

HISTORIC ENVIRONMENT DESK BASED ASSESSMENT

Land adjacent to Cae Gors, Tregarth, Llandygái,
Gwynedd.

ARS Report N°: 2021/120
GAT Event PRN: 46139



ARCHAEOLOGICAL
RESEARCH SERVICES LTD

Digging with Purpose

Archaeological Research Services

Angel House
Portland Square
Bakewell
DE45 1HB

t. 01629 814540

e. admin@archaeologicalresearchservices.com

w. www.archaeologicalresearchservices.com

Evaluation ▪ Excavation ▪ Watching Briefs ▪ All Aspects of Fieldwork
Environmental Impact Assessment ▪ Desk-Based Assessments ▪ Heritage Statements ▪ Historic Buildings
Geophysics ▪ Geoarchaeology ▪ Palaeoenvironment ▪ Design and Publication

LAND ADJACENT TO CAE GORS, TREGARTH, LLANDYGAI, GWYNEDD:

HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT

ARS LTD REPORT 2021/120



ARCHAEOLOGICAL
RESEARCH SERVICES LTD
Digging with Purpose

www.archaeologicalresearchservices.com

Connect with us:



Prepared on behalf of: MacLennan Construction Ltd
Date of compilation: August 2021
Compiled by: Antony Brown MCIfA
Checked by: Tony Hannah MCIfA
Approved for issue by: Tony Hannah MCIfA
Planning Reference: C21/0617/16/LL
GAT HER Event PRN: 46139
Local Authority: Gwynedd Council
Site central NGR: SH 60685 68297

EXECUTIVE SUMMARY

Project Name:	Land adjacent to Cae Gors, Tregarth, Llandygai, Gwynedd: Historic Environment Desk Based Assessment
Planning Authority:	Gwynedd Council
Planning Reference:	C21/0617/16/LL
GAT Event PRN:	46139
Location:	Tregarth
Parish:	Llandegai
Bedrock Geology:	Fachwen Formation - Siltstone and Limestone, Interbedded Llanberis Slates Formation - Mudstone and Siltstone
Superficial Geology:	Till, Devensian – Diamicton Glaciofluvial Sheet Deposits, Devensian - Sand and Gravel
Soils:	Soilscape 6: Freely draining slightly acid loamy soils
Site central NGR:	SH 60685 68297
Date of Report:	August 2021

Archaeological Research Services Ltd was commissioned in 2021 by Caulmert Ltd on behalf of its client, MacLennan Construction Ltd, to produce an Historic Environment Desk-Based Assessment (DBA) of an area of land adjacent to Cae Gors, Tregarth in the parish of Llandygai, Gwynedd. This is following the submission of a planning application for a housing development: *'Full planning application for the erection of 12 no. affordable dwellings with associated access, parking and infrastructure on land adjacent to Cae Gors, Tregarth, Bangor'*.

The PDA is located within an area with a significant distribution of prehistoric archaeological remains, most notably dating to the late Iron Age and/or Romano-British periods. Most of the examples of such settlements sites within the study area are located in close proximity the numerous small watercourses that flow as tributaries into the River Ogwen, and this was evidently a preferred topographic location for settlement during these periods. It is noteworthy that the PDA occupies a corresponding position in the landscape, with a small tributary of the River Ogwen flowing across the northern part of the site.

Currently there are no known heritage assets within the PDA that would be affected by the proposed development, but there is some potential for previously unidentified archaeological remains to be impacted upon by the proposed development. This is to be tested by a scheme of evaluation trenching that has been requested by GAPS (GAT Event PRN 46140).



ARCHAEOLOGICAL
RESEARCH SERVICES LTD
Digging with Purpose

CRYNODEB ANNHECHNEGOL

Yn 2021, comisiynwyd Archaeological Research Services Cyf. gan Caulmert Cyf, ar ran ei gleient, MacLennan Construction Cyf. i baratoi Asesiad Desg Amgylchedd Hanesyddol o ddarn o dir ger Cae Gors, Tre-garth, ym mhlwyf Llandygái, Gwynedd. Mae hyn yn dilyn cyflwyno cais cynllunio am gynllun datblygu tai: *'Cais cynllunio llawn i godi 12 o anheddau fforddiadwy gyda mynediad, parcio a seilwaith cysylltiedig ar dir ger Cae Gors, Tre-garth, Bangor'*.

Lleolir yr ardal ddatblygu arfaethedig mewn ardal sydd â dosbarthiad sylweddol o olion archaeolegol cynhanesyddol, yn dyddio'n bennaf i ddiwedd yr Oes Haearn a/neu'r cyfnod Brythonaidd-Rufeinig. Mae'r rhan fwyaf o'r enghreifftiau o safleoedd aneddiadau o'r fath yn ardal yr astudiaeth yn agos i'r dyfrffosydd bach niferus sy'n llifo fel isafonydd i afon Ogwen ac yn amlwg, dyma leoliad topograffig o ddewis i'w anheddu yn ystod y cyfnodau hyn. Mae'n werth nodi bod yr ardal ddatblygu arfaethedig mewn safle cyfatebol yn y dirwedd, gydag isafon fach i afon Ogwen yn llifo ar draws rhan ogleddol y safle.

Ar hyn o bryd nid oes unrhyw asedau treftadaeth hysbys yn yr ardal ddatblygu arfaethedig a fyddai'n cael eu heffeithio arnynt gan y datblygiad arfaethedig, ond mae rhyw bosibilrwydd y byddai'n effeithio ar olion archaeolegol sydd heb eu hadnabod gynt. Mae hyn i'w brofi gan gynllun cloddio ffosydd gwerthuso y gofynnwyd amdano gan Wasanaeth Cynllunio Archaeolegol Gwynedd (GAT Event PRN 46140).

CONTENTS

1	Introduction	1
1.1	Project and Planning Background	1
1.2	Site description	1
1.3	Geology and Soils	1
2	Aims and Objectives	2
3	Method Statement	3
3.1	Approach	3
3.2	Study Area	3
3.3	Information Sources	3
4	Baseline Assessment.....	4
4.1	Archaeological and Historical Background	4
4.1.1	Early Prehistoric (-1,000,000 to -4,000 BC)	4
4.1.2	Later Prehistoric (-4,000 BC to 43 AD)	4
4.1.3	Romano-British (43 to 410 AD)	5
4.1.4	Early Medieval (410 to 1066)	5
4.1.5	Medieval (1066 to 1540)	5
4.1.6	Post-Medieval (1540 to 1901).....	6
4.1.7	Modern (1901 to the present day)	8
4.2	Designated Assets	9
4.3	Non-Designated/Other Heritage Assets	11
4.3.1	Archaeological Remains	11
4.3.2	Historic Built Environment	11
4.3.3	Historic Landscape	12
5	Assessment of Potential Impacts	12
6	Assessment of the Significance of Affected Heritage Assets	13
7	Conclusions	13
8	Statements and Acknowledgements.....	13
8.1	Archive Deposition	13
8.2	Publicity, Confidentiality and Copyright	13
8.3	Statement of Indemnity.....	13
8.4	Acknowledgements.....	14
9	References.....	15
9.1	Primary Sources	15
9.2	Secondary Sources	16
Appendix I	Gazetteer of HER Entries	17
Appendix II	Gazetteer of NMR Entries	29

HER Entries	29
Appendix III Figures	36
Appendix IV Photographs	47
Appendix V Groundsure Large-Scale Historic Map Report	60

© ARS Ltd 2021

LIST OF TABLES

Table 1. Extract from the Llandygai tithe apportionment of 1840.....	7
Table 2. World Heritage Sites within the study area	10
Table 3. Scheduled Monuments within the study area	10
Table 4. Listed Buildings within the study area	10

LIST OF FIGURES

Figure 1: Site location	37
Figure 2: GAT HER entries and designated assets	38
Figure 3: RCAHMW NMR entries	39
Figure 4: Historic Landscape Characterisation.....	40
Figure 5: 1768 - Map of the lower part of the parish of Llandegai (Penrhyn Castle Archives PENRA/2205).....	41
Figure 6: 1840 - Llandegai tithe map (National Archives IR30/48/34)	42
Figure 7: 1840-41 - Ordnance Survey Old Series 1 inch to the mile (Sheet 78 SE)	43
Figure 8: 1841 - Map of Llandegai parish (Penrhyn Castle Archives PENRA/2215).....	44
Figure 9: LiDAR DSM @ 1m resolution processed with multi-directional hillshading.....	45
Figure 10: LiDAR DTM @ 1m resolution processed with multi-directional hillshading.....	46

LIST OF PHOTOGRAPHS

Photograph 1: View north from Tal Gae towards the eastern abutment of the Corrig-Llwydion Bridge (GAT HER PRN 65560).	48
Photograph 2: View north-west from Tal Gae towards the western abutment of the Corrig-Llwydion Bridge (GAT HER PRN 65560).	49
Photograph 3: View north-west from the Ogden Trail (the former course of the L&NWR Bethesda branch line) towards the Penrhyn Quarry Railway bridge (GAT HER PRN 65561).	49
Photograph 4: View SE along Tal Gae towards the NE entrance to the PDA.	50
Photograph 5: Drystone wall forming the NE boundary of the PDA.	50
Photograph 6: View NW towards the PDA from the SE corner of the field.	51
Photograph 7: View NW across the PDA from its SE corner.....	51
Photograph 8: View N across the PDA from its SW corner.....	52
Photograph 9: View NE along the SE edge of the PDA.	52
Photograph 10: View NE towards the NE entrance to the PDA from its SW edge.....	53
Photograph 11: View SE from the central area of the PDA.	53
Photograph 12: View SW from the NE entrance to the PDA.....	54
Photograph 13: View S from the NW entrance to the PDA.....	54
Photograph 14: View SE from the NW entrance to the PDA.	55
Photograph 15: View NE across the stream.	55
Photograph 16: View NW towards the heavily vegetated area surrounding the stream.	56
Photograph 17: View SW across the disturbed area towards the centre of the PDA.	56
Photograph 18: View SE along 'L'-shaped setting of stones at S corner of PDA.	57
Photograph 19: View SW along 'L'-shaped setting of stones at S corner of PDA, with boulders visible beneath the trees in the background.	58
Photograph 20: Boulders visible within the vegetation just beyond the S edge of the PDA.	59
Photograph 21: Further boulders visible within the vegetation just beyond the S edge of the PDA. .	59

I INTRODUCTION

1.1 Project and Planning Background

Caulmert Ltd commissioned Archaeological Research Services Ltd on behalf of its client, MacLennan Construction Ltd, to produce an Historic Environment Desk-Based Assessment (DBA) of an area of land adjacent to Cae Gors, Tregarth in the parish of Llandegai, Gwynedd. This is following the submission of a planning application for a housing development: *'Full planning application for the erection of 12 no. affordable dwellings with associated access, parking and infrastructure on land adjacent to Cae Gors, Tregarth, Bangor'*.

Initial pre-application advice regarding the proposed development was provided Gwynedd Council's archaeological advisors, the Gwynedd Archaeological Planning Service (GAPS). This response highlighted the archaeological potential of the PDA and stated that *'In this instance the work that is recommended comes under the category of archaeological pre-determination, primarily comprising of a formal programme of archaeological evaluation known as Trial Trenching. The evaluation should be supported by sufficient desk-based research to aid interpretation of any archaeological evidence encountered, and to provide context for the site. It should be noted that there is substantial prehistoric activity in the area, and as such the desk-based element should be comprehensive enough to incorporate this.'*

1.2 Site description

The 'red line boundary' of the proposed development area (hereafter 'PDA') is depicted by a red polygon on Figure 1, and covers an area of c.0.51 ha, centred at NGR SH 60685 68297. It is bounded along its north-eastern edge by an un-named lane that runs from a junction with *Tal Gae* at the north-north-east before joining the B4409 at Tregarth, c.500m to the south-south-east. To the north-west the PDA abuts the curtilages of properties accessed off *Bro Syr Ifor*, and is unbounded to the south-west and south-east.

The topography of the PDA slopes down steeply from c.102m above ordnance datum (aOD) at its south-eastern corner before plateauing out and reaching a low point at c.92.5m aOD in the north-eastern part of the site where a small un-named watercourse flows across in a north-easterly direction, continuing to a confluence with the Afon Ogwen some 400m to the north-east. The topography then rises up again gently to the north-west of the stream to c.94m aOD along the north-eastern edge of the PDA. The PDA is largely under improved pasture, which is understood to be grazed by horses, and there are also a number of scattered trees along the north-eastern boundary of the site and a denser band of broad-leaved woodland occupies the area of the PDA to the north-east of the stream.

1.3 Geology and Soils

The underlying solid geology across the majority of the PDA comprises interbedded siltstone and limestone of the *Fachwen Formation*, which is described as follows: *'These sedimentary rocks are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting)* (BGS 2021). There is also a narrow band of mudstone and siltstone belonging to the *Llanberis Slates Formation* which occupies a narrow band along the north-eastern edge of the PDA. This formation is described thus: *'These sedimentary rocks are marine in origin. They are detrital and comprise coarse- to fine-grained slurries of debris from the continental shelf flowing into a deep-sea environment, forming distinctively graded beds.'* (BGS 2021).

A superficial deposit of *Devensian Till (Diamicton)* occupies much of the western half of the PDA, an unsorted sediment with gravel in a fine mud matrix laid down during glaciation. This deposit is also overlying earlier *Glaciofluvial Sheet Deposits* which also date to the Devensian period, and which comprise sand and gravel (BGS 2021). The overlying soils of the PDA are classified by the *Soilscapes* free interactive online viewer as belonging to the *Soilscapes 6* soils unit. These soils are described as '*freely draining slightly acid loamy soils*' which are characterized as having a low fertility (Cranfield University 2021).

Ground investigations (Caulmert Ltd 2021) in the lower area in the vicinity of the watercourse encountered a firm to stiff grey mottled orange slightly sandy very gravelly clay at 1.2m below ground level (BGL), which is likely to represent the *Devensian Till* which overlies the earlier sand and gravels. This was overlaid by a c.0.25m thick layer of blackish brown peat of unknown date (at c.1m BGL), with a deposit of brown silty sandy gravel above. Above the gravel was a brown silty gravelly sand with frequent cobbles and occasional brick, which is evidently 'made ground' likely to have post-medieval and/or modern elements. Groundwater was encountered in the excavations at depths between 0.4m and 1.1m below ground level.

The trial pits in the more elevated areas of the site to the south-east (the pink polygons labelled as TP01-03 on Figures 2 and 3) encountered strong slightly weathered grey finely laminated mudstone bedrock at between 0.6m to 1.7m BGL. This was overlain by subsoil deposits recorded variously as greyish brown very sandy slightly silty gravel, and orange brown silty very gravelly sand, beneath a 0.2m thick topsoil comprising a brown sandy gravelly silt. The results from TP01-03 indicate that both the glaciofluvial sheet deposits and Llanberis Slates Formation appear to extend further to the south-east than mapped on the BGS 1:50k mapping.

2 AIMS AND OBJECTIVES

The principal aims of this assessment are to produce a report detailing the archaeological potential of the PDA, and to assess the potential impacts of the proposed development upon any buried and upstanding archaeological remains, the historic built environment, the historic landscape, and to assess their significance. The following objectives will contribute towards accomplishing this aim:

- ◆ To collate and assess existing information about the historic environment within the study area and to determine as fully as possible from the available evidence the nature, survival, quality, extent and importance of any archaeological remains and any upstanding buildings/structures within the PDA.
- ◆ To provide an assessment of areas of archaeological potential and survival based on the above research and assess the potential for the use of particular investigative techniques in order to aid the formulation of any necessary mitigation strategy, including further evaluation, excavation, and/or preservation of archaeological remains.
- ◆ To assess, where possible from the available sources, the extent of any ground disturbance associated with any previous intrusive development.

3 METHOD STATEMENT

3.1 Approach

This DBA has been produced in accordance with the guidelines set out in The Chartered Institute for Archaeologists' *Standards and Guidance for Historic Environment Desk Based Assessment* (CIfA 2020a), Cadw's guidance documents *Heritage Impact Assessment in Wales* (Cadw 2017) and with cognisance of the relevant sections of *Planning Policy Wales* and *Technical Advice Note 24: The Historic Environment*.

The approach to the assessment of significance is that set out in *Conservation Principles* (Cadw 2011), which states that the significance of heritage assets derives from the 'heritage values' that they possess, which may be *evidential*, *historical* (either *illustrative* or *associative*), *aesthetic* or *communal*.

3.2 Study Area

The study area adopted for this assessment comprises a 1km offset from the PDA. This study area is depicted by a dark blue outline on Figure 1 and subsequent figures.

3.3 Information Sources

The following sources of information were consulted to inform this assessment:

- ◆ Gwynedd Archaeological Trust's Historic Environment Record (GAT HER), for information regarding heritage assets, details of previous fieldwork, and Historic Landscape Characterisation (HLC) mapping.
- ◆ The National Monuments Record for Wales (NMRW) maintained by the Royal Commission on the Ancient Historical Monuments of Wales (RCAHMW).
- ◆ Cadw's downloadable GIS datasets for designated heritage assets available from 'Lle', the Welsh Government's GeoPortal for Wales.
- ◆ A search of the online catalogue of the Gwynedd Archives held at Caernarvon Record Office for historic maps, plans and other documents relevant to the study area (none identified).
- ◆ The Bangor University Archives and Special Collections for historic maps and plans identified via its online catalogue.
- ◆ The *Archwilio* website for the Welsh Historic Environment Records Online for details of archaeological remains outside of the study area.
- ◆ The *Coflein* online catalogue of archaeology, buildings, industrial and maritime heritage in Wales for details of record held by the RCAHMW outside of the study area.
- ◆ Groundsure Historic Mapping Report for historic Ordnance Survey maps (see Appendix V).
- ◆ Natural Resources Wales LiDAR data made available via the *Lle* website under the Open Government Licence.
- ◆ The British Geological Survey onshore digital maps at 1:50 000 scale (DiGMapGB-50 – WMS).
- ◆ Cranfield University's *Soilscapes* interactive online viewer for a simplified version of the 1:250,000 scale Digital National Soil Map for England and Wales.
- ◆ Google Earth and Bing online historical satellite imagery.
- ◆ Caulmert Ltd's Geotechnical Investigation Report for the PDA.

Land adjacent to Cae Gors, Tregarth, Llandygai, Gwynedd: Historic Environment Desk-Based Assessment

- ◆ Various other relevant books, journals and publications identified during the course of the assessment, details of which can be found in the references section of the report.
- ◆ An initial site visit was undertaken in sunny and bright conditions on 4th August and a subsequent walkover survey was undertaken in overcast and damp conditions on 16th August 2021.

4 BASELINE ASSESSMENT

4.1 Archaeological and Historical Background

In the discussion that follows, where sites recorded on the GAT HER are described, the relevant HER preferred reference numbers (PRN) are provided in parenthesis. Further details derived from the HER entries are provided in Appendix 1, and their locations are depicted on Figure 2. For any heritage assets discussed which are only recorded on the NMR, the NMR reference numbers are provided instead. Appendix 2 provides a full gazetteer of NMR entries cross-referenced to the relevant HER entries where applicable, and the locations of the NMR entries are identified on Figure 2. For Scheduled Monuments, the Cadw reference number takes precedence over the GAT HER PRN in the following discussion, and for the World Heritage Site (WHS), the UNESCO reference is provided. Scheduled Monuments are depicted by purple polygons on Figure 2 and the WHS by a light blue polygon, whilst Listed Buildings are depicted as large yellow circles which are visible behind the corresponding HER points.

4.1.1 Early Prehistoric (-1,000,000 to -4,000 BC)

There are no entries on the HER for the early prehistoric periods within the study area, but there are three Mesolithic findspots closer to the coast at Bangor (GAT HER PRNs 24090, 59788 & 70047). These findspots reflect the importance of coastal areas for providing the resources for transhumant Mesolithic populations, although it is also likely that major river valleys such as the Ogwen valley leading down to the coast may also have been exploited on a seasonal basis during this period.

4.1.2 Later Prehistoric (-4,000 BC to 43 AD)

There is no known evidence for Neolithic or Early Bronze Age activity within the study area itself, but the Late Neolithic/Early Bronze Age *Carnedd Howel Round Cairn* Scheduled Monument (Cadw CN393) is located c.1.6km to the north-east of the PDA. The nationally important complex of Neolithic and Early Bronze Age funerary, ritual and settlement sites identified from air photographs in the 1960s at Llandygai, is also located c.2.65km to the NNW of the PDA. This complex comprises two henges built at the site of a Neolithic house, and the western end of a cursus monument running towards the Ogwen valley. Subsequently, the complex became the focus for Early Bronze Age burials. The whole complex is designated as the *Henge Monument and Cursus* Scheduled Monument (Cadw CN153).

The earliest archaeological evidence known within the study area comprises a number of enclosed and unenclosed prehistoric settlement sites, the nearest being the *Pendinas Hillfort* which is located c.300m to the south-east of the PDA on a ridge overlooking the River Ogwen (GAT HER PRN 223). This defended site is thought to date broadly to the Iron Age period and is designated as a Scheduled Monument (Cadw CN120). The *Parc Gelli Hut Group* is located c.450m to the WNW of the PDA (GAT HER PRN 260), and comprises a large unenclosed settlement of circular huts of likely Iron Age and/or Romano-British date, which is also designated as a Scheduled Monument (Cadw CN202). Another possible hut circle (now destroyed) of Romano-British or earlier date has been recorded short distance further along the ridge at *Maes yr Hedydd*, c.325m to the north-west of the PDA (GAT HER PRN 313), and the top of a beehive quern of possible 2nd 3rd century AD date has also been recovered close by (GAT HER PRN 3662). At a site east of Tarinth, c.975m to the west of the PDA, further hut circles have been identified (GAT HER PRN 25191).

Further prehistoric settlement evidence is known to the east of the River Ogwen, including the *Coed Uchaf Enclosed Hut Group* (GAT HER PRN 294), c.800m to the east of the PDA, which is also a Scheduled Monument (Cadw CN176). Further hut circles have been recorded at Llanllechid, c.840m to the north-east of the PDA (GAT HER PRN 92312), south of Tai'n y Coed, c.540m to the north-east of the PDA (GAT HER PRN 5743) and at three further locations c.500m (GAT HER PRN 5744) 590m (GAT HER PRN 5746) and 600m (GAT HER PRN 5745) to the south-east of the PDA respectively. There is a further Scheduled enclosed hut circle settlement immediately to the east of the study area, West of Corbri (Cadw CN287/NMR 275739).

Recent discoveries just beyond the study area at Rachub (c.1.25km to the east of the PDA) provide further evidence for prehistoric settlement, identified during archaeological works undertaken ahead of a proposed housing development. This evidence includes possible roundhouses and enclosure walls (GAT HER PRN 81383), field boundaries (GAT HER PRN 81633 and 81666) and a pit group and a gully (GAT HER PRN 81667) which provided a radiocarbon dates ranging from the 1st century BC to the 3rd century AD.

4.1.3 Romano-British (43 to 410 AD)

As indicated above, many of the enclosed and unenclosed hut circle settlement sites identified within the study area may have continued to be inhabited or were, in fact, established during the Romano-British period. The lane that abuts the north-eastern edge of the PDA has been suggested as the course of a putative Roman road from Caer Llugwy to a hypothetical camp at Penrhyn, but this remains unproven (GAT HER PRN 17819). Metal detectorists have recovered a Roman brooch and coin within the study area, c.700m to the south-east of the PDA (GAT HER PRN 92277), and a plate, coin and spindle whorl of Roman date have also been recovered from an area c.700m to the west of the PDA (GAT HER PRN 32867).

4.1.4 Early Medieval (410 to 1066)

There is little known evidence for early medieval activity within the study area, but a cross-incised stone re-used in a roadside wall at Craig-y-Pandy, c.830m to the south-west of the PDA, is thought to be of early medieval date, and other cross-marked stones of possible 7th century date have been recorded in the Tregarth area (GAT HER PRN 66). This has suggested to some that they may have been located along the pilgrim route that continued onwards along the Lleyen Peninsular to *Ynys Enlli* (Bardsey Island).

4.1.5 Medieval (1066 to 1540)

By the 11th century, the study area and its environs were located in the cantref of Arllechwedd within kingdom of Gwynedd, and within Arllechwedd Uchaf (upper Arllechwedd), one of three commotes within the cantref.

The township of Cororion (GAT HER PRN 6812) is the only documented medieval township within the study area, and this survives today as a farmstead, c.1km to the west of the PDA. The fourth branch of the Mabinogi (the 'Tale of Math son of Mathonwy') includes reference to this township as 'Creuwryon', and it is also recorded in the *Extent of North Wales* made for Edward III by John de Delves in 1352.

A Deserted Rural Settlement at Moel y Ci is also located just beyond the edge of the study area, c.1.05km to the south-west of the PDA (GAT HER PRNs 3680 7518), and this comprises a platform house with hut groups and a field system.

4.1.6 Post-Medieval (1540 to 1901)

The earliest detailed map of the study area was created in 1768 for Richard Pennant, a Liverpool merchant, shortly after he inherited part of the moiety of the Penrhyn Estate in 1765 through marriage. This map (Ref: PENRA 2205, which is reproduced on Figure 5) illustrates that the landscape surrounding the PDA was already extensively enclosed by this time. It is likely that this happened in a piecemeal fashion during the later medieval and post-medieval periods, though some enclosure walls may have had earlier origins, re-using elements of the later-prehistoric, Romano-British and post-Roman landscape.

The series of maps created by the Penrhyn Estate at this time is an important record of the landscape just before the major changes that occurred alongside the establishment of the Penrhyn Slate Quarry, c.3km to the SSE of the PDA, which was to become the largest slate quarry in the world by the end of the 19th century. Subsequent to the production of the estate surveys in 1768, the landscape was transformed to accommodate the increased population influx in to the area to work at the quarry, as well as the transport infrastructure required to move the slate northwards to Port Penrhyn at Bangor.

The 1768 Penrhyn Estate map confirms that the road which bounds the eastern edge of the PDA (known today as Tal Gae) had been established by this time. It is likely that this was an ancient routeway along the Ogwen valley, as it appears to predate the surrounding patchwork of small fields, which appear to butt up against it. The majority of the PDA occupied part of a larger enclosed area extending to the west named simply as *Ffridd Isaf* ('lower mountain pasture') which indicates that this was a surviving part of the former common pasture sloping down to the watercourse that crosses the PDA. The watercourse is not depicted on the map, but could be assumed that it follows the boundary between the *Ffridd Isaf* and the fields to the north, which include a small, unnamed field, and *Cae Coch Isaf*, both of which extended slightly into the north-eastern edge of the PDA. This latter field ('lower red field') may be so-named due to the presence of the underlying glaciofluvial sand and gravel, and could indicate that this field was cultivated. Most of the PDA to the north of the stream was occupied by an unnamed area adjacent to a distinctly wider part of the road, and opposite an elongated field named as *Gweirglodd* ('meadow') which continues along the course of the stream. This may have been an area prone to flooding or an area where the road widened due to having to ford the stream at this point, and possibly was an area used for stock management when moving flocks to and from the adjacent pasture.

The 1768 survey depicts no buildings in the immediate vicinity of the PDA, but a number of scattered farmsteads and cottages were extant in the wider study area, some of which are still extant today, or else demolished and re-built in the 19th century by the Pennant family as part of their improvements. These include *Tanrhiw*, which is situated c.185m to the west of the PDA; *Pen Dinas Farm* situated c.220m to the north-east; the cottage at 5 Tal Gae, c.220m to the north-west of the PDA; *Cerrig-llwydion*, c.120m to the SSE of the PDA; and *Pennygroes*, c.200m to the south of the PDA. The main street in the centre of Tregarth was also lined with buildings, indicating that the core of the settlement was already in existence by this period.

A map dating to 1828 (BUA&SP Ref: PFA/6/321) depicts the 'Railroad from the Penrhyn quarries to Port Penrhyn' which ran c.250m to the north-east of the PDA, this having originally been constructed in 1800-1801. This map depicts the location of the 'Dinas Incline', one of three gravity worked inclines on the original line of the Penrhyn Railway (GAT HER PRN 65539), but does not provide any detail regarding the PDA itself. The stretch of the *Penrhyn Quarry Slate Railroad* that runs from the Dinas Incline before continuing in a generally northerly direction for c.325m has recently been designated as a Scheduled Monument (Cadw CN415), and also forms part of the newly inscribed *Penrhyn Slate Quarry and Bethesda, and the Ogwen Valley to Port Penrhyn* element of *The Slate Landscape of Northwest Wales* World Heritage Site (UNESCO Ref. 1633).

The next available maps consulted that depict the PDA in any detail are part of a series of maps produced in the period 1840-1841 following the Tithe Commutation Act of 1836. At the location of the PDA, the tithe map (Figure 6) and apportionment for Llandygai parish record two blocks of land separated by the stream, as detailed in Table 1 below. To the south of the stream is an extensive tract of land extending as far as the main road through Tregarth, centred at the farmstead or cottage known as *Pennygroes*. To the north of the stream, a somewhat smaller tract of land extends up the hillside as far as a road or track (not extant at the time of the earlier estate survey) leading to a farmstead named *Tanrhiw* ('hillside').

Table 1. Extract from the Llandygai tithe apportionment of 1840.

Plot	Description	Landowner	Occupier
53	Penygroes and Ffridd ('mountain pasture')	The Honourable Edward Gordon Douglas-Pennant	Richard Thomas
57	Tanrhiw ('hillside')	The Honourable Edward Gordon Douglas-Pennant	Edmund Roberts & Owen Evans

However, it is evident from a number of other maps consulted at Bangor University that were produced at the time of the tithe survey (e.g. PENRA 2214, PENRA 2215 and PENRA 2224), that these blocks of land illustrated on the tithe map represented landholdings occupied by individual tenants that were actually subdivided into smaller fields. Figure 8 depicts an extract from one of these maps (which all depict the same details), and this illustrates that many of the fields were essentially the same as on the 1768 map, although some had been further sub-divided and others amalgamated into larger fields. The PDA occupies what was depicted as two fields on this more detailed tithe survey, that to the south of the stream largely corresponding with the *Ffridd Isaf* that had been depicted on the 1768 map (although part of this to the west had been subdivided off and a smaller field to the south had been appended). To the north of the stream, the PDA occupies a large part of what had become a single parcel of land by 1840, and the 'dog-leg' in the road adjacent as depicted on the 1768 survey had also evidently been straightened at some point in the intervening period.

A map held in the archives at Bangor University dating to 1844 (PFA/6/322) depicts a number of proposed alternative routes for the 'Penrhyn Slate Railway' that avoided the Dinas Incline. However, it was not until the 1870s that a new route eventually replaced this. This *Penrhyn Quarry Railway* has also recently been designated as Scheduled Monument (Cadw CN417) and inscribed as part of *The Slate Landscape of Northwest Wales* World Heritage Site (WHS). The new railway followed the course and used much of the formation of the earlier railroad from the slate quarry as far as the top of the Dinas Incline, but then took a south-westerly course on towards Tregarth, after crossing the Tal Gae road via the *Corrig-Llwydion Bridge* (GAT HER PRN 65560), c.40m to the south-east of the PDA. The former steel bridge, which spanned this minor road, is no longer extant, but the coarse rubblestone abutments and wing walls survive as upstanding structures (Photographs 1 & 2).

There was a further transformation of the landscape of the study area in the early 1880s when the London and North Western Railway (L&NWR) company constructed their standard-gauge Bethesda branch line, which opened in 1884. The line had stations at Bethesda and Tregarth and a halt at Felin Hen, and passed beneath a bridge (GAT HER PRN 65561) which was required to take the recently built Penrhyn Quarry Railway over the new line (Photograph 3). This bridge is still upstanding and is located c.50m to the south of the PDA. The proposed course of this railway is depicted on a plan held at Bangor University dating to 1878 (PFA/6/331), and this closely corresponds with its depiction as newly built on the Ordnance Survey (OS) 1st edition map of 1889 (see Appendix V).

The 1878 railway plan and the 1889 OS map both depict the course of the stream in the northern part of the PDA, and these illustrate that, at least by this time, its course was actually a short distance to the north of the sinuous field boundary which was depicted on the tithe surveys. This raises the possibility that this may have also previously been the case, and the stream actually flowed through the small fields depicted on the earlier mapping at the north of the PDA and into the elongated field depicted to the north-east of Tal Gae. Indeed, it is likely that this minor watercourse would meander across a wider streambed over time, and this lends weight to the idea that field walls could have enclosed this streambed. If this were the case, then that the sinuous nature of the boundary depicted on the mapping within the PDA may have been fossilizing the shape of the streambed rather than course of the stream itself, as was assumed in the discussion above.

The 1889 OS map depicts the two parcels of land within the PDA as rough pasture, and rough pasture is still present across the whole of the PDA on the 2nd edition map of 1900. This later map also depicts a newly constructed wall on a north-west to south-east axis perpendicular to the stream and aligned between the northern boundary of the PDA and the old field boundary on the south side of the stream. Numerous individual large boulders are also depicted on this map, mostly concentrated towards the north-western edge of the more southerly field, but also strewn across the central area.

4.1.7 Modern (1901 to the present day)

The OS map of 1914 illustrates that much of the old boundary to the north-east of the wall discussed above (first depicted on the 1900 map) had been removed by this time, and this may have been the source of a few boulders which were depicted on the northern side of the stream where previously there were none. The whole of PDA remained as unimproved pasture on this map.

It was another 55 years before the subsequent 1:2,500 scale OS map was issued in 1969. In the intervening period the Penrhyn Quarry Railway had ceased to operate in 1962 (passenger services for the quarry workers having ceased in 1947), and this was dismantled in 1965. Similarly, the L&NWR Bethesda branch line was closed to passengers in 1951 and was closed in 1963 when goods services also ceased. The cuttings and embankments for each of these transport corridors are still very evident on the 1969 OS map, but each is depicted as 'Dismantled railway', and the *Corrig-llwydion Bridge* was no longer depicted spanning Tal Gae. Within the PDA the symbols for rough pasture, bracken, scrub and boulders, appear within the PDA, although it seems that individual boulders were no longer depicted at this scale. All features and symbols within the PDA remain unchanged on the 1988 map, and on the 1995 OS map, the PDA contains the abbreviations *Bo (scat)* for 'scattered boulders', *RG* for 'bracken, rough grassland', and to the north of the stream only, *Sc* for 'scrub'.

On the OS 1:1250 map of 2003 only three symbols were depicted within the PDA. These comprised the symbol for 'scrub' on the north-western side of the stream, whilst the area of the PDA to the south-west is largely devoid of symbols except for those for 'boulders' and 'heath' which are located close together adjacent to the south-eastern boundary of the PDA. It appears from this that much of the central area of the PDA had become improved pasture by this time with the scattered boulders depicted on previous maps had been cleared away.

The earliest online satellite imagery to clearly depict the PDA is the Google Earth imagery dating to 2006, and this indeed confirms that the area to the south-east of the stream appears grassy and relatively scrub free, except for the area around the north-eastern entrance off Tal Gae which appears bare of vegetation (possibly as a result of vehicular movements or the laying down of hard standing). To the north-west of the stream, the eastern part of the PDA also appears grassy and scrub-free, and a pathway is visible running off in a south-westerly direction through a scrub-free green corridor, continuing on for some distance beyond the PDA before apparently petering out. A dense area of trees/scrub is evident within the PDA to the south of this pathway on the northern side of the stream.

The National Resources Wales LiDAR composite dataset at 1m resolution appears to date from around the time of the Google Earth imagery discussed above, as the Digital Surface Model (DSM) depicts a similar extent of vegetation coverage (Figure 9). Notwithstanding this, there appears to be a bush or a tree close to the entrance off Tal Gae, so it is likely that this predates 2006 when this area was clearly vegetation-free on the satellite imagery. The LiDAR Digital Terrain Model (DTM) depicts the PDA with the vegetation stripped away (Figure 10), and this illustrates that the ground surface is relatively smooth across the area of improved pasture, and far more uneven where there is vegetation. The boundary between the improved area to the east and the scrub to the west is also clearly visible in the DTM as a west-facing bank to the south of the stream which dips down by over metre in places, and a curvilinear ditch continues on the same alignment to the north of the stream before curving round to the north-west. These observations suggest the possibility that the improvements to the rough pasture that have apparently occurred since the late 20th/early 21st centuries may have involved levelling activities and the excavation of drainage ditches as well as boulder removal and scrub clearance, and this could have impacted upon any archaeological remains that might have been present.

The Google Earth satellite imagery from 2009 depicts further scrub clearance extending to the west of the bank that is visible on the DTM, and this feature might have been levelled off as a result. To the north of the stream, the footpath was no longer visible and appears to have fallen out of use, and scrub cover is evidently increasing at this time across this area. By the time of the 2015 Google Earth imagery, the scrub across the northern part of the PDA surrounding the stream has become dense, and wheeled vehicles had evidently been frequenting the western side of the PDA, and the ground surface appears very disturbed in the area immediately to the west of the PDA. It appears that materials of some sort have been dumped and/or stored in this area. A few white specks are visible towards the south-western edge of the PDA which are likely to be boulders.

The most recent Google Earth imagery from 2018 depicts a similar scenario to that from 2015, except that grass had regenerated in the previously disturbed area immediately to the west of the PDA indicating less vehicular activity here, although some containers appear to have been deposited in this area, and what appear to be planks of wood are scattered across the central part of the PDA.

4.2 Designated Assets

On-Site

There are no designated heritage assets within the PDA itself.

Study Area

There are 33 designated heritage assets within the wider 1km study area beyond the PDA, comprising one newly-inscribed World Heritage Site, five Scheduled Monuments (two of which are also newly-designated), and 28 Grade II Listed Buildings. These are listed in Tables 2-4 below, and their locations are depicted by purple polygons (Scheduled Monuments), light blue polygons (World Heritage Sites) and yellow circles (listed buildings) on Figure 2.

These designated assets are to be the subject of a separate standalone setting assessment (Brown 2021; GAT Event PRN 46441) which should be read in tandem with this report, and so will not be discussed further as part of this assessment.

Table 2. World Heritage Sites within the study area

UNESCO ID	HER ID	Description
1633	N/A	The Slate Landscape of Northwest Wales - Penrhyn Slate Quarry and Bethesda, and the Ogwen Valley to Port Penrhyn

Table 3. Scheduled Monuments within the study area

Cadw ID	HER ID	Description
CN120	223	Pen Dinas Camp
CN176	294	Coed Uchaf Hut Group
CN202	260	Parc Gelli Hut Group and Ancient Fields
CN415	N/A	Penrhyn Slate Quarry Railroad
CN417	65539	Penrhyn Quarry Railway

Table 4. Listed Buildings within the study area

Cadw ID	HER ID	Description	Grade
3404	11688	Pont Coetmor (partly in Llanllechid and Bethesda communities)	II
3410	12070	Coed-uchaf	II
17259	11688	Pont y Goetmor	II
21647	64641	Halfway Bridge (partly in Llandygai community)	II
21648	64626	Pandy Newydd	II
21667	64610	Outbuildings at Pandy Newydd	II
21669	64616	Pont Coetmor (partly in Llandygai and Bethesda communities)	II
21974	64207	5, Tal Gae	II
22023	64256	Milestone	II
22024	64204	Gelli	II
22025	64212	Caeherfyn Cottage	II
22026	64246	Wern-fawr	II
22056	64265	Halfway Bridge (partly in Llanllechid community)	II
22065	64270	Dinas Farmhouse	II
22066	64236	Cowhouse/Stables at Dinas	II
22074	6390	Pen Dinas	II
22075	64189	Cororion	II
22076	64214	Farmbuildings at Cororion	II

Cadw ID	HER ID	Description	Grade
22088	64248	Wash House opposite Caerherfyn	II
23415	64230	Hafan Deg	II
22092	64224	Capel Shiloh	II
22101	64257	5, Ffrwd Galed	II
22135	64289	Walling and Depots on east side of former turnpike road (old A 5)	II
22136	64264	Hay Barn at Dinas	II
22151	64272	Penralla Cottage	II
22152	64254	6, Ffrwd Galed	II
22153	64215	Hafan	II
26731	64217	Former Cottages at Cororion	II

4.3 Non-Designated/Other Heritage Assets

4.3.1 Archaeological Remains

On-Site

There are no known archaeological sites or findspots recorded by the HER and/or NMR within the PDA. One feature of potential archaeological significance was identified as a result of the site walkover, comprising an 'L' shaped setting of cobbles with sides of c.1-2m in length which could potentially represent the corner of a ruined structure, though may equally merely be a fortuitous arrangement of buried stones (Photographs 20 and 21). It is intended that this will be targeted as part of the pre-determination archaeological evaluation of the site in order to assess its significance.

Study Area

The majority of the archaeological remains recorded within the study area relate to late prehistoric and/or Romano-British settlement sites including the nationally important Scheduled Monument *Pen Dinas Camp* (Cadw CN120), the *Coed Uchaf Hut Group* (Cadw CN176) and *Parc Gelli Hut Group and Ancient Fields* (Cadw CN202). In addition there are a number of further known or possible non-designated examples of similar settlement sites (e.g. GAT HER PRNs 313, 5743, 5744, 5745, 5746, 25191 & 92312) as well as various findspots dating the prehistoric and Romano-British periods (e.g. GAT HER PRNs 871, 1635, 3662, 24115, 32867 & 92277).

4.3.2 Historic Built Environment

On-Site

There are no elements of the historic built environment within the PDA apart from a drystone wall which forms the north-eastern boundary to the site (Photographs 4 and 5). Whilst this boundary might be of some antiquity, as the walled lane is depicted on the 1840 tithe map and also follows a putative course of a Roman road (GAT HER PRN 17819), it is likely to have been maintained and rebuilt in a piecemeal fashion as required as commonly occurs with such walls across the region.

Study Area

The majority of the HER and NMR entries within the study area relate to historic buildings or surviving elements of the built environment, most of which date to the post-medieval or modern periods. These include a number of unclassified 'buildings' as well as houses, cottages, farmsteads and other farm

buildings, walled enclosures, drystone walls and slate fences, bridges, milestones, and other structures such historic water pumps, wells and ventilation shafts.

The only element of the built environment within the study area thought to pre-date the post-medieval period is the incised stone of possible early medieval date that was discovered in a drystone wall at Craig-y-Pandy, c.830m to the south-west of the PDA (GAT HER PRN 66).

4.3.3 Historic Landscape

The study area was assessed and mapped as part the *Arfon* regional Historic Landscape Character (HLC) assessment (GAT 2000), and the PDA is located wholly within the *Sling* HLC unit, which also covers the majority of the of the study area (Figure 4).

The historic background describes this HLC unit as *'an area formerly part of the Penrhyn estate, and largely made up of ffriddoedd in the mid-eighteenth century. Part remains unenclosed, but much of it was given over to housing for quarrymen and quarry officials in the nineteenth century'* (GAT 2000, 74).

Its key historic landscape character is described as 'industrial settlement': *'An area which retains some of the open fields of the pre-Modern sheepwalk, as well as some possibly early slate-quarrying sites (Chwarel Goch) but which is largely given over to nineteenth century housing, partly vernacular, partly 'estate vernacular'. These preserve many distinctive estate features, such as the use of ornamentation in porches etc, suggesting that they were for quarry stewards. The course of the Penrhyn Railway of 1801 passes through the area.'* (Ibid.).

In addition, the study area is contained wholly within the *Ogwen Valley* Registered Historic Landscape of Outstanding Historic Interest.

5 ASSESSMENT OF POTENTIAL IMPACTS

The PDA is located within an area with a significant distribution of prehistoric archaeological remains, most notably dating to the late Iron Age and/or Romano-British periods. Most of the examples of such settlements sites within the study area are located in close proximity the numerous small watercourses that flow as tributaries into the River Ogwen, and this was evidently a preferred topographic location for settlement during these periods. It is noteworthy, therefore that the PDA occupies a corresponding position in the landscape, with a small tributary of the River Ogwen flowing across the northern part of the site.

Notwithstanding the archaeological potential of the PDA as outlined above, much of the eastern side of the site is occupied by what is presumed to be a natural slope, and it is considered that this area would have low archaeological potential. Moreover, the north-eastern part of the site is heavily overgrown with trees and scrub and may have also been disturbed as a result of the migration of the stream bed over time, and also by groundworks for the insertion of an underground sewer which is known to run parallel to the stream, towards the edge of the PDA. The central part of the PDA is relatively level and would have been more conducive to settlement activity in the past. However, analysis of historic Ordnance Survey mapping, historical LiDAR data and satellite imagery (see section 4.1.7 above) indicates that this area has been subject to agricultural improvements since the late 20th century, and the creation of this improved pasture may have resulted in some ground disturbance as a result of scrub clearance and leveling activities. However, buried archaeological features, should they have been present, could still survive, and a rectilinear arrangement of stones identified close to

the southern corner of the PDA could potentially represent the remains of a ruined structure, although equally this could be fortuitous, and the result of recent stone clearance.

Any groundworks associated with the proposed development have the potential to truncate, bury or otherwise disturb or destroy archaeological remains, should they be present. These might include site clearance, topsoil stripping, excavations for building foundations and services, road construction, stream diversion and other landscaping works.

In addition, there is the potential that the proposed development could have an adverse impact upon the setting of nearby designated heritage assets, including the recently inscribed *The Slate Landscape of Northwest Wales - Penrhyn Slate Quarry and Bethesda, and the Ogwen Valley to Port Penrhyn* World Heritage Site. As mentioned above, this is to be the subject of a separate standalone setting report (GAR Event PRN 46141) and does not form part of this assessment.

6 ASSESSMENT OF THE SIGNIFICANCE OF AFFECTED HERITAGE ASSETS

Currently there are no known heritage assets within the PDA that would be affected by the proposed development. Nevertheless, should archaeological remains be identified as a result of the proposed evaluation or any other mitigation that might be required, these would possess a level of *evidential value* by contributing to an understanding and appreciation of past activity in the region.

7 CONCLUSIONS

This assessment has identified that there is some potential for previously unidentified archaeological remains to be impacted upon by the proposed development, and has informed a scheme of evaluation trenching requested by GAPS. This is to comprise the excavation of five trenches targeting that part of the PDA that would have been most conducive to settlement activity, as well as archaeological survival. The methodology for the evaluation has been detailed in a Written Scheme of Investigation (WSI) that has been submitted to GAPS for approval.

8 STATEMENTS AND ACKNOWLEDGEMENTS

8.1 Archive Deposition

One digital PDF copy of the final report will be deposited with the Gwynedd Archaeological Trust HER and one digital PDF copy will be deposited with the RCAHMW's NMR.

8.2 Publicity, Confidentiality and Copyright

Any publicity will be handled by the client. Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

8.3 Statement of Indemnity

All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the

basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

8.4 Acknowledgements

Archaeological Research Services Ltd would like thank Neil Foxall of Caulmert Ltd for commissioning this work on behalf of the client, Jane Davies of MacLennan Construction Ltd for arranging site access and providing geotechnical information, Sean Derby (GAT Historic Environment Record Archaeologist) for the provision of HER data; Penny Icke of the RCAHMS for providing NMR data, Archives and Special Collections at Bangor University for permission to reproduce images of documents held in its collection, and Tom Fildes (GAPS Development Control Archaeologist) for commenting on the initial draft of the report. Also *diolch yn fawr* to Martin Davis and *Afiath Gwasanaeth Cyfiethnu* for providing the executive summary translation.

9 REFERENCES

9.1 Primary Sources

1768. *Map of the lower part of the parish of Llandegai*. Archives & Special Collections, Bangor University. PENRA/2205
1768. *Map of the middle part of the parish of Llandegai*. Archives & Special Collections, Bangor University. PENRA/2206
1768. *Maps of Nant y Benglog; the higher parts of the parishes of Llandegay and Llanllechid*. Archives & Special Collections, Bangor University. PENRA/2207.
1784. *Plan of the new inclosures at Tregarth and Chwarel Goch*. Archives & Special Collections, Bangor University. PFA/6/156a
1789. *Six year-to-year leases (all dated 12 Nov., 1789) granted by Richard, Lord Penrhyn, to various tenants at Tregarth in Llandegai - John Jones, William Barrel, Thomas Griffith, Henry Roberts, John Williams and one to Henry Roberts, Richard Humphrey, and William Piers jointly*. Archives & Special Collections, Bangor University. PENRH/947-952
1803. *A map of the manor or demesne land of Penrhyn Mawr in the parish of Llandegai in the county of Caernarvon the property of the Right Honourable Richard Pennant Lord Penrhyn being all from time immemorial tithe free*. Archives & Special Collections, Bangor University. PFA/6/157
1829. *Map and survey of rail road from the Penrhyn quarries to Port Penrhyn*. Archives & Special Collections, Bangor University. PFA/6/321.
1840. *Llandegai Tithe Apportionment (Map annexed)*. Archives & Special Collections, Bangor University. PENRA/2212.
1840. *Map of the lower part of Llandegai parish*. Archives & Special Collections, Bangor University. PENRA/2214.
1841. *Map of Llandegai parish*. Archives & Special Collections, Bangor University. PENRA/2215.
1844. *Penrhyn slate railway plan showing the several lines of railway referred to in Mr. Walker's report*. Archives & Special Collections, Bangor University. PFA/6/322.
1873. *Plan and section of a proposed railway line from Port Penrhyn and Bangor to Penrhyn quarries and Bethesda in the parish of Bangor, Llandegai and Llanllechid, Co. Caernarvon*. Archives & Special Collections, Bangor University. PFA/6/327.
1878. *Plans and sections of Bangor and Bethesda railway (London and North Western Railway)*. Archives & Special Collections, Bangor University. PFA/6/331.

1888. *Map of Penrhyn lands in Llandegai parish, being leasehold properties in Tregarth and district. Surveyed by R.S. Gregory (from J. Barrow, 1841).* Archives & Special Collections, Bangor University. PENRA/2224.

n.d. (Late 19th – early 20th century). *Plan and section of the Tan Rhiw sewerage scheme Tregarth for the Ogwen District Council.* Archives & Special Collections, Bangor University. PFA/6/305.

9.2 Secondary Sources

British Geological Survey. 2021. Geology of Britain viewer. Available online at: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> [Accessed INSERT DATE].

Cadw. 2011. *Conservation Principles for the sustainable management of the historic environment in Wales.* Cardiff, Cadw.

Cadw. 2017a. *Heritage Impact Assessment in Wales.* Cardiff, Cadw.

Cadw 2017b. *Setting of Heritage Assets in Wales.* Cardiff, Cadw.

Chartered Institute for Archaeologists. 2020. *Standard and guidance for historic environment desk-based assessment.* Reading, Chartered Institute for Archaeologists.

Cranfield University. 2021. *The Soils Guide.* Available online at: <http://www.landis.org.uk/soilscapes/> [Accessed INSERT DATE]

Gwyn, D. & Thompson, D. 2000. *Historic Landscape Characterisation: Ardal Arfon.* GAT Report no. 351.

APPENDIX I

GAZETTEER OF HER ENTRIES

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
66	N/A	N/A	Cross-incised Stone, Craig y Pandy, Tregarth Fieldwork by the Cymdeithas Hynafiathai Llandegai a Llanllechid revealed a cross-incised stone in the roadside wall, at Craig-y-Pandy after the vegetation had been removed. The stone has a recent break from the top right-hand edge and is built orthostatically into the wall, standing about a metre high.	EARLY MEDIEVAL	INCISED STONE
223	95348	SM CN120	Pendinas Hillfort, Llandegai Pendinas, Llandygai, is a small hillfort occupying the end of a spur overlooking the river Ogwen. The hillfort was surrounded by an immense wall which was up to six metres thick on the northern side of the hillfort, where it is best preserved.	PREHISTORIC	HILLFORT
260	95402	SM CN202	Parc Gelli Hut Group, Tregarth A large unenclosed settlement of circular huts extending for 300ft from E to W and 160ft from N to S, lies on a steep slope facing N. The area was formerly wooded but the trees have been felled. The settlement is divided into two sections by a ruined wall.	PREHISTORIC	HUT CIRCLE SETTLEMENT
294	93640	SM CN176	Enclosed Hut Group, Coed Uchaf Enclosed hut group, on level ground, consisting of an oval enclosure surrounded by a bank of earth and stones 8ft thick, faced on both sides with orthostats.	PREHISTORIC	HUT CIRCLE SETTLEMENT
313	302766	N/A	Hut Circle, Site of, Maes yr Hedydd "Round hut, 28ft in diameter, with a wall 3ft thick faced on both sides with large stones. On level ground at about 350ft above OD.	ROMAN	HUT CIRCLE
871	N/A	N/A	Stone Tool, Findspot, Wern Uchaf, Llanllechid	PREHISTORIC	FINDSPOT
1635	N/A	N/A	Hammer or Macehead, Findspot, Wern, Llanllechid A broken hammer/macehead was found in the garden of Wern. It is oblong, 11-12cm x 6.8cm x 4.5cm and has a small hour-glass perforation. There are some signs of battering on the end.	PREHISTORIC	FINDSPOT
3662	N/A	N/A	Rotary Quern, Findspot, Maes yr Hedydd The top of a fine beehive quern was found during excavation for building, downfield of a hut destroyed about two years ago, in	ROMAN	FINDSPOT

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
			an earlier phase of the development. Presumably C2nd-C3rd. (Caffell, 1973)		
5715	N/A	N/A	Tunnel, N of Bron Ogwen Located close to the east bank of the River Ogwen on a pronounced stream terrace was a tunnel entrance. The opening measured c.1m high and 0.5m wide and was constructed with slate blocks.	POST MEDIEVAL	TUNNEL
5716	N/A	N/A	Well, Possible, Brynbella Crossroads A possible well is located at the northern corner of the quarry pit east of the present A5 near Brynbella crossroads. A short pathway lines on each side with large stones leads to a rectangular, slate lined well or spring. The well measures 1.0m x 0.70m.	POST MEDIEVAL	WELL
5717	N/A	N/A	Rock Cannon, Brynbella Crossroads Inscribed rock cannon. The feature comprises a large stone outcrop some 15m high with a more or less flat top into which a pattern of holes and channels have been cut. The purpose of the holes was to take a charge of gunpowder which was ignited by means of fuses laid in the narrow channels producing controlled explosions similar in effect to a gun salute	POST MEDIEVAL	ROCK CANNON
5739	N/A	N/A	Incline, Tregarth This industrial feature was drawn to the attention of GAT by the land owner. The incline is in good condition descending from west to east across a north facing slope at a slight gradient and measures c.3.0m wide.	POST MEDIEVAL	INCLINED PLANE
5742	N/A	N/A	Stone Lined Leat, Tregarth Located at the meeting of the river terrace and the foot of the south facing slope is a linear feature traceable for c.10m running in a roughly north-south direction. Upright stones appeared to line each side of a partially filled ditch c.1m wide.	POST MEDIEVAL	LEAT
5743	N/A	N/A	Hut Circle, Possible, S of Tai'n y Coed A 5.3m length of drystone masonry forming a semi circular shape at least two courses high. This is suggestive of an Iron Age/Romano British hut circle, however semi-mature trees and grass cover obscure this feature and further assessment will be necessary to ascertain its full function and form.	UNKNOWN	HUT CIRCLE
5744	N/A	N/A	Hut Group, Possible, E of Tregarth Located within a densely wooded area to the north of the present A5 on either side	PREHISTORIC	HUT CIRCLE SETTLEMENT

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
			of a small stream were two ephemeral semi-circular shapes formed by well spaced stones. The size and shape is suggestive of the foundation remains of stone built round hut.		
5745	N/A	N/A	Hut Group, Possible, N Parc y Moch Located within a heavily wooded area with thick low level vegetation is an area of strewn stone. Though heavily overgrown, it was possible to identify several circular concentrations within the general stone spread which, by their size and shape, are suggestive of prehistoric or Romano-British hut circles.	PREHISTORIC	HUT CIRCLE SETTLEMENT
5746	N/A	N/A	Stone Structure, Possible, Parc y Moch The site is heavily overgrown with ivy and other vegetation, however it is just possible to make out a rectangular shape formed by low stone walls of c.5.5m x 3.8m. CALL advised the trust that a chapel had been built in 1820 somewhere in Parc y Moch.	UNKNOWN	STRUCTURE
6390	16671	LB 23395	Pendinas, Tregarth	MODERN	COTTAGE
6465	26131	N/A	Slate Carving Bryn Twrw, Tregarth	MODERN	COTTAGE GARDEN
6466	26176	N/A	Cae'r Wern House, Tregarth	POST MEDIEVAL	COTTAGE
6467	40828	N/A	Pandy, Tregarth As of April 2012, the pandy has been cleared and a waterwheel is present. The building is ruinous. Labelled 'Pandy' on 1st, 2nd and 3rd ed OS maps and on Mastermap. Mill pond present on 1st and 2nd eds and labelled on 3rd ed OS.	POST MEDIEVAL	FULLING MILL
11688	23786	LBs 18400 & 3663	Pont Coetmor Bridge, Afon Ogwen, SE of Tregarth 1788, stone. High segmental arch. Parapet. (RCAHMW, Undated)	POST MEDIEVAL	BRIDGE
12070	26303	LB 3670	Coed Uchaf Farmhouse, Llanllechid 17th century. Stoney S wing. Thick walls of large boulders. Massive Square chimney. Int Hewn purlins and central trusses. Massive carved beam over wide fire.	POST MEDIEVAL	BUILDING
15047	N/A	N/A	Boundary, Site of, Llanllechid The site of a removed boundary. Terrace/lynchet c. 1.0-1.5m high, grassed over. 2 mature oaks located along its length. Probable removed boundary (Roberts, 2003).	POST MEDIEVAL; MEDIEVAL	LYNCHET

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
15048	N/A	N/A	Slate Fence, Llanllechid A slate fence. Slate fences are a distinctive boundary type of the local area, and any work carried out should respect the character of the original boundary (Roberts, 2003).	POST MEDIEVAL	SLATE FENCE
15049	N/A	N/A	Tree Avenue, Llanllechid A line of trees. Line of mature beech trees on S side of trackway leading E to the Rectory (Roberts, 2003).	POST MEDIEVAL	TREE AVENUE
15050	N/A	N/A	Slate Fence, Llanllechid A slate fence. Slate fence with ?nineteenth century iron gate within its length (Roberts, 2003).	POST MEDIEVAL	SLATE FENCE
15051	N/A	N/A	Drystone Wall, Llanllechid A relict drystone wall. Relict drystone wall including some large boulders(Roberts, 2003).	POST MEDIEVAL	WALL
15052	N/A	N/A	Plantation, Llanllechid A plantation. Stand of ?Scots Pine within semi-circular enclosure of drystone walling. Probably a nineteenth century ornamental feature associated with the parkland-like grounds around the Rectory (Roberts, 2003).	POST MEDIEVAL	PLANTATION
15053	N/A	N/A	Walled Trackway, Llanllechid A walled trackway. Drystone walling either side of trackway leading E away from the Rectory. Pair of large slate pillar gateposts (each c.1m high) and 3.5m wide gateway (no longer gated) at E end where the trackway leaves the walled section into the open field (Roberts, 2003).	POST MEDIEVAL	TRACKWAY
15054	N/A	N/A	Slate Gate Post, Llanllechid A displaced slate gate post. Displaced slate gate post lying in field beside original location; removed at time of erection of new gateway on route of public footpath (Roberts, 2003).	POST MEDIEVAL	GATE POST
15055	N/A	N/A	Drystone Wall, Llanllechid A relict drystone wall. Relict drystone wall, with substantial lynchet (terrace formed by soil accumulation) up to 1m high for which the wall forms revetting (Roberts, 2003).	POST MEDIEVAL; MEDIEVAL	WALL
15056	N/A	N/A	Tree Avenue, Llanllechid A tree avenue. Line of mature beech trees at boundary of holding. Probably originally forming part of the plantings of the parkland like	POST MEDIEVAL	TREE AVENUE

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
			surroundings of the Rectory (Roberts, 2003).		
15057	N/A	N/A	Slate Fence, Llanllechid A slate fence. Slate fence (Roberts, 2003).	POST MEDIEVAL	SLATE FENCE
15058	N/A	N/A	Gate Post, Llanllechid A slate gate post. Displaced slate gate post lying in field beside original location (Roberts, 2003).	POST MEDIEVAL	GATE POST
15059	N/A	N/A	Circular Enclosure, Llanllechid A circular enclosure. Circular drystone wall enclosure (10m SW-NE by 20m SE-NW) around stand of ornamental trees, including birch, beech and conifers (Roberts, 2003).	POST MEDIEVAL	CIRCULAR ENCLOSURE
15863	N/A	N/A	Sling, Landscape Historic background: an area formerly part of the Penrhyn estate, and largely made up of ffriddoedd in the mid-eighteenth century. Part remains unenclosed, but much of it was given over to housing for quarrymen and quarry officials in the nineteenth century. Key historic landscape characteristics: industrial settlement An area which retains some of the open fields of the pre-Modern sheepwalk, as well as some possibly early slate-quarrying sites (Chwarel Goch) but which is largely given over to nineteenth century housing, partly vernacular, partly 'estate vernacular'. These preserve many distinctive estate features, such as the use of ornamentation in porches etc, suggesting that they were for quarry stewards. The course of the Penrhyn Railway of 1801 passes through the area.	MULTI-PERIOD	LANDSCAPE
17819	N/A	N/A	Roman Road, Proposed, Caer Llugwy to Bangor Waddelove (1999, 77-101) propose a route from Caer Llugwy to a hypothetical camp at Penrhyn, Bangor following amongst other things, the line of the old coach road, the turnpike through Nant y Benglog and Lord Penrhyn's along the the W side of the Nant Ffrancon.	ROMAN	ROAD
20053	N/A	N/A	Dolgoch Slate Quarry, Bethesda	POST MEDIEVAL	SLATE QUARRY
20812	N/A	N/A	Mine, Lefelydd Pont Coetmor, Tregarth	POST MEDIEVAL	MINE
20817	N/A	N/A	Quarry, Perth Corniog, Tregarth	POST MEDIEVAL	QUARRY

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
20818	N/A	N/A	Quarry, Dinas Form, Tregarth	POST MEDIEVAL	QUARRY
20819	N/A	N/A	Quarry, N of Tan y Bryn A small hillside stone quarry working. (Carver 1993)	POST MEDIEVAL	QUARRY
20823	N/A	N/A	Braich Talog Quarry, Tregarth	POST MEDIEVAL	QUARRY
24115	N/A	N/A	Metal-Working Slag, Findspot, Pen y Dinas Metal-working slag. Lightweight with air bubbles visible on the surface. There is some doubt as to the provenance of this object, but it is thought to most likely come from Pen y Dinas, Tregarth (PRN 223). It was found a number of years ago.	PREHISTORIC	FINDSPOT
25191	408193	N/A	Hut Circles, E of Tarinth, Llandygai Denuded earthworks of a pair of likely enclosed hut groups or small circular settlement enclosures. The N enclosure lies at SH 5965 6816 and is linked to two denuded field boundaries which underlie the present, recent, field pattern. The S enclosure lies	UNKNOWN	HUT CIRCLE SETTLEMENT
32867	N/A	N/A	Various Finds, Llandygai The findspot of a plate, spindle whorl, and coin, all Roman in date.	ROMAN	FINDSPOT
32868	N/A	N/A	Button, Findspot, Llandygai The findspot of a post medieval button.	POST MEDIEVAL	FINDSPOT
34528	N/A	N/A	Pandy, Tregarth Labelled 'Pandy' on 1st, 2nd and 3rd ed OS maps and on Mastermap. Buildings present on the early maps are mostly represented on Mastermap. Water supply not obvious. Seamless Aerial Photographs - buildings appear to be roofed. (Evans and Burnett, 2012)	UNKNOWN	FULLING MILL
37177	N/A	N/A	Gravel Pits, E of Tai-talwriad A small earth mound, 7.6m in diameter, was identified on pasture land to the north of the present A5 surrounded by a well defined shallow ditch c.1.2m wide.	MODERN	GRAVEL PIT
37178	N/A	N/A	Sand Pit, NW of Tyddyn Dicwm To the north of the incline at its mid-point was an oval shaped quarry scoop. This feature is c.15m wide and c.5 .0m deep. The pit is marked on the 1914 1:2500 OS sheet. However the origin and historical background of the pit is unknown. (Carver 1993)	POST MEDIEVAL	SAND PIT
37179	N/A	N/A	River Revetment, SE of Tyddyn Dicwm	UNKNOWN	REVETMENT

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
			A 6.0m length of stone revetting c.1.0m high on the eastern bank of the river Ogwen near to Halfway Bridge. It is likely that this feature will be destroyed during construction of the new river crossing. (Carver 1993)		
37180	N/A	N/A	Sheep Crawl, S of Tai'n y Coed Constructed within a well preserved field boundary is a small lintled sheep pophole 0.80m in height and 0.40m wide. The feature is in good condition. (Carver 1993)	UNKNOWN	SHEEP CRAWL
37181	N/A	N/A	Gateway, S of Tai'n y Coed A gateway 2.25m wide notable for its two large stone gateposts which show no signs of any fittings. This feature is just one of several in this area representing elements of a surviving 18th century agricultural landscape. (Carver 1993)	POST MEDIEVAL	GATEWAY
37182	N/A	N/A	Trackway, S of Tai'n y Coed This feature is part of an extensive trackway system in this area and is bounded on both sides by stone walls in a poor state of preservation. It represents one feature in a wider historic landscape late-eighteenth to early nineteenth century in date.	POST MEDIEVAL	TRACKWAY
37183	N/A	N/A	Mine Adit, Parc y Moch Located below the present A5 on a steep south facing bank is an open adit or possibly a double adit. In a much collapsed condition, the entrance is flooded, well vegetated and partially filled with fallen rock.	POST MEDIEVAL	ADIT
56228	N/A	N/A	Farmstead, Pen-cae, Coed Cochwillan Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	FARMSTEAD
56229	N/A	N/A	Building, N of Halfway Bridge Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING
56230	N/A	N/A	Buildings and Enclosure Complex, S of Rhiw Goch Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING COMPLEX
56231	N/A	N/A	Railway Embankment, E of Tan-y-rhiw Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	RAILWAY EMBANKMENT
56232	N/A	N/A	Railway Bridge, E of Tan-y-rhiw Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	RAILWAY BRIDGE
56233	N/A	N/A	Building, S of Ty-uchaf Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
56234	N/A	N/A	Structure, S of Dob Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	STRUCTURE
56235	N/A	N/A	Building, S of Dob Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING
56236	N/A	N/A	Building, E of Dob Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING
56294	N/A	N/A	Building Complex, North-East of Nant-y-graeon Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING COMPLEX
56295	N/A	N/A	Building, Nant-y-Graean-isa Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING
56296	N/A	N/A	Sheep Fold, South of Nant-y-graeon Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	SHEEP FOLD
56297	N/A	N/A	Sheep Fold, E of Derwen Deg Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	SHEEP FOLD
56298	24676	N/A	Melin Coetmor, Bethesda Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	CORN MILL
56299	N/A	N/A	Building, S of Pendinas Farm Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	BUILDING
56300	N/A	N/A	Railway Cutting, NE of Melin Coetmor Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	RAILWAY CUTTING
56301	N/A	N/A	Tank, N of Parc-y-moch Site identified using early Ordnance Survey Maps (McGuinness, 2014)	POST MEDIEVAL	WATER TANK
62346	N/A	N/A	Temporary saw mill, site of, Tregarth Site of a temporary saw mill used during the First World War in conjunction with the felling camp (PRN 58738). The timber was sawn into planks before being transported on the railway to where it was needed.	MODERN	SAW MILL
62477	N/A	N/A	Tregarth, Conservation Area Tregarth - designated a Conservation Area by Gwynedd Council	MULTI-PERIOD	LANDSCAPE
64189	N/A	LB 23397	Cororion Post medieval farmhouse and farmbuildings.	POST MEDIEVAL	HOUSE
64204	404429	LB 23345	Gelli A cottage shown on the 1839 Tithe Map.	POST MEDIEVAL	HOUSE
64207	N/A	LB 23294	5, Tal Gae, Tregarth An early 19th century cottage.	POST MEDIEVAL	HOUSE

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
64212	N/A	LB 23346	Caeherfyn Cottage A cottage shown on the 1839 Tithe Map.	POST MEDIEVAL	HOUSE
64214	410442	LB 23398	Farmbuildings at Cororion A 19th century farm building.	POST MEDIEVAL	FARM BUILDING
64215	N/A	LB 23477	Hafan A post medieval house.	POST MEDIEVAL	HOUSE
64217	26317	LB 82291	Former Cottages at Cororion A probable late 18th century cottage.	POST MEDIEVAL	HOUSE
64224	6930	LB 23416	Capel Shiloh A post medieval chapel.	POST MEDIEVAL	CHAPEL
64230	N/A	LB 23415	Hafan Deg A mid 19th century cottage.	POST MEDIEVAL	HOUSE
64236	N/A	LB 23387	Cowhouse/Stables at Dinas A mid 19th century cowhouse and stables.	POST MEDIEVAL	COW SHED
64246	N/A	LB 23347	Wern-fawr A cottage shown on the 1839 Tithe Map.	POST MEDIEVAL	HOUSE
64248	N/A	LB 23412	Wash House opposite Caeherfyn A wash house.	POST MEDIEVAL	BUILDING
64254	419652	LB 23476	No.6 Ffrwd Galed A post medieval cottage.	POST MEDIEVAL	HOUSE
64256	N/A	LB 23344	Milestone A post medieval milestone.	POST MEDIEVAL	MILESTONE
64257	419652	LB 23425	No.5 Ffrwd Galed A post medieval cottage.	POST MEDIEVAL	HOUSE
64264	N/A	LB 23460	Hay Barn at Dinas A post medieval barn.	POST MEDIEVAL	HAY BARN
64265	43086	LB 23377	Halfway Bridge (partly in Llanllechid community) A post medieval bridge.	POST MEDIEVAL	BRIDGE
64270	N/A	LB 23386	Dinas Farmhouse A post medieval farmhouse.	POST MEDIEVAL	HOUSE
64272	407614	LB 23475	Penrala Cottage A mid 19th century cottage.	POST MEDIEVAL	HOUSE
64289	N/A	LB 23459	Walling and Depots on east side of former turnpike road (old A 5) Walling and depots on the east side of the (A5) turnpike road.	POST MEDIEVAL	WALL
64610	N/A	LB 22973	Outbuildings at Pandy Newydd A post medieval outbuilding.	POST MEDIEVAL	OUTBUILDING
64616	N/A	LB 22975	Pont Coetmor (partly in Llandygai and Bethesda communities) A post medieval bridge.	POST MEDIEVAL	BRIDGE
64626	N/A	LB 22954	Pandy Newydd A former rectory for Llanllechid church built in 1865, now a private house.	POST MEDIEVAL	RECTORY
64641	43086	LB 22953	Halfway Bridge (partly in Llandygai community) A bridge built around 1825 in conjunction with the turnpiking of Thomas Telford's London to Holyhead road.	POST MEDIEVAL	BRIDGE
65535	N/A	N/A	Stone Quarry, Penrhyn Quarry Road	POST MEDIEVAL	STONE QUARRY

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
			A small single-face stone quarry that may have provided road-stone for the Penrhyn quarry road.		
65539	N/A	N/A	Dinas Inclined Plane, Penrhyn Quarry Railroad A double-track counterbalanced inclined plane forming part of the Penrhyn quarry railroad.	POST MEDIEVAL	INCLINED PLANE
65540	N/A	N/A	Winding Drum House, Dinas Inclined Plane The site of the winding house for the Dinas incline. No obvious trace is evident though slab walling indicates its likely position; it is likely to have been destroyed by the later steam railway. There is a rock cutting on the upslope side and the possible trace of garden on the downslope. (Barker and Gwyn, 2017).	POST MEDIEVAL	WINDING DRUM
65541	N/A	N/A	Formation, Dinas Inclined Plane A formation surviving as primarily a shallow earthwork. In its upper section around SH 6101 6836 a short section of stonework for the formation is apparent, apparent, but for the most part to SH 6091 6851 it survives as a shallow earthwork and, thereafter as a very overgrown formation to SH 6085 6858 running between a caravan park and a sewage works. (Barker and Gwyn, 2017)	POST MEDIEVAL	INCLINED PLANE
65542	409718	N/A	Bridge, Dinas Inclined Plane A stone arch bridge carrying Ffordd y Lord over the Dinas inclined plane.	POST MEDIEVAL	BRIDGE
65543	N/A	N/A	Pen isa'r Allt, Dinas Inclined Plane A dwelling called Pen isa'r Allt. It is believed to have housed the incline operative of the Dinas incline and his family. It is a north-south orientated two storey double-fronted stone-built dwelling, which once had a doorway, now blocked, on the longitudinal wall facing the course of the railroad.	POST MEDIEVAL	INCLINED PLANE
65558	N/A	N/A	Hendurnpike Level Crossing, Penrhyn Quarry Railway The site of a level crossing between the Penrhyn Quarry Railway and the former turnpike road.	POST MEDIEVAL	LEVEL CROSSING
65559	409723	N/A	Crossing-Keeper's Cabin, Hendurnpike Level Crossing A small wooden shelter with a slate roof at the Hendurnpike level crossing.	POST MEDIEVAL	SHELTER

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
65560	409722	N/A	Corrig-Llwydion Bridge, Penrhyn Quarry Railway A former steel bridge visible through abutments and wing walls constructed from coarse rubblestone. It was built to carry the Penrhyn Quarry Railway over a minor road. Corrig-Llwydion station for quarrymen was situated immediately to the east. Adjacent, on the east side of the road, is a section of slate and wire fencing. (Barker and Gwyn, 2017)	POST MEDIEVAL	BRIDGE
65561	407578	N/A	Bridge, Penrhyn Quarry Railway A brick-built single-arch skew bridge built to carry the Penrhyn Quarry Railway over the Bethesda branch of the London & North Western Railway.	POST MEDIEVAL	BRIDGE
65562	N/A	N/A	Tregarth Bridge, Penrhyn Quarry Railway A stone-built arched bridge carrying the main street of Tregarth over the course of the Penrhyn Quarry Railway. The bridge is partly filled with debris on the east side: the western arch and a short length of the formation have been subsumed into a garden. (Barker and Gwyn, 2017)	POST MEDIEVAL	BRIDGE
65563	N/A	N/A	Tregarth Station, Penrhyn Quarry Railway A point on the Penrhyn Quarry Railway where quarrymen living in Tregarth caught the train to work by means of a footpath from the adjacent road. Facilities were minimal. Corrig-Llwydion station for quarrymen was situated immediately to the east. Adjacent, on the east side of the road, is a section of slate and wire fencing. (Barker and Gwyn, 2017)	POST MEDIEVAL	RAILWAY STATION
65564	N/A	N/A	Site of Passing Loop, Penrhyn Quarry Railway The site of one of the Penrhyn Quarry Railway's two passing loops.	POST MEDIEVAL	RAILWAY TRANSPORT SITE
74925	N/A	N/A	Water Tap, Tregarth A disused water tap at Tregarth.	POST MEDIEVAL	WATER PUMP
74926	N/A	N/A	Water Tap, Tregarth A disused water tap at Tregarth.	POST MEDIEVAL	WATER PUMP
74927	N/A	N/A	Water Tap, Tregarth A disused water tap at Tregarth.	POST MEDIEVAL	WATER PUMP
76032	N/A	N/A	Stench Pipe, Tal y Gae A stench pipe.	POST MEDIEVAL	VENTILATION SHAFT
76033	N/A	N/A	Stench Pipe, Erw Faen A stench pipe.	POST MEDIEVAL	VENTILATION SHAFT

HER PRN	NMRW PRN	Cadw LB/SM ID	Summary/description	Period	Type
76034	N/A	N/A	Stench Pipe Base, Tregarth A stench pipe base.	POST MEDIEVAL	VENTILATION SHAFT
76035	N/A	N/A	Water Tap, Tregarth A water tap.	POST MEDIEVAL	WATER PUMP
76036	N/A	N/A	Water Tap, Tregarth A water tap.	POST MEDIEVAL	WATER PUMP
77143	N/A	N/A	Milestone, Tregarth A standard Telford milestone. Milestone on Thomas Telford's road from London to Holyhead, made to a standard design from Anglesey limestone and with a cast-iron plate. Plate records HOLY-HEAD/28/BANGOR/3/C. CURIG/11M - 3F (Elis-Williams, 2018).	POST MEDIEVAL	MILESTONE
77168	N/A	N/A	Stench Pipe, Dob A stench pipe.	POST MEDIEVAL	VENTILATION SHAFT
77169	N/A	N/A	Stench Pipe, Ffordd Tanrhiw A stench pipe.	POST MEDIEVAL	VENTILATION SHAFT
77170	N/A	N/A	Alcove, Tregarth A water tap alcove.	POST MEDIEVAL	WATER PUMP
77171	N/A	N/A	Alcove, Tregarth A water tap alcove.	POST MEDIEVAL	WATER PUMP
92277	N/A	N/A	Various Finds, Findspot, Llanllechid The findspot of a roman brooch and coin, as well as an object of unknown date.	UNKNOWN; ROMAN	FINDSPOT
92279	N/A	N/A	Buckle, Findspot, Bethesda The findspot of post medieval buckle.	POST MEDIEVAL	FINDSPOT
92312	N/A	N/A	Hut Circle Settlement, Llanllechid A hut circle settlement. The hut circles are visible as earthworks on the ground and are visible as parch marks on aerial photographs (Kenney 2021).	PREHISTORIC	HUT CIRCLE SETTLEMENT

HER Entries © GAT 2021

APPENDIX II GAZETTEER OF NMR ENTRIES

NMR Entries

NMR PRN	HER PRN	Summary/description	Period	Type
6927	N/A	PENYGROES WELSH CALVINISTIC METHODIST CHAPEL, TREGARTH Penygroes Methodist Chapel was built in 1837 in the Vernacular style of the short-wall entry type. The Sunday school and vestry were demolished in 1993 but the chapel remained in use. RCAHMW, October 2009	CHAPEL	Post Medieval
6930	64224	SHILOH WELSH WESLEYAN METHODIST CHAPEL, TRE-GARTH, BANGOR Shiloh Methodist Chapel was built in 1829 and rebuilt in 1896 in the Classical style of the gable entry type. The present chapel dates from 1896 and the manse from 1857. RCAHMW, October 2009	CHAPEL	Post Medieval
16671	6390	PENDINAS 18th Century croglloft cottage embodied in later rebuild.	HOUSE	Post Medieval
23786	11688	PONT COETMOR, OVER AFON OGWEN 1788, stone. High segmental arch. Parapet.	BRIDGE	Post Medieval
24676	56298	MELIN COETMOR Melin Coetmor is a small stone-built corn mill on the banks of Afon Ogwen. RCAHMW 2008	CORN MILL	Post Medieval
26131	6465	BRYN TWRW Bryn Twrw is a nineteenth century cottage located in a small hamlet. The fireplace is surrounded by elaborately carved slate featuring astronomical designs by John William Thomas 'Arfonwyson'. RCAHMW, October 2013.	HOUSE	Post Medieval
26176	6466	CAE'R WERN 18th century? croglloft cottage and attached byrre.	HOUSE	Post Medieval
26303	12070	COED UCHAF FARMHOUSE 17th century. Stoney S wing. Thick walls of large boulders. Massive Square chimney. Int Hewn purlins and central trusses. Massive carved beam over wide fire.	FARMHOUSE	Post Medieval
26317	64217	CORORION COTTAGE 19th century refurbishing of an earlier building.	HOUSE	Post Medieval
32609	N/A	PENDINAS SURVEY MARK Stone pillar, probably some sort of survey mark erected by engineers when building tunnel underneath.	MARKER STONE	Post Medieval
40828	6467	PANDY, TREGARE 18th century fulling mill - machinery removed.	FULLING MILL	Post Medieval
43086	64265 64641	HALFWAY BRIDGE, A5 HOLYHEAD ROAD, LLANLECHID; LLANDEGAI 40ft span bridge over Afon y Llan; built by Telford in 1819 as part of improvement to Holyhead Road (nprn 402349). RCAHMW, 01 January 1993.	ROAD BRIDGE	19th Century, Post Medieval
43779	N/A	ST MARY'S CHURCH, TREGARTH	CHURCH	19th Century

NMR PRN	HER PRN	Summary/description	Period	Type
		St Mary's church is situated about 0.5km west of the village of Tregarth, on the north side of the B4409 at its junction with Lon y Wern, in a rectangular churchyard used, and extended, as a cemetery. It was built in 1869 to designs of Thomas Jones. Constructed of dark rubble with grey limestone dressings and slate roofs, it consists of nave and narrower chancel, gabled south-west porch, gabled south vestry and north transept organ chamber. Inside, scissor trusses support the chancel roof with less substantial arch-braced ones in the nave, on floriate corbels and with high collars. Stained glass in the north window is by Jones & Willis, in the south window by J.Wippell & Co.Source:R.Haslam, J.Orbach & Adam Voelcker, Buildings of Wales: Gwynedd (2009), p.525.RCAHMMW, 30 March 2016		
93640	294	COED UCHAF HUT GROUP National Archaeological Record SH66NW/8Ruined remains of an enclosed hut group consisting of an oval enclosure, 100 ft by 75 ft, surrounded by a bank of earth and stones 8 ft thick, faced on both sides with orthostats. Within the enclosure are the remains of three buildings - on the NW is a circular hut, circa 25 ft in diameter, surrounded by a wall - near the South end of the enclosure lies a similar hut, circa 16 ft in diameter and against the inner side of the enclosure wall on the East, lie the almost destroyed remains of a small rectangular building. To the South and West of the hut group is a series of terraced fields.	FIELD SYSTEM	Prehistoric
95348	223	PEN DINAS CAMP Wooded Iron Age promontory fort overlooking Afon Ogwen from a commanding position.T. Driver, RCAHMMW, 5th Sept. 2008.	HILLFORT	Iron Age
95402	260	PARC GELLI HUT GROUP AND ANCIENT FIELDS Cadw SAM No.=CN202	SETTLEMENT	Prehistoric
275739	N/A	HUT CIRCLES WEST OF CORBRI This nucleated settlement includes the foundations of three hut circles and associated enclosures or yards. Also present are indications of an early field system. Associated with the settlement are a number of narrow curvilinear enclosures or yards, which could represent stock enclosures or working areas.Source: Cadw scheduling description. F.Foster/RCAHMMW	HUT CIRCLE SETTLEMENT	Prehistoric
301377	64207	TAL GAE, 5, TREGARTH; TAL-Y-CAE, 5 A cottage whih was probably built in the early 19th century, possibly for people who were working in the nearby Penrhyn Slate Quarry which was rapidly expanding at this time. It is a single storey structure of two rooms, constructed of rubblestone which is painted externally, and with a slate roof. The front has 16-paned horizontally sliding sash windows to	COTTAGE	Post Medieval

NMR PRN	HER PRN	Summary/description	Period	Type
		either side of the boarded door entrance, which is off-set from centre. There is a large integral chimney stack to the right, and a small 19th century rooflight to the left.(based on CADW listing description) S Fielding RCAHMW 23/05/2005		
302766	313	HUT CIRCLE, LLYNAU	HUT CIRCLE	Roman, Iron Age
404429	64204	GELLI, LON Y WERN, TREGARTH Shown on the 1839 Tithe Map, the cottage is likely to have been built only shortly before this date, its occupants probably working in one of the neighbouring slate quarries, most probably the Penrhyn Slate Quarry near Bethesda, which was rapidly expanding at this period. The cottage is typical of those slightly later cottages sited at some distance from the quarry where the distance from the quarry was compensated for by the location in better-quality agricultural land, of which the part allocated to the cottage was worked by the occupants for their own use. The single-room section may be an addition to the original cottage.A single-storey building of linear form, aligned roughly north-south, the larger part to right (south) of 2-unit plan with very slightly lower single-room section on left. It is constructed of roughly coursed rubblestone with a slate roof with purple brick coping to the main part. This has 4-paned casement windows with slate cills on either side of offset, boarded, door under bracketed lean-to hood and rendered integral end stacks. The section to the left has a 12-paned sash to left of a boarded door and a rendered integral end stack. There is a small 20th century extension at the rear.(Source; Cadw listing database) S Fielding RCAHMW 05/06/2006	COTTAGE	Post Medieval
407578	65561	PENRHYN RAILWAY BRIDGE, TREGARTH A bridge, constructed in brick, carrying the Penrhyn Railway over the Bethesda branch of the London & North Western Railway.The Penrhyn Railway was built in 1879, to a gauge of 1ft. 11ins. (0.58m.) and incorporated parts of the 1801 Penrhyn Railroad, although this section was entirely new build. It was built to carry slates from Penrhyn Quarry to Port Penrhyn, near Bangor. The standard-gauge L.&N.W.R. Bethesda Branch was crossed in a deep cutting, just east of the latter's Tregarth station, on this single span skew arch, erected at L.&N.W.R. expense.	RAILWAY BRIDGE	Post Medieval
407614	64272	HAFAN DEG, TREGARTH, BANGOR Hafan Deg forms one of a Mid-C19 pair of cottage built in the simple 'vernacular revival' style particularly favoured by the Penrhyn Estate for its workers. They were probably built by the Penrhyn Estate as part of Edward Douglas-Pennant's	COTTAGE	Post Medieval

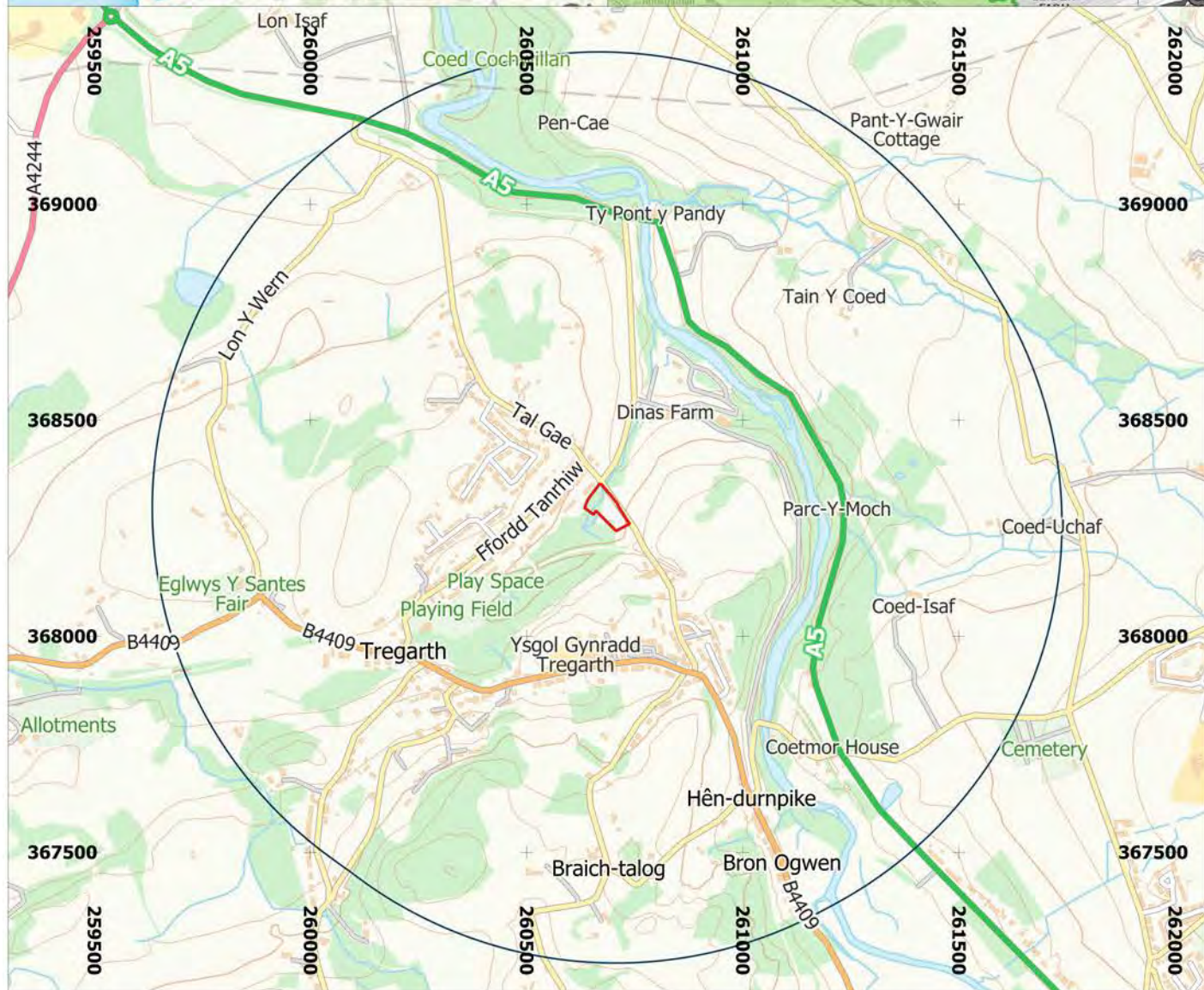
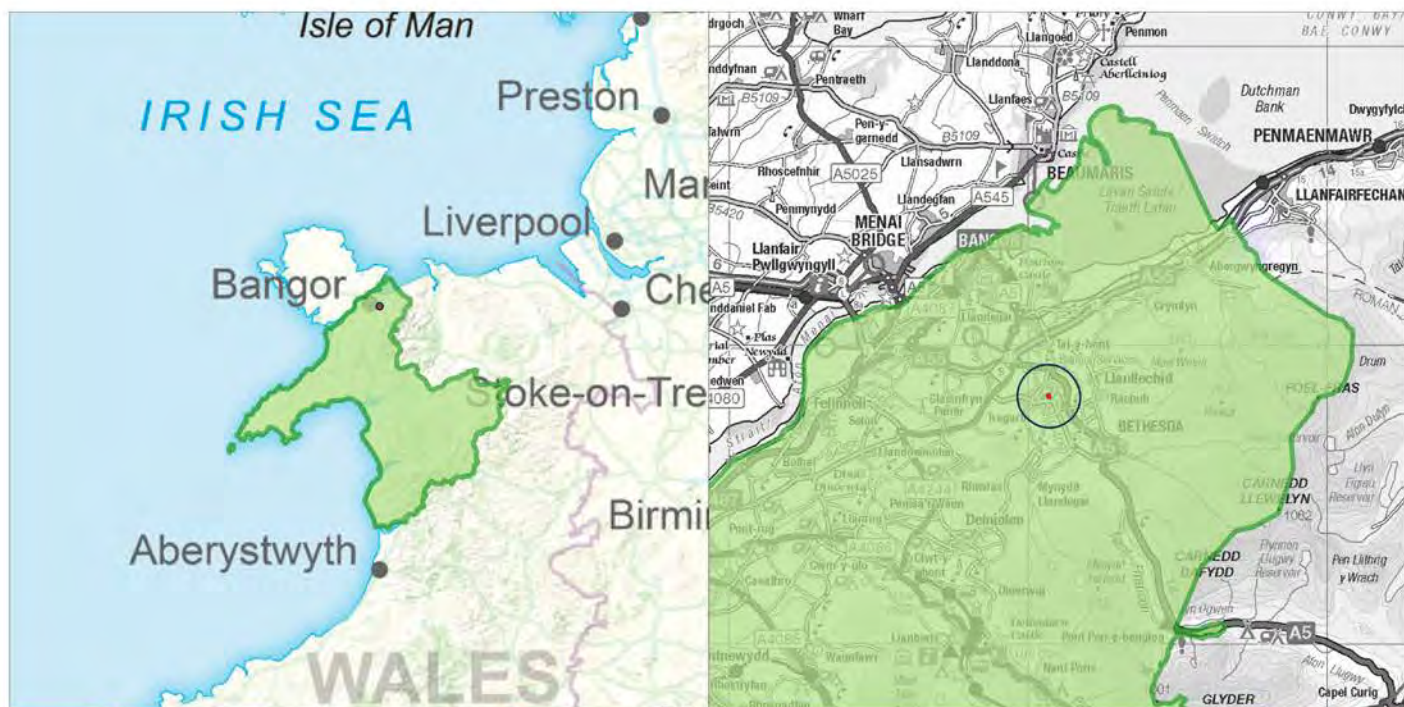
NMR PRN	HER PRN	Summary/description	Period	Type
		considerable efforts to improve the estate, to which he had succeeded in 1840.Source:- Cadw listed buildings, NJR 09/04/2008		
408193	25191	TARINTH HUT GROUPS Denuded earthworks of a pair of likely enclosed hut groups or small circular settlement enclosures. The northern enclosure lies at SH 5965 6816 and is linked to two denuded field boundaries which underlie the present, recent, field pattern. The southern enclosure lies c.70m away at SH 5969 6807. The earthworks were discovered during RCAHMW aerial reconnaissance in low winter light on 21st November 2005 (image refs: AP_2005_2903-4).T. Driver, RCAHMW, 5th September 2008.	FIELD SYSTEM, HUT CIRCLE SETTLEMENT	Prehistoric
409718	65542	PENRHYN RAILWAY, SITE OF DINAS INCLINE The Dinas incline was one of three gravity-worked inclines on the original line of the Penrhyn Railway, built 1800-1801 to transport slate from the Penrhyn quarries to Port Penrhyn. It went out of use when the railway was realigned to allow steam traction in 1879. About half-way up the incline was an overbridge carrying a minor road, now widened and straightened at this point. To the north a cutting can still be seen, but the lower part of the incline has been destroyed by construction of a sewage works. To the south the line is visible as a terrace in the field. A ruined wall constructed of large roughly squared stone blocks near the top of the incline may be a surviving fragment of the winding house. W J Crompton, RCAHMW, 5 November 2009.	INCLINED PLANE	19th Century, Post Medieval
409722	65560	PENRHYN RAILWAY, BRIDGE ABUTMENTS The abutments and wingwalls of an overbridge, constructed from coarse rubblestone, which carried the Penrhyn Railway over a minor road. This part of the railway was constructed in 1876-9 on a new alignment which avoided three inclines and permitted the use of steam locomotives. It was closed in July 1962. Corrig-Llwydion station (for quarry workers) was situated immediately to the east. Adjacent, on the east side of the road, is a section of slate and wire fencing.W J Crompton, RCAHMW, 5 November 2009.	BRIDGE	19th Century, Post Medieval
409723	65559	HENDURNPIKE SIGNAL BOX, PENRHYN RAILWAY The former signal box serving Hendurnpike level crossing, where the Penrhyn Railway crossed the 1803 Capel Curig turnpike road, is a small wooden shed, painted green and with a slated roof, standing on a raised platform edged with sawn slate blocks. The road has been realigned and widened, erasing all features of the level crossing which was some 25 metres north of the signal box. The railway was constructed in 1800-1801 and closed in July 1962, at	SIGNAL BOX	19th Century, Post Medieval

NMR PRN	HER PRN	Summary/description	Period	Type
		which time the crossing was still guarded by white-painted wooden gates. One of the railway's only two signal posts was located next to the signal box.W J Crompton, RCAHMW, 5 November 2009.		
410442	64212	CAEHERFYN COTTAGE, TREGARTH Shown on the 1839 Tithe Map, this cottage originated in the early nineteenth century as a smallholder's cottage with its own small field system; as such, it is one of the few buildings in Tregarth pre-dating its development as a small slate quarry village from c1850 onwards. Nevertheless, the cottage's original occupants probably also supplemented their income by working in the Penrhyn Slate Quarry.It is single-storey two-room plan, aligned roughly east-west, with a loft over the right (west) room. Built from roughly coursed rubblestone, it has a graded slate roof with purple brick coping. The front has four-pane horned sashes with red-painted frames and slate cills on either side of an offset boarded door with a glazed panel. All openings are under slate lintels and there are rendered integral end stacks. A small window in the right gable end lights the crog-lofft above the right room. It is listed as an especially well-preserved early nineteenth century smallholder's cottage retaining its original detail and vernacular character remarkably intact.Source:- Cadw listed buildings, NJR 22/03/2010	COTTAGE	19th Century
419476	N/A	TREGARTH RAILWAY STATION Tregarth station was situated on the single-track Bethesda branch of the London and North Western Railway. The station opened in 1884. The railway closed to passengers in 1951, and closed completely in 1963. The station has been demolished, with only a short section of the platform's west end remaining.Sources include:www.disused-stations.org.ukN Vousden, RCAHMW, 18 October 2013	RAILWAY STATION	19th Century, Post Medieval
419652	64254 64257	5 & 6 FFRWD GALED, TREGARTH	HOUSE	19th Century
420627	N/A	DOLGOCH SLATE QUARRY, OGWEN VALLEY This small quarry is located on the east side of Bangor Road (the A5) just north of Bethesda. It is a pit working which operated for a few years after 1836. All that survives is a water-filled depression. Source: A.J.Richards, A Gazeteer of the Welsh Slate Industry (1991), p.21.RCAHMW, 29 January 2015	SLATE QUARRY	19th Century
423511	N/A	TREGARTH VILLAGE The village of Tregarth is situated approximately two miles north west of Bethesda and three miles south east of Bangor, on the western banks of the river Ogwen. According to the website Hanes Dyffryn Ogwen, Tregarth is the most unplanned village in	VILLAGE	Multiperiod

NMR PRN	HER PRN	Summary/description	Period	Type
		<p>Dyffryn Ogwen. At the end of the eighteenth century it wasn't so much a village with a central focus but rather a scattered collection of smallholdings and cottages. During the nineteenth century more small cottages sprang up with large gardens. These houses gradually became separated into two distinct areas - Dob or Tregarth, and Braich or Thalga. Thus the loose pattern of housing in Tregarth was set, and any development that occurred during the rest of the century was mostly a matter of filling in the gaps between Tregarth and Braich. The Tregarth area played a pivotal role in bringing religion to the Ogwen valley, and different denominations began meeting unofficially in the cottages of villagers who were members of their congregations. The Independents were established at Mherthi Corngiog; the Wesleyans in Bryn Cul and Caeherfin, and the Methodists at Felin Isaf, Llandygai. A more official means of worship was established by the Wesleyans in 1826, when they built Shiloh chapel (NPRN 6930). In 1837 the Calvinistic Methodists built their own chapel, Penygroes, on the other side of the village (NPRN 6927). By the late nineteenth century there were still very few, if any, shops in the village and the landlord - Edward Gordon Douglas Pennant - forbade public houses on his estate, although he was generous in his funding of schools and churches in the area. This lack of amenities and focus for the village meant that Tregarth started to become only a commuter village for the quarrymen at Penrhyn (NPRN 40564). Perhaps the most controversial chapter in the development of Tregarth came during the quarrymen's strike of 1900-1903. The Lord Penrhyn at the time - George Sholto Douglas-Pennant - built a new row of terraced houses (Ffordd Tanrhiw) for those workers who were willing to break the strike and go back to work. Today, despite Edward Gordon Douglas Pennant's desires, the village does have a public house called Pant yr Ardd. There is also a primary school educating around 120 pupils through the medium of Welsh, and a community centre. Penygroes chapel was still in use in 1993. Shiloh chapel and St. Mary's church (NPRN 43779) are still open today. Sources: article on the website/blog hanesdyffrynogwen.wordpress.com, written by John Llywelyn (in Welsh); Estyn report about Ysgol Tregarth, published in November 2013. M. Ryder, RCAHMW, 29th October 2018.</p>		
6927	N/A	<p>PENYGROES WELSH CALVINISTIC METHODIST CHAPEL, TREGARTH</p> <p>Penygroes Methodist Chapel was built in 1837 in the Vernacular style of the short-wall entry type. The</p>	CHAPEL	Post Medieval

NMR PRN	HER PRN	Summary/description	Period	Type
		sunday school and vestry were demolished in 1993 but the chapel remained in use.RCAHMW, October 2009		
6930	64224	SHILOH WELSH WESLEYAN METHODIST CHAPEL, TRE-GARTH, BANGOR Shiloh Methodist Chapel was built in 1829 and rebuilt in 1896 in the Classical style of the gable entry type. The present chapel dates from 1896 and the manse from 1857.RCAHMW, October 2009	CHAPEL	Post Medieval

APPENDIX III FIGURES



Site name: Land adjacent to Caes Gors, Tregarth
 Date: August 2021
 Drawn by: AB
 Scale: Varies

This drawing: © ARS Ltd

Contains Ordnance Survey data.
 © Crown copyright and database right 2021

 Gwynedd

 1km study area

 Application site boundary



Figure 1:
Site location

Archaeological Research Services Ltd

Angel House
 Portland Square
 Bakewell
 Derbyshire
 DE45 1HB

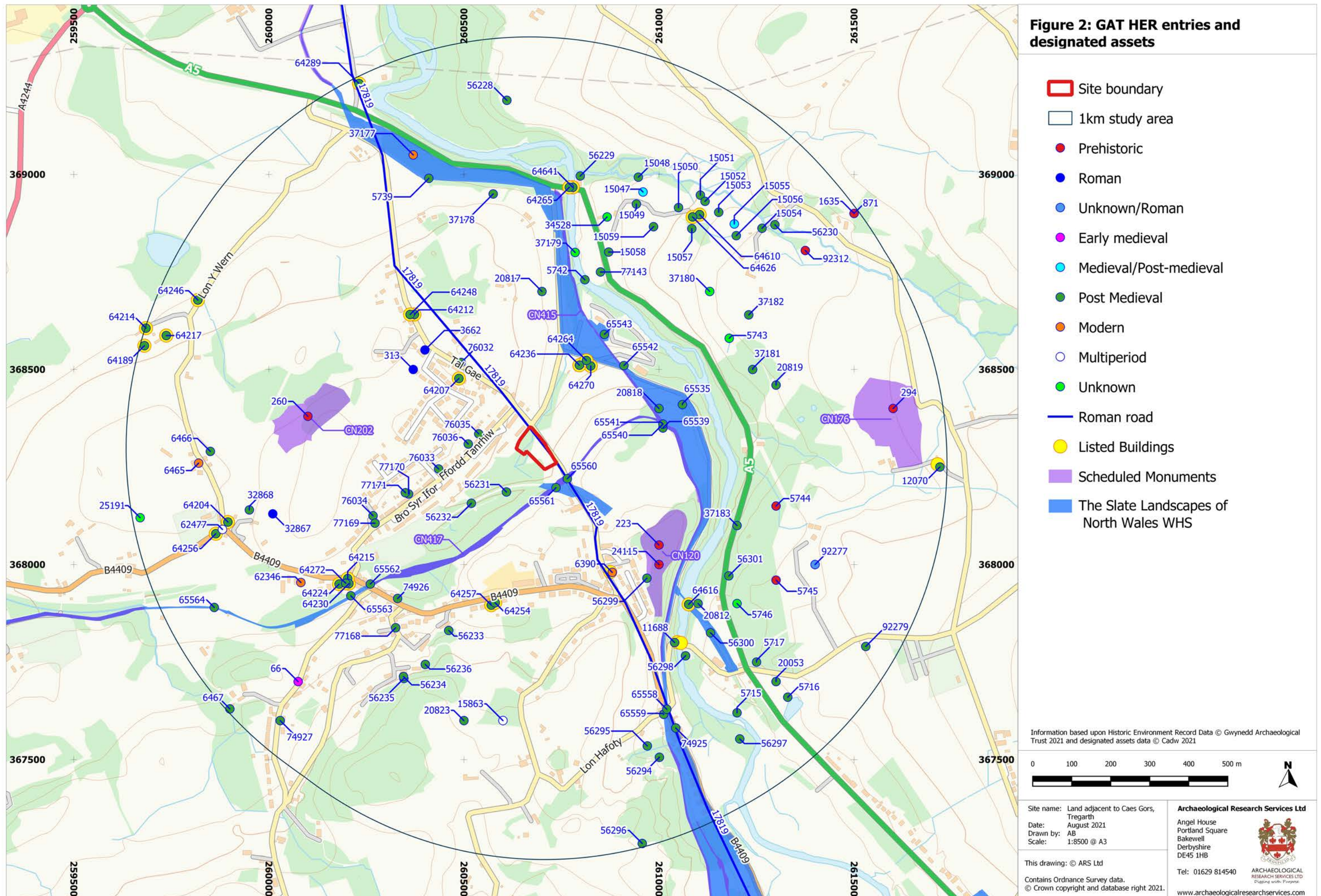
Tel: 01629 814540

www.archaeologicalresearchservices.com



ARCHAEOLOGICAL
 RESEARCH SERVICES LTD
 Digging with Purpose

Figure 2: GAT HER entries and designated assets



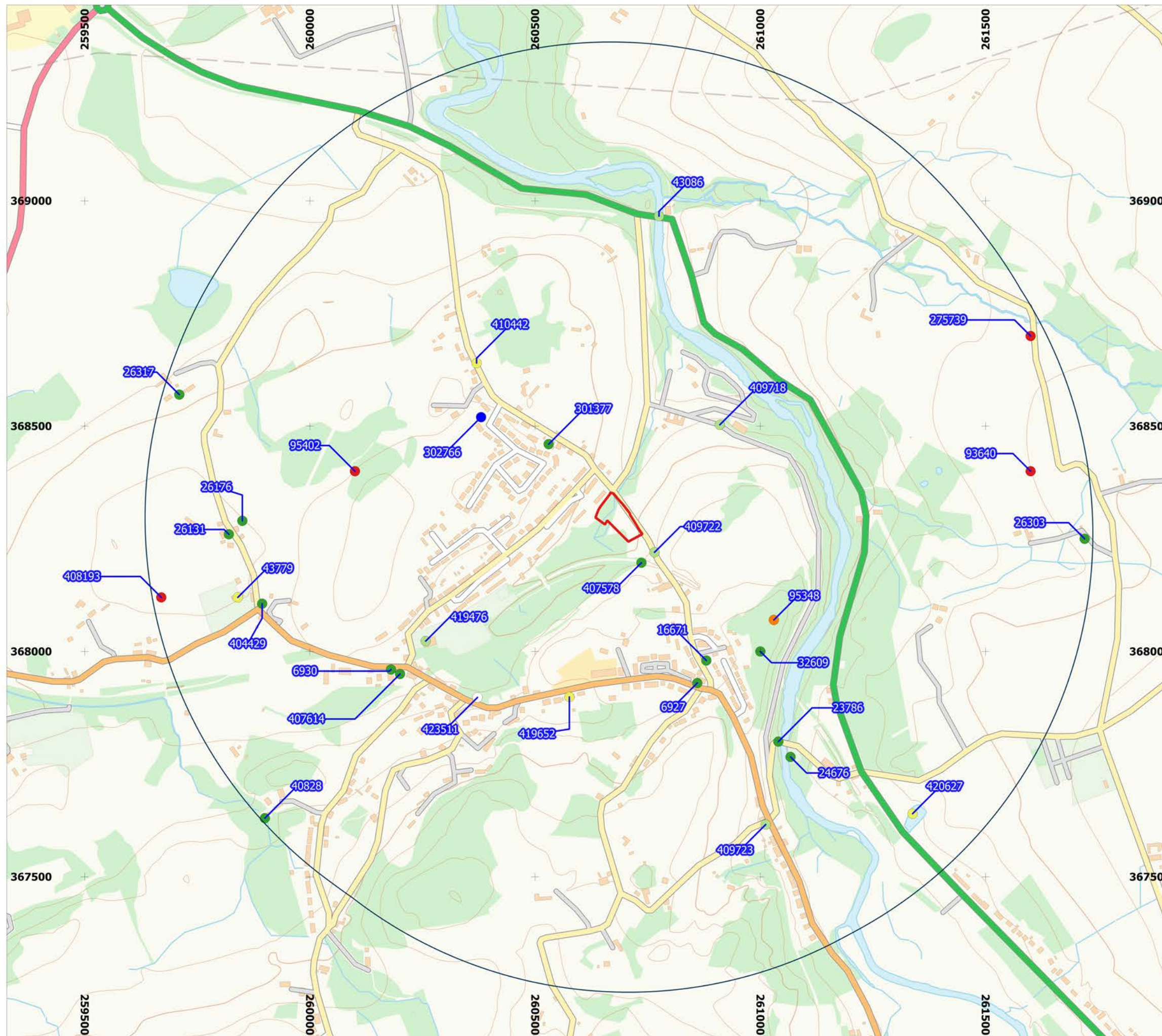


Figure 3: RCAHMW NMR entries

- ▭ Site boundary
- 1km study area
- Listed Buildings
- Prehistoric
- Iron Age
- Roman, Iron Age
- Post Medieval
- 19th Century, Post Medieval
- 19th Century
- Multi-period

Information based upon NMRW data
 © Crown Copyright: Royal Commission on the Ancient and Historical Monuments of Wales
 © Hawlfraint y Goron: Comisiwn Brenhinol Henebion Cymru

The dataset is Crown copyright [and/or Crown database right] and is reproduced with the permission of Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), under delegated authority from The Keeper of Public Records.



Site name: Land adjacent to Caes Gors,
 Tregarth
 Date: August 2021
 Drawn by: AB
 Scale: 1:8500 @ A3

This drawing: © ARS Ltd
 Contains Ordnance Survey data.
 © Crown copyright and database right 2021.

Archaeological Research Services Ltd
 Angel House
 Portland Square
 Bakewell
 Derbyshire
 DE45 1HB
 Tel: 01629 814540
www.archaeologicalresearchservices.com



ARCHAEOLOGICAL
 RESEARCH SERVICES LTD
 Drawing with Purpose

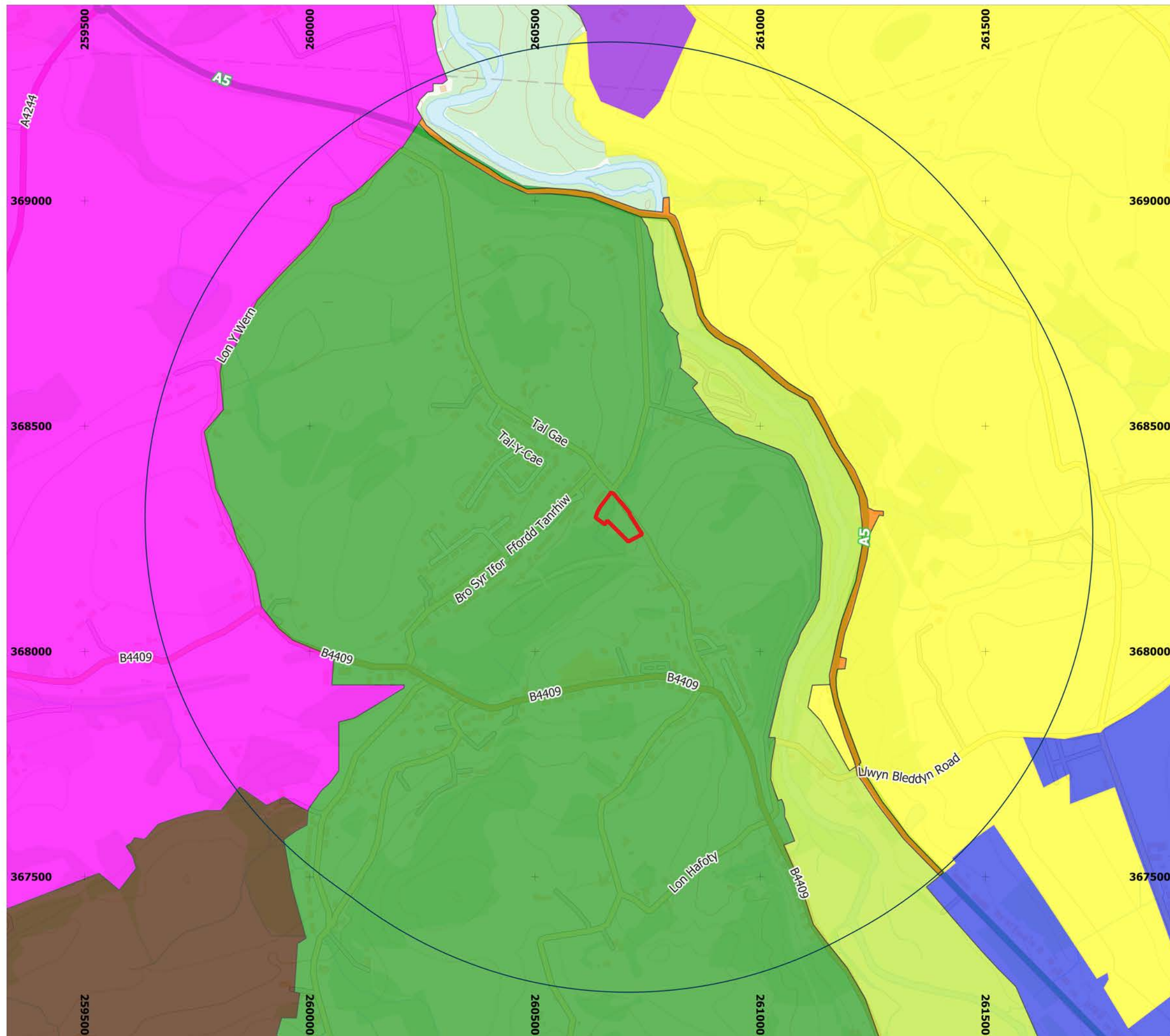
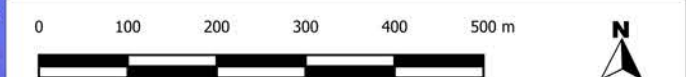


Figure 4: Historic Landscape Characterisation

- Site boundary
- 1km study area
- HL12 -
BETHESDA AND LLANLLECHID
- HL31 -
LOWLAND COASTAL AREA AROUND
WIG
- HL32 -
OGWEN VALLEY
- HL38 -
FIELDSCAPE AROUND LLANLLECHID
- HL40 -
SLING
- HL52 -
TELFORD'S ROAD
- HL53 -
HILLSLOPES BELOW MOEL Y CI/
MOEL RHIWEN
- HL54 -
IMPROVED FIELDS ABOVE PENTIR

Information based upon Historic Environment Record Data © Gwynedd Archaeological Trust 2021



Site name: Land adjacent to Caes Gors,
Tregarth
Date: August 2021
Drawn by: AB
Scale: 1:8500 @ A3

This drawing: © ARS Ltd

Contains Ordnance Survey data.
© Crown copyright and database right 2021.

Archaeological Research Services Ltd

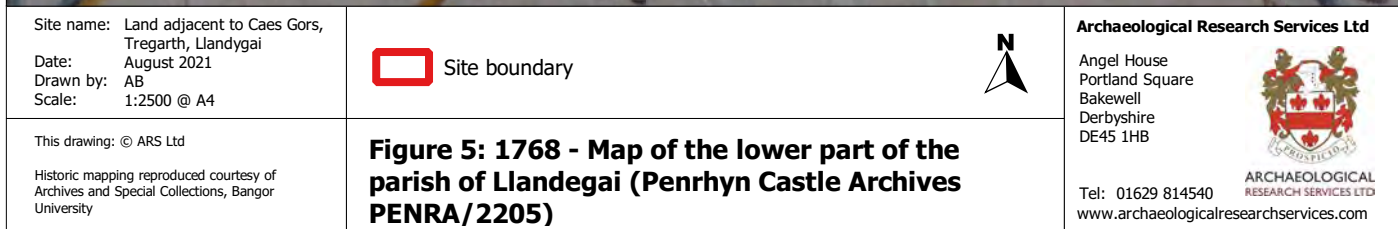
Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB

Tel: 01629 814540

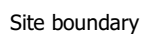
www.archaeologicalresearchservices.com



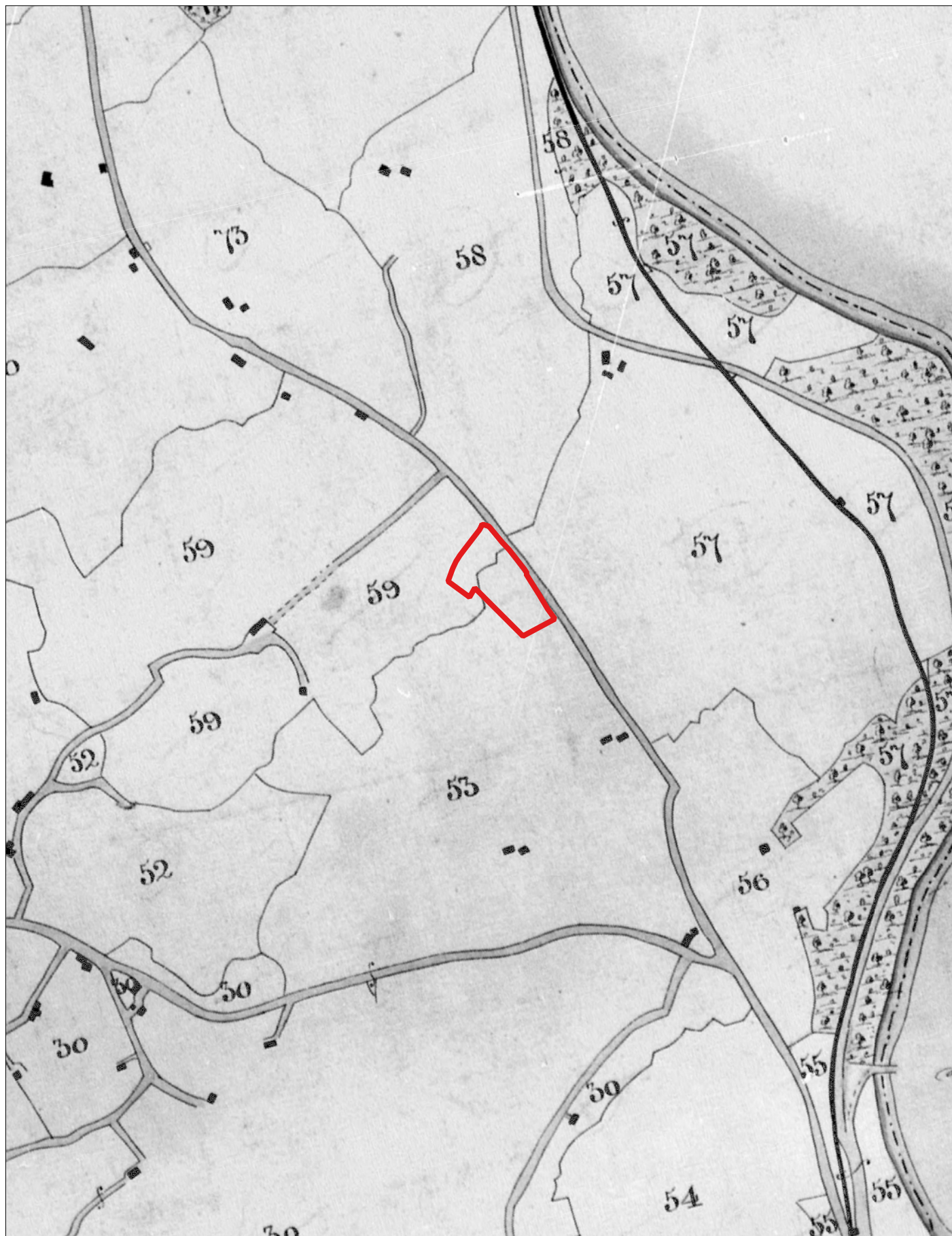
ARCHAEOLOGICAL
RESEARCH SERVICES LTD
Digging with Purpose



Historic mapping reproduced courtesy of
Archives and Special Collections, Bangor
University



Tel: 01629 814540
www.archaeologica



Site name: Land adjacent to Caes Gors,
Tregarth, Llandygai
Date: August 2021
Drawn by: AB
Scale: 1:5000 @ A4

 Site boundary



Archaeological Research Services Ltd

Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB



ARCHAEOLOGICAL
RESEARCH SERVICES LTD

Tel: 01629 814540
www.archaeologicalresearchservices.com

This drawing: © ARS Ltd
© Crown Copyright Images reproduced by
courtesy of The National Archives, London,
England. www.NationalArchives.gov.uk &
www.TheGenealogist.co.uk

**Figure 6: 1840 - Llandegai tithe map
(National Archives IR30/48/34)**



Site name: Land adjacent to Caes Gors,
Tregarth, Llandygai
Date: August 2021
Drawn by: AB
Scale: 1:7500 @ A4

 Site boundary



Archaeological Research Services Ltd

Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB



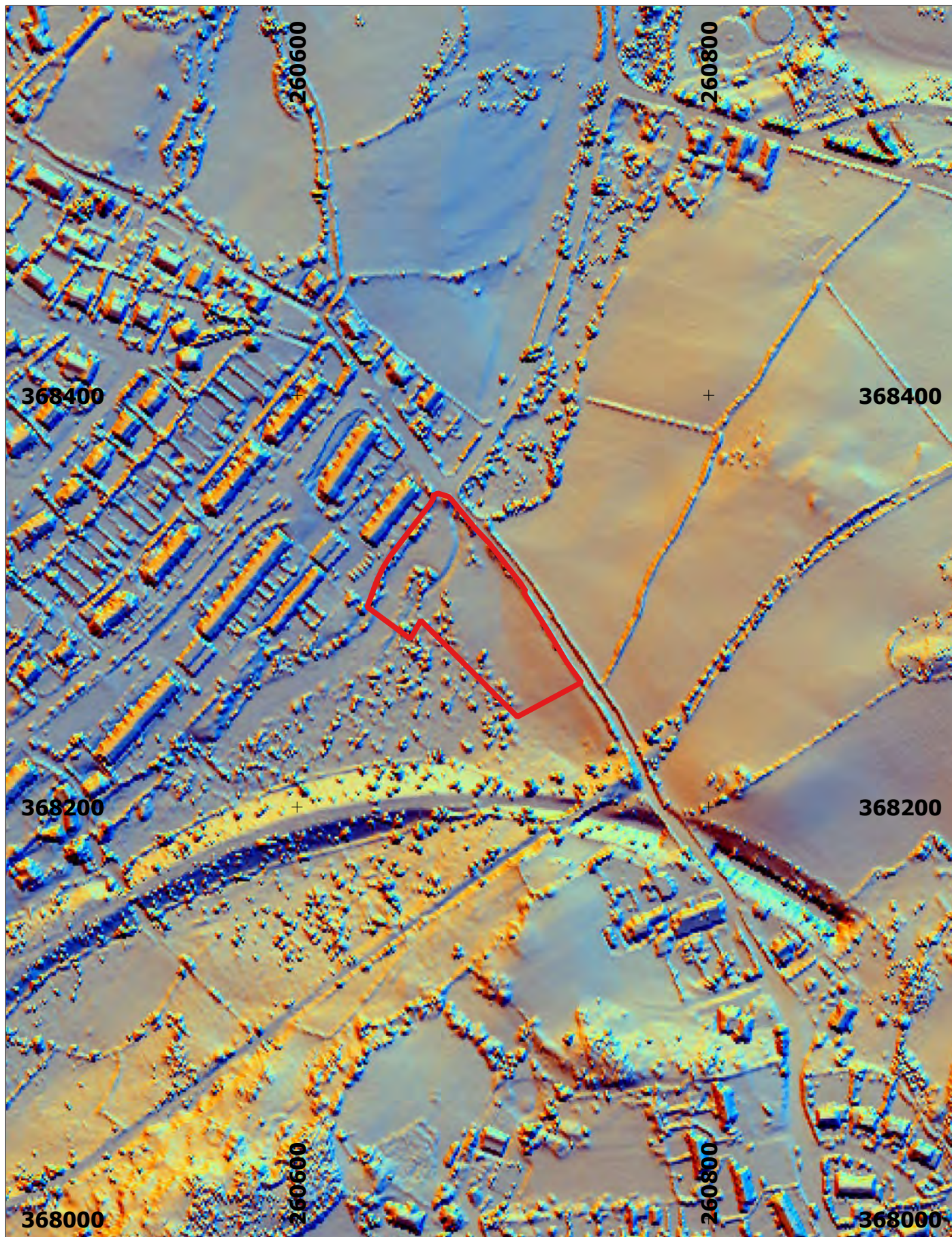
ARCHAEOLOGICAL
RESEARCH SERVICES LTD

Tel: 01629 814540
www.archaeologicalresearchservices.com

This drawing: © ARS Ltd

Ordnance Survey (if applicable):
© Crown copyright. All rights reserved.
Licence no. 100022432

**Figure 7: 1840-41 - Ordnance Survey Old Series 1
inch to the mile (Sheet 78 SE)**



Site name: Land adjacent to Caes Gors,
Tregarth, Llandygai
Date: August 2021
Drawn by: AB
Scale: 1:2500 @ A4

 Site boundary



Archaeological Research Services Ltd

Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB



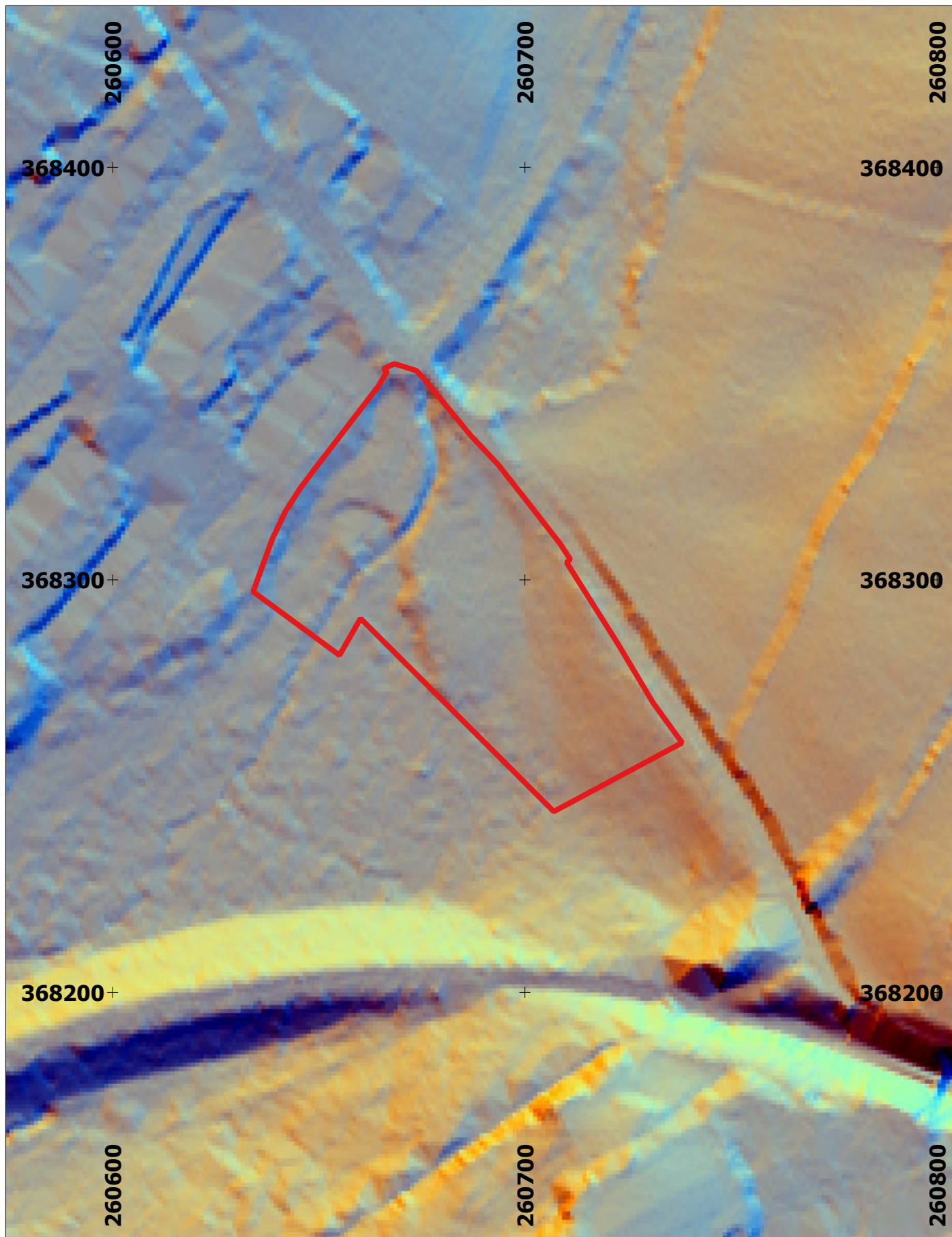
ARCHAEOLOGICAL
RESEARCH SERVICES LTD

Tel: 01629 814540
www.archaeologicalresearchservices.com

This drawing: © ARS Ltd

Contains Natural Resources Wales information ©
Natural Resources Wales and database right
2021

**Figure 9: LiDAR DSM @ 1m resolution processed
with multi-directional hillshading**



Site name: Land adjacent to Caes Gors,
Tregarth, Llandygai
Date: August 2021
Drawn by: AB
Scale: 1:1250 @ A4

 Site boundary



Archaeological Research Services Ltd

Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB



ARCHAEOLOGICAL
RESEARCH SERVICES LTD

Tel: 01629 814540
www.archaeologicalresearchservices.com

This drawing: © ARS Ltd

Contains Natural Resources Wales information ©
Natural Resources Wales and database right
2021

**Figure 10: LiDAR DTM @ 1m resolution processed
with multi-directional hillshading**

APPENDIX IV PHOTOGRAPHS



Photograph 1:
View north from Tal Gae towards the eastern abutment of the Corrig-Llwydion Bridge (GAT
HER PRN 65560).



Photograph 2:
View north-west from Tal Gae towards the western abutment of the Corrig-Llwydion Bridge (GAT HER PRN 65560).



Photograph 3:
View north-west from the Ogden Trail (the former course of the L&NWR Bethesda branch line) towards the Penrhyn Quarry Railway bridge (GAT HER PRN 65561).



Photograph 4:
View SE along Tal Gae towards the NE entrance to the PDA.



Photograph 5:
Drystone wall forming the NE boundary of the PDA.



Photograph 6:
View NW towards the PDA from the SE corner of the field.



Photograph 7:
View NW across the PDA from its SE corner.



Photograph 8:
View N across the PDA from its SW corner.



Photograph 9:
View NE along the SE edge of the PDA.



Photograph 10:
View NE towards the NE entrance to the PDA from its SW edge.



Photograph 11:
View SE from the central area of the PDA.



Photograph 12:
View SW from the NE entrance to the PDA



Photograph 13:
View S from the NW entrance to the PDA.



Photograph 14:
View SE from the NW entrance to the PDA.



Photograph 15:
View NE across the stream.



Photograph 16:
View NW towards the heavily vegetated area surrounding the stream.



Photograph 17:
View SW across the disturbed area towards the centre of the PDA.



Photograph 18:
View SE along 'L'-shaped setting of stones at S corner of PDA.



Photograph 19:
View SW along 'L'-shaped setting of stones at S corner of PDA, with boulders visible
beneath the trees in the background.



Photograph 20:
Boulders visible within the vegetation just beyond the S edge of the PDA.



Photograph 21:
Further boulders visible within the vegetation just beyond the S edge of the PDA.

Site Details:

260684.69171309748,
368296.6702602391

Client Ref: Project_ARS21-249
Report Ref: GS-8110981
Grid Ref: 260686, 368298

Map Name: County Series

Map date: 1889

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1889
Revised 1889
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1889
Revised 1889
Edition N/A
Copyright N/A
Levelled N/A

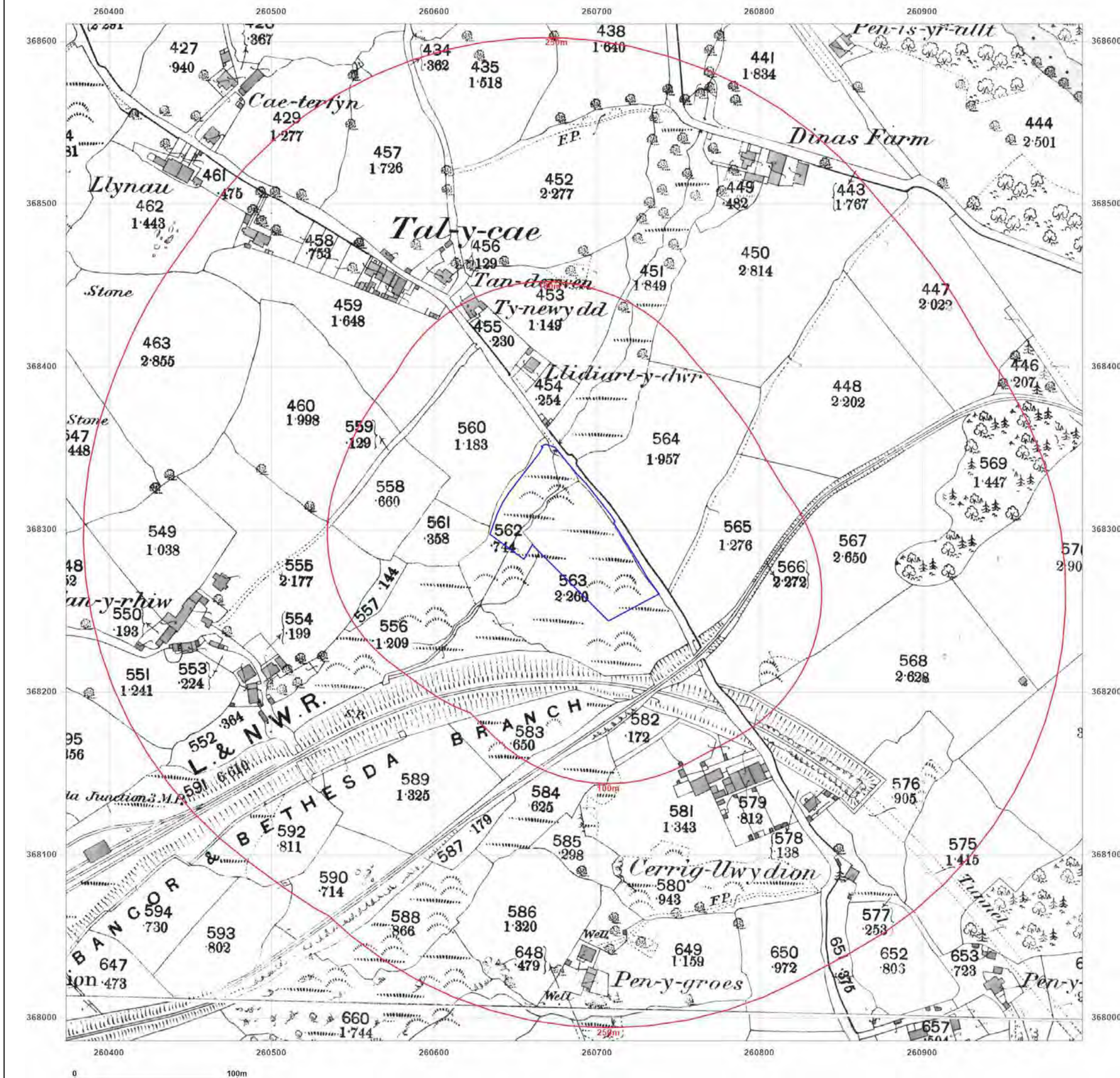


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 09 August 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

260684.69171309748,
368296.6702602391

Client Ref: Project_ARS21-249
Report Ref: GS-8110981
Grid Ref: 260686, 368298

Map Name: County Series

Map date: 1900

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

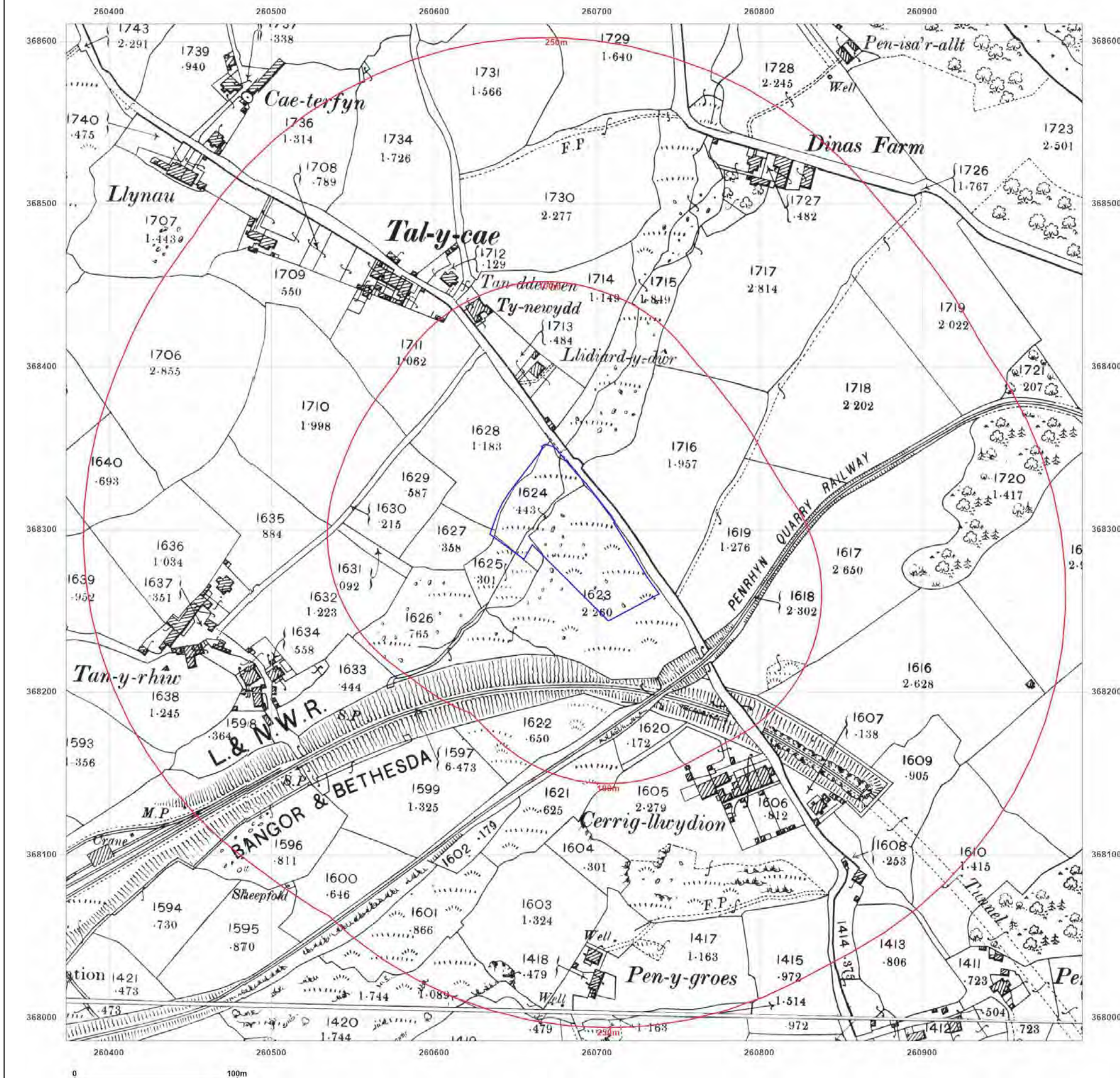


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 09 August 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

260684.69171309748,
368296.6702602391

Client Ref: Project_ARS21-249
Report Ref: GS-8110981
Grid Ref: 260686, 368298

Map Name: County Series

Map date: 1914

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1914
Revised 1914
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1914
Revised 1914
Edition N/A
Copyright N/A
Levelled N/A

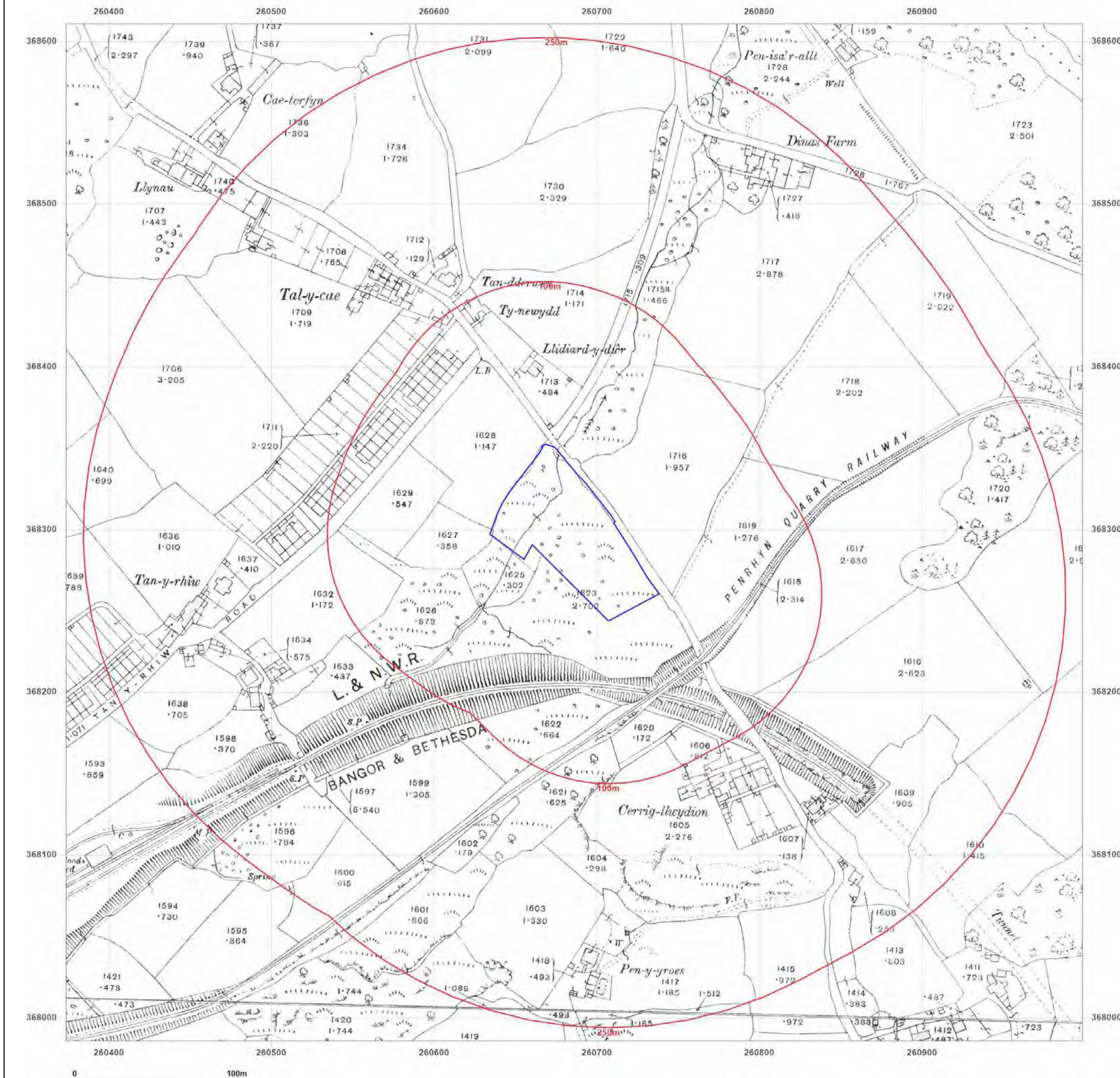


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 09 August 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

260684.69171309748,
368296.6702602391

Client Ref: Project_ARS21-249
Report Ref: GS-8110981
Grid Ref: 260686, 368298

Map Name: National Grid

Map date: 1969

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1969
Revised 1969
Edition N/A
Copyright 1970
Levelled 1955

Surveyed 1969
Revised 1969
Edition N/A
Copyright 1970
Levelled 1955

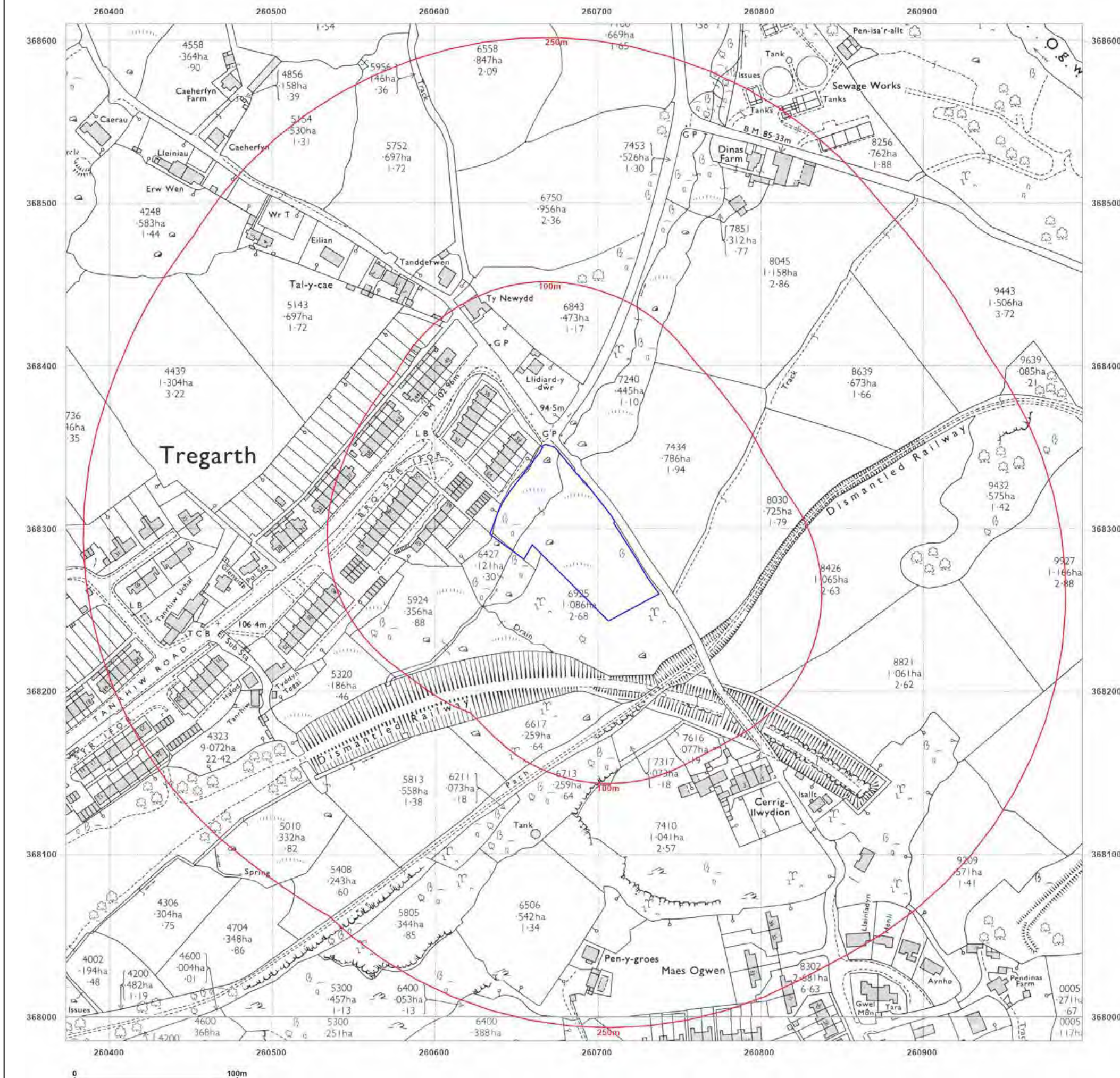


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 09 August 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

260684.69171309748,
368296.6702602391

Client Ref: Project_ARS21-249
Report Ref: GS-8110981
Grid Ref: 260686, 368298

Map Name: National Grid

Map date: 1970

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

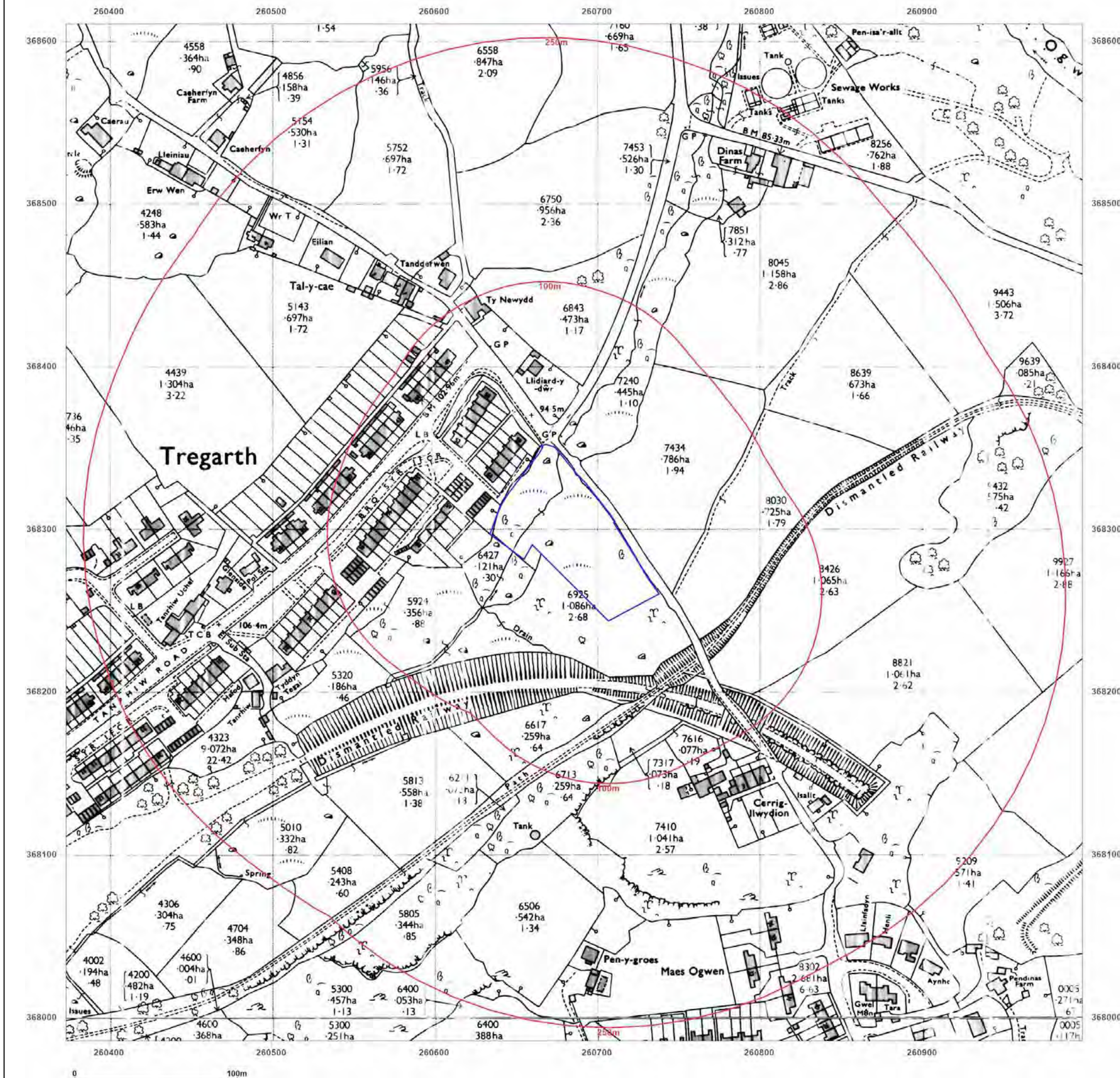


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 09 August 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

260684.69171309748,
368296.6702602391

Client Ref: Project_ARS21-249
Report Ref: GS-8110981
Grid Ref: 260686, 368298

Map Name: National Grid

Map date: 1988

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1955
Revised 1988
Edition N/A
Copyright 1988
Levelled 1955

Surveyed 1955
Revised 1988
Edition N/A
Copyright 1988
Levelled 1955

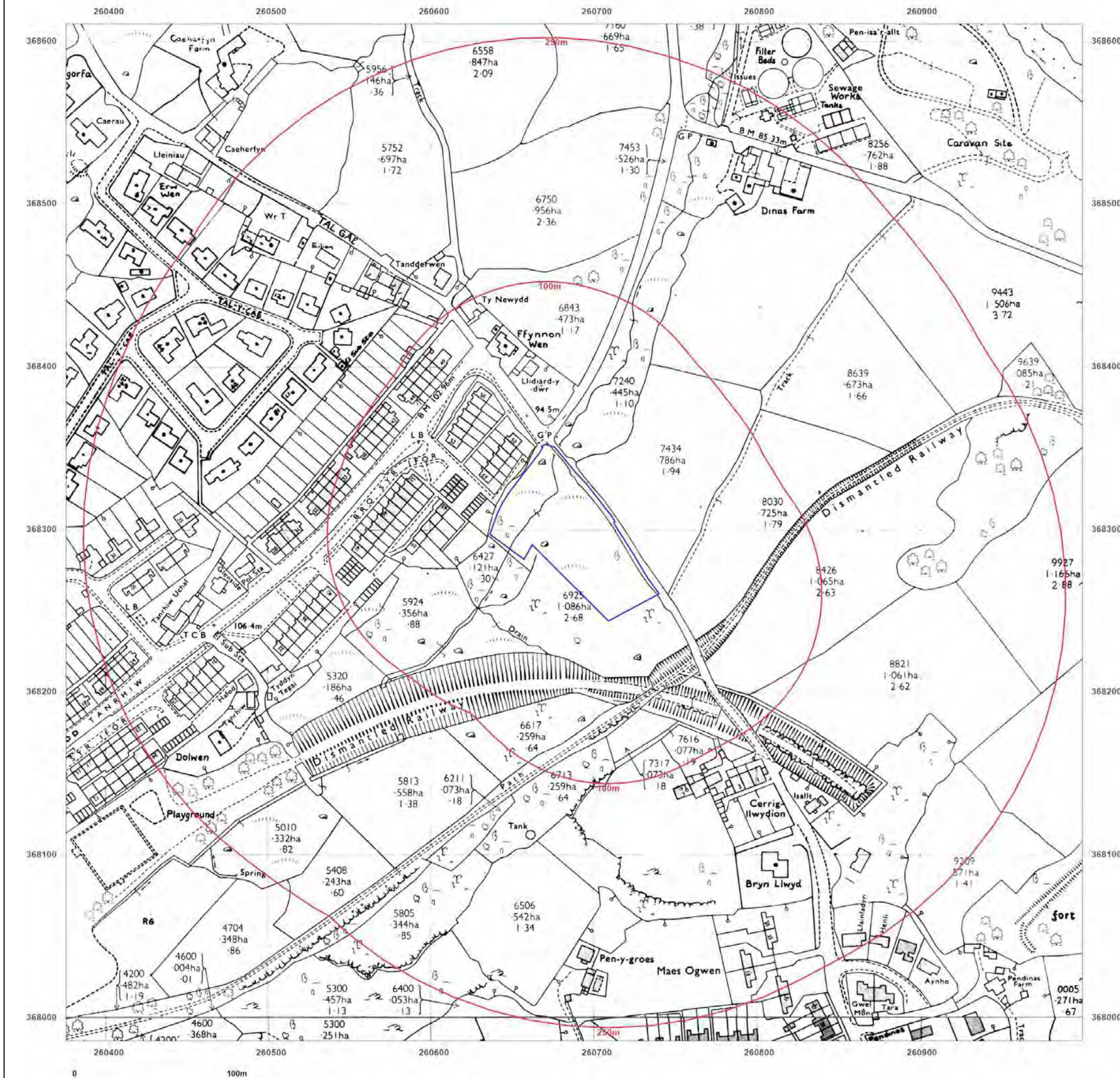


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 09 August 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

260684.69171309748,
368296.6702602391

Client Ref: Project_ARS21-249
Report Ref: GS-8110981
Grid Ref: 260686, 368298

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 09 August 2021

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

