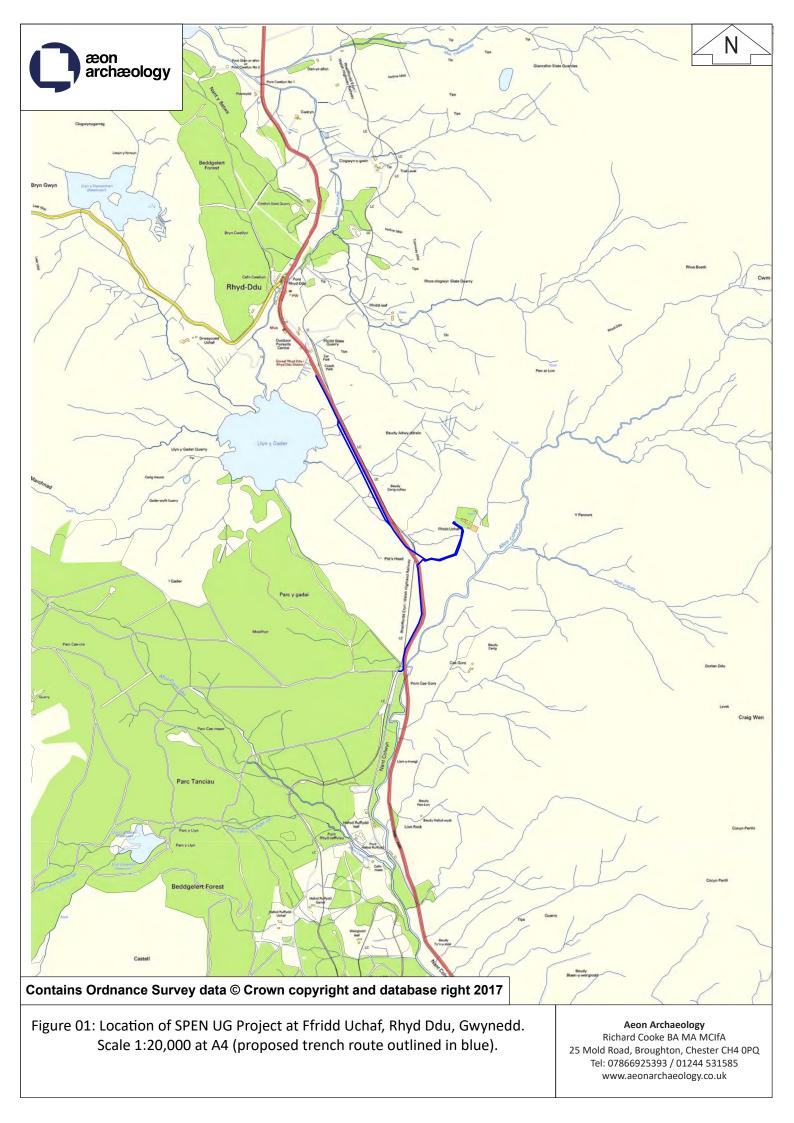
An archaeological assessment was undertaken by Aeon Archaeology in March 2017 (A0107.2 report no. 0120) that identified fourteen archaeological sites within the 75.0m wide assessment corridor extending away from the A4085 road, all of which were post-medieval in date with the exception of two probable peat-drying platforms and a former trackway which could be medieval in origin.

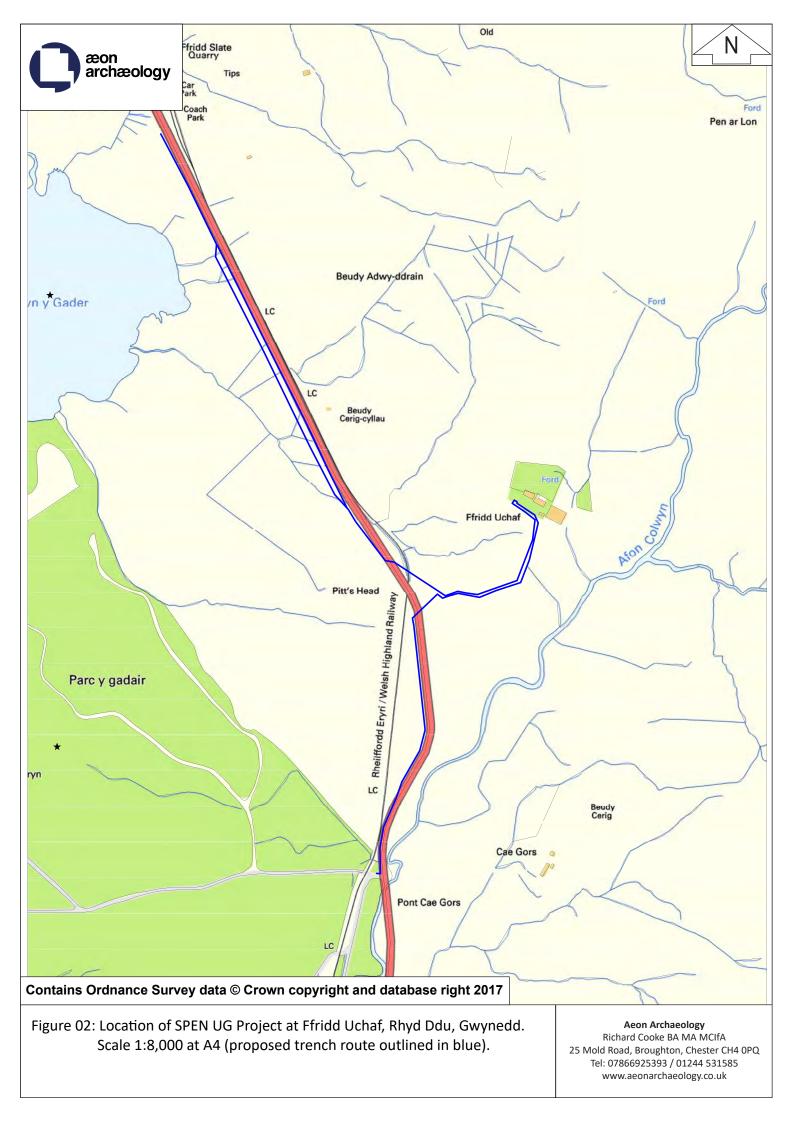
The assessment ascertained that the proposed scheme will directly impact upon four archaeological features, a mound, a field boundary wall, a linear earthwork, and a cairn recorded on the Gwynedd HER. One additional site, a bridge, is also likely to be impacted upon. All of these features, with the exception of the mound and cairn, are of post-medieval date and as such are considered to be of *negligible* importance. The identity of the mound could not be ascertained with certainty. It was suspected to be upcast material from roadworks that had grassed over and as such be of post-medieval date and negligible importance. Moreover, the cairn recorded on the Gwynedd HER appeared to be a natural glacial deposit and also therefore of negligible importance. The precautionary principle however dictates that as there is uncertainty to their origin then a watching brief should be maintained during the breaching of both features.

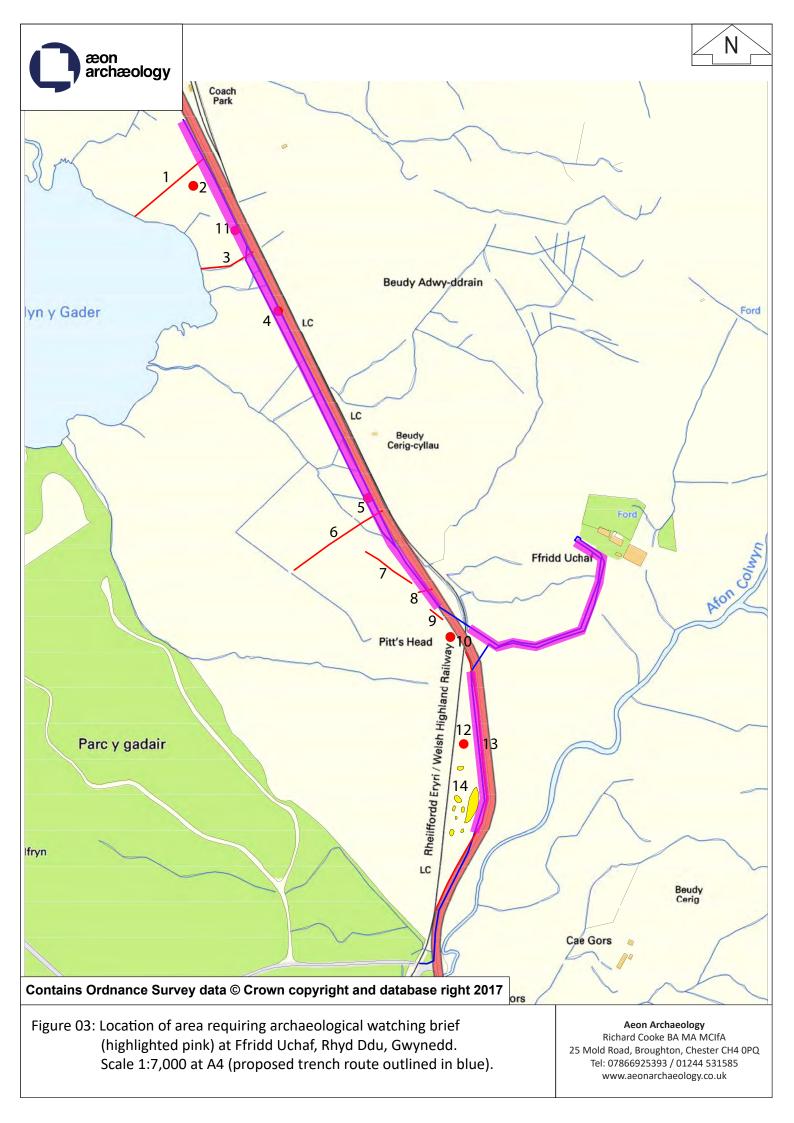
The assessment also highlighted an increased potential for the location of preserved palaeoenvironmental remains within the suspected underlying peat deposits along the route of the scheme. As such it was recommended that an archaeological watching brief be maintained during trenching along the length of the scheme.

Relevant UK legislation on heritage includes the Welsh Government's Planning Policy Wales Technial Advice Note 24 (TAN 24), and the Historic Environment Act (Wales) 2016.

The work will adhere to the guidelines specified in Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014).







#### 2.0 SITE LOCATION

Rhyd Ddu (Welsh for Black Ford) is a small village in Snowdonia, North Wales which is a starting point for walks up Snowdon (via the Rhyd Ddu Path), Moel Hebog, Yr Aran and the Nantlle Ridge. It lies on the A4085 between Beddgelert and Caernarfon, at its junction with the B4418 to Nantlle and Penygroes. Rhyd Ddu railway station is one of the stops of the Welsh Highland Railway between Caernarfon and Porthmadog.

The removal of the existing line and poles is to be undertaken by hand with no vehicular access required, and as such this part of the scheme has not been included within the assessment. The undergrounding phase of works will require the excavation of a trench by mechanical excavator from approximately 120.0m south of Rhyd Ddu (NGR SH 57035 52607) southward and to the immediate west of the A4085 road to a large rock known as 'Pitt's Head' which is claimed to resemble William Pitt the Younger. The cable will then be trenched eastward beneath the road and Welsh Highland Railway, to run northwest through fields to the property of Ffridd Uchaf. The underground cable will then return by the same route to then run southward through fields to the immediate west of the A4085 to immediately north of Pont Cae Gors (NGR SH 57547 50898).

The site lies within the parish of Beddgelert Community, within the unitary authority of Gwynedd. A low-lying area forming a hollow in which is situated Llyn y Gadair, the area is mostly given over to rough pasture, the farmland dominated by acid grassland within which there are cushions of gorse enclosed by field boundaries usually consisting of dry-stone walls reinforced by wooden post and wire fencing. The land is primarily given over to hill sheep farming, although some cattle farming also takes place within the localised landscape, generally on the lower slopes.

The bedrock geology is of the Cwm Eigiau Formation, a sedimentary sandstone bedrock that formed approximately 455 to 457 million years ago in the Ordovician Period within an environment previously dominated by shallow seas. The superficial deposit is of bands of peat that formed up to 3 million years ago in the Quaternary Period within an environment previously dominated by organic accumulations (British Geological Survey).

#### **3.0 WATCHING BRIEF - ARCHAEOLOGICAL AIMS**

The archaeological watching brief shall be maintained:

- 1. During the excavation of the cable trench within proximity of the Cairn, East of Llyn y Gader (feature 11); the mound (feature 4); and the linear earthwork (feature 8).
- 2. During the excavation of the cable trench within areas of underlying peat deposits.

The CIfA maintains a standard for archaeological watching brief which states that:

An archaeological watching brief will record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of conduct and other relevant by-laws of CIfA.

An archaeological watching brief is defined by the CIfA as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (CIfA 2014). The watching brief will take place within a specified area within the Site where there is a possibility that archaeological deposits may be disturbed or destroyed.

The CIfA further identifies the purpose of a watching brief as allowing, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established in advance of development or other potentially disruptive works.

It is also important to note that a watching brief provides an opportunity, if needed, for a signal to be made to all interested parties, before the destruction of the archaeological materials, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

A watching brief is, therefore, not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The aims of the watching brief are:

- To allow, within the resources available, the opportunity to gain information about and record the presence/absence, nature and date of archaeological remains on the Site affected by excavations and groundworks, the presence and nature of which could not be established with sufficient confidence in advance of works which may disturb them.
- To provide the facility to signal to the relevant authorities, before irreversible impact to remains that an archaeological and/or historic find has been made for which the resources allocated to the watching brief itself are inadequate to support their treatment to an adequate and satisfactory standard.

The specific objectives of the watching brief are:

- To observe and recover any artefacts of archaeological significance.
- To record the location, dimensions and nature of any deposits, features, structures or artefacts of archaeological significance.
- To recover samples of any deposits considered to have potential for analysis for palaeoenvironmental data should the opportunity arise.

#### 4.0 METHODOLOGY

#### 4.1 Archaeological Watching Brief

The methodology for the watching brief has been prepared with reference to the CIfA's document Standards and Guidance for Archaeological Watching Brief (2014) and will be kept under constant review during the project, in order to see how far it is meeting the terms of the aims and objectives, and in order to adopt any new questions which may arise.

Curatorial monitoring of the archaeological work on behalf of the Council will be carried out by the GAPS Development Control Archaeologist (Jenny Emmett). To facilitate the curatorial monitoring, the officer shall be provided with a minimum of two weeks' notice of the start of the archaeological work.

A suitably qualified and experienced archaeologist(s) from Aeon Archaeology will be commissioned for the maintenance of the watching brief. On arrival on site, the archaeologist(s) will report to the site manager and conform to the arrangements for notification of entering and leaving site. The archaeologist(s) will keep a record of the date, time and duration of all attendances at site, the names and numbers of archaeologists deployed and any actions taken. The archaeologist will be provided with a Health & Safety Induction by the construction contractor and wear a safety helmet, safety footwear and high visibility jacket/vest at all times.

If deposits and or artefacts are exposed during excavations for the development which require recording and recovery, it may be necessary to delay works whilst the proper investigation and recording takes place. Watching brief recording can often be undertaken without delay to groundworks, depending upon the specific circumstances and flexibility of all the staff on site.

Within the constraints of the terms of the watching brief work, the archaeologist will not cause unreasonable disruption to the maintenance of the work schedules of other contractors on site. In the event of archaeological discoveries the treatment of which (either arising from the volume/quantity of material and/or the complexity/importance of the material) is beyond the resources deployed the Client will be notified and a site meeting/telephone consultation arranged with the GAPS Archaeologist. The aim of the meeting will be to confirm that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard and identify measures which would be sufficient to support treatment to a satisfactory and proper standard prior to destruction of the material in question.

Any archaeological deposits, features and structures identified which can be investigated and recorded under the terms of the watching brief will be excavated manually in a controlled and stratigraphic manner sufficient to address the aims and objectives of the project – subject to the limitations on site access.

It may not be necessary to excavate the complete stratigraphic sequence to geologically lain deposits but the inter-relationships between archaeological deposits, features and structures will be investigated sufficient to address the aims and objectives of the project and the complete stratigraphic sequence to geologically lain deposits will be investigated where practicable.

The method of recording will follow the normal principles of stratigraphic excavation and the stratigraphy will be recorded in written descriptions even where no archaeological deposits have been identified. The archaeologist will record archaeological deposits using proformae recording forms and locate them on a large-scale site plan related to the Ordnance Survey National Grid and Datum references.

The groundworks excavations shall be undertaken using a mechanical excavator fitted with a <u>toothless</u> <u>ditching bucket</u>.

The drawn record will comprise plans at scale 1:20 and sections at scale 1:10; propriety electronic hardware and software to prepare site drawings may be used as appropriate.

The photographic record will be maintained throughout using a digital SLR camera (Canon 600D) set to maximum resolution (72 dpi) and all archaeological features will be recorded photographically 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. The standards for the digital archive will adhere to those set out in *'Guidelines for Digital Archaeological Archives'* (RCAHMW, 2015).

The archive produced will be held at Aeon Archaeology under the project code A0107.3.

#### 4.2 Watching brief report

#### 4.2.1 Post-excavation Assessment

A report on the results of the watching brief, in accordance with the recommendations in *Management* of Research Projects in the Historic Environment Project Manager's Guide (English Heritage 2006; 2015), and in the Chartered Institute for Archaeologists Standard and Guidance for an archaeological watching brief (2014) will be required to be produced upon conclusion of the archaeological fieldwork. The report will be completed within a maximum of two months of completion of work on site and may include examination and quantification leading to the identification of function, form, date, method of manufacture, material/fabric type, source, parallels, attributes and condition of artefacts; of the exploitation of wild or domesticated resources; the reconstruction of environments; and the nature of human populations.

Full analysis of the results of the project, including: dating and interpretation of excavated features; pottery and other finds analysis; analysis of industrial residues by an appropriate specialist or specialists; analysis of samples for environmental data (including pollen, plant macrofossils and beetles) by an appropriate specialist or specialists; radiocarbon dating; discussion of the results in their local, regional and national context, including relating the excavated features and palaeoenvironmental data to evidence from nearby sites, and discussion of the results in their local, regional and national context may be required.

The scope of post-excavation assessment will subject to a specification for approval by the GAPS Archaeologist, upon the conclusion of the fieldwork project and preliminary report.

#### 4.2.2 Post-excavation Report

Following completion of the stages outlined above, a report will be produced that will include:

- A non-technical summary.
- A table of contents.
- An introduction with acknowledgements, including a list of all those involved in the project and the location and description of the site.
- A statement of the project aims.
- An account of the project methodology undertaken, with an assessment of the same to include a statement on preservation bias and the means of data collection and sampling strategies.
- A factual summary of the history, development and use of the site.
- A statement setting out the nature, quantity and condition of the material archive

(artefacts and ecofacts) including commentary on any bias observed due to collection and sampling strategies and commentary on long-term storage requirements.

- A statement setting out the nature and quantity of the documentary archive (notes, photographs, drawings, digital data).
- A general site plan indicating the position and size of the areas subject to watching brief and the locations of archaeological deposits identified and recorded during the works.
- Plans and sections at appropriate scales, augmented with appropriate photographs. All plans and sections will be related to the Ordnance Survey datum levels and to the National Grid.
- Other maps, plans, drawings, stratigraphic matrices and photographs as appropriate.
- Summary assessment reports on the artefact, bio-archaeological, dating and other assessments/analyses.
- A discussion of the location, extent, date, nature, condition, quality and significance of any archaeological deposits and finds identified during the project.
- A discussion of any research implications arising from the archaeological work.

- Notes on consultations with conservators and the nominated archive repository related to the immediate and long-term conservation and storage requirements for the data held in the site archive and recommendations of retention/discard of artefacts and ecofacts.
- A bibliography of sources consulted.
- Appendices to the report will include artefact catalogues, reports on assessments/analyses and an index to the project archive and a statement on its location/proposed repository.
- In addition the post-excavation report will summarise and draw together the findings of all of the phases of work.

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 GAPS Archaeologist and to the client for comment and approval prior to production of the final report.

Acon Archaeology will not be held responsible for delays and subsequent costs incurred through the onset of adverse weather. If such conditions occur additional costs may be incurred.

#### 5.0 FURTHER ARCHAEOLOGICAL WORKS DESIGNS (FAWDs)

- <u>The discovery of substantial archaeological remains and/or features during the archaeological works may result in the requirement for an extended programme of archaeological mitigation. This may require the submission of revised quotes to the client as well as a new specification which will be required to be approved by the GAPS archaeologist prior to implementation.</u>
- This WSI does not include a methodology or cost for examination, conservation and archiving of artefacts discovered during the archaeological works, 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 WSI will be issued for approval by the Client and the GAPS Archaeologist.

#### 6.0 ENVIRONMENTAL SAMPLES

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. Other bulk samples, for example from middens, may be taken for small animal bones and small artefacts.

Bulk environmental samples will also be taken from any fills, deposits or structures which yield archaeological artefacts, charcoal flecks/ fragments, bone, or any other historic remains.

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 will be obtained from Oxford Archaeology.

For guidance purposes the following volume criteria represent the minimum feature sampling requirements:

- 50% of each discrete feature (e.g. pits and postholes)
- 25% of the exposed areas of each liner feature and all terminals/intersections
- 50% of structural features (e.g. beamslots, ring-ditches)
- 50%-100% of domestic/industrial working features (e.g. hearths and ovens)

#### 7.0 HUMAN REMAINS

Any finds of human remains will be left *in-situ*, covered and protected, and both the coroner and the GAPS 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.

#### 8.0 ARTEFACTS

All artefacts and ecofacts will be retrieved for identification and recording and will be treated in accordance with CIFA 2008 Guidelines for the collection, documentation, conservation and research of archaeological materials (Chartered Institute for Archaeologists, 2014).

All artefacts are the property of the landowner but it is recommended that finds are deposited with the rest of the project archive within an appropriate museum. Furthermore, the client agrees to granting access to all artefacts recovered by Aeon Archaeology for analysis, study and publication as necessary. All finds would be treated according to advice provided within *First Aid for Finds* (Rescue 1999). Aeon Archaeology staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants.

The recovery policy for archaeological finds will be kept under review throughout the archaeological works. Any changes in recovery priorities will be under guidance from an appropriate specialist and agreed with the GAPS Archaeologist. There will be a presumption against the disposal of archaeological finds regardless of their apparent age or condition.

All finds will be collected and processed including those found within spoil tips. Their location and height will be plotted; finds numbers attributed, bagged and labelled as well any preliminary identification taking place on site. Where specialist advice is required provision will be made to do so at the earliest possible convenience.

After processing, artefacts which are suitable will be cleaned and conserved in-house. Artefacts requiring specialist cleaning and conservation will be sent to the relevant specialist. All artefacts will then be sent to a specialist for analysis, the results of which will then be assessed to ascertain the potential of the finds assemblage to meet the research aims of the project. The value of the finds will also be assessed in terms of the wider educational and academic contributions.

Depending upon the material of the remains the following experts will be consulted regarding the conservation of waterlogged material:

- Organic material: Mr Phil Parkes, Cardiff Conservation Services (tel: +44(0)29 2087 5628)
- Non-organic material: Mr Phil Parkes, Cardiff Conservation Services (tel: +44(0)29 2087 5628)

Depending upon the material of the remains the following experts will be consulted regarding the conservation and analysis of artefacts:

- Bone: Nora Bermingham
- Glass: Hilary Cool, Barbican Research Associates.
- Metal artefacts: Phil Parkes, Cardiff Conservation Services, Cardiff.
- Slag, burnt clay, hammerscale: Dr. Tim Young, Geoarch, Cardiff.
- Stone artefacts: George Smith, Gwynedd Archaeological Trust, Bangor.
- Wood artefacts: Jane Foley, Foley Conservation, Builth Wells.
- Leather: Quita Mould, Barbican Research Associates.
- Environmental Material: Dr Mike Allen, Allen Environmental Archaeology.
- Numismatics: Peter Guest, Barbican Research Associates.
- Ceramics: Leigh Dodd

### <u>The cost for examination, conservation and archiving of artefacts discovered during the archaeological mitigation work are not included within this quote.</u>

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 specification will be submitted to the client and the GAPS archaeologist if necessary.

#### 9.0 UNEXPECTED DISCOVERIES: TREASURE TROVE

Treasure Trove law has been amended by the Treasure Act 1996. The following are Treasure under the Act:

- *Objects other than coins* any object other than a coin provided that it contains at least 10% gold or silver and is at least 300 years old when found.
- *Coins* all coins from the same find provided they are at least 300 years old when found (if the coins contain less than 10% gold or silver there must be at least 10. Any object or coin is part of the same find as another object or coin, if it is found in the same place as, or had previously been left together with, the other object. Finds may have become scattered since they were originally deposited in the ground. Single coin finds of gold or silver are not classed as treasure under the 1996 Treasure Act.
- Associated objects any object whatever it is made of, that is found in the same place as, or that had previously been together with, another object that is treasure.
- *Objects that would have been treasure trove* any object that would previously have been treasure trove, but does not fall within the specific categories given above. These objects have to be made substantially of gold or silver, they have to be buried with the intention of recovery and their owner or his heirs cannot be traced.

The following types of finds are not treasure:

- Objects whose owners can be traced.
- Unworked natural objects, including human and animal remains, even if they are found in association with treasure.
- Objects from the foreshore which are not wreck.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown.

The British Museum will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

#### **10.0 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 with the National Monument Record, RCAHMW within six months of the completion of the project.

A draft copy of the report will be produced within six months of the completion of the fieldwork and sent to the Client and the GAPS Archaeologist for comment prior to finalisation of the report and dissemination. Bound copies of the report and an archive CD will be sent to the regional HER (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, Gwynedd LL57 2RT) (x 2#), the GAPS archaeologist (x 2#) and to National Monument Record, of the Royal Commission on the Ancient and Historic Monuments of Wales (RCAHMW) (x 1#) for long term archiving. Furthermore, a summary of the project will be sent to *Archaeology in Wales* for publication. Copies of all digital files (inc. photos, report as PDF and Word, spreadsheets, databases, survey data etc) to be presented to each of above on optical disc (ie DVD).

#### **11.0 PERSONNEL**

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

#### 12.0 MONITORING AND LIAISON

Regular liaison and site monitoring meetings will take place during all stages of work. The GAPS Archaeologist will be informed of the start date and of discreet subsequent stages.

#### 13.0 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.

#### 14.0 INSURANCE

Liability Insurance – Insignia Underwriting Policy 347002

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 07/09/17

Professional Indemnity Insurance – Insignia Underwriting Policy 347002

Limit of Indemnity £500,000 any one claim

The current period expires 07/09/17

