CEILWART TO BARMOUTH MAINS REFURBISHMENT ARCHAEOLOGICAL ASSESSMENT

REPORT NO. 181

G1366

Ymddiriedolaeth Archaeolegol Gwynedd Gwynedd Archaeological Trust

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ARCHAEOLOGICAL ASSESSMENT

1. INTRODUCTION

Welsh Water is proposing to refurbish a water main between Ceilwart and Barmouth, a distance just over five kilometres. The southern half of the pipeline is on an existing road, the northern half across open country. The majority of this work is expected to be relining work which will involve access to the existing pipeline at intervals with a limited working corridor of approximately 12 metres. However it is likely that certain sections of pipeline will need to be replaced.

Gwynedd Archaeology Planning Service recommended that an archaeological assessment be carried out in advance of work starting on the scheme, and Gwynedd Archaeological Trust (Contracts) was contracted to undertake the archaeological assessment of the route.

2. SUMMARY OF THE PROJECT DESIGN

A report was requested from Gwynedd Archaeological Trust, to assess the likely archaeological impact of the proposals and to recommend mitigatory measures.

The requirement was for field search of the corridor of interest coupled with a desk-top survey in order to assess the impact of the proposals on the archaeological and heritage features within the pipeline corridor and close enough to it to be affected. The importance and condition of known archaeological remains were to be assessed and any other areas of archaeological interest to be identified. Measures to mitigate the effects of the pipeline scheme on the archaeological features were to be recommended.

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

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

N.B. Full details of ancillary areas likely to be affected by the pipeline works, such as vehicle parking and turning areas, materials storage areas etc., have not yet been supplied. Experience shows that these areas are as likely to suffer damage as the actual land-take for the pipeline. If all such areas fall within the corridor of interest, they will have been covered, but in order that all areas affected may be subjected to the same level of survey, any information relating to areas affected outside the 12m corridor should be notified to the Trust as soon as possible.

3. METHODS AND TECHNIQUES

3.1 Desk-top Study

Consultation of maps, computer records, written records, aerial photographs and reference works, which make up the Sites and Monuments Record, was undertaken at Gwynedd Archaeological Trust. Further aerial photograph examination was carried out by staff at the National Monuments Record, Aberystwyth.

3.2 Field Search

The field search was undertaken on 7th and 13th of November, 1995. The whole length of the route was walked where possible, and the rest of the corridor was either walked or observed from neighbouring fields, paths etc. A corridor of 35m was used as a basis for the field search. Conditions were generally fine for fieldwork and light conditions were fair for the time of year.

Sites identified were marked on copies of 1:10,000 plans, as accurately as possible without surveying. Forms were filled in assessing each site, and notes made of the more important ones. Photographs were taken of all potential sites identified.

3.3 Report

All available information was collated, and transferred onto a single set of maps at a scale of 1:10,000 for convenience. 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, for ease of reference; descriptions of the sites and specific recommendations for further evaluation or mitigatory measures, as appropriate, are given in the relevant sections of this report.

In some cases, further investigation may result in sites being moved into different categories. 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

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 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 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 evaluation.

3.5 Definition of Impact

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

Unknown:

The site lies within the study area, but, because construction details are not yet finalised, the impact upon the site is not known.

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. a track or field boundary cut at right angles by the pipeline.

Likely:

In some instances the site in question is extremely close to the proposed route and may lie on the edge of, or just within the easement corridor and 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.

3.6 Definition of Mitigatory Recommendations

See section 5.0 for recommended mitigatory measures.

For the purposes of this report the mitigation and rescue archaeology proposals as suggested by Gwynedd Archaeological Trust have been summarised as:

None:

No impact so no requirement for mitigation measures.

Detailed recording:

Detailed recording requires a photographic record, surveying and the production of a measured drawing prior to the commencement of the works on site.

Archaeological excavation works may also be required depending upon the particular feature and the extent and effect of the impact. Some of the sites would require dismantling by hand, to provide a detailed record of the method of construction and in the case of a listed structure, the salvage of materials for re-use and re-building.

Recording by photograph and description:

Recording by photograph and description requires a photographic record and survey work prior to the commencement of works on site. A measured drawing may be required in certain cases.

Watching brief:

At the commencement of the improvement works on site, all sites affected by the works would need to be observed up to the end of the contract period.

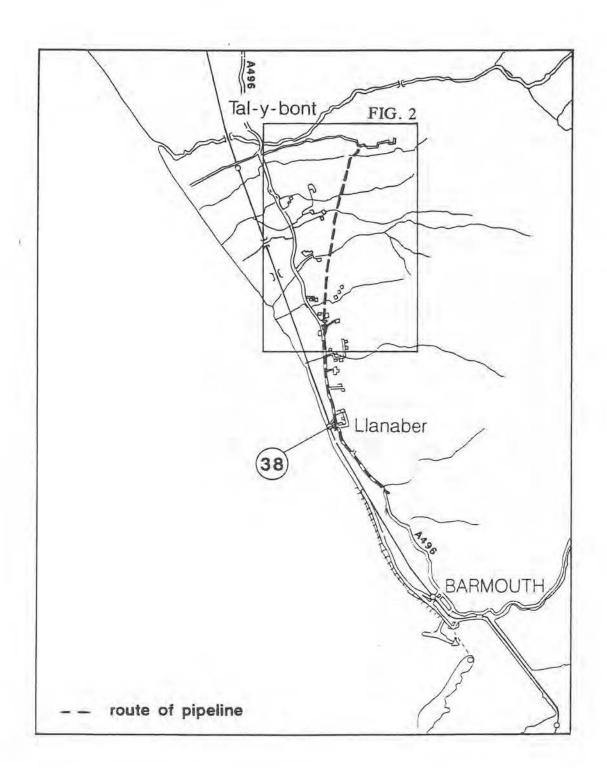


Fig. 1 Location of scheme - showing area covered by fig. 2 (and site 38)

4. ARCHAEOLOGICAL BACKGROUND AND RESULTS

4.1 Introduction

A study of the Sites and Monuments Record revealed twelve known sites within the study area, the majority of which were Prehistoric/Roman settlements or Medieval settlements.

The study of aerial photographs of the area resulted in the identification of several potential archaeological: e.g. site 14 - a semi-circular platform, site 19 - an enclosed homestead, and site 21 - a possible moated farmstead at Bryn-y-bwyd.

Lists supplied by Cadw: Welsh Historic Monuments gave information about listed buildings and scheduled ancient monuments. There are several scheduled ancient monuments and listed buildings in the vicinity of the scheme, however none are directly affected. The closest are the Pen-y-dinas camp SH60632086 (Scheduled Ancient Monument M076), Ceunant Egryn enclosed settlement SH60552063 (SAM. M099), and the scheduled area containing a number of huts, field systems and cairns on the western slopes of Mynydd Egryn (SAM M122).

A number of additional sites were noted during fieldwalking; mostly of relatively recent date (i.e. after 1500 A.D.), and mostly associated with agricultural activities.

4.2 Gazetteer of Archaeological Sites

1. Possible homestead, Eithin-fynydd (PRN 841) SH60022165

Category B Impact: likely

Two raised platforms situated adjacent to the farm road west of the covered reservoir at Eithin-fynydd. Dense undergrowth, including bracken obscures much of the site. Immediately west of the two raised platforms is a possible sub-circular enclosure, also largely hidden by vegetation.

2. Rectangular building footings, Eithin-fynydd farm SH60022152

Category C Impact: unknown

The grassed over footings of a rectangular building located within a small rectangular enclosure west of the farmhouse at Eithin-fynydd.

3. Defended settlement, Eithin-fynydd (PRN 1071) SH59922150

Category B Impact: unknown

The disturbed remains of an enclosed settlement situated on a small promontory. An impressive feature of the site is the massive dry-stone built enclosure wall. The site is thought to date from the Iron Age.

To the north and east are the remains of a Medieval settlement, comprising a number of dry-stone built enclosures and at least one rectangular hut, now in use as an animal shelter.

4. Small rectangular feature, Eithin-fynydd SH59902143

Category E Impact: unknown

A small rectangular feature located to the south-east of a large rectangular dry-stone enclosure. The feature is visible on aerial photographs as a series of low earthen banks. The site was difficult to examine during the field search because of dense bracken cover.

5. Terraced platforms SH59962128

Category E Impact: unknown

The cleared remains of walling and indications of at least two, possible three rectangular platforms terraced in a linear fashion down a slight slope. The feature lies adjacent to a curved section of dry-stone field boundary, which may itself be a relict feature. The site is possibly a minor agricultural feature, i.e possibly a category D site.

6. Sub-rectangular enclosure SH59932126

Category D Impact: unknown

A strongly built dry-stone enclosure with a possible entrance to the west. The eastern wall of the enclosure and that of the existing field boundary are shared. The feature is likely to be a redundant agricultural feature.

7. Field barn and enclosure SH59952120

Category D Impact: none

The ruinous remains of a small rectangular field barn with an associated enclosure adjoining to the east. The barn, which is terraced into the slope has an entrance in its west gable front and indications of an gable opening to the loft on the up-slope end to the east. The group is likely to date from the seventeenth or eighteenth century.

Possible homestead SH59842120

Category E Impact: likely

An area first noted from aerial photographs as being a possible settlement site, comprises a 'D' shaped and a rectangular enclosure of dry-stone construction. The internal detail of the site was obscured by dense bracken. This site is likely to belong to category C or B and should be treated as such if affected by the scheme.

9. Sheepfold SH59882100C

Category D Impact: likely

The disturbed remains of a small sheepfold of 3 interconnected pens within an area of old dry-stone field walls and boulders.

10. Homestead, Hendre-eirian (PRN 4961) SH59832074

Category B Impact: slight/considerable

An oval enclosure of tumbled walling with indications of a rectangular structure, possibly originally of 2 cells, located within the north part of the enclosure. This site may be of Medieval date. Immediately to the west is a later sheepfold.

11 & 11a. Remains of field system and possible settlement SH59702051C

Category E Impact: considerable

An area of two fields (see map), which contain numerous low banks and undulations; these represent the remains of cleared field banks or walls and other possible archaeological features, such as a small rectangular enclosure or structure. A portion of the field system in field 11 is depicted on the 1:2500 Ordnance Survey map of 1900.

12. Terraced rectangular enclosure SH59812050

Category D Impact: unknown

A rectangular enclosure of substantial tumbled dry stone walls with possible entrances to the north and south. The interior of the feature is raised above the surrounding land to the west, south and north. Possible indications of internal divisions remain. The site is likely to be an agricultural feature.

13 & 13a. Remains of 2 small stream side enclosures (a) SH59712040 and (b) SH59792045

Category E Impact: unknown

Two stream-side features originally located using aerial photographs. Site (a) is a small open ended rectangular enclosure with spur walling situated over a drainage channel which diverts and culverts a near by stream. The site is likely to be associated with sheep husbandry, and probably dates from the 18th century at the earliest. Site (b) is a possible prehistoric enclosure with an internal hut scoop. The site is situated in uncleared ground next to a now dry stream bed. River born stone is predominant in the area, and it is possible that site (b) is a natural feature formed by the changing course of the stream.

14. Semi-circular platform SH59832030

Category E Impact: unknown

A raised area roughly semi-circular in shape situated within a kink in the dry stone field boundary south of the track/public right of way from Egryn Abbey to Mynydd Egryn. The platform has been used recently to store bales or farm-yard manure, and possibly as a result no other details were visible. The exact function of the platform is unknown, whether it is the remains of a habitation from the Medieval period or earlier, or a relatively recent agricultural feature is unclear.

15. Small sub-rectangular enclosure SH59842006

Category D Impact: unknown

A sub-rectangular enclosure located in the south-east angle of a field. The feature shows a variety of different walling styles and has several phases. A large amount of field clearance material has been dumped within the enclosure.

16. Semi-circular ditched feature, Llwynwcws pumping station SH59731944

Category C Impact: unknown

The remains of what was once a circular ditched and banked feature, now truncated by the main road from Tal-y-bont to Barmouth. The feature is located on the east side of the road within a small copse.

17. Sub-Roman homestead (PRN 1078) SH59792182

Category B Impact: unknown

A "concentric circle" type homestead of Prehistoric date (c. 500 BC) enclosed by massive circular stone banks. The site is located to the east of Tyddyn-y-felin and has other remains associated to the south.

18. Settlement, Tyddyn-y-felin (PRN5069) SH59982175C

Category B Impact: unknown

Three platform houses terraced into the west facing slope, with an apron type paddock situated down slope further to the west. Though the structures have been extensively robbed the features are still clearly definable.

18a. Hut circle, Tyddyn-y-felin (PRN5630) SH59902174

Category B Impact: unknown

Located not far to the west of site 18 are the much ruined remains of a round house and associated field system. The southern extent of the hut is partly obscured by stone dumping. The site is thought to be of Prehistoric date.

19. Enclosed homestead SH59552151 (PRN 5856)

Category B Impact: unknown

A sub-circular enclosure noted on aerial photographs and partly shown on the Ordnance Survey 1:10,000 map as a 'D' shaped feature located to the north of Hendre-fechan. The feature is typical of enclosed Prehistoric settlement sites of the area.

20. Enclosed homestead (PRN1193) SH59382154

Category B Impact: unknown

Substantial enclosed hut group of 3 huts: 2 small huts conjoined to a third larger hut on the west side. Although stone robbing and field clearance dumping has occurred the main outline of the enclosing wall and the huts remains clear. The site is of Prehistoric or Roman date.

21. Possible moated farmstead, Bryn-y-bwyd SH59152115C

Category E Impact: unknown

Aerial photographic evidence suggests either a rectangular enclosed or moated site surrounding the existing farm buildings of Bryn-y-bwyd with slight indications of sub-surface remains. This site would be re-classified and placed in category B if further evaluation were to verify the existence of the enclosing ditch, which could be of Prehistoric/Roman or Medieval date.

22. Rectangular feature SH59342086

Category E Impact: unknown

A rectangular feature sub-divided by a later field boundary. The feature, which was located by aerial photograph, appears as low grassed over banks which form a rectangular enclosure.

23. Possible sub-circular feature SH59532071

Category E Impact: unknown

A site visible on aerial photographs as a Prehistoric settlement of "concentric circle" type (i.e. a circular hut within a larger circular enclosure). Previous ploughing over the site has reduced the height of the banks, and it is now not visible from the ground.

24. Barn, Hendre-eirian (PRN4964) SH59732083

Category B Impact: none

A cruck-built barn located at Hendre-eirian.

25. Agricultural terrace SH59952081C

Category D Impact: unknown

A raised area across the eastern end of an enclosure which lies immediately east of Hendre-eirian. The embanked feature is possibly the remains of agricultural terracing of Medieval or earlier date.

26. Cleared field system and possible settlement SH59902059C

Category E Impact: unknown

An area of cleared enclosures and possible hut scoops, associated with the remains of Cae-gwyn (26a on the map), a homestead of possible Medieval date. The enclosures are partly depicted on the 1:2500 Ordnance Survey map of 1900. An aerial photograph of c. 1970 gives a clear picture of the original layout of the field system prior to clearance.

27. Circular enclosure, Hendre-eirian (PRN1115) SH60102082

Category B Impact: none

A circular enclosure scarped into the slope and terraced out below. The area is surrounded by a dry-stone wall. Because of the partial collapse of the enclosure wall no clearly defined entrance or entrances remain. The site has been included by Bowen and Gresham in their "concentric circles and circular enclosures" classification, which they tentatively place within the immediate Post-Roman period, although more recent work would suggest a late Prehistoric (c. 500 BC) date.

28. Two possible circular enclosures, Hendre-eirian SH60032075 & SH60042071

Category E Impact: none

Two possible circular enclosures in an area of dense vegetation. The sites, which were identified using aerial photographs, are similar to site 27 and are probably of Prehistoric date. If this proves to be correct, the sites should be treated as those of Category B status.

29. Egryn 2: Circular enclosure\concentric circle (PRN 1080) SH60012047

Category B Impact: none

A Prehistoric settlement of "concentric circle" type. The outer enclosure partly underlies modern field walls.

30. Rectangular structure SH59862034

Category D Impact: unknown

The fragmentary remains of a rectangular or rectilinear structure adjacent to the south bank of the stream known as Ceunant Egryn. The feature comprises two roughly parallel low banks extending towards a disturbed area from the stream and appears to extend into the stream itself. The site may represent the remains of an agricultural feature, such as a dipping pen or a stream crossing.

31. Rectangular enclosure and stone dumps, Egryn Abbey SH59642029

Category D Impact: unknown

A rectangular enclosure of grassed over stone banks and what appears to be stone dumping overlying its western extent, noted during field walking. The stone dumps have been partly quarried away. The feature is located north of the public right of way, just to the east of the farm buildings at Egryn Abbey.

32. Egryn 1: Circular enclosure\concentric circle (PRN 1079) SH60002010

Category B Impact: none

Hut circle within concentric circular enclosure of an inner court yard and an outer enclosure. It has been suggested that this site dates from the immediate Post-Roman period, as the site apparently overlies cultivation terraces of Romano-British date, although these latter have yet to be securely dated.

33. Possible homestead, Cae-mur-poeth SH59911994

Category E Impact: none

Possible enclosure with internal hut of unknown date. The site was located by aerial photograph, but not visited on the ground.

34. Possible homestead enclosure, the Wayside (PH) SH59751932

Category E Impact: unknown

Possible Iron Age enclosure in the form of denuded earthworks bisected by the modern road. This site has been located using aerial photographic material, but was not clearly visible on the ground.

35. Small irregular enclosure, S of Llwynwcws SH59911923

Category D Impact: none

Possible early enclosure in south-east corner of a field to the south of Llwynwcws. The site was located using aerial photographic material, but was not visited on the ground.

36. Circular feature\possible homestead SH59921918

Category E Impact: none

Circular feature located on gently sloping ground to the south of Llwynwcws. The feature was discovered through the use of aerial photographs and is thought to be the remains of a circular enclosed homestead, and would be classified as a category B site.

37. Circular feature\possible homestead SH59931907

Category E Impact: none

Similar type of site to site 34 located by the use of aerial photography. The site is situated on a gentle west facing slope and is possibly the ploughed out remains of a circular enclosure usually associated with Romano-British or immediate Post-Roman occupation. Like site 34 this site is likely to belong to category B.

38. Two inscribed stones, Llanaber (PRN 4324) SH59911802

Category A Impact: none

Two inscribed stones, both dating to the fifth or early sixth century now located at Llanaber church. One, a rough stone pillar inscribed CAELEXTI(S)/MONEDO/REGI(S) was removed from Ceilwart farm (Ceilwart Isaf) in 1858 to its present location. The other, also a rough pillar stone, is inscribed AETERNCI(P)/ET/AETERN(A)E(P) and was found in 1931 at Barmouth. This stone is thought to be the one originally noted by Lewis Morris in c. 1737; at that time it was located near the Caelexti stone.

Areas of unknown archaeological potential Category E

Previous results from similar projects have shown that many sites can only be detected by excavation. A continuous watching brief of any areas requiring topsoil disturbance is therefore an essential part of the evaluation procedure, with potential for discovering sites which would otherwise go unrecorded.

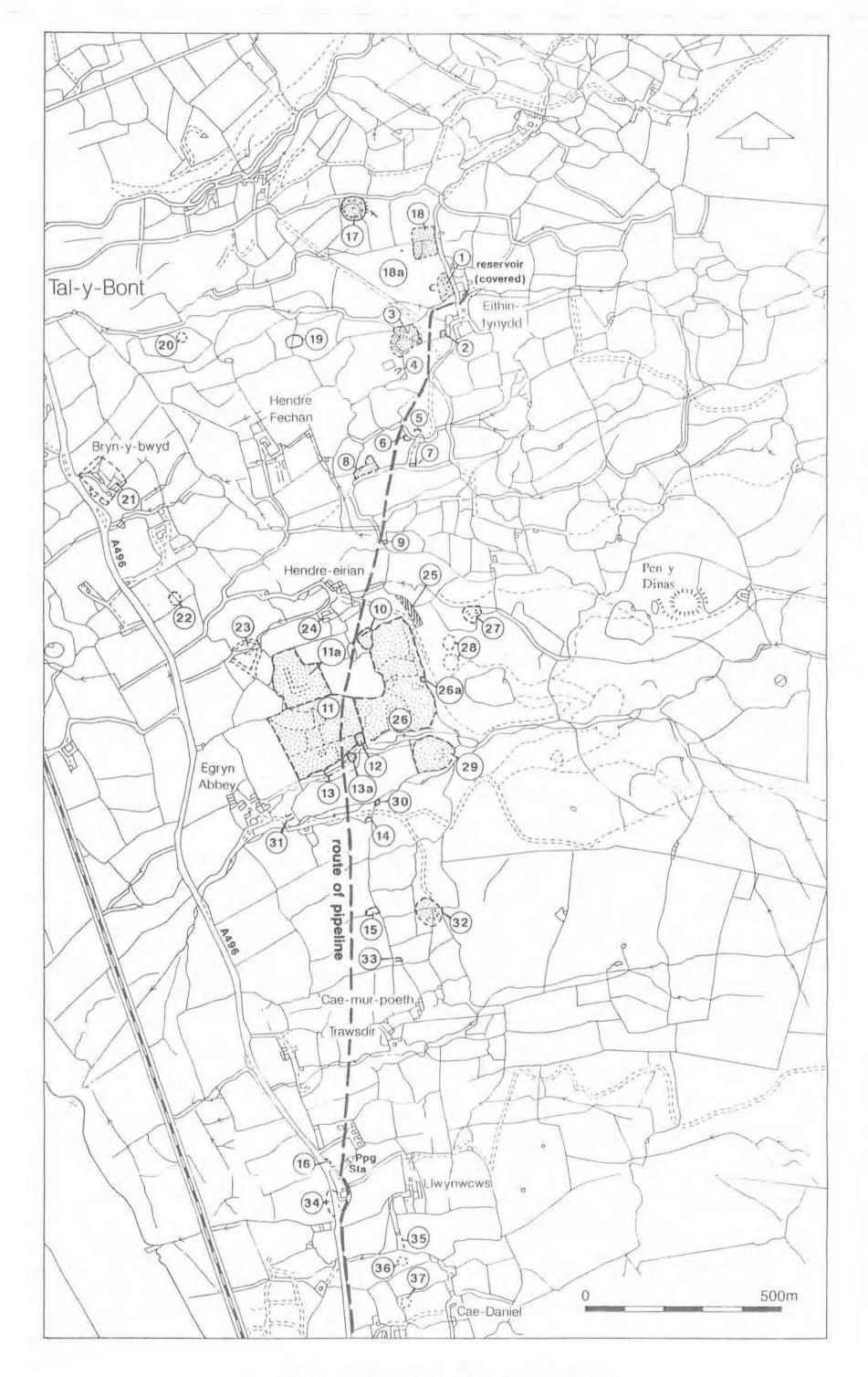


Fig. 2 Archaeological sites 1-37 and pipeline route,

5. RECOMMENDATIONS FOR FURTHER ASSESSMENT AND MITIGATORY STRATEGIES

5.1 Introduction The proposals are for the refurbishment of the water main, which it is envisaged will be mainly restricted to relining work, and which will involve access to the present pipeline at intervals. Work to the pipeline will require a working corridor of approximately 12m. However it is possible that certain stretches of the pipeline will need to be replaced, necessitating slight alterations in the route of the pipeline and resulting in potential disturbance to archaeological remains.

Four sites lie close to or on the existing pipeline, and would be affected by any refurbishment:

1. Possible homestead at Eithin-fynydd;

2. Sheepfold;

3. Homestead at Hendre-eirian; and lie Remains of a field system and possible settlement. These sites have been given site specific recommendations below. The nature of the proposed scheme means that the impact on other sites is not yet known, and for this reason only general recommendations have been made for the remainder of the sites. These recommendations are related to the categories which indicate the importance of the sites.

5.2 Site Specific Recommendations

- 1. Possible homestead, Eithin-fynydd It is recommended that this site is preserved in situ and the extent of the site is clearly marked to prevent accidental damage.
- 9. Sheepfold It is recommended that this site is recorded by photograph and written description if it is to be disturbed.
- 10. Homestead, Hendre-eirian It is recommended that this site is preserved in situ; to ensure that accidental damage does not occur the extent of the site should be clearly marked.
- 11. Remains of field system and possible settlement If ground disturbance is to be carried out in this area it is recommended that the features are recorded, to include a survey of the area to be disturbed. It is also recommended that the remains in the area are investigated as part of the general watching brief.

5.3 General Recommendations

5.3.1 Category E sites - further assessment work

Sites belonging to category E are those archaeological remains whose status and extent are not yet established. It is recommended that if any of these sites are to be disturbed further evaluation will be required to allow re-classification and the formulation of suitable mitigatory measures. Some indication is given in the gazetteer as to the likely re-classification of category E sites (i.e. to categories A - D), where an informed guess can be made. The further assessment work will differ in accordance to the nature of any particular site, ranging from clearance of vegetation to limited trial trenching.

Many category E sites were discovered in the area outside the corridor of the existing pipeline through the use of aerial photographic material; these sites were not visited during the fieldwork element of the project, and will therefore require a field visit if they are to be affected by the scheme.

5.3.2 Category B sites

It is recommended that sites belonging to category B are preserved *in situ*, and are clearly marked in the field to prevent accidental damage. This should only be undertaken if deviations in the line of the pipe or access routes are placed in close proximity to sites in this category.

5.3.3 Category C sites

Category C sites which are to be disturbed should be recorded in detail prior to disturbance. Techniques for recording may include measured survey and/or excavation.

5.3.4 Category D sites

Category D sites which are to be disturbed should be recorded by photograph and written description prior to disturbance.

6. BIBLIOGRAPHY

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