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## Proposed Development at Glynllifon College: **Llandwrog, Gwynedd**

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### Archaeological Watching Brief: Ground Investigation Phase

GAT Project No. 2092  
Report No. 830  
October 2009



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Prepared for  
Capita Symonds

October 2009

By  
Matt Jones



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# Proposed Development site at Glynllifon Llandwrog (G2093)

## ARCHAEOLOGICAL WATCHING BRIEF

### SUMMARY

*Gwynedd Archaeological Trust (GAT) has completed an archaeological watching brief during geotechnical investigations at the proposed learning village development at Glynllifon, Llandwrog, Gwynedd.*

*A total of five test pits and four soakaways were opened across the site with the intention of identifying the depth of the bedrock and differentiating the layers of strata extant between the topsoil and the bedrock. Works were carried out on the 28<sup>th</sup> and 29<sup>th</sup> of September 2009. GAT had previously completed out a desk based assessment on the three proposed areas (A, B, C) suggested for development.*

*This report reflects works carried out in Area C, a desk based assessment was carried out on Area C in September by Gwynedd Archaeological Trust (GAT Report 827) and identified a range of archaeological features in close proximity of the development area.*

*The watching brief during the geotechnical investigations identified one test pit with archaeological activity: a possibly stone filled drain of post-medieval date within test pit 9.*

*No archaeological activity was recorded in any of the remaining pits.*

### 1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was asked by Capita Symonds to carry out an archaeological watching brief in advance of proposed development at Glynllifon College.

The development area (Area C) is centred on SH 444905579 and is located to the north of the farmstead and outbuildings at Glynllifon (figure 1). The development is described as a 'learning village' and is an extension of the facilities based at the college.

This report consists of an archaeological description of the ground works carried out in Area C.

An initial archaeological assessment was carried out in August 2009 (Gwynedd Archaeological Report G2092.3) and which did not any evidence of archaeological activity within Area C.

The watching brief during the carried out revealed only slight evidence of archaeological activity in Test Pit 9. This feature seems to represent post medieval agricultural activity. A good ground cover of top and sub soil was visible in all nine pits and could suggest that any below ground archaeological features would not have been heavily disturbed.

### 2 SPECIFICATION AND PROJECT DESIGN

The basic requirement was for a watching brief of the proposed area, in order to mitigate, through preservation by record, the impact of the geotechnical investigation on the archaeological features within the area concerned.

The aims of the watching brief, as defined by the Institute of Field Archaeologists (IFA Sept 2001) were:

- to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established with sufficient accuracy in advance of disruptive works;
- to provide and opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support the treatment to a satisfactory or proper standard.

The importance and condition of known archaeological remains were to be assessed, and areas of archaeological potential and new sites to be identified. Measures to mitigate the effects of the construction work on the archaeological resource were to be suggested.

Gwynedd Archaeological Trust's proposals for filling these requirements were as follows:

- Watching brief
- Report

### **3 METHODS AND TECHNIQUES**

#### **3.1 Watching Brief**

The watching brief took place between the 28<sup>th</sup> and 29<sup>th</sup> of September 2009. The aims of the watching brief were to monitor the excavation of five geological test pits and four soakaways.

One 8 tonne backhoe excavators with 0.60m wide toothed bucket were used throughout the watching brief.

The work was undertaken by *Capita Symonds* and *Strata Survey* which involved the excavations of five geological test pits to establish the composition of the underlying soil and geology. A total of four soak away pits were opened across the site to establish the water permeability of the geology.

#### **3.2 Report**

The report outlines observations made while ground work where being carried out on Area C between 28<sup>th</sup> and 29<sup>th</sup> of September 2009; a summary of the overall assessment of the area is given at the end.

### **4 ARCHAEOLOGICAL RESULTS**

#### **4.1 Topography and Geology**

**(Reproduced with amendments from GAT Report Number 827, 2009)**

##### 4.1 Geological and topographic description

Glynllifon is a mansion house with extensive parkland and pleasure grounds. It lies on the coastal plain between the western foothills of the Snowdonia massif and Caernarfon Bay. The Afon Llifon, which runs through the estate, starts from below the slopes of Moel Tryfan, winds across the coastal plain and enters the sea about 2.5km south-west of Glynllifon.

Glynllifon lies on Lower Cambrian slates, conglomerates and sandstones. To the south the Cambrian slate belt, with its high quality stone used for roofing slates, runs through the Nantlle Valley (Roberts 1979). Glacial drift overlies the bedrock.

The development area consists of two fields running northwest to southeast separated by a wire fence. When combined these fields form a trapezoid shaped area, located to the north of the farmstead belonging to the agricultural college, Coleg Meirion-Dwyfor. The study area undulates steadily and is situated on an elevated plateau, defined on its western edge by a steep downward slope covered in woodland. The development area is currently utilised as grazing, and its limits are defined on all sides by wire fencing and woodland.

##### 4.2 Archaeological and historical background

Glynllifon lies within the parish of Llandwrog, in the historic cantref (hundred) of Uwch Gwyrfai, and the former cwmwd (commote) of Arfon, in the old county of Caernarvonshire (Carr 1977, 71). The mansion of Glynllifon itself is listed in the Royal Commission Inventory (1960) as one of the principle monuments in this parish, but finds and upstanding remains suggest the area was occupied throughout much of the prehistoric and historic periods.



#### 4.2.1. Prehistoric

There was clearly prehistoric activity in this area, although most surviving sites are concentrated on the uplands to the east of Glynllifon. A Neolithic burial chamber (PRN 101) lies about 7.5 km to the south-west, near the coast at Bach-wen. It appears that the estate wanted its own burial chamber as a small cromlech stands in the Park but this appears to be of 18<sup>th</sup> or 19<sup>th</sup> century date (RCAHMW 1960, 187). The cromlech is listed (grade II, listed building number 20497) and the listing records that although there is a tradition that this structure was built by the Second Lord Newborough before 1832, as a mock druidical altar, it is more likely to be the work of F G Wynn in about 1900. A standing stone (NPRN 309,943/PRN 12,904/SAM C356) probably dating to the Bronze Age but only first depicted on the 1918 third edition county ordinance survey map, stands approximately 2m in height, 0.8m in thickness, and 0.7m in width stands to the immediate west of the farmstead and approximately 15m south of the southern limit of the development area.

The standing stone of Maen Llwyd (PRN 1313), further south in the Park, near the drive to Plas Newydd, is genuine and impressive as it stands about 3m high. A mid Bronze Age food vessel was found near its base and the stone was probably erected in the Bronze Age. Another stone (PRN 2265), 1.7m high, stands near Bodfan over 1km west of Glynllifon (RCAHMW 1960, 198) and this is also probably Bronze Age but a small stone (PRN 5529) standing within the current study area is much more doubtful and will be discussed below. A burial urn was found in a mound on a hilltop near Benallt, Bethesda Bach (PRN 596) and another cairn on the lower slopes of Mynydd Cilgwyn (PRN 1387) also produced pottery that was taken to Glynllifon but has since been lost (RCAHMW 1960, 198). The Inventory lists two Bronze Age burnt mounds on the hill slope nearby (PRN 1388 and 1389) (RCAHMW 1960, 198) and others have been found in the area since (PRNs 2350, 2341 and 2342). Two axe-hammers of probable Bronze Age date were found in the Glynllifon Park (PRNs 5768 and 5769) (RCAHMW 1960, xliii, xlv) as well as a stone with a hole in it of unknown date (RCAHMW 1960, xlv, xlv). About a kilometre west of Glynllifon a loopless bronze palstave (PRN 2267) of Bronze Age date was found near Rhos-Maelan (RCAHMW 1960, liii).

There was considerable settlement in the Iron Age in this area. The known roundhouse settlements survive on the edge of the uplands around Mynydd Cilgwyn and up the Nantlle Valley (RCAHMW 1960, 190-197), but this distribution is largely due to differential survival. Settlements probably existed on the lowlands but their remains have been removed by more intensive agriculture. The recovery of the lower stone of a rotary quern (PRN 2286) of probable Iron Age date from near Glynllifon supports this (RCAHMW 1960, lviii).

The major Iron Age site in the area is Dinas Dinlle (PRN 1570); a hillfort is built on an isolated hill near the sea. The fort was defended by two earth ramparts, but coastal erosion has caused much of the site to be lost. The interior contains traces of circular huts and there may be a Bronze Age barrow in one corner. Occupation of the site extended into the Roman period as finds include a ring with an intaglio of victory, coins of Gallienus, the Tetrice, Carausius and Allectus and a fragment of black ware indicating occupation in the 2nd and 3rd centuries AD (RCAHMW 1960, 190).

#### 4.2.2 Roman period

There must have been considerable Roman influence in this area only about 7.5km south of the fort of Segontium in Caernarfon, but the known archaeological evidence is slight. As well as occupation at Dinas Dinlle continuing into the Roman period it probably also continued on many of the roundhouse settlements in the area but Roman military sites are not common near Glynllifon. It has been suggested that the modern A499 running immediately west of Glynllifon follows the line of a Roman road but this has not yet been proven (Hopewell 2007, 24). The Roman road from Caernarfon to Pen Llystyn must have passed just to the east of the estate. Two lines have been proposed, one to each side of Groeslon, but the exact route in this area is not known (Hopewell 2007, map 28). There is a supposed Roman signal station (PRN 5572) south of Llanllyfni but the HER gives no information about this. Slate may have been quarried in the Nantlle Valley in the Roman period and used to roof the fort of Segontium (Cadw 1998b, 102). As well as the Roman coins found in Dinas Dinlle coins of the Tetrice (AD 270-3) were found at Llwyn y Gwalch, near Dolydd (PRN 1457).

#### 4.2.3. Medieval

Evidence of medieval settlement in the area is slender, although there is no reason to suppose it was not well settled. There is a medieval township recorded at Dinlle (PRN 7325) and some of the field systems on the hills are probably of medieval date (e.g. PRN 4362), although only one long hut of medieval style has been recorded (PRN 6734) (RCAHMW 1960, 197). The Drws y Coed Copper Mine (PRN 20535) in the Nantlle Valley is believed to have been worked in the thirteenth century. Ffynnon Edliw (PRN 2266) is a holy well situated about 270m west of the gates of Glynllifon. A spring has been enclosed with masonry to form a pool, but its date is not known (RCAHMW 1960, 198).

Although the present church at Llandwrog is modern, erected in 1860 (RCAHMW 1960, 182), it replaced a medieval church demolished in 1858 (PRN 6966) and described by Hyde Hall in the early 19<sup>th</sup> century (Hyde Hall 1952, 213). The circular churchyard and dedication to Saint Twrog suggests an early medieval foundation. Twrog was one of the 'Celtic' saints associated with Saint Beuno (Bowen 1977, 61).

The 1751 estate map (Gwynedd RO, XD2A/1580), reproduced in GAT 827, figure 03, marks a house near what is now the main gate as 'Bettws house and garden', this has an adjacent cowshed (beudy) and yard (buarth) and a nearby field is called Cae Tan y Bettws. The Bettws name is then applied to the woodland that covered part of the development area and the name appears on OS maps through to the present day. 'Betws' is a loan word from the Old English 'bed-hus' meaning an oratory. It is a common place name in Wales and first occurs at the beginning of the 13<sup>th</sup> century (Roberts 1992, 44). The name is suggestive of a chapel in this location, of which nothing but the name remained by the 18<sup>th</sup> century. On the 1790 estate map (National Library Ms Maps vol. 95 094/8/2) reproduced in GAT 827, figure 4, the house was still there but the name is applied to a farm to the south, so there must be some doubt about the exact location of the chapel site. Wherever it was located it would have lain next to one of the principle medieval routes from Caernarfon to Nefyn or Pwllheli (Williams-Jones 1977a, 78), along which, in 1284, Edward I marched to a tournament held at Nefyn to celebrate his conquest of Wales (Williams-Jones 1977b, 82, 84).

#### 4.2.4 Post-Medieval

Glynllifon was the seat of one of the most important families in Caernarvonshire; the Glyns of Glynllifon, who, like many of the *uchelwyr* families, took their name from their seat (Parry 1977, 97). The line of Glynllifon claimed descent from the 9<sup>th</sup> century hero Cilmin Droed-ddu, but the earliest historically attested member of the family was Tudur Goch in the 14<sup>th</sup> century (National Library: Dictionary of Welsh Biography (online)). Hwlcyn Lloyd, another ancestor of the Glyns died defending Caernarfon Castle against an attack by Owain Glyndŵr's forces in 1403 (Williams-Jones 1977c, 93). As *uchelwyr*, minor nobility and large landowners, the Glyns held important posts such as archdeacon of Bangor and Justice of the Peace (Parry 1977, 97; Williams-Jones 1977d, 101). The estate passed into the hands of the Wynn family of Bodfaen in about 1700 when Frances Glynne, the heiress of the estate married Thomas Wynn (RCAHMW 1960, 185). The Wynn family represented the Borough of Nefyn in parliament for much of the period between 1713 and 1790 (exhibition in Glanrafon Mill, Glynllifon). In 1776 Sir Thomas Wynn was awarded a peerage and was made the first Lord Newborough. The peerage was granted in recognition of his military efforts including building Forts Belan and Williamsburg, the latter within Glynllifon Park (Gwynedd Council (on-line)).

Such an important family needed a house and estate to match their reputation. There are known to have been at least four houses on the site of the present mansion. An existing house was rebuilt in c.1600 and in 1751 another house was added on to this. The 18<sup>th</sup> century house was built in brick and destroyed by fire in 1836. Between 1836 and 1848 the house was entirely rebuilt in stone in the Renaissance style, and in 1890 this house was considerably extended (RCAHMW 1960, 186). A stable block built in 1849 is now used by the agricultural college, and a yard to the north-west of the stables was surrounded by buildings supplying a variety of services including gas works, tannery, smithy, cart sheds and slate mill (Cadw 1998, 207). The water mill to the south-west of the house is shown on maps from the 1820s (Cadw 1998, 207). The mill went out of use by 1900 but in 1915 a powerhouse was built on the back of it with a turbine driven by the water to generate electricity (exhibition in Glanrafon Mill, Glynllifon).

The park in which the house stands is likely to have been originally laid out in the middle of the 18<sup>th</sup> century at roughly the same time as the 1751 house was built (Cadw 1998, 209). The park is surrounded by a substantial stone wall (feature 11 (PRN 11,262) built in the early 19<sup>th</sup> century by the second Lord Newborough (RCAHMW 1960, 187). There are five lodges at entrances through the wall, the most impressive being the Grand Lodge (feature 14 (PRN 12,575 (NPRN 31,379 (Listed building no. 20478) at the main western entrance to the estate.

The first Lord Newborough built a lodge at the west gate, possibly in the 1790s (Cadw 1998, 209), but this seems to have been on a slightly different site to the present Grand Lodge. The 1790 map shows a double structure marking the gateway; however, this is to the east of the present lodge. An estate map of 1824 (Gwynedd RO XD2A/857) shows a single small building just to the north of the site of the present entrance but no lodges. The map of 1828 (Gwynedd RO XD2A/858) shows the present double structure in the current position with the entrance area in its current layout. The evidence is further confused by the tithe map that shows a single building to the south side of the drive. It appears from the map evidence that the first Lord Newborough built a double gateway structure but that this was demolished and the gate relocated as new

driveways were built. The 1828 map has had additions made to it and if the tithe map can be trusted this suggests that the lodge was one of these additions and that it was not constructed until after 1849. The listed building record comments that the Classical detail of the present lodges and linking archway suggest that it is contemporary with the house built in the 1840s, with remodelling about 1900. The lion on top of the archway originally stood on the stable block and was moved in the late 19<sup>th</sup> century (Cadw 1998, 208).

The main road, the current A499, has had a slightly confused history. In 1751 it ran to the east of the present line but the 1824 map shows an added curve taking it west of farm buildings on the Llandwrog road. The remains of the straight road are indicated but it leads nowhere. The road was back on its present line by 1828.

There were numerous woodlands throughout the park. Hyde Hall (1952, 213) writing in the early 19<sup>th</sup> century describes Glynllifon as surrounded by 'fine wood and plantation'. There were also various ponds and reservoirs. Much of the Afon Llifon where it flows through the park was canalised and pleasure grounds were created on its banks. The pleasure grounds have Italianate water features, a hermitage, which for a short time had a resident hermit, and other follies (Cadw 1998, 210). Several drives ran through the park with bridges where they crossed the Afon Llifon. The routes of these drives altered as the layout of the park was changed. There were three walled kitchen gardens with several glasshouses (Cadw 1998, 215).

Fort Williamsburg (PRN 954) was built within the park in about 1761. The fort is stone-built and is roughly rectangular with angle bastions. It contains a barracks building, also known as the 'summer pavilion' (Cadw 1998, 209) and a small tower, but the Royal Commission considered that it was 'improbable that Williamsburg could have been put to any serious military use' and it seems to have been more a centre for social societies (RCAHMS 1960, 187-188).

In 1948 the estate was sold to a timber merchant and in 1954 the house and park were sold to Caernarvonshire County Council and the buildings later transferred to Coleg Meirion-Dwyfor (Cadw 1998, 210). The house is presently in separate ownership.

The development area lies to the south of the main drive and to the west of the river. Throughout the 19<sup>th</sup> century the land to the south of the main drive and the house was open park land, but in the 18<sup>th</sup> century there was a walled garden and a formal area of woodland with radiating paths to the south of the river. In 1751 the development area was wooded with the area divided into parcels with trees of differing density and presumably different types. By 1790 most of the trees near the river had been cleared. The main driveway had been straightened by 1790 but is shown as curving to the north in 1824. Most of the drives around the development area reached their current form by 1828 but the main drive was not on its current alignment until 1900. By 1828 the curving drive defining the development area had been constructed and the Grand Lodge was built with the semi-circular area in front of the entrance.

#### 4.3 Statutory and non-statutory designations

Glynllifon is registered by Cadw as a park of special historic interest, with grade I listing (register number PGW (Gd) 39 (GWY) (Cadw 1998a, 206) defined as 'parks and gardens which by reason of their historic layout, features and architectural ornaments considered together make them of exceptional interest' (Cadw 1998, xiii).

Cadw states (<http://www.cadw.wales.gov.uk/default.asp?id=109>) that grade I parks and gardens are of international importance. Within the park the house is a grade I listed building, the stables, Grand Lodge and Fort Williamsburg are grade II\* and numerous other buildings and structures are grade II. Included within the development area are two grade II listed bridges (record numbers 20445 and 20462).

Glynllifon does not lie within a landscape of either special or outstanding historic interest as defined by Cadw (Cadw 1998b and 2001), but it lies close to the Nantlle Valley registered for its prehistoric settlements and industrial heritage (Ref number HLW (Gw) 9: Cadw 1998, 104).

#### **4.4 Results of the Archaeological Watching Brief**

Identified deposits and features were recorded photographically and by notes and sketches. The archive is held by GAT under the project number (G2092.4).

Each test pit will be described separately. For their individual locations see Figure 1.

Test Pit 05 (Figure 01; Plate 01)

Size: 2.50m x 0.77m Depth 2.90m

*Description*

The topsoil was extant to a depth of 0.31m and was followed by a thick deposit of light brown sandy silt with occasional small stone to a depth of 0.50m. Below this there was deposit of clay silt with occasional small angular stones to a depth of 0.38m. This rested on a bed of compact stones with a similar clay silt soil matrix this was excavated to a depth of 1.71m

*Interpretation*

No archaeological remains were identified in the test pit.

Test Pit 06 (Figure 01; Plate 02)

Size: 2.80m x 0.77m Depth 3.00m

*Description*

The topsoil was extant to a depth of 0.36m and was followed by a thick deposit of light brown sandy silt with occasional small stone to a depth of 0.40m, a similar deposit but with a higher frequency of stone followed for a depth of 0.82m. This rested on brown clay silt with a high frequency large sub- angular stones leading down to shale type natural with a depth of 1.42m.

*Interpretation*

No archaeological remains were identified in the test pit.

Test Pit 07 (Figure 01; Plate 03)

Size: 2.20m x 0.77m Depth 2.80m

*Description*

The topsoil was extant to a depth of 0.28 and was followed by a thick deposit of light brown sandy silt with occasional small stone to a depth of 0.32m, a similar deposit but with a higher frequency of stone followed for a depth of 0.50m. This rested on brown clay silt with a high frequency large sub- angular stones leading down to shale type natural with a depth of 1.90m.

*Interpretation*

No archaeological remains were identified in the test pit.

Test Pit 8 (Figure 01; Plate 04)

Size: 1.80m x 0.77m Depth 3.00m

*Description*

The topsoil was extant to a depth of 0.40m and comprised a dark a brown humic topsoil; three glacial deposits followed this: a light brown silt clay, 0.52m thick and an light grey sandy silt, 0.48 thick and a brown gravel natural with a silt soil matrix with a depth of 1.60m .

*Interpretation*

No archaeological remains were identified.

Test Pit 09 (Figure 01; Plate 05)

Size: 2.50 x 0.60m Depth 2.45m

*Description*

The topsoil was extant to a depth of 0.41 a single cut feature was observed cut into the second layer from the top soil layer. The fill was made up of large and medium sized stones to a depth of 0.40m and width of 0.52m, its soil matrix was the same make up as the top soil and it suggest that it was cut from this height.

This was followed by a thick deposit of light brown sandy silt with occasional small stone to a depth of 0.42m. Below this was a clear layer of light grey sand silt to a depth of 0.22m, a deposit with a similar make up but with a higher frequency of stone (weather rock) followed for a depth of 1.39m.

*Interpretation*

The feature seems to represent a stone filled field drain of a post medieval date.

The Soakaways

A series of “soakaway” tests were conducted across the development area in tandem with the test pits. The soakaways were of similar size to the geotechnical test pits and the procedure involved removing the topsoil and subjecting the underlying subsoil to a water permeability test.

SA 5 (Figure 01; Plate 06)

Size: 2.40m x 0.47m Depth 2.50m

*Description*

The topsoil was extant to a depth of 0.38m and comprised brown loam; this was followed by a light-brown sandy silt, 0.56m deep. Following this was a light brown gravely silt with evidence of bed rock pushing through at its base, to a depth of 1.56m.

*Interpretation*

No archaeological remains were identified in the soakaway

SA 6(Figure 01; Plate 07)

Size: 2.10m x 0.45m Depth 2.10m

*Description*

The topsoil was extant to a depth of 0.35m and comprised a brown loam, followed by three glacial deposits: a light brown compacted sandy gravels, 0.51m thick, below this there a layer of large boulders with a brown clay matrix with a depth of 0.86m. The natural was made up of compact grey gravels with light brown soils to a depth of 0.38m.

*Interpretation*

No archaeological remains were identified in the soakaway

SA 7(Figure 01; Plate 08)

Size: 2.40m x 0.40m Depth 2.21m

*Description*

The topsoil was extant to a depth of 0.51m and comprised a brown humic topsoil; three glacial deposits followed this: an orangey gravel, 0.18m deep and a compact clay deposit with a depth of 0.48m, below this there was a brown gravel-sand 1.04 deep.

*Interpretation*

No archaeological remains were identified in the soakaway.

SA 8(Figure 01; Plate 09)

Size: 2.10m x 0.32m Depth 2.30m

*Description*

The topsoil was extant to a depth of 0.32m and comprised a brown loam, followed by three glacial deposits: a light brown compacted sandy gravels, 0.49m thick, below this there was a dark brown clayey silt with a depth of 0.62m. The natural was made up of compact grey gravels with light brown soils to a depth of 0.87m.

*Interpretation*

No archaeological remains were identified in the soakaway

## **4.5 Conclusion**

### Archaeology

A total of five test pits and four soakaways were opened across the site with the intention of identifying the depth of the bedrock and differentiating the layers of strata extant between the topsoil and the bedrock. The watching brief identified one test pit with evidence of archaeological activity, Test Pit 9. This feature seems to represent post medieval agricultural activity and would fit with the suggested Historic land use.

The areas exposed were not large enough to make a true assessment of the potential archaeological activity. None of the deposits showed signs of being heavily disturbed and where seen there was a good ground cover of top and subsoil.

### Pedology/Geology

The topsoil across the development site varied in depth from 0.28m (Test Pit 07) to 0.51m (Soakaway 7), but the average depth was 0.30m and the topsoil was generally a mid-brown clay-silt. No variations were noted apart from the intrusion of the drain feature in Test pit 9.

The deposits below the topsoil were glacial and/or alluvial in origin and appear to be of a similar make with few changes and varied considerably in depth. The only notable change was the deposit of large boulders within Soakaway 6.

The bedrock was often located at considerable depth below ground level, and was only really reached in Test Pit 7 at a depth of 1.10m and Soakaway 5 at a depth of 2.50m. At similar depths all test pits and soakaways showed evidence of gravelly deposits, and are suggestive of Fluvio-glacial deposits (outwash from glacial activity).

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Tithe map of the parish of Llandwrog in the County of Carnarvon (lower part) 1849.  
Tithe Apportionment Schedule for the parish of Llandwrog in the County of Carnarvon, 1843.  
XD2A/1580: Map of Glynllifon Demesne with schedule of lands (1751)  
XD2A/857: Map of park and demesne lands at Glynllifon (1824)  
XD2A/858: Map of Glynllifon Demesne in the parish of Llandwrog (1828-1840)

XD2A/859: Sketch plan of Glynllifon Estate within the walls (undated but shows pre-1840 house)

National Library of Wales

Ms Maps vol. 95 094/8/2: Glynllifon Demesne and Penbryn Bwlan (1790)

National Monuments Record, Aberyswyth

*Aerial Photographs*

*Verticals*

**CPE/UK/1939, date 20<sup>th</sup> January 1947, frame 4067**

3G/TUD/UK/193, date 10<sup>th</sup> May 1946, frame 6220

OS 73-017, frame 064, 20<sup>th</sup> March 1973

OS 73-020, frame 095, 21<sup>st</sup> March 1973

Forestry Commission 15/78, frames 219 and 221, 25<sup>th</sup> May 1978

*Obliques*

**Film number 965123, frames 57 and 58**

**Film number AP\_2005, frames 0465-68, 0474-5, 0479-83, 0714-5, 0719-21, 0732**

**Film number 2003/5099, frames 45-47**





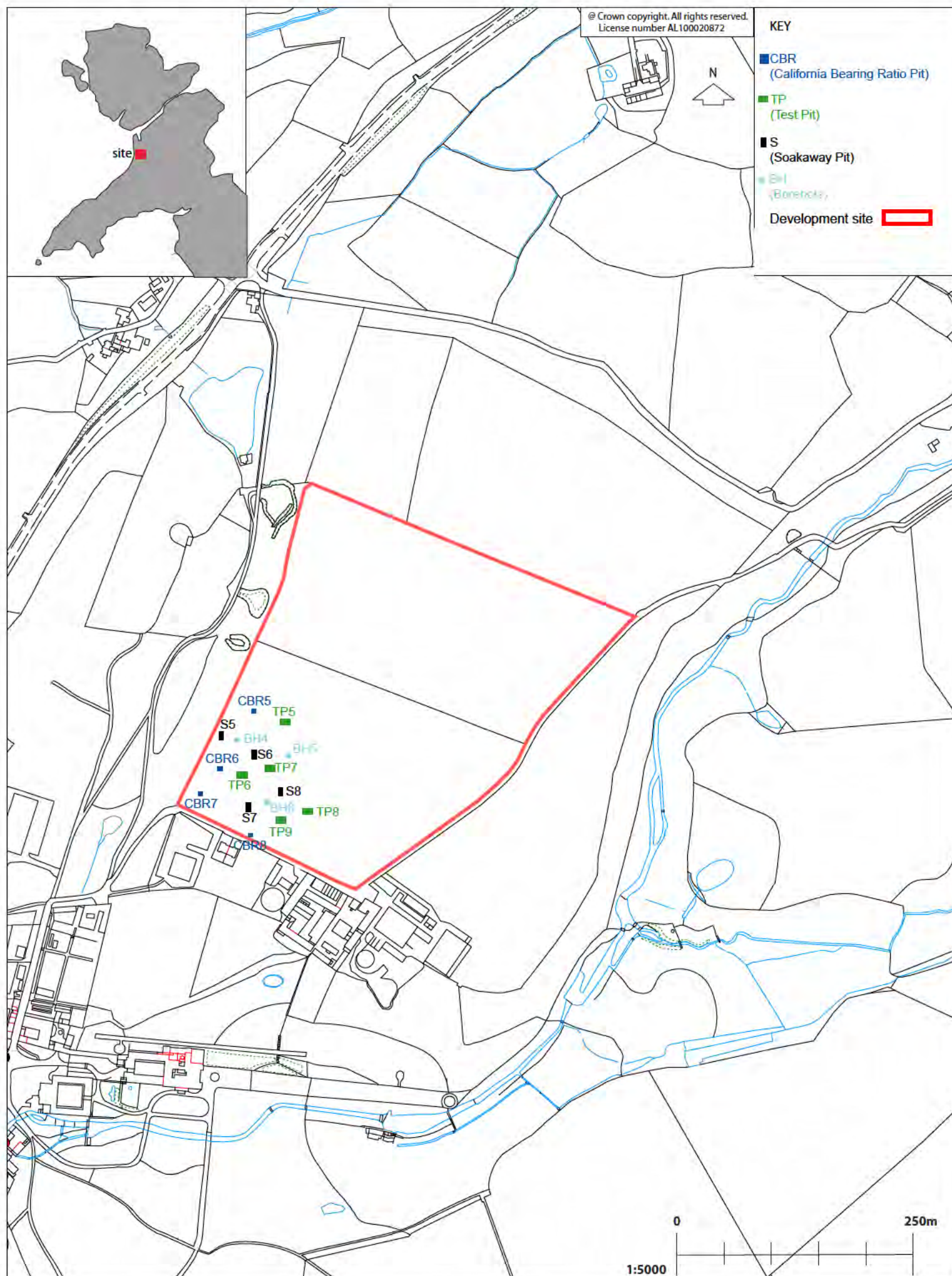


Figure 01. Development area/Location of Ground Investigation Areas monitored by Gwynedd Archaeological Trust  
Development Area C highlighted in **RED**.  
(See GAT Report 827 for the location of known archaeological features)





Test Pit 5  
Plate 1



Test Pit 6  
Plate 2



Test Pit 7  
Plate 3



Test Pit 8  
Plate 4



Test Pit 9  
Plate 5





Soak Away 5  
Plate 6



Soak Away 6  
Plate 7



Soak Away 7  
Plate 8



Soak Away 8  
Plate 9





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