
LLITHFAEN 11kv NETWORK ALTERATIONS: **Llithfaen, Gwynedd**



Archaeological Assessment

GAT Project No. 2129

Report No. 863

April, 2010

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Scottish Power Energy Networks

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LLITHFAEN 11KV NETWORK ALTERATIONS

ARCHAEOLOGICAL ASSESSMENT

Gwynedd Archaeological Trust Report No. 863

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Fig. 4 Tithe Map of the Parish of Pistyll 1839, with the route of the power line overlaid in red. The location of site 3 is noted. Map not to scale

Fig. 5 Route of poles and overhead lines, overlaid on 1867 Vaynol estate map (Gwynedd Archives X/Vaynol/4179)

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LLITHFAEN 11KV NETWORK ALTERATIONS (G2129)

ARCHAEOLOGICAL ASSESSMENT

SUMMARY

An archaeological assessment has been carried out on land adjacent to the route of the proposed Llithfaen 11kv overhead cable alterations, Llithfaen, Gwynedd. This scheme involves the removal of poles numbered 27 to 71 from an overhead cable line and placed in a trench in a nearby track way.

The area was noted to be one of high archaeological potential, with evidence for settlement sites and field systems dating from the late prehistoric to medieval periods. This upland archaeology is extensive, well preserved and largely not recorded.

Fourteen sites were noted close to the power cable route, including four of possible prehistoric or medieval date. A number of post-medieval features relating to upland pastoral farming were noted, including two probable sheepfolds, along with drystone walling. Evidence for industrial activity in the form of stone quarrying was also noted.

A strategy of fencing off known archaeological sites during the removal of the overhead cables and poles, and archaeological monitoring of the work of the ATV used to remove the poles, in order to mitigate against damage to any potential archaeology in the surrounding area, is recommended. As the track way on which the new route of the cable is to be laid is the possible route of a Roman road, a watching brief is recommended during the work to lay the new buried cable. A watching brief is also recommended during the excavation along the edge of the public car park in the southern portion of the scheme to join up with pole 3, and during the excavation of the footings for the new terminal poles.

The final section of the route involves the excavation of a 40m length of cable trench at the north end of the scheme near feature 6, offline of the track way. It is recommended that the cable trench is subjected to a programme of archaeological strip, map and sample.

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by *Scottish Power Energy Networks* to carry out an archaeological assessment in advance of a proposed overhead line replacement scheme, located near Nant Gwrtheyrn, Llithfaen, Gwynedd, centred on NGR SH 35834466. The proposed works are shown on *SP Energy Networks* drawing number FGC_304703_1_SP.

The scheme measures c.1.92km in length and includes the removal of poles numbered 26 to 71 from the current overhead line (Fig. 2). The cable will be placed in a trench excavated in the neighbouring extant track way to the North West. The route is shown on *SP Energy Networks* Drg. No FGC_304703_1_SP. This work involves the excavation of a 750mm deep and 500mm wide trench which will be cut using a 26 ton trenching machine, to be backfilled after 100mm ducts have been laid. An additional spur section of trench excavation is required in the southern part of the scheme to link to the spur poles leading to Nant Gwrtheyrn, which involves the excavation of a 1 metre wide trench, with a 5m working zone around it. The vegetation is only to be removed over the 1m trench line, and laid back on the ground in the same position from which it was removed (*Carillion* method statement revision 3, dated 26th November 2009). An additional short spur of about 40m is required to connect the cable to a new 'H' pole between the current poles 25 and 26 (*SP Energy Networks* Drg. No. FGC_304703_1_SP).

2 PROJECT DESIGN

Gwynedd Archaeological Trust's proposals for an archaeological assessment at Llithfaen, was accepted by *Scottish Power*. A full specification was not provided by Gwynedd Archaeological Planning Service

(GAPS) for the work, however the requirements for the archaeological assessment were set out in a letter from Ashley Batten dated 9th October 2009 ref:1009ab01/D1353. A project design for the assessment was submitted to GAPS by GAT. This report conforms to the requirements, and to the guidelines specified in *Standard and Guidance for Archaeological Desk-based Assessment* (Institute of Field Archaeologists, 1994, rev. 2001).

A desk-based assessment is defined as ‘a programme of assessment of the known or potential archaeological resource within a specified area or site on land, inter-tidal zone or underwater. It consists of a collation of existing written, graphic, photographic and electronic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resource in a local, regional, national or international context as appropriate’. (*Standard and Guidance for Archaeological Desk-based Assessment*, IFA 2001, 2).

The aims of the assessment as given in the specification are:

- to identify and record the cultural heritage within the defined study area;
- to evaluate the importance of what has been identified;
- to recommend ways in which impact upon the cultural heritage can be avoided or minimised.

To comply fully with the aims expressed above it can be necessary to undertake a programme of Field Evaluation following the Desktop study and Field Visit. This is because some sites cannot be assessed by desktop or field visit alone, and additional fieldwork is therefore required. This typically takes the form of geophysical survey or trial excavation, although measured survey is also a possible option. A full programme of assessment and evaluation may therefore consist of:

- Desktop study
- Field walkover
- Initial report
- Field evaluation
- Draft report
- Final report

This phase of the project concerns the first three phases.

3 METHODS AND TECHNIQUES

3.1 Desk top study

This comprised the consultation of maps, documents, computer records, written records and reference works, which form part of the Historic Environment Record (HER), located at GAT, Bangor. The archives held by the Gwynedd Archives, Caernarfon and of the University of Wales, Bangor, were also consulted. Information about buildings was obtained from Cadw records held in the Gwynedd HER and by consultation of CARN, which is the online index of the Royal Commission on Ancient and Historic Monuments, Wales, who also provided information on aerial photographs.

Sites, buildings and find spots listed in the GAT HER were identified (Fig. 2) within the study area, and within 500m of it to give background information relevant to the understanding of the landscape. The study area is defined as a buffer zone 500m around the overhead cables between poles 27 and 70, as shown on *SP Energy Networks* drawing FGC 304703 1 SP.

3.2 Field Search

The field search was carried out on 8th April 2010. The weather conditions were excellent for a visit, however heather and gorse was present over much of the length of the cables, in places to a height of 0.8m, which made the detailed identification of archaeological features difficult.

3.3 Report

The available information was synthesised to give a summary of the archaeological and historic background and of the assessment and recommendations, as set out below. The features, their evaluation and recommendations are listed separately, and a summary of the overall assessment is given at the end.

The criteria used for assessing the value of any features found are based upon those used by the Secretary of State for Wales when considering sites for protection as Scheduled Ancient Monuments, as set out in the Welsh Office circular 60/96. The definitions of categories used for impact, field evaluation and mitigation are set out in Appendix 2.

The archive is stored with GAT as Project No. **G2129**

4 ARCHAEOLOGICAL RESULTS

4.1 Topographic description

The 11kv route crosses a mid slope plateau on the southern side of *Yr Eifl*, above Nant Gwrtheyrn, centred on NGR SH35834466. The plateau is itself located in a steep sided valley located to the north west of Llithfaen, Gwynedd. The upland grazing slopes, which include the route of the current 11kv power line, fall away with steep cliffs of a prominent igneous intrusion over Ordovician rocks on which the Port Nant quarries are located close to the sea (Bassett and Davies 1977, 18-20). Soils consist of a shallow humic horizon on weathered rock, with thicker organic horizons in areas where drainage is impeded. A significant quantity of gorse and heather cover was noted over the study area. To the south and west areas of post-war conifer plantation were noted.

4.2 Archaeological and historical background

4.2.1 Introduction

The upland archaeology in the region is extensive, well preserved and largely unrecorded (Browne and Hughes 2003, 7). Indeed there are many prehistoric and later sites in the region around Nant Gwrtheyrn, similar to those examined nearby at Moel Bronymiod by GAT in the 'Uplands Initiative' under the auspices of Cadw (Geary 2003, 75-80). Also prehistoric sites in the region have been studied by Smith (1999).

Nant Gwrtheyrn itself plays a very important role in the legends and folklore of post Roman Wales. The name *gwrtheyrn* is thought to derive from *gor* meaning 'super' and *teyrn* meaning 'king', suggesting associations with local elites who gained power after the collapse of Roman authority. Since the 8th century writings of Nennius it has been associated with the final place of refuge of the Kentish prince Vortigern (Gwrtheyrn) with whom legend associates the fatal error of inviting assistance from Saxon mercenaries and thus 'being hated by all the people of Britain', forcing his subsequent flight to the Nant, and his building of a fortress there (Morris 1980, 31). This story has a theme recurrent in Welsh literature, in which the tragic hero is forced to roam the mountains after disaster strikes.

It has been suggested that the name Gwynus, now given to a farmhouse close to Llithfaen and 2.5 km south of the study area, but once the name of a medieval township in the commote of Dinllaen, represents the name of an early medieval ruler in the area. This hints at the former importance of the region (Richards 1963, 22-24).

Nant Gwrtheyrn is referred to in the 13th century as forming part of a grant from Llywelyn to Heilyn ap Tudur before 1282, and in the 16th century it is referred to as 'Vortigers' Valley' by Leyland (*ibid.*, 25).

Later folk tales such as the marriage of Rhys and Meinir are also set in the valley. Thomas Pennant, touring North Wales in the 1770s reports that a stone cist grave *bedd Gwrtheyrn* had been opened by the people of

the valley and that the bones of a tall man were discovered, possibly that of the royal fugitive (Pennant 1783, 213-214).

Whilst these stories may contain elements of a traditional folk memory of actual events, another significance of these tales from an archaeological point of view is that they give Nant Gwrtheyrn a sense of place and significance in the landscape which may have affected the way later people interacted with the area.

It is certainly the case that important prehistoric and early medieval sites are situated not far from Nant Gwrtheyrn and relatively easy access from the sea means that it would not have seemed as remote as it does today. In archaeological terms, the presence of a possible early medieval chapel and medieval township hint at the significance of the area in the post Roman period.

4.2.2 Prehistoric and Roman

A flint flake, of unknown date but probably earlier prehistoric, has been found at (NGR SH 35904500, PRN 2239). A Bronze Age spearhead (PRN 2,248) has been found on the steep scarp of *Yr Eifl* at NGR SH 35114495. There is no further information on when this happened. No other prehistoric or Roman finds or sites have been identified within the immediate vicinity of the study area.

The wider landscape has preserved very good examples of prehistoric settlement and funerary sites, including the hillfort at Tre'r Ceiri (PRN 613, Hogg 1962) on the summit of the easternmost peak of Yr Eifl, and Bronze Age cairns on the summits of two peaks of Yr Eifl (PRNs 610, 623). Further evidence for Bronze Age funerary activity (PRN 2243, SH 35524310) comes from about 1.5km to the south of the current study area, where a cist burial, within a cist about 1m by 0.55m, containing a beaker with comb impressed decoration and bones, was uncovered in the village of Llithfaen during the laying of water pipes in 1937 (Hughes 1939, 95-97).

An excavation has been carried out to the south west of the study area at Carreg y Llam (Hogg 1957, 46-55) in advance of quarrying, where a late prehistoric fortified oval enclosure 30m long by 15m wide with single round hut built into the inner face of the rampart was found. Outside the study area to the south, Mount Pleasant settlement (PRN 620) at SH 35104428 may be late prehistoric in origin (Griffiths 1950, 39). It consisted of a 'D' shaped enclosure c.48m east-west by 40m, containing and connecting four circular, ruined stone wall defined structures 10-18m in diameter. Additional structures within the enclosure include sheepfolds and shepherd's shelters (Silvester 2003, 127). The site is a Scheduled Ancient Monument (ref. CN 249). A hut circle and probable prehistoric field system has been noted at Ty Uchaf, Nant Gwrtheyrn (PRN 2242, NGR SH35414495) and within the study area between poles 43 and 44 (PRN 619), although this site may be more extensive than has been identified. It is likely that many further prehistoric sites remain to be discovered in the area.

The track that runs north-south may follow the route of the Nefyn to Segontium Roman Road (PRN 17815 and 17823), although there is no trace of this visible on the ground.

4.2.3 Medieval and Later

Possible evidence for medieval ecclesiastical activity within the area is suggested by the presence of a chapel site at Nant Gwrtheyrn (PRN 2231, NGR SH 35114495), although the date of this site remains very uncertain.

Probable medieval long huts and enclosures have been identified at a number of locations (PRN 621 NGR SH 35194448, PRN622 SH 35264434 [*ibid.* 1964, 94-95- including plans], NPRN 15,181 SH 352444). The medieval township of Nant (PRN 6,525 SH 35104428) is located south of the study area. The long huts, which are probably both medieval and post-medieval in date, may have housed people and beasts under the same roof, although many of the small ones may have served as *hafodydd* occupied only during the summer months (Silvester 2003, 129). A known site of this type has been identified along the proposed

route at SH 36234535 (PRN 2235), and a probable further example has been identified in the study area (Feature 9).

4.2.4 Post medieval and modern

The route of the 11kv network crosses an area of common land, which was the property of the Bodvel estate from post reformation times until the early 19th century, when it came into the hands of the Assheton-Smith's of Vaynol Hall, Felinheli. In 1776 Thomas Pennant wrote that there were three families living in Nant Gwrtheyrn at Ty Hen, Ty Canol and Ty Uchaf, and that 'they find it very difficult to get their small amount of produce to the market' (Pennant 1783, 213). Access out for this produce would have required using the southern end of the access track (Feature 10), which would at this time probably have been a rough cart track. An estate map of 1802 (Fig. 3) refers to the study area as forming part of Nant Gwrtheyrn, and notes the areas crossed by the poles (numbered 4) as *Cae garw* covering 14a 1r 3p to be 'rough pasture' and the large area of upland plateau (numbered 20) as *Cae Mawr* covering 112 a 0r 19p which is described as 'covered with heath &c' (Vaynol 4212, schedule of fig. 3). These areas form part of the farm known as *Ty Canol*. The title map of 1839 (Gwynedd Archives; Fig. 4) show the route crossing common land and upland allotments. An extract from the schedule covering those crossed by the electricity poles and adjacent areas is given below.

Parish of Pistyll 1839

Landowner	Occupier	Plan Nos	Name and Description of Land and Premises	State of Cultivation	Quantities in Statute Measure A R P
Rector and Church Wardens for the time being	-	810	Fuel ground on Rivals	-	40 3 35
			<i>Ty Canol</i>		
Thomas Pears Williams Esquire	Richard Rowland	833	Allotment	Pasture	14 3 34
			<i>Gorllwyn</i>		
Thomas Pears Williams Esquire	Robert Thomas & William Griffith	856	Gorllwyn	Pasture	47 - 22
			<i>Pen Isa' Rhos</i>		
Robert Lloyd Esq.	John William Hughes	834	Allotment on Rivals	Pasture	80 2 39
Thomas Assheton Smith Esquire	-	835	Allotment on Rivals	Pasture	130 1 34
			<i>Ty Ucha Nant</i>		
“”””	Robert Williams	836	Cae Garw	Pasture	14 1 3
“”””	“”””	854	Cae r'eifl	Pasture	112 - 19

By 1867 most of the area had been consolidated into the holdings of the Assheton-Smiths of Vaynol Hall. A survey carried out in that year shows the estate at that time (Gwynedd Archives, Vaynol 4179; Fig. 5), and the schedule associated with this is given below (Gwynedd Archives, Vaynol 4103).

Nant Gwrtheyrn in the Parish of Pistyll

No. on Plan	Name of Tenant	Description of Parcel	State of Cultivation	Quantity A R P	REMARKS
A1	Robert Hughes	Mynydd	Pasture	117 3 28	There are no marks upon the ground to identify these lands
					The boundary between the estate requires examination and adjustment upon the ground J.J.
A2		Braich Glas	Rocks	58 1 9	
A3		Allt glan y mor	Pas. Rough	14 3 1	
A4		Do.	Do.	28 2 4	
A5		Cae Tan y Beudy	Pasture	- 1 36	
A6		Do.	Do.	4 3 10½	
A7		Do.	Do.	- 1 13½	
A8	Robert Humphreys Hughes	Cae tan parc bach		2 2 22	
A9		Parc bach	Pas & Arable	1 - 2	
A10		Nant gwertheryn house builds. &c Cae ty	Pasture	1 2 33	
A11		Yardd fawr	Pasture	- 1 2½	
A12		Cae Isaf	Arable	1 - 39	
A13		Cae finn	Pasture	1 1 2	
A14		Cae Cefn Sgubor	Pasture	1 1 24	
A15		Cae Eithin	Pasture and rough	- 2 13	
A16		Cae Cloiau	Pasture	- 1 33	
A17		Cae main	Arable	1 1 10	
A18		Cae garreg ddu	Pasture	2 - 17	
A19		Cae garw	Rough	6 2 22	
A20		Do.	Rough	10 2 8	

Granite quarrying began at *Yr Eifl*, later also to become known as Trefor quarry in the 1840s, and at Porth y Nant in 1851, and by the 1860s this had developed into a significant industry and the major employer in the area. The industry was based around the production of granite setts, stone cubes or rectangular blocks, which were used to make road surfaces, particularly in the growing industrial towns and cities of the north of England. Between 1861 and 1871 the number of people employed in the sett-making industry in Caernarfonshire rose from under 500 to 2000 (Dodd 1971, 228). This demand diminished in the early 20th century, and production at the quarries shifted to the production of crushed stone for roads and railway ballast. Both quarries declined in the 20th century as a result of competition from quarries with greater rail access, such as at Penmaenamwr, as well as the continuing decline in demand for setts. The Porth y Nant quarry closed in 1939, and *Yr Eifl* quarry declined significantly. Significant remains of this activity are located north of the study area (Feature 7, Plate 6), although the track way (Feature 10, Plate 9) was significantly upgraded in the 19th century to provide access from Llithfaen to the quarry, and to the new quarry village of Trefor beyond.

The Llithfaen 11kv overhead cable network was constructed along Graig Ddu between 1961 and 1971.

4.3 Statutory and Non-statutory designations

Two Scheduled Ancient Monuments (SAM) are situated close to the study area, although none within it. These are the cairn on the summit of *Yr Eifl* (Ref C076), and hut circles and enclosures north west of Mount Pleasant (Ref C249). The study area lies within the Llŷn Area of Outstanding Natural Beauty (AONB).

4.4 The Archaeological Survey (Fig. 2)

The categories of importance are defined in Appendix 2. The grid references for linear features are given at the point where they pass under the line of the overhead cables, or the approximate centre of the monument when not on the direct line of the route.

Feature 1 Drystone Wall (Plate 1)

SH 35354396

Period: Early Modern?

Category: C Impact: Slight

A dry stone wall crossed by the electricity cables between poles 67 and 68. It is of rough construction using local small to large rounded and subangular stones (up to 0.6m by 0.4m). It survives to a height of about 0.5m.

Recommendations for further assessment: None

Recommendations for mitigatory measures: None

Feature 2 Rough pathway

SH 35414400

Period: Modern

Category: D Impact: None

A rough path about 2m wide. It appears to be a rough farm track across upland grazing, heading south of *Yr Eifl* central peak. It crosses under the cables between poles 65 and 66

Recommendations for further assessment: None

Recommendations for mitigatory measures: None

Feature 3 Drystone Wall (Plate 2)

SH 35754427

Period: Early Modern

Category: C Impact: Slight

A dry stone wall, now in a collapsed state. This boundary can be seen on the tithe map of 1839 (Fig. 4) and the Vaynol estate map of 1867 (Fig. 5) and formed the northern boundary with the parish land to the south. It survives to no more than two courses high, except in patches, and is about 0.8m wide. It is built of irregular stones of small to large size. It is orientated northwest-southeast heading up the mid-slope plateau.

Recommendations for further assessment: None

Recommendations for mitigatory measures: None

Feature 4 ‘Spectacle’ shaped enclosure (Plates 3 and 4)

SH 35874435

Period: Early Modern

Category: C Impact: None

A spectacle shaped enclosure, approximately 12m by 5m, with a height of approximately 0.6m. The eastern circular enclosure was constructed first, with the western one added on. Each enclosure has an entrance, on the western side of the west enclosure and to the north on the eastern one. It is located within a scree covered natural bowl on the midslope plateau. It is probably a post medieval sheepfold.

Recommendations for further assessment: None

Recommendations for mitigatory measures: None

Feature 5 Hut Circles and Enclosure (Plate 5)

PRN 619

SH 35904479

Period: Late prehistoric

Category: B Impact: Slight

This site, consisting of probable late prehistoric hut circles and an enclosure is difficult to identify since the surrounding area is covered in a thick blanket of heather, however the possible remains of a hut circle were identified, and also the encircling enclosure with a possible entrance and internal sub-divisions.

The site was described in detail in *the Royal Commission for Ancient and Historic Monuments in Wales Caernarvonshire west: volume III* (1964). It is located on a natural shelf at 335m OD, with the ground falling away sharply to the west. Two hut circles were identified, one 3.3m in diameter with walls 1m thick of rubble faced with small blocks. 11m to the south of this a similar hut was identified, but smaller in that its diameter was 2.5m. Adjacent to the second hut on the south side was an oval enclosure 37m north-south by 32m, with a ruined wall about 1m thick. In a similar position to the south a similar enclosure 18m in diameter was identified (RCAHMW 1964, 92-93). It was given a basic survey in 1971 (NMR record card), and the results of this are outlined on figure 2.

Recommendations for further assessment: None

Recommendations for mitigatory measures: Avoidance; site to be fenced off to avoid damage

Feature 6 Long hut and possible hut circle (Plate 6) PRN 2235

SH 36234535 C

Period: Late prehistoric and medieval

Category: B Impact: Slight

A long hut and possible hut circle noted on the Gwynedd HER. It is situated within an area of dense heather ground cover 0.4m high. It lies between poles 26 and 27, but only the hut circle could be identified with any clarity (Plate 6), although relict traces of the long hut were identified at NGR SH 36234534. The hut circle has a diameter of about 6m, with an entrance on the south side. The long hut was examined as part of a deserted rural settlement project (G1313) in 1999, when the hut was recorded as having its long sides at 90 degrees to the contours of the hill internal dimensions of about 13.6m by 2.5m, and to have a possible annex attached. It lies adjacent to the track heading south east towards the former quarry workings (PRN 3460), and the pathway heading east.

Recommendations for further assessment: None

Recommendations for mitigatory measures: A programme of archaeological strip, map and sample recommended over the approximately 40m of cable trench excavation which runs close to the site. The area is to be fenced off during work.

Feature 7 Yr Eifl Stone Quarry (Plate 6)

SH 36174558

Period: Modern

Category: B Impact: None

The first commercial exploitation of the granitic rocks in the parish of Llanaelhaearn appears to have commenced on the coastal hillside of 'Gorllwyn yr Hendref', close to the present Eifl Quarry, in the early 1840s. The earliest known quarrying lease on that site was granted to one John Heyden of Liverpool in March 1844. The initial operations at this site appear to have concentrated on exploiting surface scree at a site known as 'Hen Ffolt' (approx SH 360 462), which might have then developed into a shallow quarry.

Heyden sold the Gorllwyn site to a Mr Hutton c1849 – 50. The subsequent partnership of Hutton and a Mr Roscoe, under the title The Welsh Granite Company, was responsible for the commencement of house-building nearby, from 1854, for the increasing quarry workforce. The new settlement developed into a village that was named 'Trefor', in honour of the quarry's influential works manager, Trefor Jones. The partnership also opened a new quarry at an adjacent location known as 'Mynydd Garnfor' (SH 362 462). Leased from May 1854, this new development used rail transport to carry its produce to the coast (see below). This Company also operated other local stone quarries in the Nefyn district, to the south of Trefor, but there was no physical connection between the different sites (Penmaenmawr and Welsh Granite Co. n.d.).

The business appears to have had financial problems by the early 1860s, and was taken over in 1864 by the newly-formed Welsh Granite Co.Ltd, a concern which also initially operated other granite quarries in the contiguous Nefyn district. This Company opened the present Eifl Quarry higher up the mountain than the previous working, which was subsequently abandoned. The loading facilities were also improved by the construction of the first phase of the surviving breakwater/harbour wall in 1869, raising the level of the rail/ship transshipment facility from the beach level, and providing relatively-deep water adjacent to the dock side (Gwyn 2006). Subsequently, further extensions and modifications were made to the facilities, although the exact details are unclear and the available sources either vague or contradictory (*ibid*; Boyd 1990).

The quarry came into the ownership of the Penmaenmawr & Welsh Granite Co Ltd in 1911 the result of an amalgamation of Trefor with one of the Penmaenmawr quarries. The market for sett-stones was diminishing in the early twentieth century, as tar macadam was increasingly being used instead, and appears to have ceased in the 1930s. Thus the quarries had to diversify into the production of crushed stone for uses such as railway ballast, although the Trefor quarry also produced ornamental stone and slab, processed in a new sawing and polishing shed. To cope with large bulk shipments, a timber pier was added at right angles to the seaward end of the stone quay, so that the larger steam ships could be used. This pier also had the advantage of dealing with ships on both sides, whereas the original quay had only one loading face on the lee side. Also, a small dock ('Cei Bach') was constructed within the landward shadow of the stone quay.

Recommendations for further assessment: None

Recommendations for mitigatory measures: None

Feature 8 Possible hut circle

SH 35904483

Period: Late prehistoric

Category: E Impact: Slight

Possible hut circle located between posts 42 and 43, heavily overgrown with heather, and approximately 6m in diameter. This hut circle is possibly an outlier associated with site 5, as it is drawn on the sketch plan on NMR site record card (OS 495) for site 5 (PRN 619), but it is here given a separate feature number

Recommendations for further assessment: None

Recommendations for mitigatory measures: Avoidance, site to be fenced off to avoid damage

Feature 9 Possible long hut (Plates 7 and 8)

SH 35784471

Period: Probably Medieval

Category: E Impact: Slight

A long hut located about 10m downslope of pole 45. Approximately 8m long by 4m wide, orientated east west, of rubble with facing stones surviving at the western end. There is a possible entrance on the south side. The walls are about 0.8m thick, and survive to a maximum height of 0.3m. The eastern end of the site is mostly lost. Ephemeral remains in the vicinity may be those of an attached paddock.

Recommendations for further assessment: None

Recommendations for mitigatory measures: Avoidance, site to be fenced off to avoid damage

Feature 10 Track way (Plate 9)

PRN 17815 & 17823

SH 35334399 to SH 36224540

Period: Modern

Category: C Impact: Unknown

Trackway giving access to Yr Eifl quarry from Llithfaen. It appears to have been developed in the mid 19th century. It has been suggested that the route may be that of the Nefyn-Segontium Roman Road (PRNs 17815 & 17823) although no surviving evidence for this can be seen on the ground, it is possible that evidence for this may survive below ground.

Recommendations for further assessment: None

Recommendations for mitigatory measures: Archaeological watching brief to be carried out during the excavation of the cable trench in the track way

Feature 11 Dry stone wall (Plate 10)

SH 35264390

Period: Early modern

Category: C Impact: Slight

Drystone wall about 20m west of pole 70. It is about 0.7m high and topped by a post and wire fence and is constructed of irregular medium to large boulders. It forms the western boundary between the improved fields and open moorland on the raised plateau, and is noted on the tithe map of 1839 (Fig. 4). The 1st edition 25 inch Ordnance Survey map of 1889 (Fig. 6) notes a sheepfold at this location, although this was not observed on the ground.

Recommendations for further assessment: None

Recommendations for mitigatory measures: Avoidance

Feature 12 Possible sheepfold (Plate 11)

SH 35284403

Period: Unknown

Category: E Impact: None

Possible wall, about 7m long and 1.1m wide, consisting of large facing stones with a rubble core. It appears on a different alignment (south west – north east) to that of the current field systems. It possibly forms a relict part of earlier sheepfold, noted on the 1st and 2nd edition Ordnance Survey maps (Figs. 6, 7) of which only this length remains.

Recommendations for further assessment: None

Recommendations for mitigatory measures: Avoidance

Feature 13 Drystone wall (Plate 12)

SH 35314412

Period: Early Modern

Category: C Impact: Slight

Drystone wall, approx 1.25m high, associated to the west are two sheepfolds, now covered in a conifer plantation. The wall is probably 19th century in date, and appears to relate to agricultural improvement, possibly by the Vaynol estate. It has well built pedestrian entrances to the sheepfold.

Recommendations for further assessment: None

Recommendations for mitigatory measures: Avoidance. An intensive watching brief should be carried out on the cable trench excavation adjacent to this site

Feature 14 Dry stone wall (Plate 13)

SH 35424427

Period: Early modern

Category: C Impact: Slight

A drystone wall, approximately 1.2m high, made of irregular rounded and subangular stones up to 0.5m by 0.2m. The wall has been altered in modern times when the entrance way to the *Canolfan Iaith Genedlaethol* was constructed. It is possibly 19th century in date and encloses land associated with Ty Canol Farm.

Recommendations for further assessment: None

Recommendations for mitigatory measures: Avoidance. An intensive watching brief should be carried out on the cable trench excavation adjacent to this site

5 SUMMARY OF ARCHAEOLOGICAL POTENTIAL

5.1 General Archaeological Summary

5.1.1 Introduction

Fourteen features were noted close to and along the route of the Llithfaen 11kv overhead cable route. These date from prehistoric times through to recent times. It is likely that the sites that have been identified are more extensive than can be currently seen on the ground, and form part of surviving relict landscapes,

particularly those relating to settlement in the later prehistoric and medieval periods. The archaeological potential of the study area must be considered to be high.

5.1.2 Prehistoric and Roman Archaeology

Upland settlement evidence in the late prehistoric period in this region consists of a wide range of huts and hut groups which are believed to date from the later centuries BC (Kelly 1990; RCAHMW 1964, Smith 1999, 22-53). A number of hut forms are known, mostly circular, and many are associated with enclosures that could have been animal pens, and with field boundaries. Not many of these have been excavated, but significant evidence for differing crop types has been recognised at Cefn Graeanog (Fasham *et al.* 1998).

There is a significant distribution of such enclosed settlements in the vicinity of *Yr Eifl* (Smith 1999, 36). Features 5 and 8, identified during this survey, are likely to fit into this broad category of site type, and may well be associated with each other. These sites occupy a terraced hill slope location, the most favoured location noted for such sites (*ibid.* 38), which combine good drainage with the potential utilisation of the natural terrace on which they are located.

It has been suggested that the Nefyn-Segontium Roman Road (PRNs 17815 & 17823) may follow the route of the trackway (Feature 10) although no surviving evidence for this can be seen; it is possible that evidence for this road may survive below ground.

5.1.3 Medieval Archaeology

During the medieval period the characteristic settlement pattern in this upland region was a rectangular building, known as a 'long hut', often associated with enclosures, and may indicate permanent settlement associated with cultivation at high altitude (Leighton and Silvester 2003, 35) although some have been interpreted as *hafodau* (upland summer dwellings), associated with the practice of transhumance of seasonal stock from the main farm (*hendre*) to the upland *hafod*. These occur in large numbers across the Welsh uplands, and a substantial medieval settlement of long huts and enclosures survives west of the development area, although the area is now forested (PRN 621; RCAHMW 1964, 94; Fig. 107). The size of this settlement, which could almost be described as having been a village is of unusual size and may represent the medieval township of Nant. However a number of more isolated examples of long huts have been noted in the vicinity of the study area (Evans and Davidson 2007,6; PRN 622), and Features 6 and 9 may well be sites of this type.

5.1.4 Post Medieval Archaeology

Sheep farming has dominated the economy of the upland slopes in post-medieval and modern times, and this has left a significant mark on the landscape mainly in the form of shelters, sheepfolds and tracks to upland slopes. The main surviving evidence takes the form of field and enclosure boundaries. In the study area the latter usually consists of drystone walls. Sites 1-4 and 10-14 are likely to relate to these activities, and may have their origins in the 18th and early 19th centuries. Most of the field boundaries appear to be in place by the time of the first estate survey of the area in 1802 (Fig. 3).

Stone quarrying began in the area in the 1840s, and Feature 7 represents relict remains of that 19th century activity. Feature 10 is a track way that was improved to enable easier access to *Yr Eifl* quarry in the mid 19th century, although its origins are earlier, when it would have been an upland route across from Pistyll down to the fertile coastal plain to the north.

5.2 Aerial Photographs

Twenty seven vertical aerial photographs were examined at the NMR in Aberystwyth, along with four oblique images were examined. Seven of these showed the study area, and these are noted in Section 8. The field boundaries are as noted on the map evidence, and the extensive nature of feature 5 is shown on image 106G/UK 1469 frame 3240, taken on 4th may 1946. The nature of the mid slope plateau on which the study area is situated is clearly shown on oblique aerial photographs P58 RAF 4427 frames 74-76, taken on 26th

May 1961. The overhead cables are shown to be shown not to be present in 1961, although they are known to be by 1973 (NMR site record cards).

5.3 Environmental Remains and Soil Morphology

There is no direct information available about the potential for the survival of environmental remains. However areas of poor drainage, resulting in boggy ground, were noted. This could mean that there is an enhanced potential for the survival of environmental remains, although upland peat cover means that soils associated with prehistoric agriculture might be hard to identify (Manley 1990).

5.4 Artefactual Potential

The likely presence of artefacts is unknown; however they could survive in association with any prehistoric sites uncovered, and a limited quantity of Romano-British artefacts were uncovered from the recent excavations of an upland site at Rhiwgoch, Harlech (Evans, 2009 and *forthcoming*), and have been recovered from Tre'r Ceiri (Hogg 1962). The likelihood of medieval finds associated with the possible medieval houses is probably quite limited, however there remains some potential. Late prehistoric artefacts were recovered from the upland excavations at Moel Y Gerddi (Kelly 1988) and Moel Goedog (Lynch 1984), and earlier prehistoric from within the current village of Llithfaen (Hughes 1939), and a number of chance finds of prehistoric material have been made in the area (PRNs 2239 and 2248).

6 RECOMMENDATIONS

6.1 General Recommendations

- The 14 sites form part of an exceptionally well preserved pattern of late prehistoric and medieval settlement and landscape, and are of high archaeological potential. Every effort must be made to avoid damage to the sites during the removal of the poles on the current cable alignment. It is recommended that after cutting the poles at ground level that the stumps be left to rot *in situ* rather than any attempt being made to remove them, as this risks damage to the archaeology.
- In order to enable the poles to be removed from site of the current alignment without damaging the above ground archaeology, it is recommended that a strategy of avoidance of known archaeological features by fencing them off be undertaken, as shown on Fig. 2. A very low ground pressure All Terrain Vehicle (ATV) be used to handle and lift the poles onto the trackway to the north prior to removal, in order to prevent the dragging of poles across potential archaeological sites. An archaeologist should be present during these operations in order to monitor the activities of the ATV to ensure that damage to the archaeology is not taking place.
- As there is some potential for the discovery of the Nefyn- Segontium Roman Road, the cutting of the new cable trench on the track way (Feature 10, Plate 9) should be carried out under archaeological watching brief conditions. An intensive watching brief should also be carried out during the cable excavations extending to pole 3 at the southern end of the scheme (Fig. 2).
- An archaeological watching brief should also be carried out during any ground works associated with the erection of the new terminal poles for the scheme, at pole 70 and between poles 25 and 26.
- There is moderate potential for the survival of archaeological remains along a 40m length of cabling to be laid from the track way to join up with the new terminal 'H' pole to be erected between the current poles 25 and 26 (SP drawing FGC_304703_1_SP), as it lies close to Feature 6 (Fig. 2, Plate 6). A programme of archaeological strip, map and sample is recommended along this section of the new cable route and any easement required. The length of the required strip, map and sample is marked on Figure 2.

6.2 Summary of Specific Recommendations

Feature Number	Name	Importance	Impact	Recommendation for further evaluation	Mitigation Recommendations
1	Drystone wall	C	Slight	None	Avoidance
2	Rough Pathway	D	None	None	None
3	Drystone wall	C	Slight	None	Avoidance
4	'Spectacle' shaped enclosure	C	None	None	Avoidance
5	Hut Circles and Enclosure	B	Slight	None	Avoidance, site to be fenced off to avoid damage
6	Long hut and possible hut circle	B	Slight	None	A programme of archaeological strip, map and sample recommended over the 40m of cable trench excavation. Area to be fenced off during work.
7	Yr Eifl Stone Quarry	B	None	None	None
8	Possible hut circle	E	Slight	None	Avoidance, site to be fenced off to avoid damage
9	Possible long hut	E	Slight	None	Avoidance, site to be fenced off to avoid damage
10	Track way	C	Unknown	None	Archaeological watching brief during excavation of cable trench
11	Dry stone wall	C	Slight	None	Avoidance
12	Possible sheepfold	E	None	None	Avoidance
13	Dry stone wall	C	None	None	Avoidance. An intensive watching brief should be carried out on the cable trench excavation adjacent to this site
14	Dry stone wall	C	None	None	Avoidance. An intensive watching brief should be carried out on the cable trench excavation adjacent to this site

7 CONCLUSION AND PROPOSED MITIGATION

7.1 Conclusion

A total of 14 sites were observed along or very close to the current route of the 11kv overhead cables, dating from later prehistoric to modern times. The presence of four of these sites (Features 5-7 and 10) has already been noted as a result of the *Royal Commission on Ancient and Historical Monuments of Wales* survey of Caernarfonshire, or are located on the Gwynedd HER. A further 12 sites, dating from the early prehistoric to modern times, are noted within 500m of the study area. The area is considered to be one of high archaeological potential, with surviving relic settlement and field patterns from late prehistoric and medieval times.

7.2 Proposed Mitigation

A strategy of avoidance of the archaeological remains during the removal of the current poles by fencing off and prohibiting access to known sites, and also archaeological supervision of the use of the low pressure ATV during the pole removal to minimise its impact, is recommended as a **Watching Brief**.

A programme of archaeological **strip, map and sample** is recommended during the excavation of the new cable beyond the track way where it joins up with the current cable route between poles 25 and 26, and a **watching brief** along the length of the cable trench excavations on the track way and along the extension to pole 3 at the southern end of the scheme. A **watching brief** will also be required during the excavation of new footings for the new terminal poles at both ends of the scheme. These areas are shown of Figure 2

8 ARCHIVE

The archive consists of historic maps, plans and aerial photographs, along with notes and digital images taken on the field visit.

Three bound copies of the report will be sent to the client. A copy of the report will be sent to Ashley batten at GAPS, and a further copy sent to the HER Archaeologist at the curatorial division of Gwynedd Archaeological Trust, Bangor, for deposition in the Regional HER. A copy of the report will be provided to the National Monument Record, Royal Commission on the Ancient and Historic Monuments of Wales, Aberystwyth.

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National Monuments Record, Aberystwyth

NMR site record cards

Aerial Photographs

Vertical Images

RAF

106G/UK 664 F20 Frame 3004 taken 14th August 1945

106G/UK 1467 F20 Frame 3153 taken 3rd May 1946

106G/UK 1469 F20 Frame 3240 taken 4th May 1946

Ordnance Survey

ZEISS 406 Frame 275 taken 21st March 1973

Oblique Images

P58 RAF 4427 frame 0074 taken 26th May 1961

P58 RAF 4427 frame 0075 taken 26th May 1961

P58 RAF 4427 frame 0076 taken 26th May 1961

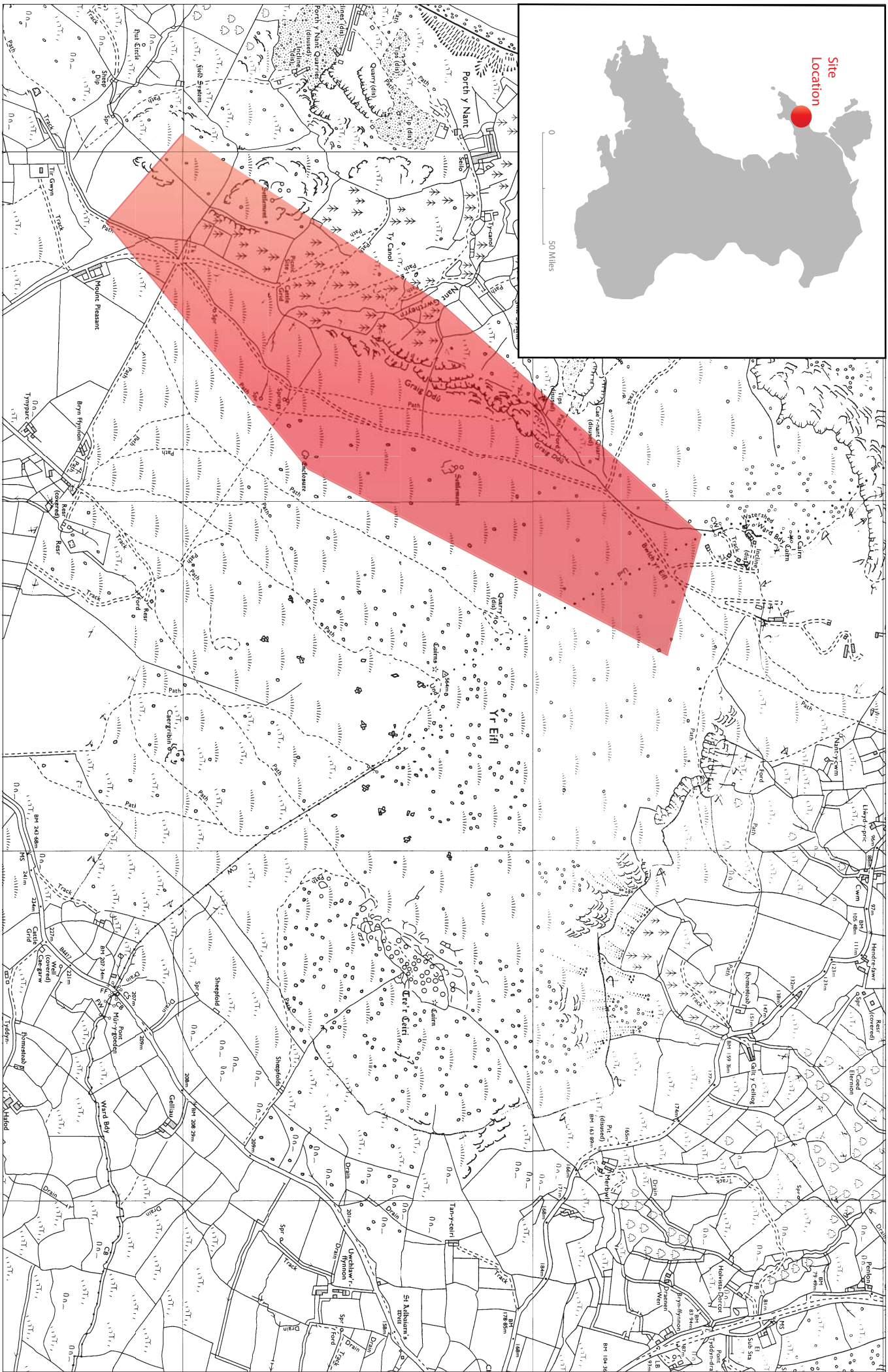
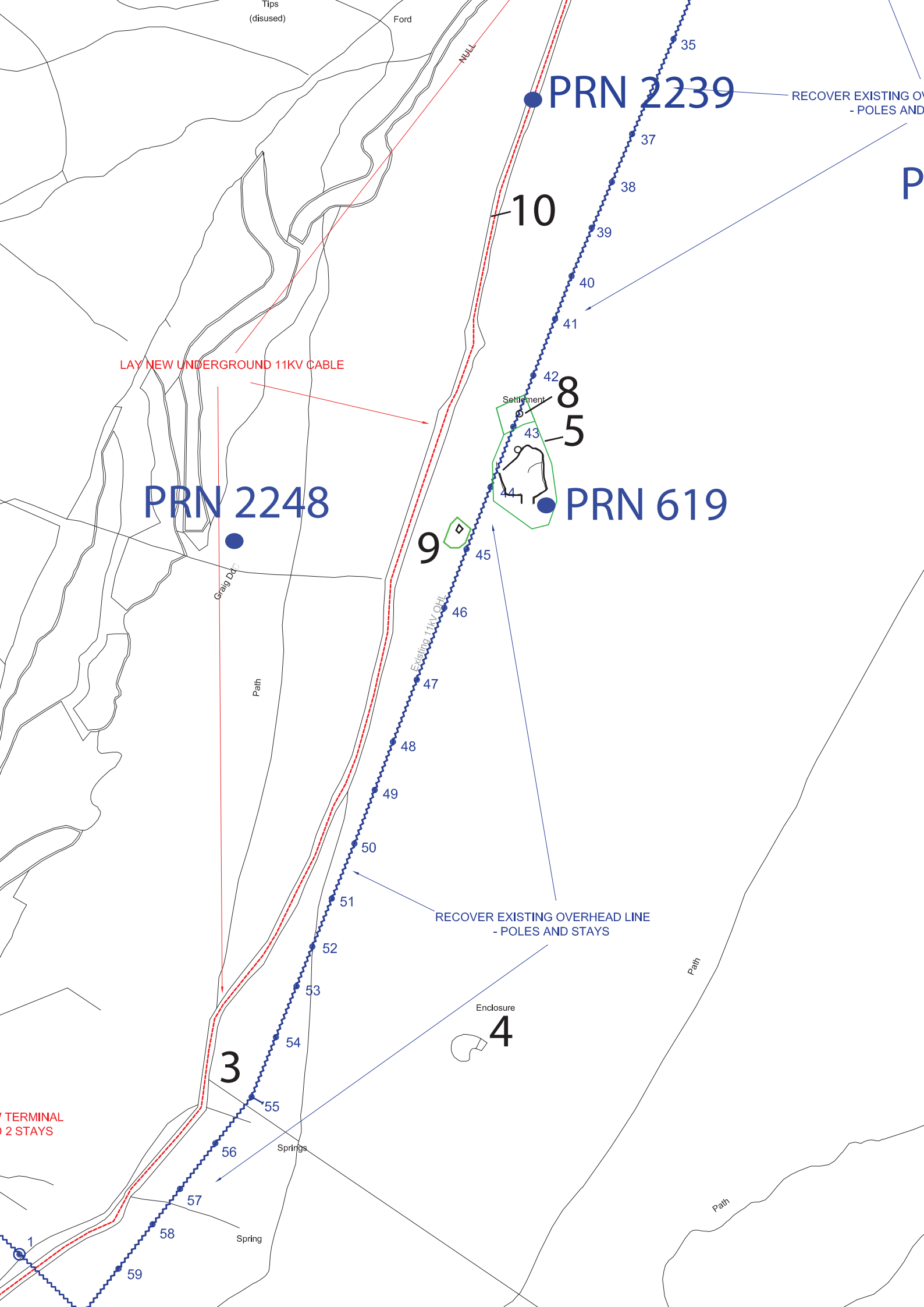


Fig. 1 Site Location. Base map taken from Ordnance Survey 1:10 000 series sheet SH 34 SE and SH 34 NE.

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PRN 2239

RECOVER EXISTING O
- POLES AND

10

LAY NEW UNDERGROUND 11KV CABLE

PRN 2248

8
5

PRN 619

9

Existing 11KV OHL

RECOVER EXISTING OVERHEAD LINE
- POLES AND STAYS

Enclosure
4

TERMINAL
2 STAYS

3

Springs

Spring

1

59

58

57

56

55

54

53

52

51

50

49

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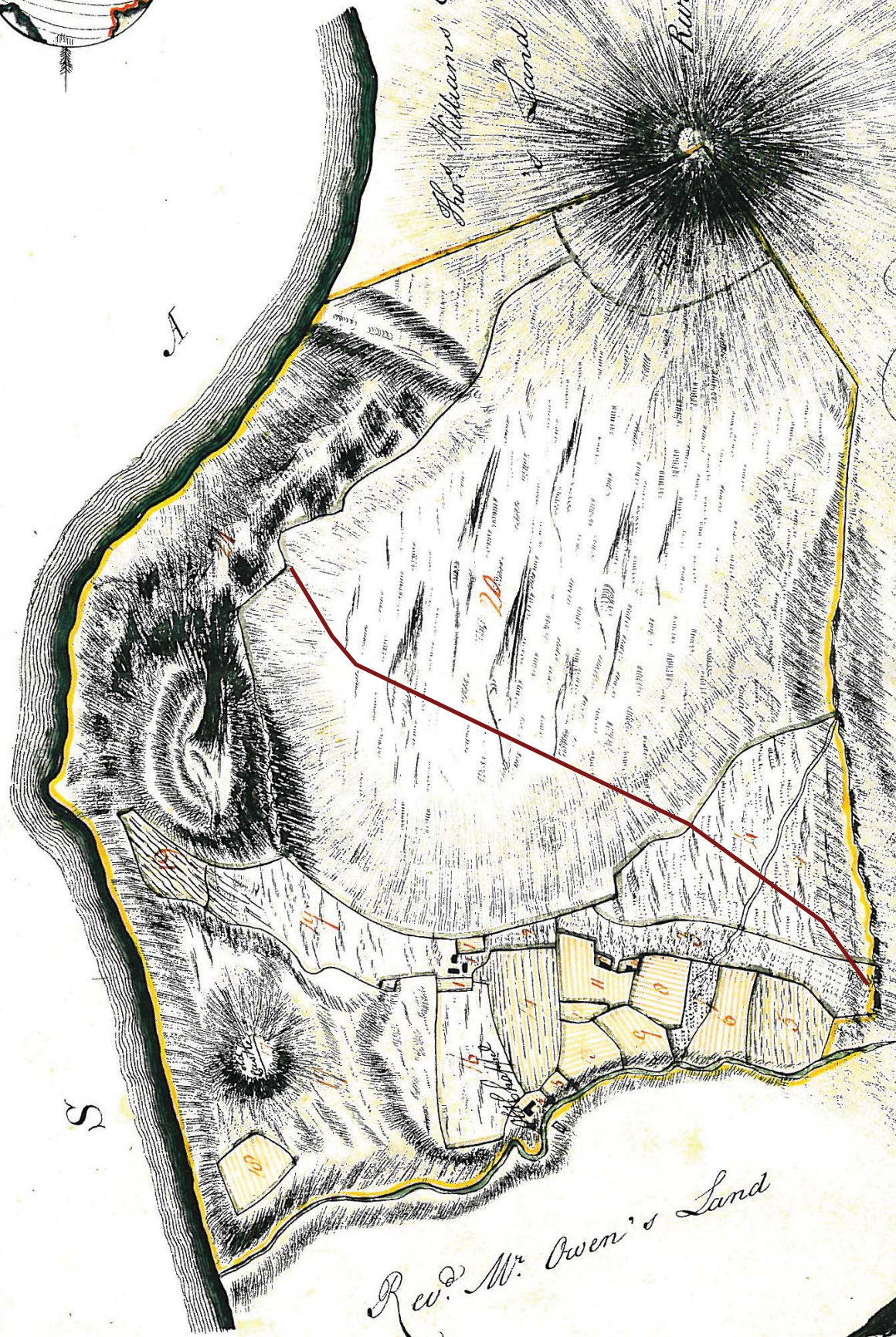
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Statute $\frac{1}{2}$ Scale
1 2 3 4 5 6 7 8

Thos. Williams Esqrs
Land

Rural



G O O M M O ' N O

Rev. Mr. Owen's Land

Faint handwritten notes in the bottom left corner, possibly describing the map's details or ownership.

SANT
HERYN
Parish of
Inquoch

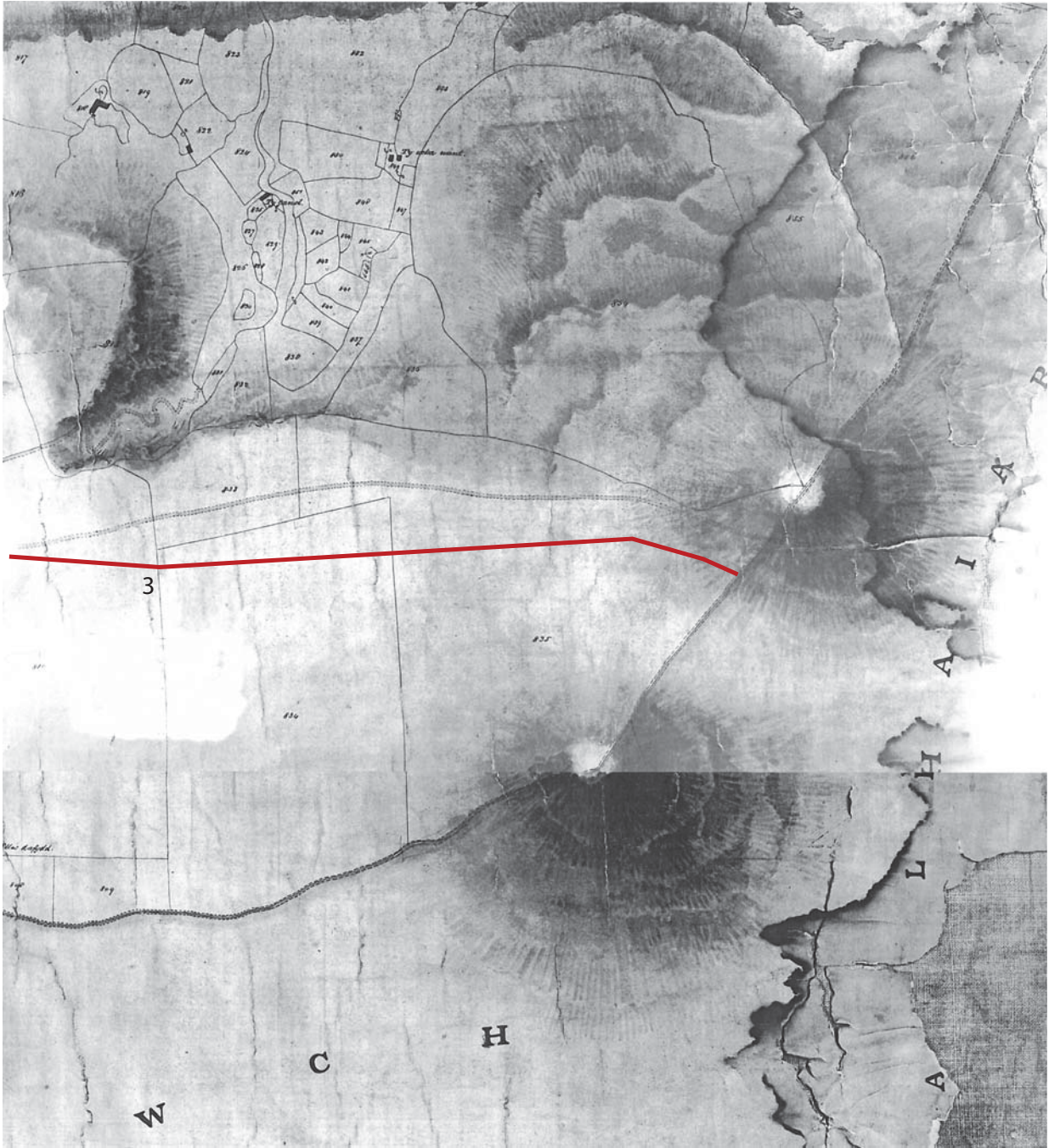


Fig. 4 Tithe Map of the Parish of Pistyll 1839, with the route of the power line overlaid in red. The location of site 3 is noted. Map not to scale



2. 2. 1/4 } THESE TWO UNPARCELLED BY
 - - - 1/2 } THE ACT OF 1845 AND BELONG TO
 - - - 1/2 } THE COMMONS OF THE PARISH

THE SEVERAL OCCUPANCIES

4579

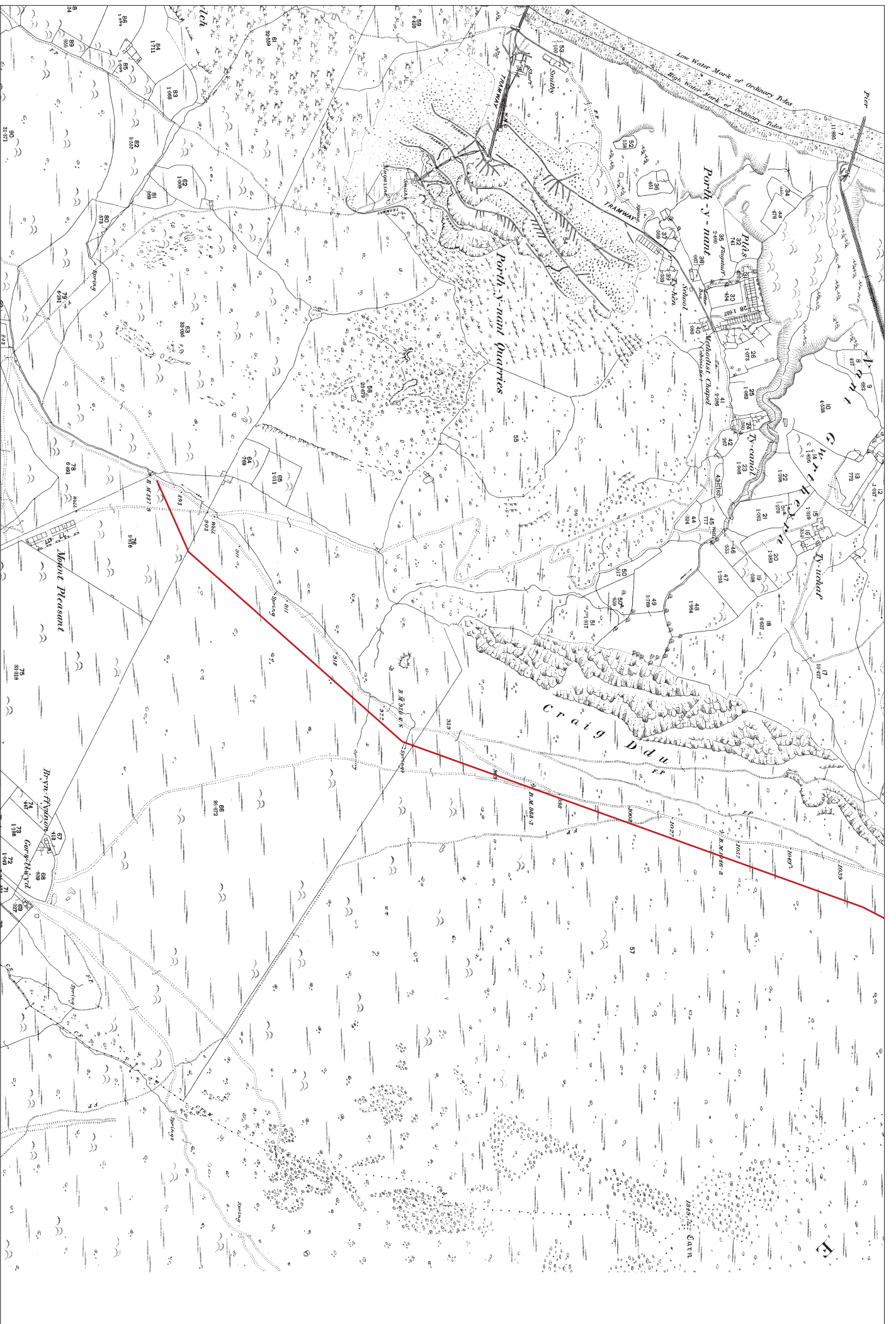


Fig. 6 Ordnance Survey 1st Edition 25 inch map of 1889, Caernarvonshire sheets XXV.15 and XXXII.3. Scale 1:6000@A4. Overhead Cable route outlined in red

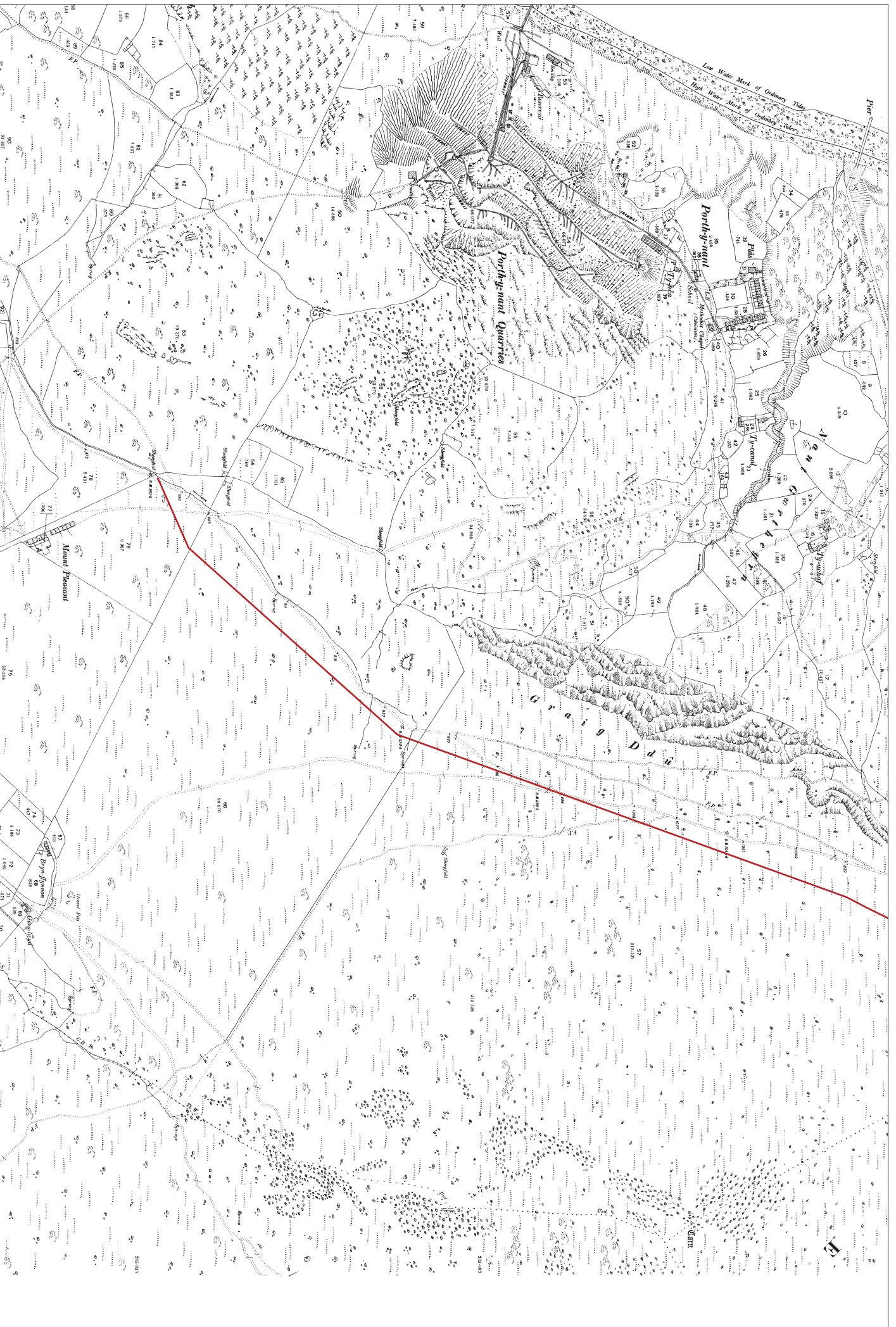


Fig. 7 Ordnance Survey 25 inch map of 1900, Caernarvonshire sheets XXV.15 and XXXII.3. Scale 1:6000@A4. Overhead Cable route outlined in red

Fig. 8 Ordnance Survey 3rd Edition 25 inch map of 1918, Caernarvonshire sheets XXV.15 and XXXII.3. Scale 1:60000@A4. Overhead Cable route outlined in red

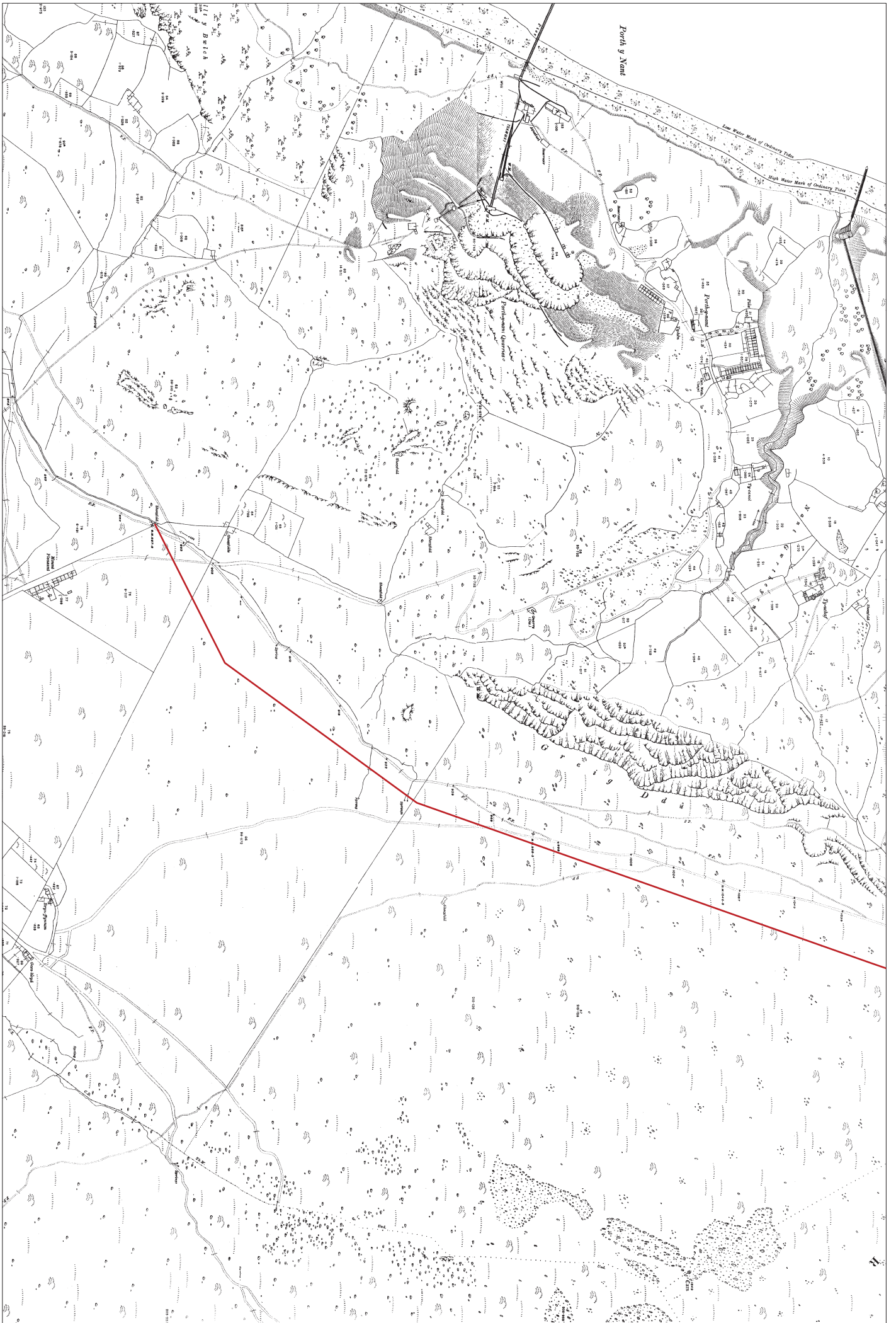




Plate 1 View of dry stone wall (feature 1) from the south east. Scale 2m with 50cm divisions



Plate 2 View of dry stone wall (feature 3) from the north west. Scale 2m with 50cm divisions



Plate 3 'Spectacle' shaped enclosure (feature 4), a probable sheepfold viewed from the south east. Scale 2m with 50cm divisions.



Plate 4 Detail of feature 4, showing entrance to sheepfold on the northern side. Scale 1m with 50cm division



Plate 5 View of hut circles and enclosure (feature 5) from the north east. Scale 2m with 50cm divisions



Plate 6 View from the east of feature 6 in the foreground, with the possible remains of a round house in the centre-right foreground, and feature 7 to the rear. Scale 2m with 50cm divisions



Plate 7 Remains of possible long hut and enclosure (Feature 9), from the south west. Scale 2m with 50cm divisions



Plate 8 View of long hut from the north west, showing the remains of a possible enclosure associated with it. Scale 2m with 50cm divisions



Plate 9 The quarry access track way with earlier origins (feature 10). View looking south east towards the car park



Plate 10 The dry stone wall (feature 11) forming the boundary between the improved farmland and upland grazing

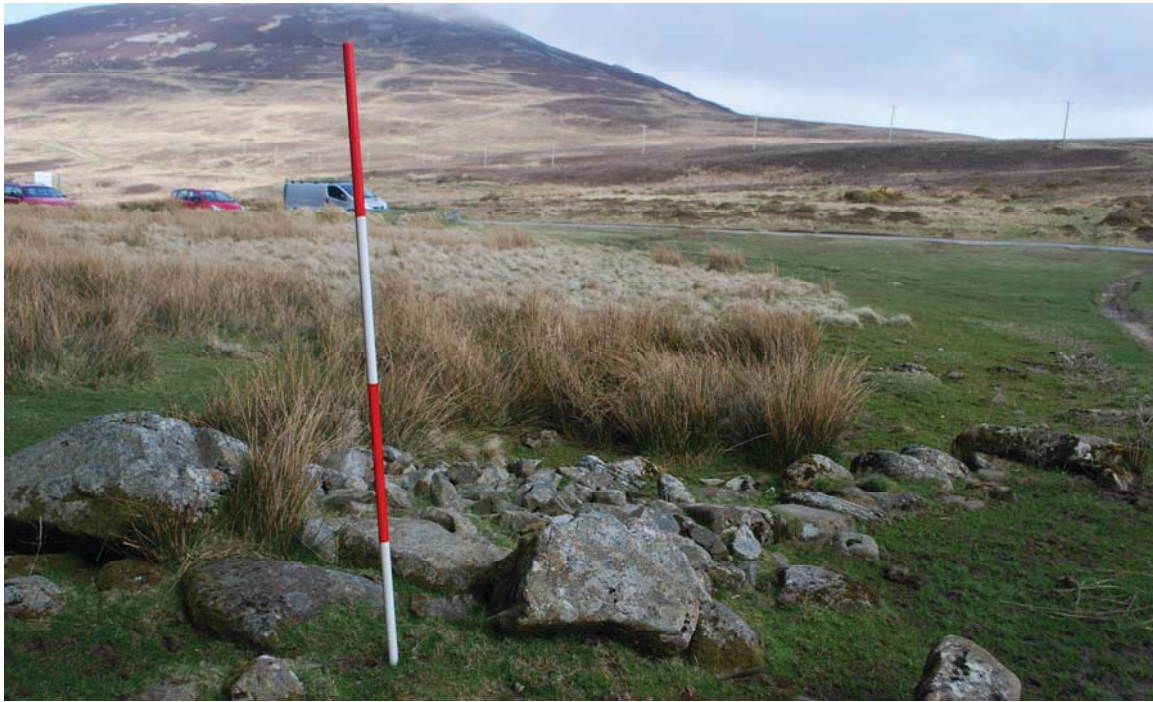


Plate 11 Feature 12, the possible remains of a sheepfold, from the west. Scale 2m with 50cm divisions



Plate 12 The dry stone wall bounding the sheepfolds, now covered in forestry (feature 13)



Plate 13 The drystone wall bounding the fields of Ty Canol farm (feature 14). Scale 2m with 50cm divisions



Plate 14 A general view of the current overhead cable route looking north towards *Yr Eifl* quarry



Plate 15 A general view of the current overhead cable route looking south west towards the public car park

APPENDIX 1

List of sites within a 500m corridor around the study area and are recorded in the Gwynedd Historic Environment Record (HER) and CARN (RCAHMW database, indicated by N in front of PRN number), with their record numbers. Scheduled Ancient Monument references are also given

PRN	NPRN	SITENAME	NGR	SCHEDULED ANCIENT MONUMENT NO.	SITETYPE	PERIOD
2231	55120	RUINED CHAPEL, FYNWENT, NANT GWRTHEYRN	SH35114495		CHAPEL	Unknown
2235	55124	LONG HUT + HUT CIRCLE (POSS.), BWLCH YR EIFL	SH36234535A		LONG HUT, HUT CIRCLE	Probably Medieval
2239	55128	FLINT FLAKE - FINSPOT, ABOVE NANT GWRTHEYRN	SH35904500A		FINDSPOT	Unknown
2242	55131	HUT CIRCLE + FIELD SYSTEM, TY UCHAF, NANT GWRTHEYRN	SH35414495		HUT CIRCLE	Probably Late Prehistoric
2248	55137	BRONZE SPEARHEAD - FINDSPOT, NANT GWRTHEYRN	SH35704470A		FINDSPOT	Prehistoric
610	56566	ROUND CAIRN, YR EIFL	SH36084574		CAIRN	Prehistoric
612	56568	HUT CIRCLES + ENCLOSURES, ABOVE NANT GWRTHERYN	SH35084503		HUT CIRCLE SETTLEMENT	Probably Late Prehistoric
616	56572	CAIRN, SUMMIT OF YR EIFL	SH36484474	C076	CAIRN	Prehistoric
619	56576	HUT CIRCLES + ENCLOSURES, N SLOPE OF YR EIFL	SH35904479		HUT CIRCLE SETTLEMENT	Roman
620	56577	HUT CIRCLES + ENCLOSURES, NW OF MOUNT PLEASANT	SH35104428	C249	HUT CIRCLE SETTLEMENT	Roman
621	56578	LONG HUTS AND ENCLOSURES, ABOVE NANT GWRTHEYRN	SH35194448		DESERTED RURAL SETTLEMENT	Medieval
622	56579	LONG HUT, ABOVE NANT	SH35264434		LONG HUT	Probably Medieval

PRN	NPRN	SITENAME	NGR	SCHEDULED ANCIENT MONUMENT NO.	SITETYPE	PERIOD
		GWRTHEYRN				
623	56580	CAIRN, SUMMIT OF YR EIFL	SH36464472	C076	CAIRN	Prehistoric
3460	60070	BUILDING STONE QUARRY ,YR EIFL	SH36354505		BUILDING STONE QUARRY	Post- Medieval
6525	64276	NANT MEDIEVAL TOWNSHIP	SH35104428		TOWNSHIP	Medieval

APPENDIX 2

Definitions of terms for assessment and recommendation

Categories of importance

The following categories were used to define the importance of the archaeological resource.

Category A - Sites of National Importance.

Scheduled Ancient Monuments, Listed Buildings of grade II* and above, as well as those that would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both.

Sites that are scheduled or listed have legal protection, and it is recommended that all Category A sites remain preserved and protected *in situ*.

Category B - Sites of regional or county importance.

Grade II listed buildings and sites which would not fulfil the criteria for scheduling or listing, but which are nevertheless of particular importance within the region.

Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

Category C - Sites of district or local importance.

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened.

Category C sites nevertheless merit adequate recording in advance of damage or destruction.

Category D - Minor and damaged sites.

Sites that are of minor importance or are so badly damaged that too little remains to justify their inclusion in a higher category.

For Category D sites, rapid recording, either in advance of or during destruction, should be sufficient.

Category E - Sites needing further investigation.

Sites, the importance of which is as yet undetermined and which will require further work before they can be allocated to categories A - D are temporarily placed in this category, with specific recommendations for further evaluation. By the end of the assessment there should usually be no sites remaining in this category which are under threat. In this case several areas of unknown potential have been allocated to this category. These require environmental sampling which should be carried out during the pipeline works.

Definition of Impact

The impact of the road development on each site was estimated. The impact is defined as *none, slight, unlikely, likely, significant, considerable or unknown* as follows:

None:

There is no construction impact on this particular site.

Slight:

This has generally been used where the impact is marginal and would not by the nature of the site cause irreversible damage to the remainder of the feature, *e.g.* part of a trackway or field bank.

Unlikely:

This category indicates sites that fall within the band of interest but are unlikely to be directly affected. This includes sites such as standing and occupied buildings at the margins of the band of interest.

Likely:

Sites towards the edges of the study area, which may not be directly affected, but are likely to be damaged in some way by the construction activity.

Significant:

The partial removal of a site affecting its overall integrity. Sites falling into this category may be linear features such as roads or tramways where the removal of part of the feature could make overall interpretation problematic.

Considerable:

The total removal of a feature or its partial removal which would effectively destroy the remainder of the site.

Unknown:

This is used when the location of the site is unknown, but thought to be in the vicinity of the proposed works.

Definition of field evaluation techniques

Field evaluation is necessary to fully understand and assess most class E sites and to allow the evaluation of areas of land where there are no visible features but for which there is potential for sites to exist. Two principal techniques can be used for carrying out the evaluation: geophysical survey and trial trenching. Topographic survey may also be employed where sites are thought to survive as earthworks.

Geophysical survey most often involves the use of a magnetometer, which allows detection of some underground features, depending on their composition and the nature of the subsoil. Other forms of geophysical survey, including resistivity survey and ground penetrating radar might also be of use.

Trial trenching allows a representative sample of the development area to be investigated at depth. Trenches of appropriate size can also be excavated to evaluate category E sites. Trenching is typically carried out with trenches of between 20 to 30m length and 2m width. The topsoil is removed by machine and the resulting surface is cleaned by hand, recording features. Depending on the stratigraphy encountered the machine may be used to remove stratigraphy to deeper levels.

Definition of Mitigatory Recommendations

Below are the measures that may be recommended to mitigate the impact of the development on the archaeology.

None:

No impact so no requirement for mitigatory measures.

Detailed recording:

This requires a full photographic record and measured survey prior to commencement of works.

Archaeological excavation may also be required depending on the particular feature and the extent and effect of the impact.

Basic recording:

Requiring a photographic record and full description prior to commencement of works.

Strip, Map and Sample:

The technique of Strip, Map and Sample involves the examination of machine-stripped surfaces to identify archaeological remains. The stripping is undertaken under the supervision of an archaeologist. Stripping and removal of the overburden is undertaken in such a manner as to ensure damage does not take place to surfaces that have already been stripped, nor to archaeological surfaces that have not yet been revealed.

Stripping is undertaken in as careful a manner as possible, to allow for good identification of archaeological features. A small team of archaeologists will be responsible for subsequently further cleaning defined areas where necessary. Complex sites which cannot be avoided will need to be fully excavated.

Watching brief:

This 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.

Avoidance:

Features, which may be affected directly by the scheme, or during the construction, should be avoided. Occasionally a minor change to the proposed plan is recommended, but more usually it refers to the need for care to be taken during construction to avoid accidental damage to a feature. This is often best achieved by clearly marking features prior to the start of work.

Reinstatement:

The feature should be re-instated with archaeological advice and supervision.



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