

AFON TWRCH  
LLANUWCHLLYN, NR BALA,  
MEIRIONNYDD

ARCHAEOLOGICAL ASSESSMENT (G1439)

REPORT NO. 231

Gwynedd Archaeological Trust  
Ymddiriedolaeth Archaeolegol Gwynedd

AFON TWRCH  
LLANUWCHLLYN, NR BALA,  
MEIRIONNYDD

Archaeological Assessment (G1439)

Prepared for Shawater Limited

by

George Smith

November 1996

Gwynedd Archaeological Trust Report No. 231

# **AFON TWRCH, LLANUWCHLLYN, NR BALA, MEIRIONNYDD**

## **ARCHAEOLOGICAL ASSESSMENT (G1439)**

### **1. INTRODUCTION**

The proposed hydro-electric scheme will extract water from the Afon Twrch at SH 8799 2886 and return it at SH 8793 2990. Gwynedd Archaeological Trust (Contracts Section) has been asked by Shawater Ltd to carry out an archaeological assessment of the proposed scheme, to form part of an Environmental Assessment, leading to an Environmental Statement which is to accompany the proposal.

### **2. ASSESSMENT BRIEF**

An initial report was requested from Gwynedd Archaeological Trust, assessing the likely archaeological impact of the scheme and suggesting mitigatory measures.

The basic requirement was for a desk-top survey and field search of the proposed area in order to assess the impact of the proposals on the archaeological and heritage features within the area concerned. 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 proposed scheme on the archaeological resource were to be suggested.

Gwynedd Archaeological Trust's proposals for fulfilling these requirements were, briefly, as follows:

- a) to identify and record the cultural heritage of the area to be affected by the proposals;
- b) to evaluate the importance of what was identified (both as a cultural landscape and as the individual items which make up that landscape); and
- c) to recommend ways in which damage to the cultural heritage can be avoided or minimised.

### **3. METHODS AND TECHNIQUES**

#### **3.1 Desk-top Study**

This involved consultation of maps, computer records, written records and reference works, which make up the Sites and Monuments Record at Gwynedd Archaeological Trust. Records (including early Ordnance Survey maps, tithe maps, schedules, and reference works - see bibliography) were consulted in the Gwynedd Archives, Dolgellau and the Clwyd Record Office, Ruthin.

#### **3.2 Field Search**

This was undertaken on the 1st October 1996, when the whole of the proposed route of the pipeline was walked. Conditions were good for fieldwork except that part of the area adjoining the middle section of the route was not visible because it was covered by thick woodland on steep slopes. However, no features can be expected in this type of area so it did not detract from the survey's value.

All sites identified were marked on a copy of the 1:2,500 OS map as accurately as possible

without surveying. Each site was described and assessed.

### 3.3 Report

All available information was collated and the sites were then assessed and allocated to the categories listed below. These are intended to give an idea of the importance of the site and the level of response likely to be required; descriptions of the sites and specific recommendations for further assessment or mitigatory measures, as appropriate, are given in the relevant sections of this report.

The criteria used for allocating sites to categories are based on those used by the Secretary of State when considering ancient monuments for scheduling; these are set out in Annex 3 to Planning Policy Guidance 16 (Wales): Archaeology and Planning.

### 3.4 Categories

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

#### *Category A - Sites of national importance.*

Scheduled Ancient Monuments, Listed Buildings and sites of schedulable or listable quality, i.e. those which would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both.

Sites which 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.*

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 which are of minor importance or 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 whose importance 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 assessment. By the end of the assessment there should be no sites remaining in this category.

### 3.5 Definition of Impact

The impact has been defined as none, slight, likely, considerable or unknown as follows:

#### *None:*

There is no construction impact on this particular site. (Sites identified as of particular

importance are, where possible, avoided by the improvement proposals. Such sites have been identified in the tables.

*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, eg a track or field boundary.

*Likely:*

In some instances the site in question would not fall within the direct line of the proposed development but could be affected by construction works and therefore may, subject to its nature be removed or damaged.

*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 development.

### **3.6 Definition of Mitigatory Recommendations**

*None:*

No impact so no requirement for mitigation measures.

*Detailed recording:*

Requiring a photographic record, surveying and the production of a measured drawing 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.

*Watching brief:*

Requiring observation of particular identified features or areas during works in their vicinity. This may be supplemented by detailed or basic recording of exposed layers, structures or sections.

*Avoidance:*

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

*Reinstatement:*

The feature should be reinstated with archaeological advice and supervision.

## **4. ARCHAEOLOGICAL FINDINGS AND RECOMMENDATIONS**

### **4.1 Preliminary topographic assessment**

The route as presently proposed falls into four topographic zones:

- a. In the northernmost area, from the proposed intake for c. 100m, the route crosses poorly

drained fields of gentle to medium sloping pasture. These have been cleared of protruding boulders which have been pushed to the field edge at the riverside but there are still a few areas of protruding ground rocks and the surface is uneven so the fields are probably not suitable for arable.

b. In the middle section of c. 400m length, the route crosses four fields of medium-steep sloping grass pasture along the top scarp edge of the steep wooded slopes of the valley side, just to the east. These fields are clear of stones but the grass is poor so they may not have been ploughed and re-seeded.

c. The route then drops quickly for c. 200m down medium sloping fields of ploughed and improved pasture.

d. Finally, for c. 150m, the route crosses a gently sloping meadow of improved pasture on a former flood terrace.

In terms of potential for archaeological remains of human settlement or other activity, areas a and b have low potential while the better quality land of areas c and d has higher potential. These latter have both been ploughed and improved and any early features which they might have contained will have been obscured or obliterated.

## 4.2 Archaeological and historic background

About a kilometre north-east of Llanuwchllyn lies the Roman auxiliary fort of *Caer Gai*, of probable 1st-2nd century AD date (Bowen and Gresham, 1967, 235-8) but this seems to have had no bearing on the origins of Llanuwchllyn which must have been an early medieval foundation as indicated by its *llan* name (ie religious enclosure). The dedication of its church, to St Deiniol (founder of Bangor), is unusual, one of only two in Meirionnydd (Bowen and Gresham, 1967, 275) but the village is not otherwise of any historic note.

In the medieval period the land here was partly in the township of Penavan and partly in Cynllwyd, both in the commote of Penllyn, in the cantref of Meirionnydd. These lands became part of the extensive estates of Sir W.W. Wynne (Wynnstay Estate) and of Richard Watkin Price (Rhiwlas Estate). The area of the present survey was all part of the Wynnstay Estate.

In the post-medieval period significant use was made of the fast-flowing Afon Twrch for milling. A marriage settlement of 1697/8 lists a water corn mill and two fulling mills at Llanuwchllyn (Parkinson, 1984, 438). One of these was called a 'factory' on the tithe award of c. 1841 and carried out spinning as well as fulling in the first half of the 19th century but was converted into a tannery by the late 19th century. The 1901 OS 25" map marks a corn mill, Melin Pen-y-geulan, on the west side of the Twrch close to the Pont y Pandy. This took water from c. 120m upstream of the bridge. This may have replaced an earlier fulling mill (*pandy*) from which the bridge takes its name. However, there is no evidence of any leats on the east side of the river within the survey area.

Unfortunately, the whole area of the Wynnstay estate is blank on the tithe map of c. 1841 which is therefore of no help in interpretation. However, the Wynnstay manuscripts do provide one relevant note, in a lease of 1837 for 21 years of mines of lead, black jack, calamine and manganese under the tenements of Coed y pry, Bryn and Penrhiwdarch, among others (Wynnstay, DD/WY/7739). In fact there are no evident mine workings or even trial pits in the vicinity of these farms so perhaps the lease (on a commission basis only) was never taken up or the workings were actually on outlying hill pasture, away from the present survey area.

The names of the houses close to the route are not of much value for interpretation except Coed-y-pry (wood of the copse) which suggests that the valley sides were previously more wooded than at present and, perhaps, that the woods were coppiced *ie* cut for poles on a short rotation. One other name of interest is that of a house, Ty'n-y-clawdd (house in the ditch/pit or



mine), which formerly existed just east of Coed-y-pry (fig. 1), marked on the 1901 OS 25" map. This may hint at diggings for the proposed mines, mentioned above, but it might only mean that the house was built into a cut or old road quarry in the fairly steep hillside.

Two 'stones' are marked on the 1901 OS 25" map on either side of the river, close to the proposed pipeline intake but these must be boundary markers for the Rhiwlas estate since they lie at its northern limits as shown on the tithe map of c. 1841.

Comparison of the tithe map of c. 1841 with the 1901 and later OS maps suggests that the 'path' which runs south-east from Pont-y-pandy towards Pen-rhiw-dwrch may have originally been the line of the road.

The field pattern of the area, dominated by large, straight-edged rectilinear fields is one which can be expected to result from 18th/19th century re-organisation, intake and improvement. However, some of the properties clearly existed prior to this date. For instance there is a record of a lease of Coed-y-pry in 1678 (Wynnstay ms DD/WY/2528). The main area of improved fields seems to be in the Wynnstay estate lands while those of the Rhiwlas lands shows more elements of an earlier, less regular pattern, particularly observable on the tithe map of c. 1841, with some possible remnants of medieval arable fields, ploughed in long, S-shaped strips. The nature of all the surviving field boundaries is therefore of relevance since they may vary in construction according to their date of origin.

### **4.3 The existing archaeological record**

Only three sites of interest are known in the vicinity:

1. A low, semi-circular earthwork (PRN 4831) surrounding a former cottage and yard on the west side of the river, c. 250m west of Coed-y-pry. This may have been simply an early farmyard boundary but perhaps was a pre-existing, medieval?, fold or pound within which the cottage was built.
2. A derelict cottage (PRN 4839) at Pen-y-geulan, just west of Pont-y-pandy, thought to be part of the former mills of Melin Pen-y-geulan.
3. A 17th century house (PRN 4842), part of the existing Pant-y-ceubren farmhouse.

### **4.4 The archaeological survey**

Recommendations for further assessment are made if the site cannot be sufficiently well understood from existing knowledge to allow mitigation measures to be recommended. The mitigation measure is a product of the category of importance, the impact, and the nature of the site. Where "avoidance" is recommended, this is to include both direct avoidance by the pipeline and avoidance by construction traffic.

Features are numbered from the higher end of the route downwards. The locations of all the features are marked on the accompanying map (Drawing no. 1439/1/1).

#### **1. Stone clearance dump**

*Category D Impact: Likely*

An irregular dump of large boulders along the field edge at the river bank. These must result from post-medieval field clearance. There is another dump of stones in the corner of the next field uphill immediately to the east.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: None.*

#### **2. Field bank**

*Category D Impact: Slight*

Stone-faced bank with ditch at south side. Straight in plan. In use, with fence. 18th/19th

century field boundary.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

### **3. Field terrace**

*Category D Impact: Slight*

Scarp in field slope marking probable limit of ploughing for pasture improvement. Recent.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: None.*

### **4. Stone clearance dump**

*Category D Impact: None*

Irregular dump of large stones along field edge at riverside similar to those of 1.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: None.*

### **5. Drainage ditches**

*Category D Impact: Likely*

Network of modern drainage ditches for area of slope affected by spring water.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: None.*

### **6. Field bank**

*Category D Impact: Likely.*

Earth and rubble bank with ditch on south side. Curving in plan. In use with fence. Possibly a boundary of a former wooded area to the north. Earlier post-medieval?

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

### **7. Gateway**

*Category D Impact: Likely.*

Gateway through bank 6. In use. Post-medieval.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

### **8. Field bank**

*Category D Impact: Likely.*

Earth and boulder bank with hedge, joining larger, in situ boulders. Ditch on north side. Curving in plan. Not in use. Possibly, with 6, a boundary of a former wooded area. Earlier post-medieval?

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

### **9. Field bank**

*Category D Impact: Likely.*

Earth and boulder bank with hedge. No ditch. Straight in plan. Not in use. Later post-medieval.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

### **10. Field bank**

*Category D Impact: Likely*



Earth and boulder bank with hedge. No ditch. Straight in plan. In use with fence. Post-medieval.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

#### **11. Gateway**

*Category D Impact: Likely*

Gateway through bank 10. There is also an artificial terrace constructed on the slope to facilitate access through the gate.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

#### **12. Terraced trackway**

*Category D Impact: Likely*

Modern, machine-cut track joining two formerly separate pasture fields.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: None.*

#### **13. Terraced trackway**

*Category C Impact: Likely*

Terraced track, cut into and terraced above the slope. This is an early road as it is shown as a road on the tithe map of c. 1841. Disused except as footpath by 1901 (OS 25" map).

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Watching brief, basic recording and reinstate.*

#### **14. Field Bank**

*Category D Impact: Likely*

Earth and boulder bank with hedge and fence. Partly stone faced. Ditch on south, uphill side. In use.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

#### **15. Field terrace**

*Category D Impact: None*

Terrace uphill of trackway. Shows soil accumulation at downslope field edge as a result of ploughing.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: None.*

#### **16. Field bank**

*Category D Impact: Likely*

A roadside stone-faced scarp with hedge. Boundary, in use.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

#### **17. Field bank**

*Category D Impact: Likely*

Bank, stone-faced at road-side, with hedge. In use. Curving in plan along road-side. Post-medieval but could overlie an earlier boundary.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

### **18. Field terrace**

*Category D Impact: Slight*

Scarp edge at limit of ploughing, with some clearance stones dumped over the edge. Post-medieval.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: None.*

### **19. Field wall**

*Category D Impact: Likely*

Tumbled low wall c. 0.5m high, built of river? cobbles. In use, replaced by fence.

*Recommendation for further assessment: None.*

*Recommendation for mitigatory measures: Reinstate.*

## **5. SUMMARY OF RECOMMENDATIONS FOR MITIGATORY MEASURES**

This lists the sites according to their perceived archaeological value.

*Category A - National importance*

Nil.

*Category B - Regional importance*

Nil.

*Category C - Local importance*

13. Terraced trackway.

Watching brief, basic recording and reinstate.

*Category D - Minor or damaged sites*

2, 6, 7, 8, 9, 10, 11, 14, 16, 17, 19.

Reinstate.

1, 3, 4, 5, 12, 15, 18.

No action required.

*Category E - Sites of potential value*

Nil.

## **6. GENERAL RECOMMENDATIONS**

### **6.1 The construction requirements**

The pipeline will require a minimum easement of c. 5m width plus space for spoil dumping. There are no features present which need hinder the construction and so there are no preconditions about the route or the positioning of the spoil dumping.

### **6.2 Archaeological recommendations**

Although there are a number of features along the proposed pipeline route, most are of a minor character, consisting of relatively modern field banks and related features. These are probably all post-medieval in date but form part of the historic landscape, and reinstatement is therefore recommended.

Only one feature is of greater value, the old road, (site 13) which may be medieval in origin, and is still a public right of way. By chance, the old road is mostly damaged in the area where the pipeline route crosses it so reinstatement needs no formal preconditions.

There are no features of archaeological interest or potential in the areas of the proposed intake weir and turbine house so no response is required at these points.

The following recommendations are made:

#### *6.2.1 Before construction*

A. There should be an archaeologist present during the marking out of the easement in the area of the old road, feature no. 13.

#### *6.2.2 During construction*

A. There should be a watching brief to allow monitoring of excavation accompanied by basic recording in the area of the line of the old road, feature no. 13.

B. There should be a watching brief to allow observation of reinstatement of feature no. 13.

#### *6.2.3 After construction*

A. There should be allowance for a proper level of archiving of any resulting records and of a report.

## **7. BIBLIOGRAPHY**

### **7.1 Unpublished Sources**

Gwynedd Archaeological Trust, Sites and Monuments Record  
Gwynedd Council, Dolgellau Archives  
Clwyd County Record Office, Ruthin.

### **7.2 Maps**

Ordnance Survey maps:

1" first edition, c. 1838  
1:10,000 1886 (6")  
1:2,500 1901

Tithe maps and schedules c. 1841

John Evans Map of North Wales (2") 1797

### **7.3 Published Sources**

Bowen, E. and Gresham, C., 1967. *History of Merioneth.*

Cadw: Welsh Historic Monuments. *List of Scheduled Ancient Monuments.*

Cadw: Welsh Historic Monuments. *List of Buildings of Special Architectural or Historic Interest.*

Davies, G., 1958. Traddodiadau a Hynafiaethau Llanuwchllyn. *Journal of the Merioneth Hist. and Rec. Soc.*, 3, part 2.

Lewis, S., 1833. *A Topographical Dictionary of Wales.*

Parkinson, A.J., 1984. Fulling mills in Merioneth. *Journal of the Merioneth Hist. and Rec. Soc.*, 9, part 4.

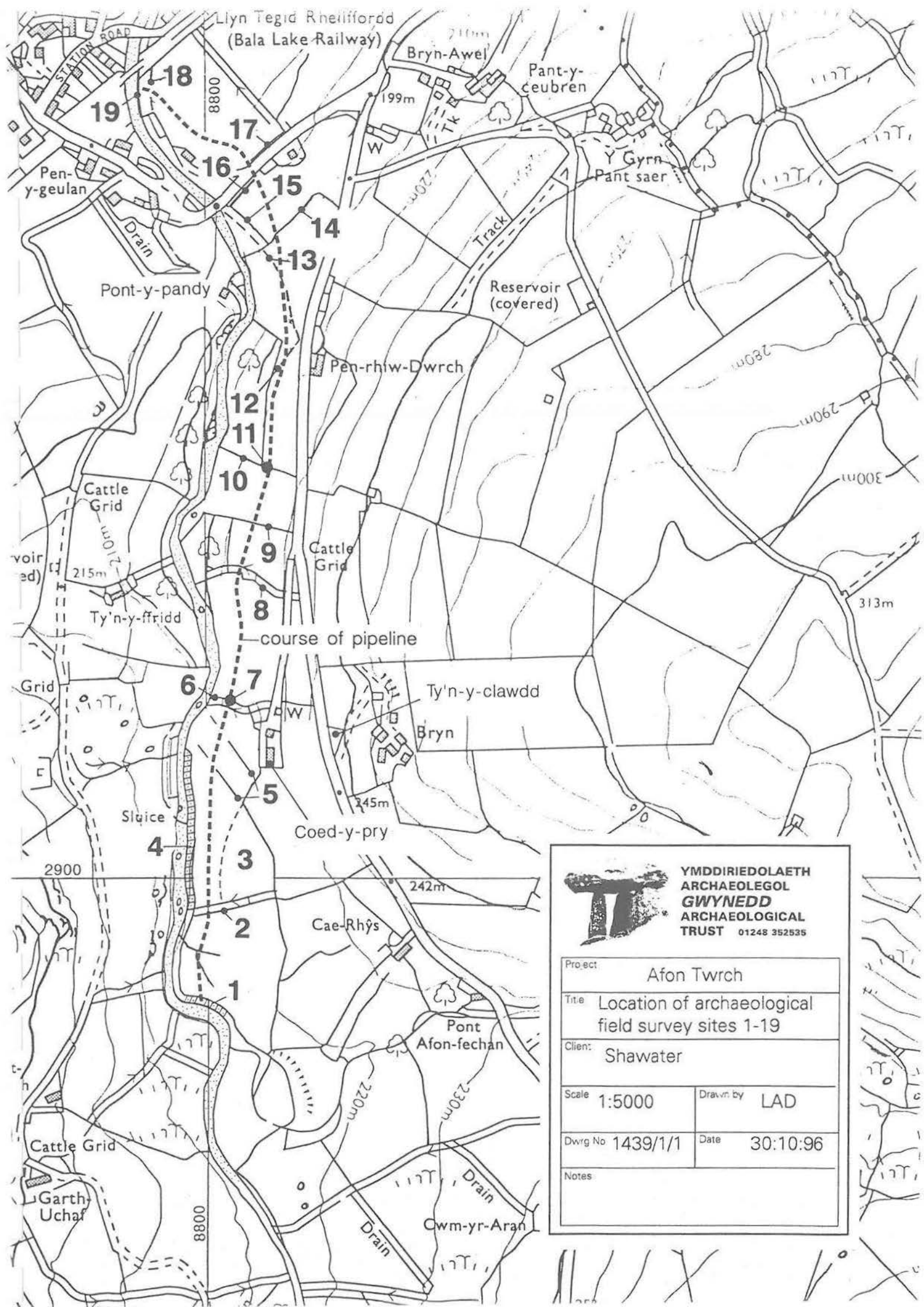
RCAHM(W), 1921. *Inventory of Ancient Monuments of Merioneth.*

## 8. NON-TECHNICAL SUMMARY

An archaeological assessment was carried out of the route of the proposed pipeline. The work involved a desktop study of existing records followed by a field walkover. The desktop study included examination of records held in the Gwynedd Sites and Monuments Record and searches of other records and maps in archives at Dolgellau and Ruthin, Clwyd, as well as maps and printed literature. The field work involved walking all of the route of c. 1.1km with observation of a corridor of approximately 100m width (except where restricted by steep, wooded slopes) with brief recording and assessment of all features.

The desktop study revealed no evidence of features or settlement within the corridor of the route earlier than the post-medieval period and suggested that much of the area may have been wooded into this period. The fieldwork recorded a total of 19 features over the whole route. Of these, 18 were minor features such as field banks, ditches and stone clearance dumps related to post-medieval farming. The remaining feature was of slightly greater archaeological value: an old road, now used as a footpath.

Recommendations were made to reinstate some of the minor features while others require no action. Watching brief is recommended before and during construction to minimise damage to, and ensure an adequate record and reinstatement of the early road.



YMDDIRIEDOLAETH  
ARCHAEOLEGOL  
**GWYNEDD**  
ARCHAEOLOGICAL  
TRUST 01248 352535

Project		Afon Twrch	
Title		Location of archaeological field survey sites 1-19	
Client:		Shawater	
Scale	1:5000	Drawn by	LAD
Dwrg No	1439/1/1	Date	30:10:96
Notes			

YMDDIRIEDOLAETH ARCHAEOLEGOL *GWYNEDD* ARCHAEOLOGICAL TRUST

Craig Beuno - Ffordd y Garth - Bangor - Gwynedd - LL57 2RT. Phone (01248) 352535 : Ffacs/Fax (01248) 370925