

Parc Mine, Trefriw, Conwy

Asesiad Wrth Ddesg/Desk Based Assessment



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

Parc Mine, Trefriw, Conwy

ASESIAD WRTH DDESG / DESK BASED ASSESSMENT

Yr Amgylchedd Hanesyddol yn Cofnodi Prif Gyfeirnod /
Historic Environment Record Event Primary Reference Number 46012

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Golygwch i'r gogledd o'r platfform gwyllo uwchben Rhif: 3 adit dros Parc Mine/
View north from viewing platform above No:3 adit over Parc Mine (archive reference: G2673_019).

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CRYNHODEB ANHECHNEGOL

Comisiynwyd Ymddiriedolaeth Archeolegol Gwynedd gan yr Awdurdod Glo i gynnal asesiad archeolegol ar hen safle Parc Mine, ger Trefriw, Conwy, cyn adeiladu strwythurau monitro llif ar byrth adit Lefel 3 a Rhif 4 a phedwar lleoliad o amgylch y Tomen ddifetha parc. Nodwyd bod ecsbloetio mwynau yn y pwll wedi digwydd o ganol y 19eg ganrif mewn modd cydunol, er bod tystiolaeth o weithgaredd cynharach yn seiliedig ar weithgareddau ecsbloetio mwynau tîrfeddianiad Wynn's ar ystâd Gwydir, sy'n dyddio'n ôl i'r o leiaf dechrau'r 17eg ganrif.

Archwiliwyd ardal yr astudiaeth a'r ardal gyfagos o ardaloedd sy'n hygyrch i'r cyhoedd. Roedd hyn yn cynnwys archwilio arwynebedd y pwll yn unig, er y gwyddys bod llawer o'r gweithgaredd wedi digwydd yn y ceuffyrdd a oedd yn rhedeg o dan y ddaear. Nodwyd bod ardal yr astudiaeth yn cynnwys dyffryn coediog serth, mae'r domen rwbel wedi'i thirlunio yn laswelltog ac mae'n amlwg y gellir ei gweld o'r llwybr gogledd-de sy'n rhedeg yn gyfagos iddynt. Nid oedd llwybr diogel ar gael i waelod pyrth adit Rhif 3 a Rhif 4 er bod mynediad i'r fynedfa goncrit â gatiau i borth adit Rhif 3 trwy giât oddi ar y prif lwybr. Gwelwyd Torri Penglin o'r platfform ymwelwyr uwchben yr ardal. Mae hen swyddfa Parc Mine wedi'i lleoli i fyny trac byr sy'n arwain i ffwrdd o'r prif lwybr o amgylch safle'r pwll glo. Mae'r cylchgrawn bron wedi'i guddio'n llwyr gan lystyfiant a choed ond gellir ei ddarganfod trwy ddefnyddio GPS.

Mae llawer o safle hen Bwll y Parc wedi'i orchuddio â choedwigaeth drwchus, ac mae'r ardal wedi'i choedwigo ers i'r pwll glo gau. Felly nid yw llawer o arwyneb ardal weithrediadau'r pwll yn weladwy, ac mae arwyddion rhybuddio perygl ar waith i annog mynediad y cyhoedd i'r ardaloedd hyn.

Arsylwyd cyfanswm o 15 nodwedd, ac roedd pump ohonynt wedi'u cofnodi o'r blaen ac wedi'u nodi yng Nghofnodion Amgylchedd Hanesyddol Gwynedd (HER), y gweddill wedi'u cofnodi fel rhan o'r arolwg hwn, er iddynt gael eu nodi mewn arolwg gan Bennett a Gwyn yn 1991. Nodwyd bod y cynllun arfaethedig yn effeithio ychydig ar byrth adit Lefel 3 a Rhif 4, ac argymhellwyd cynnal briff gwylio archeolegol yn ystod unrhyw waith daear ymwthiol y tu allan i ardal adfer y 1970au sy'n gysylltiedig â'r adeiladu. o'r strwythurau monitro llif.

NON-TECHNICAL SUMMARY

Gwynedd Archaeological Trust was commissioned by The Coal Authority to undertake an archaeological assessment at the former Parc Mine site, near Trefriw, Conwy, ahead of the construction of flow monitoring structures at Level No. 3 and No. 4 adit portals and four locations around the Parc spoil heap. Mineral exploitation at the mine was noted to have taken place from the mid 19th century in a concerted manner, even though there is evidence for earlier activity based on the mineral exploitation activities of the landowning Wynn's of the Gwydir estate, dating back to at least the early 17th century.

The study area and the surrounding area was examined from publicly accessible areas. This involved an examination of the surface areas of the mine only, although much of the activity is known to have taken place in the adits that ran underground. The study area was noted to consist of a steep wooded valley, the landscaped spoil heap is grassed over and can clearly been seen from the path north-south path running adjacent to them. No safe route was available to the base of No. 3 and No. 4 adit portals though the gated concrete entrance to adit No. 3 adit portal was accessed via a gate off the main path. Kneebone Cutting was viewed from the visitor platform situated above the area. The old Parc Mine office is situated up a short track leading off from the main path around the mine site. The magazine is almost entirely obscured by vegetation and trees but can be found using GPS.

Much of the site of the former Parc Mine is covered in thick forestry, the area having been afforested since the mine closed. Much of the surface of the operations area of the mine is therefore not visible, and danger warning signs are in place to discourage public access to these areas.

A total of 15 features were observed, of which five had been previously recorded and were noted on the Gwynedd Historic Environment Records (HER), the remainder recorded as part of this survey, although they had been noted in a survey by Bennett and Gwyn in 1991. Level No. 3 and No.4 adit portals were noted to be slightly impacted upon by the proposed scheme, and it was recommended that an archaeological watching brief be carried out during any intrusive groundworks outside of the 1970's reclamation area associated with the construction of the flow monitoring structures.

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was commissioned by The Coal Authority to undertake an archaeological assessment at the former Parc Mine site, near Trefriw, Conwy, ahead of the construction of flow monitoring structures at Level No. 3 and No.4 adit portals and four locations around the Parc spoil heap (NGR SH786606024; postcode LL27 0HX; Figure 01). Parc Mine is located in the Nant Gwydyr valley, approximately 1.6km southwest of Llanrwst and approximately 5km north of Betws-y-Coed. The site lies within the Snowdonia National Park on land partially managed by Natural Resources Wales (NRW) on behalf of the Welsh Government Woodland Estate and partially within Snowdonia National Park Authority ownership. The assessment was undertaken in January 2021 and completed in accordance with the following guidance:

- *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) Version 1.1* (The Welsh Archaeological Trusts, 2018);
- *Guidelines for digital archives* (Royal Commission on Ancient and Historic Monuments of Wales, 2015);
- *Management of Archaeological Projects* (English Heritage, 1991);
- *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England, 2015);
- *Standard and Guidance for historic environment desk-based assessment* (Chartered Institute for Archaeologists, 2020);
- *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (Chartered Institute for Archaeologists, 2014)
- *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (Chartered Institute for Archaeologists, 2014);
- *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (Chartered Institute for Archaeologists, 2014); and
- *Understanding Historic Buildings: A Good to Good Recording Practice* (Historic England, 2016).

The key aims and objectives were to undertake:

- a detailed breakdown of the known archaeology in the vicinity of the site;
- an assessment of previous land use compiled from an analysis of historical maps, aerial photographs and other archive materials;
- a listing of the heritage-related planning constraints that may affect the site;
- a ranking of the potential for archaeology of each of the archaeological periods to be found within the site; and
- provide recommendations for future intrusive survey and construction excavation activities on site (requirements that would need to be in place during these or similar activities).

The archaeological assessment was monitored by the Gwynedd Archaeological Planning Service and was undertaken in accordance with an approved Written Scheme of Investigation ([Appendix I](#)). In line with the Gwynedd Historic Environment Record (HER) requirements, the HER was contacted at the onset of the project to ensure that any data arising was formatted in a manner suitable for accession to the HER under the guidance set out in *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (The Welsh Archaeological Trusts, 2018). The HER was informed of the project start date, location, grid reference and estimated timescale; the project was assigned HER Enquiry Number GATHER1365 and the Event PRN is 46012. A bilingual event summary has been prepared for submission to the HER in accordance with their guidance.

Gwynedd Archaeological Trust is certified to ISO 9001:2015 and ISO 14001:2015 (Cert. No. 74180/B/0001/UK/En) and is a Registered Organisation with the Chartered Institute for Archaeologists.

2 METHODOLOGY

2.1 Introduction

This assessment comprised a desk-based study and field survey and the following:

- a detailed breakdown of the known archaeology in the vicinity of the site;
- an assessment of previous land use compiled from an analysis of historical maps, aerial photographs and other archive materials;
- a listing of the heritage-related planning constraints that may affect the site;
- a ranking of the potential for archaeology of each of the archaeological periods to be found within the site; and
- provide recommendations for future intrusive survey and construction excavation activities on site (requirements that would need to be in place during these or similar activities)

2.2 Assessment (Desktop Study)

A desk-based assessment is defined as “a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage....Significance is to be judged in a local, regional, national or international context as appropriate” (ClfA 2014, 4).

The desk-based assessment involved a study of the following resources:

1. The regional Historic Environment Register ((HER) Gwynedd Archaeological Trust, Craig Beuno, Ffordd y Garth, Bangor, Gwynedd LL57 2RT) was examined for information concerning the mitigation area, defined as the Parc Mine site detailed in Figure 01. Examination of the core HER was undertaken, including the 6-inch and 25-inch County Series Ordnance Survey maps and secondary information held within the HER, including Bennett, J. & Vernon, R., 1991, *Mines of the Gwydyr Forest Part 3*, Gwyn, D., 1998, *Gwynedd Metal Mines Survey* and Frost, P. & Thomas, D. 1998 *Forest Enterprise Welsh Heritage Assets Survey*. All identified features were mapped, described and added to a gazetteer of sites and the relative importance of those sites defined based on pre-existing criteria;

2. The National Monuments Record of Wales (Royal Commission on the Ancient and Historical Monuments of Wales, Plas Crug, Aberystwyth SY23 1NJ) was checked for sites additional to the HER;
3. Aerial photographs from the National Monuments Record of Wales (Royal Commission on the Ancient and Historical Monuments of Wales, National Monuments Record of Wales, Plas Crug, Aberystwyth SY23 1NJ) were examined for potential features. This included 1946 RAF vertical aerial photographs;
4. An online catalogue search of the National Library of Wales (Penglais Rd, Aberystwyth SY23 3BU) was completed;
5. Archive data, including primary and secondary sources, historic maps and estate maps, particularly relating to the Gwydir Estate, should have been examined at the regional archives (Gwynedd Archives, Caernarfon), however current COVID 19 regulations meant that they were not open and accessible. Archive data will include historic mapping such as the local tithe map and schedule; and
6. Light Detection and Ranging (LiDAR) data was examined from the Lle Geo-Portal at <http://lle.gov.wales/home> for information on potential surface features using digital terrain modelling and digital surface modelling.

2.3 Field Survey

A field survey was undertaken on 12/02/2021 and incorporated the assessment area study area, as outlined red on Figure 01. Known features were mapped and located in advance and the aim of the field survey was to visit and record these features and to identify any additional features; information was recorded on GAT pro-formas and a photographic record maintained. Photographic images were taken in RAW format using a digital SLR set to maximum resolution (Nikon D3000; resolution: 3,872 × 2,592 [10.2 effective megapixels]) and archived in TIFF format; a total of 48 images were taken (G2673_001 to G2673_048; cf. [Appendix IV](#)). Not all features were accessible during the field survey; this is qualified in the gazetteer (cf. [para. 3.3](#))

The following categories have been used to define the assessment category of the archaeological asset:

Category A - Sites of National Importance.

Scheduled Monuments, Listed Buildings of grade II* and above, as well as those that would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both. Sites that are scheduled or listed have legal protection, and it is recommended that all Category A sites remain preserved and protected *in situ*.

Category B - Sites of regional or county importance.

Grade II listed buildings and sites which would not fulfil the criteria for scheduling or listing, but which are nevertheless of particular importance within the region. Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

Category C - Sites of district or local importance.

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened. Category C sites nevertheless merit adequate recording in advance of damage or destruction.

Category D - Minor and damaged sites.

Sites that are of minor importance or are so badly damaged that too little remains to justify their inclusion in a higher category. For Category D sites, rapid recording, either in advance of or during destruction, should be sufficient.

Category E - Sites needing further investigation.

Sites, the importance of which is as yet undetermined and which will require further work before they can be allocated to categories A - D are temporarily placed in this category, with specific recommendations for further evaluation.

The impact of the proposed works on any asset has been identified using the following impact criteria:

None:

There is no construction impact on this asset.

Slight:

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

Unlikely:

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

Likely:

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

Significant:

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

Considerable:

The total removal of an asset or its partial removal which would effectively destroy the remainder of the site.

Unknown:

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

2.4 Data Management Plan

Archiving was completed based on the following task list:

1. Pro-formas: all cross referenced and scanned for digital archiving;
2. Photographic Metadata: cross-referenced with all pro-formas and completed in *Microsoft Excel*;

This data was then used as the basis for the physical and digital dataset archives; information from these were then used to compile the project report. The physical archive is stored in a designated project folder and the location confirmed in the Trust project database; the digital dataset is stored on a dedicated Trust server, with the location confirmed in the Trust project database via a specific hyperlink. External datasets for the Historic Environment Record (HER) and Royal Commission on Ancient and Historic Monuments Wales (RCAHMW) are as defined in the dissemination strategy below. There is no de-selected digital data.

The following dissemination and archiving of the report and digital dataset has been applied:

- A digital report has been provided to the client and Gwynedd Archaeological Planning Service (GAPS) (draft report then final report);
- A digital report has been provided to the regional HER, along with a digital dataset comprising an Event Primary Reference Number (PRN) summary. The report and dataset will be submitted in accordance with the required standards set out in *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (Version 1.1); and
- A digital report and digital archive dataset has been prepared for submission to the RCAHMW (final report only), in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. The dataset has been prepared in the format required by RCAHMW and includes:
 - Photographic metadata (Microsoft Access);
 - Photographic archive (TIFF format);
 - Project Information form (Excel);
 - File Information form (Excel) – Microsoft Word report text final;
 - File Information form (Excel) – Photographic metadata (general);

- File Information form (Excel) – Adobe PDF report final; and
- File Information form (Excel) - Photographic metadata (detail).

2.5 Gazetteer of Features

A gazetteer has been compiled for any existing and newly identified assets, based on information sourced from the desk based assessment and field survey and the existing gazetteer prepared for Frost, P. & Thomas, D. 1998 Forest Enterprise Welsh Heritage Assets Survey.

The gazetteer has been prepared in the following format:

Feature Number	
Site name	
PRN number	
Grid reference	
Period	
Site type	
Assessment category	
Description	
Impact	
Recommendation for further assessment/evaluation	
Recommendation for mitigatory measures	

3 RESULTS

3.1 Desk based assessment

3.1.1 *Location and geological summary*

Parc Mine is located in the Nant Gwydyr valley, approximately 1.6km southwest of Llanrwst and approximately 5km north of Betws-y-Coed. Parc Mine is located on the eastern side of the Gwydir Nant, where the land rises on the western side of the Conwy valley to the south of Trefriw. The wider Gwydir forest occupies an undulating plateau, reaching to between 210 and 300 m above sea level, which is divided by the valleys of the rivers Llugwy, Lledr, and Machno, all of which are tributaries of the River Conwy.

The Coed y Fuchslas escarpment forms a prominent east – west feature which divides the area into two. To the south of the escarpment, on the high plateau, lie the Gwaynllifion group of mines, immediately to the north of the Gwydir Parc Mines lies a small group of mines of which Tyn Twll (Clementina) is the most important. All these mines were run, at least initially, by the Gwydir Estate (Bennet & Vernon, 1991).

The bedrock geology consists of a mixture of the Snowdon Volcanic Group mudstone and siltstone. This is sedimentary bedrock formed approximately 449 to 458 million years ago in the Ordovician period. There is also Upper Crafnant Volcanic Formation felsic tuff and felsic tuffite, which is igneous bedrock formed approximately 452 to 453 million years ago in the Ordovician Period (British Geological Survey - Geology of Britain Viewer (Classic)). Superficial deposits consist of talus angular undifferentiated rock fragments, although these can be hard to identify.

Much of the work at Parc Mine took place on the Principal lode which was mapped geologically during the 1950's. The more profitable parts of the lode were present within the harder rocks, while in the mudstones it was poorly mineralised and therefore less profitable (Bennet & Vernon, 1991).

Soils consist of freely draining acid loamy soils over rock, as is usually found on steep acid upland pastures dry heath and moor; bracken gorse and oak woodlands (Cranfield Soil and Agrifood Institute – Soilscales)

3.1.2 Statutory and non-statutory designations

The site is part of the wider industrial landscape that includes the scheduled Hafna and Vale of Conwy mines (Scheduled Monuments 326 and 327 respectively) and is recorded in the regional HER as Parc Lead Mine PRN 20689.

Assets within or in proximity to the assessment area include:

PRN	Name	Type	Location (NGR)
8883	Parc Mine, Kneebone Cutting	Mine	SH78746004
20689	Lead Mine, Parc	Lead Mine	SH78706020
8884	Cilstent Adits	Post Medieval Adit	SH78806010
21597	Fuchclas Mine, Trefriw	Lead Mine	SH78806030
8816	Ffridd Sian Mine Smithy, Trefriw	Blacksmiths Workshop	SH78616044

3.1.3 Historical and archaeological background

3.1.3.1 Introduction

The town of Llanrwst sits on the eastern side of the Afon Conwy on the flat floor of the Conwy Valley, with Parc Mine about 1 mile to the south-west. Both sides of the valley have steep wooded sides with the mountains of Snowdonia lying to the west and the hills of the Denbigh Moors to the east. The modern A470 road from Betws y Coed skirts the riverbank of the Afon Conwy to the south Llanrwst before turning northwards to the north of Pont Fawr, weaving its way through the historic town centre before snaking northwards along the eastern side of the Conwy Valley. The Conwy and Llanrwst Railway passes through the eastern side of Llanrwst, marking what would have been the limit of the early 19th century town before its expansion to the north, south, and east during the 19th and 20th centuries. The riverside location and rural setting of Llanrwst, with views along the sparsely populated valley, and across to Gwydir and Snowdonia, create a pleasing contrast with the tight historic town core with its fine buildings.

Some of the field boundaries immediately to the west of Tu Hwnt l'r Bont are visible on the 1785 Gwydir Estate map and may be 18th century or earlier in origin (Davidson 2005) while the majority of the remainder, defining large and regularly patterned fields, date from the early 19th century.

Gwydir Castle is sited within its gardens at the foot of a rocky crag on the edge of the flood plain to the west of the Afon Conwy. It is low-lying and subject to flooding, with the steep, tree-covered hill Carreg-y-gwalch above. The town of Llanrwst lies 0.5km to the northeast on the opposite side of the river.

Gwydir Castle, the principal demesne of the estate on which Parc Mine was located, is an extensive and irregularly planned house in late Perpendicular Gothic style with some late 16th century Renaissance detailing. It is roughly J-shaped in plan, approximately 38m long and a maximum of 30m wide. It is constructed of large squared slate-stone blocks with sandstone dressings and slate roofs with leaded parapet gutters. Many of the building materials came from the Cistercian abbey at Maenan following Henry VIII's 16th century dissolution. Its earliest parts date to the early 16th century but there are also 19th century and later additions. Similar stone has been used throughout however and the style of the earlier buildings has been copied so that the whole house appears uniform. In 1912 and 1922 the house was gutted by fire but has since been restored.

The Pont Fawr B5106 road meets the B5106 Conwy to Betws y Coed road just to the west of Gwydir Castle. The former road was probably built around the same time as the bridge and dates to the mid-17th century (Davidson 2005). The Conwy to Betws-y-Coed road may well have been used in Roman times, though the present road is largely based on a 19th century turnpike road, except for a length a short distance north of Gwydir Castle built after the construction of flood defences in the early 19th century (Davidson 2005).

3.1.4 Post-Medieval and Modern

The first clear evidence of lead workings in the Gwydir Forest can be dated to the early 17th century, when Sir John Wynn of Gwydyr Castle (1553-1627), the major landowner in the area, sought advice from expert metallurgists and had 'arguments of metals' (Bennett and Vernon 1991, 8). He then set about obtaining a lease for the lead mines 'on the wastes and commons' around Llanrwst until his death in 1627, and later Sir Maurice and Sir Owen Wynn maintained a sporadic interest until the death of the latter in 1666. In 1678, following the marriage of the Gwydir heiress Mary Wynn to Lord Willoughby D'Eresby, the Gwydir ore-field became part of the wider Ancaster Estate, and sporadic mining continued into the 18th century.

Gwynedd was an important producer of lead at various points from the late 18th century onwards, and this was focussed on the Gwydir Forest. In the Gwydir ore-field the hillsides are dotted with lead mines, which in their heyday were sunk into open moorlands, but are now surrounded by forestry. In the 1750s and 1760s a mining consultant, Dr. Linden, was

employed by the Ancaster estate to assist in the mining ventures. However during the 18th and first half of the 19th century lead mining was carried out only on a very piecemeal basis, although some of the ore extracted probably came from the Parc Mine area, with increased activity commencing in the 1840s (*ibid.* 10). The vast majority of the evidence for mining activity at Parc Mine dates from the years after 1860.

Parc Mine was located near Nant Gwydyr, about one mile south-west of Llanrwst. Estate records date the first output from the mine from 1860, the mine being operated by the D'Ersby and Gwydyr Co. though there is some evidence of much earlier exploitation of the lodes, with the Kneebone Cutting (Feature 03; Bennet & Vernon Figure 27) possibly dating back to the 17th century. There were also minor workings on the pipe of galena on the Gors Lode before 1860. Between 1860 and 1888 working was confined to the Gors pipe, with at least 10 adit levels off it (*ibid.* 64, Figure 14). The mine and others in the surrounding area were run by a number of companies, often with similar names, that were formed and re-formed throughout the 19th century; these include Gwydyr Park Consols from 1853-1874, Clementina Mining Company 1876-1883, The D'Eresby Consols Lead Mining Company 1878-1881, Gwydsyr Amalgamated Mining Company 1881-1883, D'Eresby Mountain Mining Company 1877-1884, D'Eresby Mining Company 1884-1889; D'Eresby and Gwydir Mines Limited 1890-1891 and The Parc Lead and Zinc Mining Company 1893-1897 (*ibid.* 38-68). These repeated re-incorporations, all during the time of Gwydir/Ancaster Estate ownership suggest that the mines were frequently not profitable, and that regular restructurings were required.

There is a main lode running east to west, known as the Parc No. 3 Principal Lode, which may have been created by Brunner Mend & Co. in about 1900, who had taken over the running of the mine in 1898. They were followed in 1905 by Mr C.R. Holmes, an American from Montana, who took on the lease of the mine, at a rent of £35 per annum on an area of 207 acres (Bayles 1969). In 1930 a slump in the lead industry and the mine ceased production. Then in 1936 Watende Ltd (previously Watende Mining (Kenya) Ltd), took over the mine, until in 1940 Llanrwst Lead Mines Ltd erected a new mill due to the amount of lead still present and productive. With future success the site and mine became involved in all the processes of extraction, crushing, grinding, froth flotation, thickening and filtration, using the latest equipment, including air pressure drills and steam power (*ibid.*). However the mine subsequently closed during the Second World War in 1942.

Parc Mine was re-opened by Johannesburg Consolidated Investment in 1948, with its concrete adit portal and its well-laid roadway secured with rock-bolting and steel arches, indicating the use of what were then modern mining techniques (Gwyn 2006, 82).

Locomotives running on railed tracks were only used at five metalliferous mines, of which Parc Mine was one, although it did not connect to external transport routes in any way (ibid, 88). Production continued, with various lengthy interludes, until 27th February 1963, when the mine was finally closed, after having been run by a number of concerns for a short period of time. American involvement in the mining operations at Parc has been one of its defining characteristics.

A description and survey of the mine is included in Volume 3 of the Mines of the Gwydyr Forest (Bennett & Vernon 1991, Figures 13-22). This survey was carried out by Bennet and Vernon between 1989 and 1991, and this includes a very detailed analysis of the 19th and 20th century phases of the mine's operation and the surviving standing evidence for this, as is depicted in plan form. The location of the levels, adits and cuttings is shown on Figure 27 in that volume. Most of the dangerous and exposed areas have now been fenced off to allow safe viewing of the site.

3.1.4.1 Cartographic Evidence and History of Land Ownership

As the mine was, until the 20th century, the property of the Gwydir Estate, centred at Gwydir Park in Llanrwst, it is possible that cartographic and other material relating to the operations at the mine survive in the estate archive. These records are located at Gwynedd Archives, Caernarfon and Lincolnshire Record Office. An online search of their catalogues has not revealed references to any cartographic representations of the mine (although Parc Mine Plans are believed to exist at Gwynedd Archives (Bennett & Vernon 1991, 138)), and current Covid-19 regulations (February 2021) means that the records themselves are not currently accessible for searching. These could be searched at a later date if this is required. A 1785 Gwydir Estate map, *Gwydir Demesne and Park* is known to exist, but is not thought to show the mine as an active entity, although the area is shown (Gwynedd Archives XM/Maps/5663).

The footprint of Parc Mine is spread over two tithe maps, the 1840-45 Trewydir, Llanrwst and Trefriw Tithe award map and the Bettws-Y-Coed Tithe award map (National Archives). These maps do not show the area of Parc Mine in any detail, as modern mining has not commenced by this time, and did not until 1860. Therefore the area is shown as in agricultural use and as wood and parkland. It depicted on the map as a wooded area (fields 37 & 38 on the Trefriw Tithe Map and fields 1 & 2 on the Bettws-Y-Coed tithe map) (Figure 02).

The apportionment for these areas is given below:

Landowner	Occupier	Numbers Referring to the Plan	Name and Description of Lands and Premises	Areas in Statute measure		
				A	R	P
Willoughby de Eresby, The Right Honourable Lord	In Hand	37	Plantation	117	3	1
	James Harker	38	Tyddyn y Nant	13	1	14
	William Jones	1	Tyddyn y Nant Pella	2	3	8
	Thomas Williams	2	Plantation	728	2	12

An examination of the First to Third Edition 25-inch to 1-mile Ordnance Survey Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8 (published 1889, 1900 and 1913 respectively; cf. Figures 03, 04 and 05) shows the evolution of the mine infrastructure within that timeframe. On the First Edition map, the mine is listed as the *De Eresby Lead Mine*, visible as a shafts, waste tips, buildings and interlinked tracks. On the Second Edition Map, published eleven years later, it is now referred to as the *Parc Lead Mine* and the visible infrastructure is more extensive, including tramways and larger buildings. The Third Edition map is similar to the Second Edition, but there are more waste tips present.

Records of the mining companies that worked Parc Mine through its various late 19th and earlier 20th century phases of working are held at the National Archives in Kew, and references to these are listed in the bibliography.

3.1.5 Previous Historical and Archaeological Work

A description and survey of the mine is included in Volume 3 of the *Mines of the Gwydyr Forest*. This survey was carried out by Bennett and Vernon between 1989 and 1991, and this includes a very detailed analysis of the 19th and 20th century phases of the mine's operation and the surviving standing evidence for this. The location of the levels, adits and cuttings is shown on Figure 27 in that volume.

Dafydd Gwyn carried out the *Gwynedd Metal Mines Survey* in 1998 (GAT Report No. 291) and Frost, P. & Thomas, D. published *Forest Enterprise Welsh Heritage Assets Survey* in 1998. Both of these reports cover metalliferous mining in the Gwydir Forest area, and the latter includes the identification of three features at Parc Mine (Features 1-3) which were subsequently included in the Gwynedd HER. Dafydd Gwyn's *Gwynedd - Inheriting a Revolution* of 2006, discusses Parc Mine in the wider context of metalliferous mining in the Gwydir Forest ore-field and beyond.

3.1.6 Artefact potential

The presence of artefacts dating from the prehistoric to post-medieval times is thought likely to be low, due to a lack of evidence of activity during these times in the vicinity of the mine. Given the extensive nature and duration of the quarrying works on the site, the potential for the discovery of artefacts dating to the industrial and modern periods is considered to be high.

3.1.7 Aerial Photographs and LiDAR

3.1.7.1 Aerial Photographs

Royal Air Force (RAF) aerial photographs dating from the end of the war in 1945 until 1993 were examined on the Welsh Government's *Lle Portal*. These showed some evidence of the 20th century mine workings, but otherwise the area was shown to be heavily wooded.

RAF AC31:H13:140 image 63 taken on the 16th April 1942 shows some buildings and other activity in the vicinity of No. 3 and No. 4 adit portals. The tailings from the mine can be clearly seen running down the valley to the north (Figure 06). No new assets were identified from the aerial photographs.

3.1.7.2 LiDAR

Digital LiDAR data (Digital Terrain Model 1m) was obtained from the *Lle Portal* for sheet SH7860, which covered the area of the former Parc Mine (Figure 07). The data showed the location of Kneebone Cutting very clearly towards the southern part of the image and the

landscaped tailings to the north. No. 3 and No. 4 adit portals can be seen on the image but aren't as clearly defined. The drainage channels can also be seen running to the east and west of the tailings. No new assets were identified from the LiDAR imagery.

3.2 Field Survey

The field survey was carried out on 6th July 2021, in mostly dry but overcast conditions. The study area was examined in detail, and the area surrounding it examined from publicly accessible areas. This involved an examination of the surface areas of the mine only, although much of the activity is known to have taken place in the adits that ran underground. The study area was noted to consist of a steep wooded valley, the landscaped spoil heaps are grassed over and can clearly be seen from the path north-south path running adjacent to them. No safe route was available to the base of No. 3 and No. 4 adit portals though the gated concrete entrance to No. 3 adit portal was accessed via a gate off the main path. Kneebone Cutting was viewed from the visitor platform situated above the area. The old Parc Mine office is situated up a short track leading off from the main path around the mine site. The magazine is almost entirely obscured by vegetation and trees but can be found using GPS.

Much of the site of the former Parc Mine is covered in thick forestry, the area having been afforested since the mine closed. Much of the surface of the operations area of the mine is therefore not visible, and danger warning signs are in place to discourage public access to these areas.

3.3 Gazetteer of Features

3.3.1 Introduction

All recommendations are based on the current understanding of the scheme proposals and their impact on the features, and may have to be revised if information about the scheme impacts changes. In the event of alterations to the scheme, the recommendations might have to be revisited. A 'C' after the grid reference indicates the central point of a larger feature, and 'A' after the reference indicates the central point of a wider group of features.

The archaeological assessment results for Parc Mine from the 1998 report completed by Clwyd Powys Archaeological Trust (Frost, P. & Thomas, D. 1998 *Forest Enterprise Welsh Heritage Assets Survey*. CPAT Report 284) was used as the basis of the current gazetteer and supplemented with any new assets identified. The current assessment used the same approach as in 1998 by examining information from the regional HER, digital mapping (MapInfo GIS) and a field survey. The field survey was completed in July 2021 and there were constraints in recording some features due to vegetation, overgrowth and safe access. The 1998 assessment identified four sites and these have been included within the gazetteer for the current assessment; the gazetteer state which features were not accessible and the location of the assets is shown on Figure 08.

3.3.2 Assessment Category

As stated in [para. 2.4](#), the sites recorded in the archaeological assessment have been divided into five categories (A to E), based on national (Category A), regional (Category B) or district/local importance (Category C), or whether they are minor sites (Category D) or sites needing further investigation (Category E). These categories are generally comparable to those used for the 1998 assessment, particularly Categories A (National Importance), B (Regional Importance) and C (lesser significance), with Category E from the 2021 assessment comparable to the *Not Yet Evaluated* category from 1998; the *No Physical Presence* category from the 1998 assessment has not been duplicated for the current assessment.

A key consideration for the current assessment has been whether the assessment categories used in 1998 assessment are applicable and equivalent to the 2021 assessment and this is analysed and discussed in each gazetteer entry.

The current assessment has also considered the appearance and condition of the identified sites, comparing information from the 2021 survey with the 1998 survey. It was found in most cases that whilst the location of the sites identified in 1998 were often visible, many were

inaccessible due to vegetation overgrowth and/or safety limitations. Where necessary, the gazetteer entries have used the site descriptions from the 1998 survey; it is stated in the gazetteer where original descriptions have been used.

3.3.3 *Parc Mine Gazetteer*

Feature Number	01
Site name	Parc Mine Magazine
PRN number	8811 (Part of 20689)
Grid reference	SH 7873459811
Period	Modern
Site type	Magazine
Assessment category	C
Description	<p>Rubblestone building with red brick quoins and doorway enclosing an iron door, inner brick wall, asbestos tiled roof, and built on a stone plinth, located west of No. 2 adit. It forms part of the 20th century mining activity on the site (Frost and Thomas, 1998).</p> <p>Currently in a poor condition. The roof is almost entirely gone and the area is overgrown. Iron door not seen and inner brick wall appears to have collapsed. Building is fenced off (Plate 01).</p>
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

Feature Number	02
Site name	Parc Mine Office
PRN number	8812 (Part of 20689)
Grid reference	SH 7860659847
Period	Post medieval
Site type	Building
Assessment category	C
Description	<p>A rubblestone building standing roofless, passed by the footpath on its north side. It is believed to have formerly been the mine manager's house and the mine office. There is evidence that it had formerly been rendered. The walls stand to full height with gable ends and chimneys, at it has been suggested that it formerly had a corrugated iron roof (Frost and Thomas 1998).</p> <p>The building remains very much as described above. The building is fenced off and vegetation is growing around and within the building footprint. (Plates 02 & 03)</p>
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

Feature Number	03
Site name	Parc Mine, Kneebone Cutting (Part of 20689)
PRN number	8883
Grid reference	SH 7874069040
Period	Post-medieval
Site type	Quarry
Assessment category	A
Description	<p>An open cut about 10m long orientated north-south, created by stoping. The gash in the hillside is about 20m deep and looks down into Parc No. 3 level. It has since been made safe with a viewing platform as part of the miner's trail (Frost and Thomas 1998). The 1998 survey described the condition of the asset as of "High archaeological and geological importance", with recommendations to "maintain in present condition" (ibid.).</p> <p>It was listed as Category A (national importance) in the 1998 assessment because it represents evidence of the probable earlier mining on the site and has been ascribed Category A (national importance) in the current assessment. It is not within the route or location of the proposed works and no further recommendations are given beyond avoidance.</p> <p>A viewing platform and information board is present at the location of this asset (Plate 04).</p>
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

Feature Number	04
Site name	Parc Lead Mine
PRN number	20689
Grid reference	SH 7874760149
Period	Post-medieval/Modern
Site type	Mine
Assessment category	C
Description	<p>A mine worked sporadically 19th century to the 1940s, with later investment in modern plant between 1950-63; structural remains date to later period and comprise concrete bases for machinery and buildings. The site has been largely destroyed during reclamation work (Frost and Thomas 1998) undertaken in the late 1970s (Bennett and Vernon 1991, 126), condition is described as "(F)eatures are generally overgrown with scrub and of low archaeological Importance. Main shafts have been made safe with bat-grilles; adits remain open and subject to vandalism & danger", with recommendations given as "(A)ssess for safety" (ibid.). It was listed as Category C (lesser significance) in the 1998 assessment and has been ascribed Category C (local importance) in the current assessment.</p> <p>This is a general PRN covering the whole Parc Mine site rather than a specific asset within the mine area.</p>
Impact	Slight
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Partial Watching Brief during intrusive groundworks outside the 1970's reclamation areas

Feature Number	05
Site name	Fucheslas Mine, Trefriw
PRN number	21597
Grid reference	SH78806030
Period	Modern
Site type	Lead Mine
Assessment category	B
Description	<p>General: a complex area of old workings, possibly dating back to the 17th century or earlier `first mentioned by name in 1819, consisting of a series of adits, now almost entirely obscured by forestry (Bennett and Vernon 1991, 29).The mine continued in use into the 20th century,</p> <p>It was listed as Category C (lesser significance) in the 1998 assessment and has been ascribed Category C (local importance) in the current assessment due to the small size of the feature. It is not within the route or location of the proposed works and no further recommendations are given beyond avoidance.</p> <p>No mine workings were noted in this area during the field survey as the area in dense forest.</p>
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

Feature Number	06
Site name	Level No.3 adit portal
PRN number	91576
Grid reference	SH78756015
Period	Modern
Site type	Level Adit
Assessment category	C
Description	<p>The Level No.3 adit portal is located at NGR SH7875760156 (Figure 02). The adit can be shown to have been operational from the time of the D'Eresby Mining Company works between 1884 and 1889, but extended by later operators (Bennett and Vernon 1991, 61).</p> <p>The portal is approximately 2.5m by 2.5m in size and appears to be constructed of concrete side walls with a base cast in-situ. Steel joists span the roof, with corrugated iron sheets behind them. Where corrugated sheets have corroded and fallen from the roof, the cast concrete roof above is exposed (Source: The Coal Authority)</p> <p>The concrete adit entrance was constructed during the 1950's by Llanrwst Mines Ltd. This was the main haulage level that led directly to the mill buildings that were demolished in the 1960's (Bennett and Vernon 1991,129).</p> <p>The portal entrance is gated and situated amongst dense vegetation (Plate 05). An area of collapse can be seen within the portal (Plate 06). The cascade below the adit is constructed during the 1970s reclamation project from concrete and stone around the portal entrance (Plate 07) and gabion baskets have been used further to the north to channel and contain the flow of water (Plate 08).</p>
Impact	Slight
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Archaeological Watching Brief during intrusive groundworks outside the 1970's reclamation areas

Feature Number	07
Site name	Level No. 4 adit portal
PRN number	91577
Grid reference	SH78736020
Period	Modern
Site type	Level Adit
Assessment category	C
Description	<p>Level No. 4 adit is located below and to the northwest of the Level No.3 adit (Figure 02). The adit can be shown to have been operational from the time of the <i>D'Eresby Mining Company</i> works between 1884 and 1889, but extended by later operators (Benett and Vernon 1991, 61). The brickwork was probably installed by Messrs. Brunner Mond at the beginning of the 20th Century.</p> <p>The floor level of this adit is approximately 8m lower than the floor level of Level No.3. The level is grided at the portal, flooded at its base and choked with rock debris to full height at 3.7 m. The portal is brick and masonry lined and is approximately 1.15 m wide by 1.8 m high. (Source: <i>The Coal Authority</i>).</p> <p>Difficulty of access has meant that it has not been possible to photograph this as part of the assessment however, a photographs of the adit entrance have been provided by The Coal Authority (Plate 09 & 10).</p>
Impact	Slight
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Archaeological Watching Brief during intrusive ground works outside the 1970s reclamation areas

Feature Number	08
Site name	Parc Spoil Heap Discharge
PRN number	91578
Grid reference	SH78716046
Period	Modern
Site type	Spoil Heap
Assessment category	C
Description	Assumed to be the outflow from an underground drainage system draining the reprofiled spoil heaps. It is known that the spoil heaps were landscaped in 1977 (Bennett & Vernon, 1991). It is likely that the structure seen at this location was installed at this time (Plate 11 & 12). A flow monitoring structure is to be located at this asset.
Impact	Slight
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	None – Area has been heavily landscaped

Feature Number	09
Site name	Parc Spoil Heap Surface Drain
PRN number	91579
Grid reference	SH7879860513
Period	Modern
Site type	Drain
Assessment category	D
Description	A modern drainage feature, with concrete elements. A flow monitoring structure is to be placed downstream of this asset (Plate 13).
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	None – Area has been heavily landscaped

Feature Number	10
Site name	Parc Spoil Heap Issue
PRN number	91580
Grid reference	SH78846071
Period	Modern
Site type	Drain
Assessment category	D
Description	Water issuing from the spoil heap. Modern concrete drainage structure (Plate 14). A flow monitoring structure is to be located near this asset.
Impact	Slight
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	None – modern drainage structure dating to the landscaping of the tailings in 1977.

Feature Number	11
Site name	'Toe drain' upstream of spoil heap issue
PRN number	91581
Grid reference	SH78836070
Period	Modern
Site type	Drain
Assessment category	D
Description	A modern drainage feature, with concrete elements (Plate 15). A flow monitoring structure is to be located near this asset.
Impact	Slight
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	None – modern drainage structure dating to the landscaping of the tailings in 1977.

Feature Number	12
Site name	Ffridd Sian Mine Smithy, Trefriw
PRN number	8816
Grid reference	SH78616044
Period	Modern
Site type	Blacksmith's Workshop
Assessment category	C
Description	Ruins of smithy located south of mine site, east of an adit, which is sited adjacent to east side of a forest track, within a Sitka Spruce compartment (Frost and Thomas 1998), with recommendations to "Maintain in present condition" (ibid.). It was listed as Category C (lesser significance) in the 1998 assessment and has been ascribed Category C (local importance) in the current assessment due to the small size of the feature. It is not within the location of the proposed works and no further recommendations are given beyond avoidance. This feature was not seen during the 2021 field survey.
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

Feature Number	13
Site name	Cilstent Adits
PRN number	8884
Grid reference	SH78746004
Period	Modern
Site type	Post Medieval Adit
Assessment category	C
Description	<p>Gated adit located to the eastern side of the forest road. Water still emits from the adit into which a corrugated tube has been fitted to direct the flow of water. Two collapsed adits and a shaft in the woods to the east (Frost and Thomas 1998). The 1998 survey described the condition of the asset as "Main adit has been treated as part of recent reclamation scheme", with recommendations to "maintain in present condition" (ibid.).</p> <p>It was listed as Category C (lesser significance) in the 1998 assessment and has been ascribed Category C (local importance) in the current assessment due to the small size of the feature. It is not within the route or location of the proposed works and no further recommendations are given beyond avoidance.</p> <p>Gated adit adjacent to the forest road, heavily overgrown during the 2021 survey (Plate 16).</p>
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

Feature Number	14
Site name	Adit No:2
PRN number	92868
Grid reference	SH7865759844
Period	Modern
Site type	Post Medieval Adit
Assessment category	C
Description	<p>Fenced off adit adjacent to the location of the Parc Mine Office (Feature 02). Believed to be entrance to adit No:2 from old maps of the mine site featured in Bennet & Vernon, 1991. An area of tailings is visible adjacent to the adit entrance (Plate 17).</p> <p>It is not within location of the proposed works and no further recommendations are given beyond avoidance.</p>
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

Feature Number	15
Site name	Capped Shaft
PRN number	92869
Grid reference	SH7862059876
Period	Modern
Site type	Post Medieval Mine Shaft
Assessment category	C
Description	<p>Capped shaft near the Parc Mine Office (Feature 02). Concrete capping structure over an old shaft. Could be an air shaft as one is mentioned in Frost and Thomas, 1998 as being in the area of adit No:2. (Plate 18)</p> <p>It is not within location of the proposed works and no further recommendations are given beyond avoidance.</p>
Impact	None
Recommendation for further assessment/evaluation	None
Recommendation for mitigatory measures	Avoidance

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

An archaeological assessment was undertaken at the former Parc Mine site, near Trefriw, Conwy, ahead of the construction of flow monitoring structures at Level No. 3 and No.4 adit portals and four locations around the Parc spoil heap. Mineral exploitation at the mine was noted to have taken place from the mid 19th century in a concerted manner, even though there is evidence for earlier activity based on the mineral exploitation activities of the landowning Wynn's of the Gwydir estate, dating back to at least the early 17th century. The surviving structures at the mine, mainly of modern date, were noted to have been recorded in Bennett and Vernon's 1991 *Mines of the Gwydyr Forest Part 3; Parc Mine, Llanrwst and Adjacent Setts*.

The field survey was carried out on 6th July 2021, in mostly dry but overcast conditions. The study area was examined, and the area surrounding it examined from publicly accessible areas. This involved an examination of the surface areas of the mine only, although much of the activity is known to have taken place in the adits that ran underground.

The study area was noted to consist of a steep wooded valley, the landscaped tailings are grassed over and can clearly be seen from the path north-south path running adjacent to them. No safe route was available to the base of Level No. 3 and No.4 adit portals though the gated concrete entrance to Level No. 3 adit portal was accessed via a gate off the main path. Kneebone Cutting was viewed from the visitor platform situated above the area. The old Parc Mine office is situated up a short track leading off from the main path around the mine site. The magazine is almost entirely obscured by vegetation and trees but can be found using GPS.

Parc Mine was noted to have been in an area that started mining in the 17th century, and the only lead mine of many in the wider Gwydir Forest mining field that continued to operate after the Second World War, not closing until 1956. It was the most extensive of these undertakings, and the largest provider of ore. The remains, despite the substantial clearance that has taken place in the years since the mine closed, are therefore a valuable survival of the most significant mine that operated in an industry that once dominated the Gwydir Forest area.

A total of 15 features were noted and are listed in the gazetteer above, of which five had been previously recorded and were noted on the Gwynedd HER, the remainder recorded as part of this survey, which incorporates earlier work carried out in 1991. One of these, Kneebone Cutting is considered to be of national importance, and the mine itself is

considered to be of regional importance as representing the significant lead mining industry in the Gwydir Forest.

4.2 Recommendations

The features that are due to be impacted upon by the proposed works were examined as part of the archaeological assessment. It is recommended that during the construction of flow monitoring structures at Level No. 3 and No.4 adit portals (Figure 01), that a partial **archaeological watching brief** is carried out during any intrusive groundworks associated with these structures outside of the 1970's reclamation area, and any work on them themselves. It is thought likely that structures associated with mining activity could be identified close to the adits, although it is thought unlikely that the risk to any currently unidentified heritage assets would be significant. However any potential archaeology identified should be recorded, and time should be allowed in the construction process for this. As the area to the North of the site was heavily landscaped in 1977 the likelihood of any significant archaeology being still extant is very slim. Therefore it is recommended that the flow monitoring structures constructed in these locations not be subject to further archaeological mitigation.

It is also considered that the design of the structures should take into account the historic nature of the setting and should be as visually unobtrusive as is reasonably possible in order that the visual impact on the mine and its setting is as limited as possible.

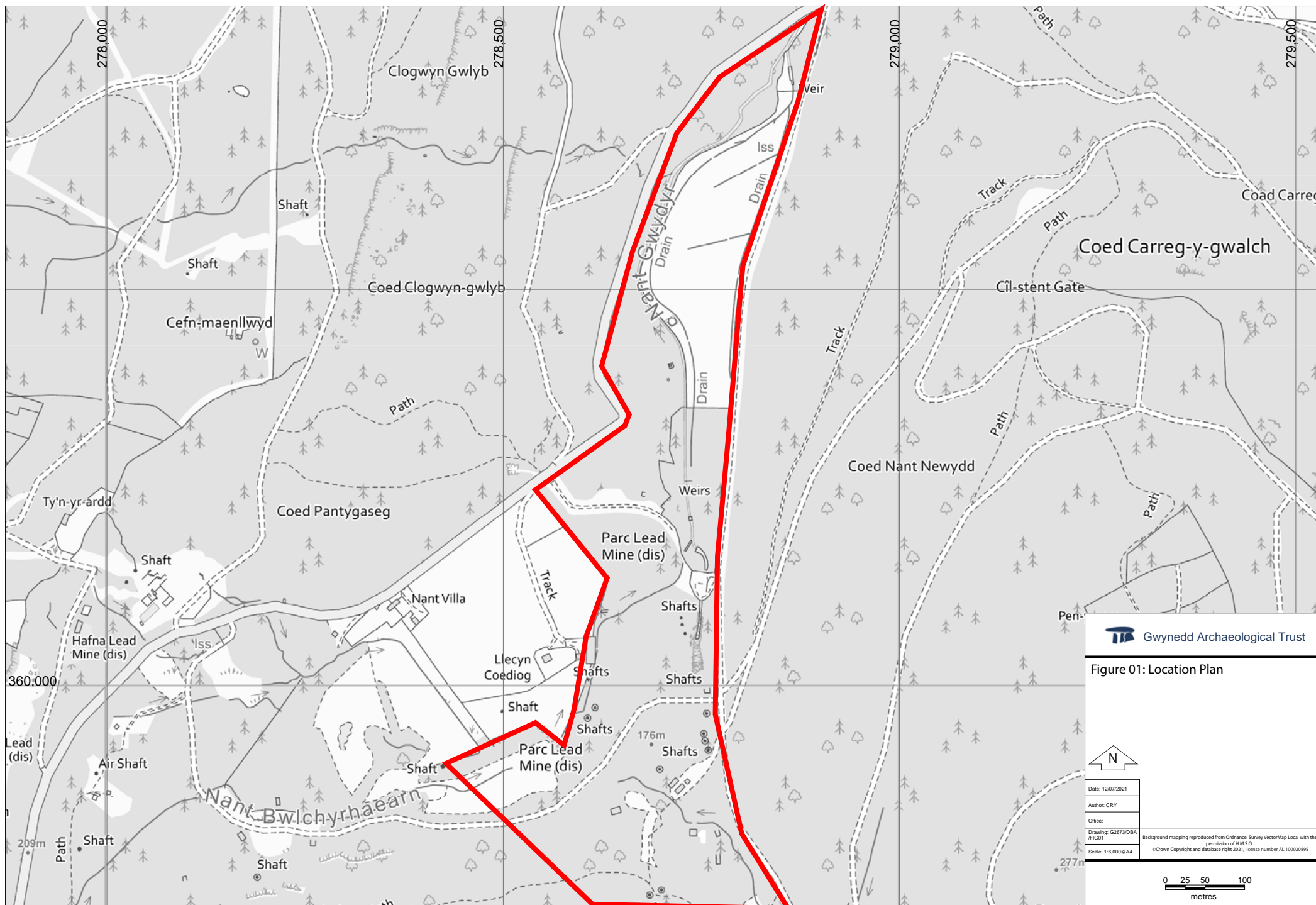
5 SOURCES CONSULTED

5.1 Primary Sources

1. British Geological Survey- Geology of Britain Viewer (Classic) –view online on 20th January 2021
2. Cranfield Soil and Agrifood Institute 2021 *Soilscapes*, seen at [Soilscapes soil types viewer - National Soil Resources Institute. Cranfield University \(landis.org.uk\)](https://landis.org.uk/soilscapes-soil-types-viewer) on 20th January 2021
3. Gwynedd Archives XM/Maps/5663 *Gwydir Demesne and Park Estate Map*
4. Gwynedd Archives *Parc Mine Plans*, British Geological Survey [not observed due to COVID 19 regulations].
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15. Historic England, 2015, *Management of Research Projects in the Historic Environment (MoRPHE)*
16. Royal Commission on Ancient and Historic Monuments of Wales, 2015, *Guidelines for digital archives*



 Gwynedd Archaeological Trust

Figure 01: Location Plan



Date: 12/07/2021

Author: CRY

Office:

Drawing: G2673/DBA

FIG01

Scale: 1:6,000@A4

Background mapping reproduced from Ordnance Survey VectorMap Local with the permission of H.M.S.O.
©Crown Copyright and database right 2021, license number AL 100020895

0 25 50 100
metres

Figure 02: Tithe Maps of
Trewydir, Llanrwst and Trefriw
and Bettws-Y-Coed



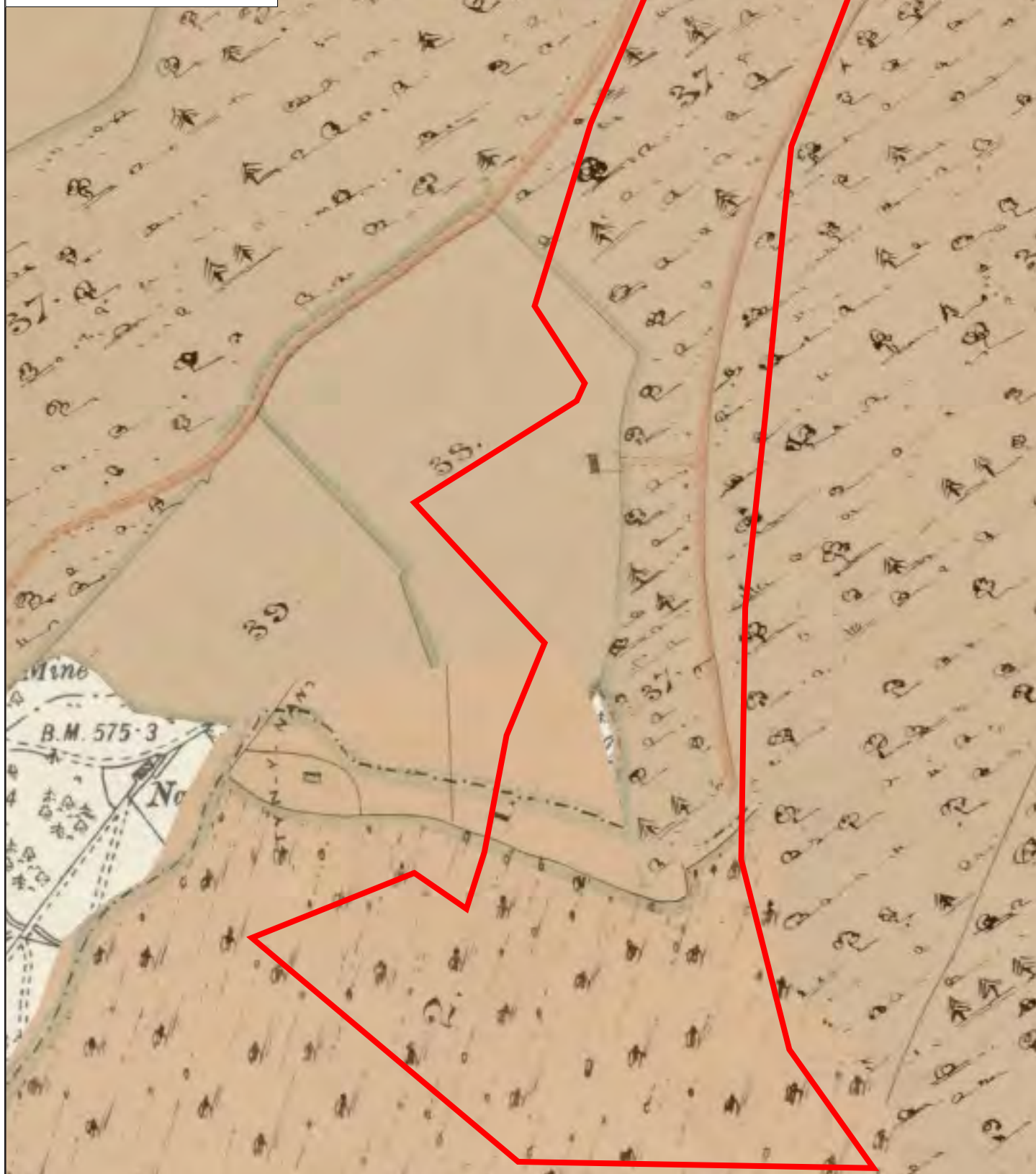
Date: 12/07/2021

Author: CRY

Office:

Drawing: G2673DBA

#IG02





Gwynedd Archaeological Trust

Figure 03: Reproduction of Ordnance Survey First Edition 25 Inch to 1-mile Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published 1889



Date: 12/07/2021

Author: CRY

Office:

Drawing: G2673.DBA

FIG03

Scale: 1:7,500 @ A4

0 125
metres

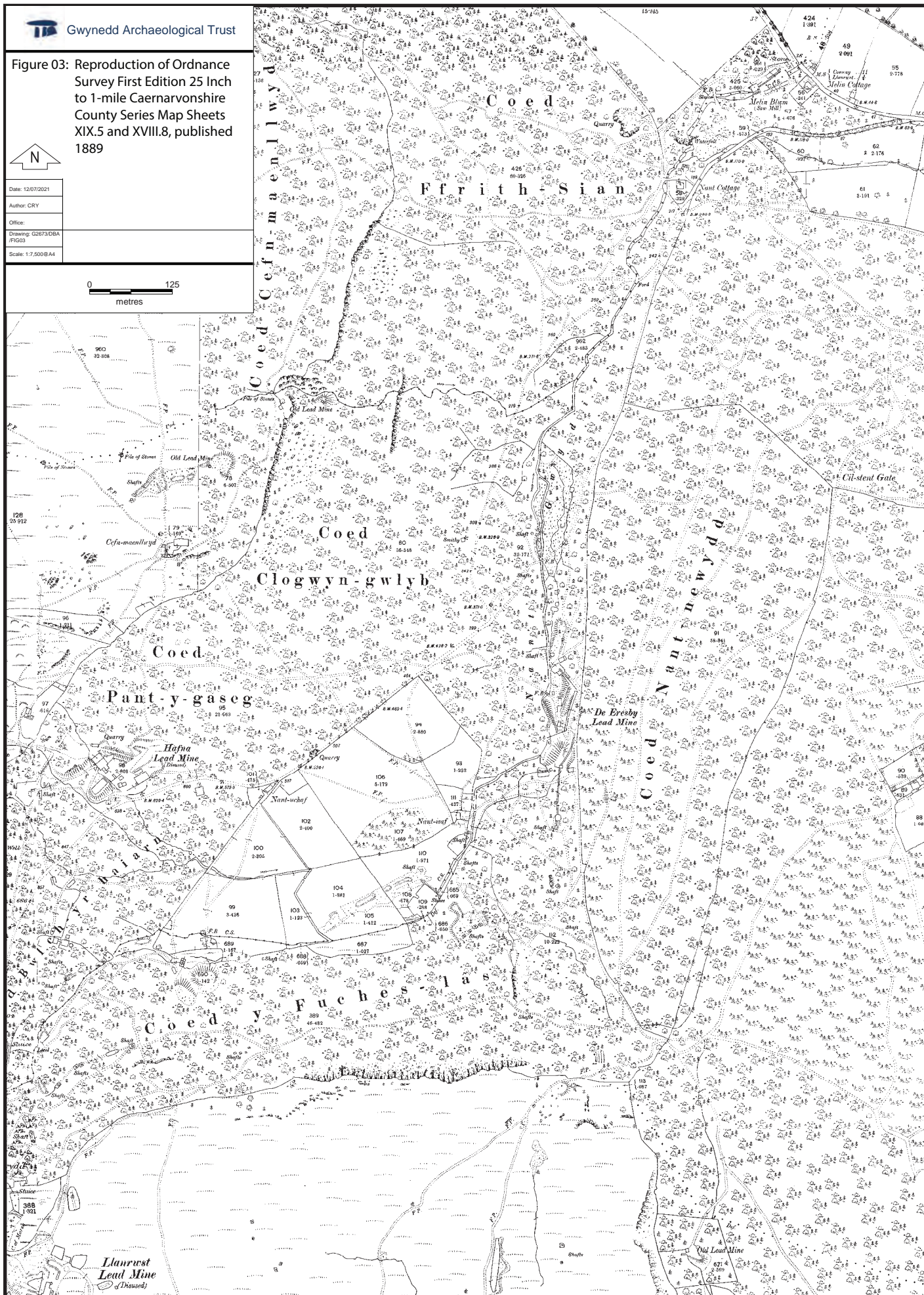




Figure 04: Reproduction of Ordnance Survey Secon Edition 25 Inch to 1-mile Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published 1900



Date: 12/07/2021

Author: CRY

Office:

Drawing: G2673.DBA

FIG04

Scale: 1:7,500@A4

0 125
metres

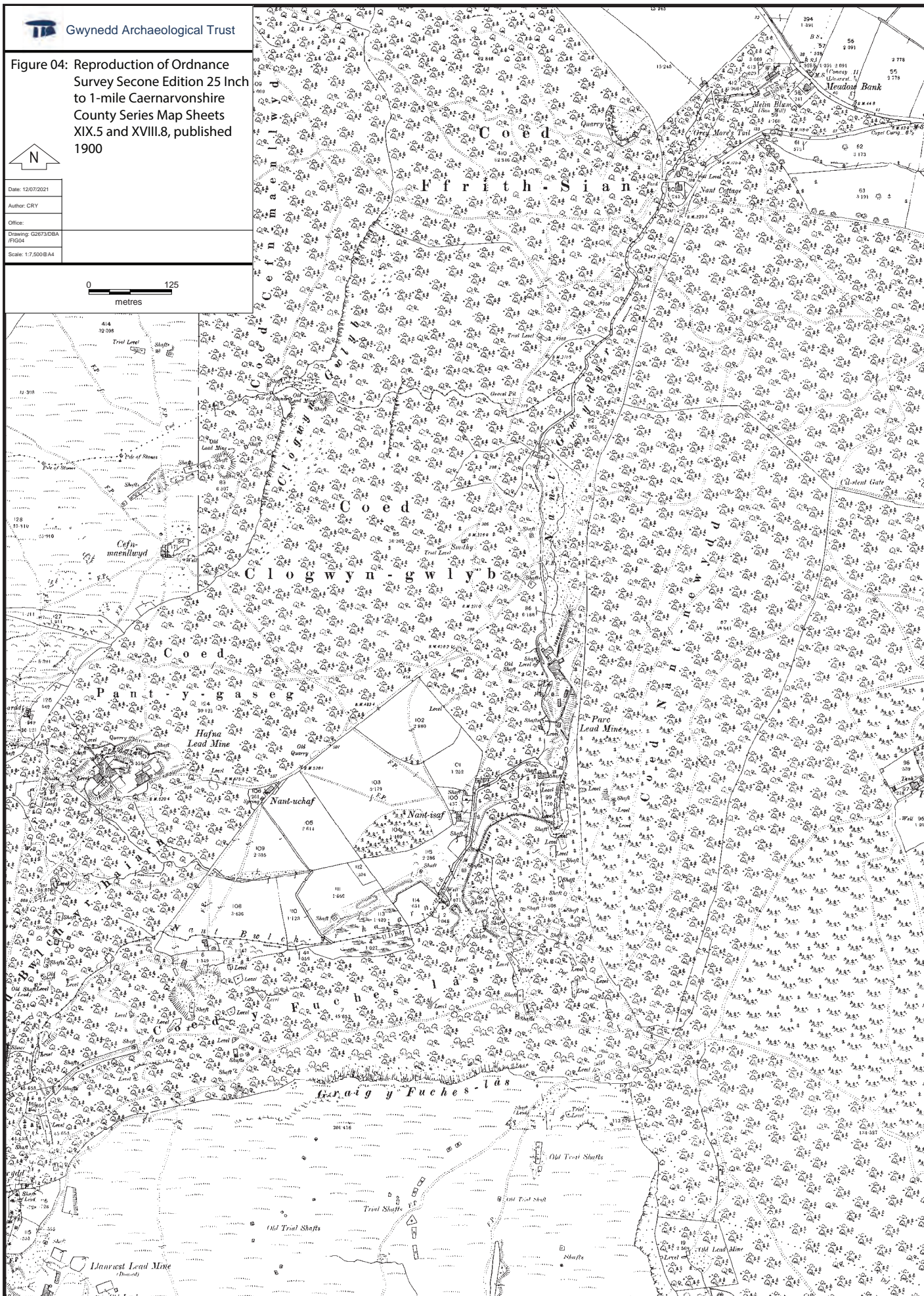




Figure 05: Reproduction of Ordnance Survey Third Edition 25 Inch to 1-mile Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published 1913



Date: 12/07/2021

Author: CRY

Office:

Drawing: G2673.DBA

FIG05

Scale: 1:7,500 (8.4)

0 125
metres

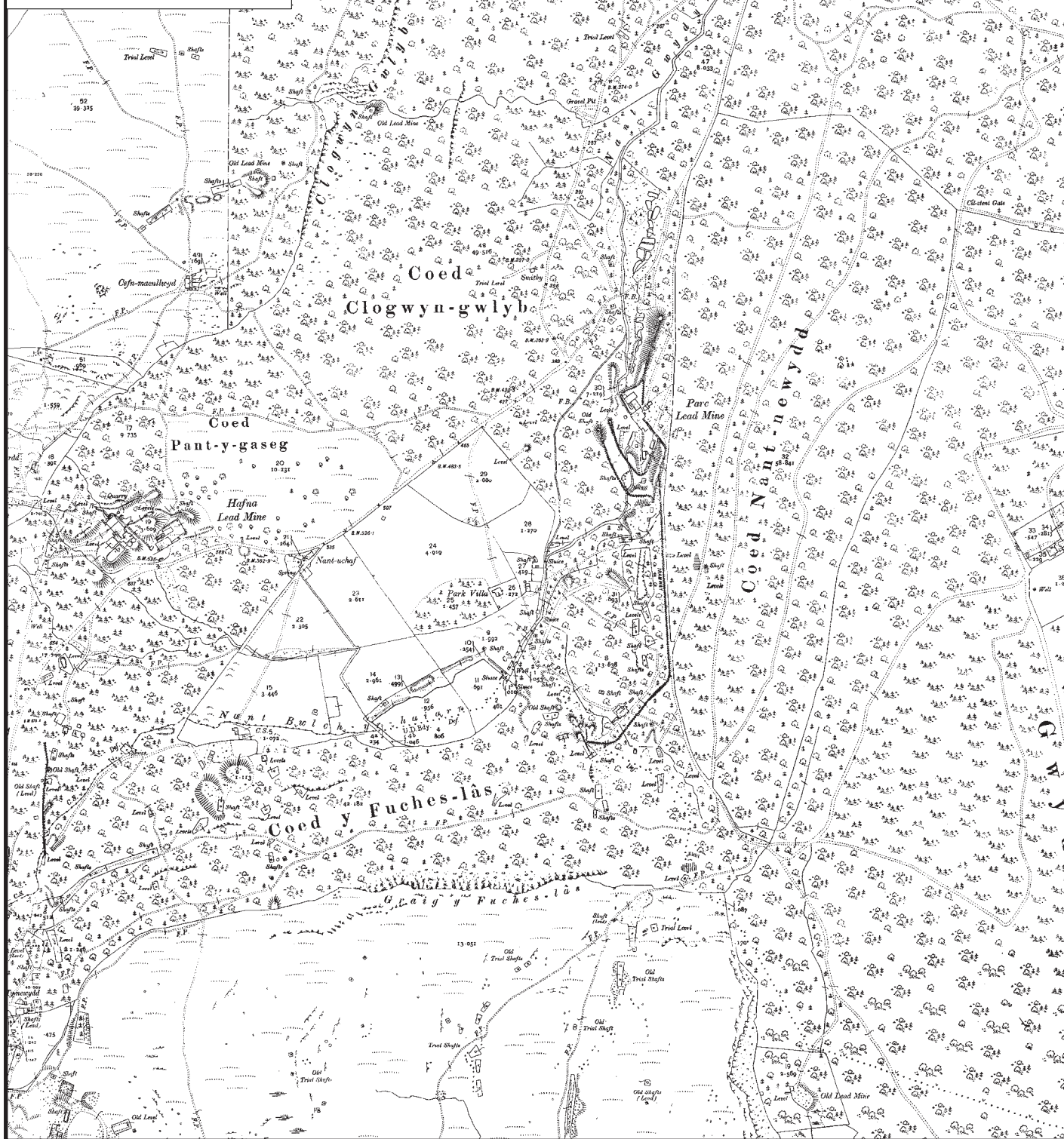




Figure 06: RAF AC31:H13:140 image 63
taken on the 16th April 1942

Date: 12/07/2021
Author: CRY
Office:
Drawing: G2673/DBA /FIG06

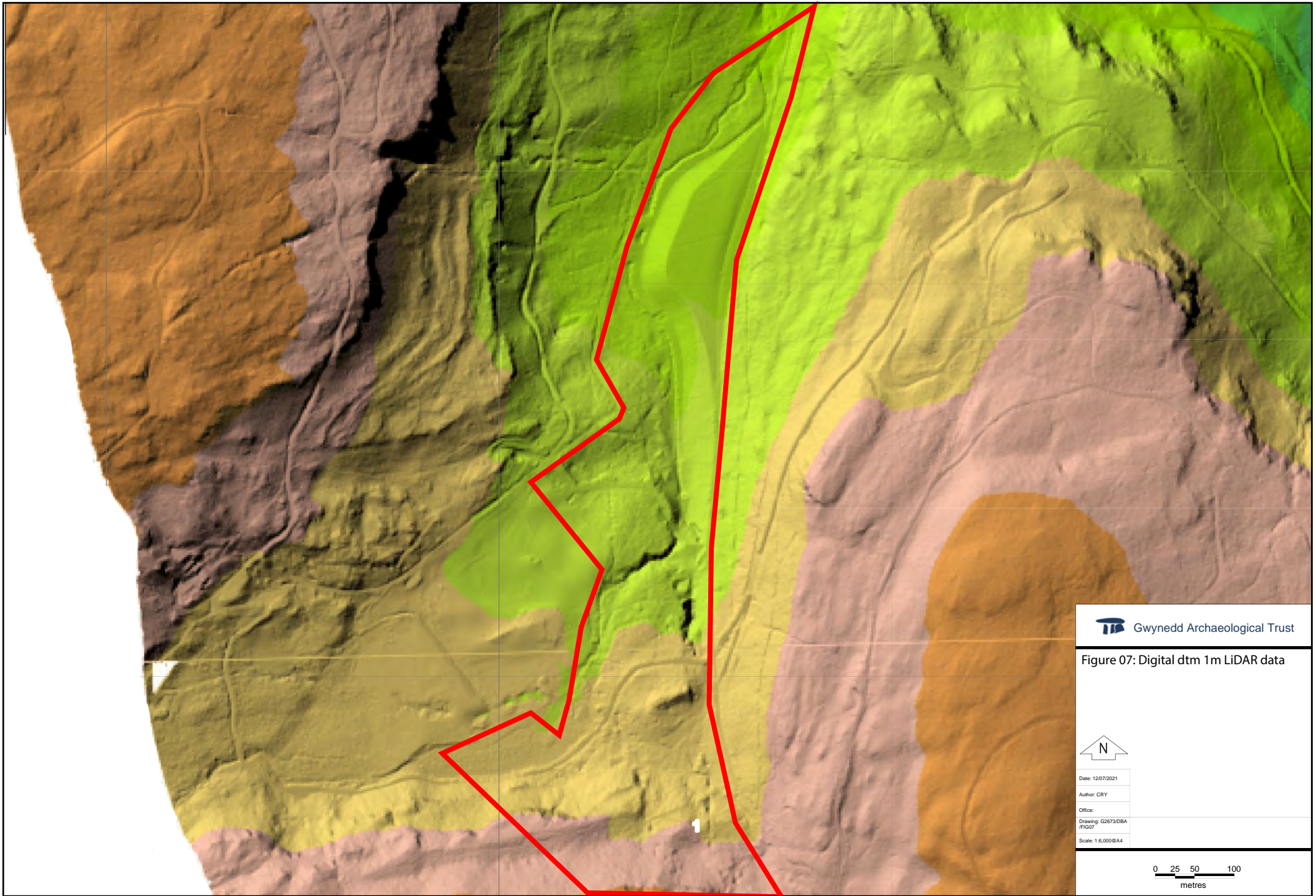


Figure 07: Digital dtm 1m LiDAR data



Date: 12/07/2021

Author: CRY

Office:

Drawing: G2673/DBA
/FIG07

Scale: 1:6,000@A4

0 25 50 100
metres

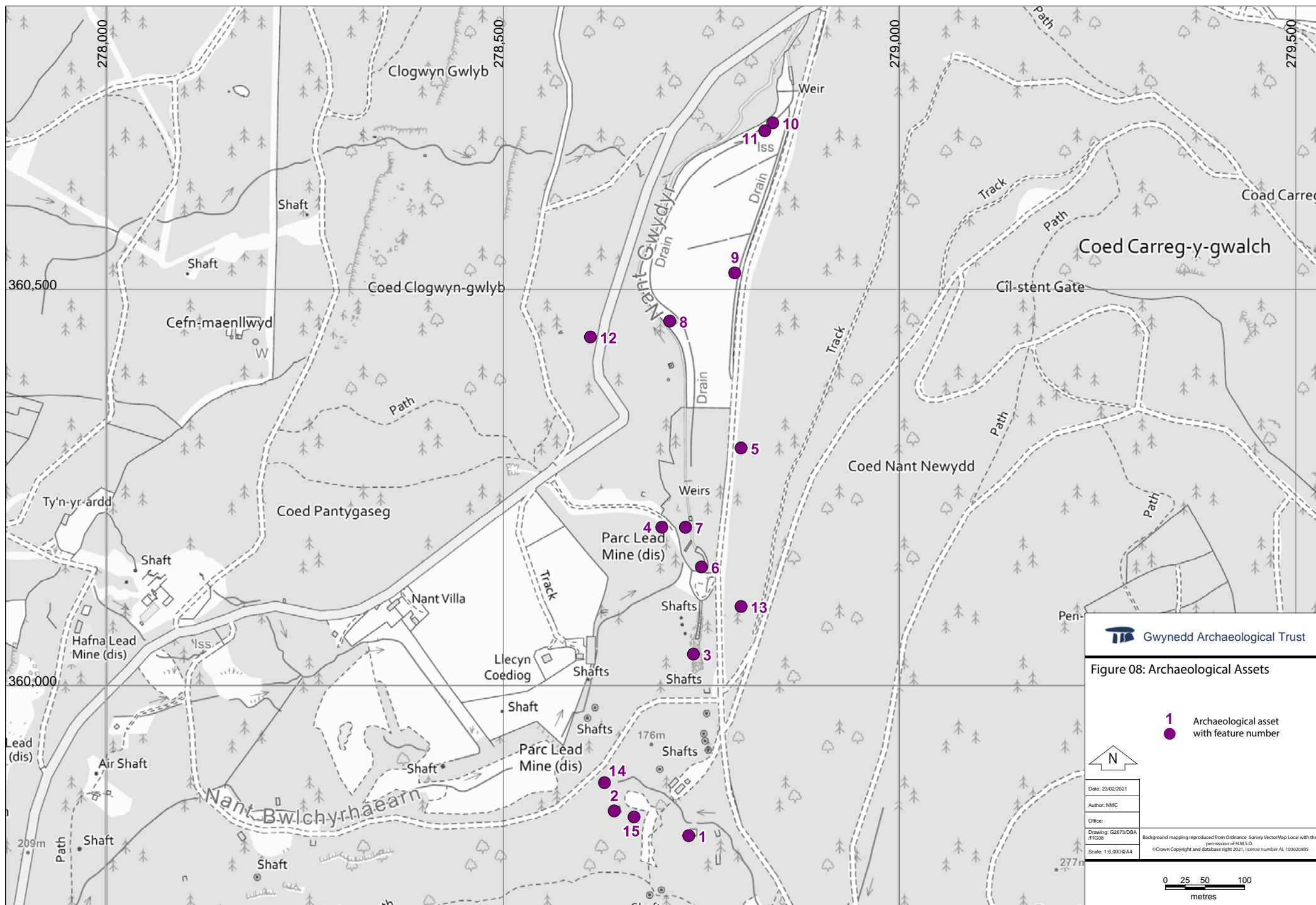




Plate 01: Magazine; scale Not used; view from NE (archive reference: G2673_031).



Plate 02: Parc Mine Office; scale Not used; view from SW (archive reference: G2673_028).



Plate 03: Parc Mine Office; scale Not used; view from SE (archive reference: G2673_029).



Plate 04: Kneebone cutting from viewing platform; scale Not used; view from N (archive reference: G2673_017).



Plate 05: Concrete weir at adit No:3; scale Not used; view from NE (archive reference: G2673_033).



Plate 06: View into adit No:3; scale Not used; view from N (archive reference: G2673_034).



Plate 07: Concrete weirs at adit No:3; scale Not used; view from E (archive reference: G2673_037).



Plate 08: View down from adit No:3; scale Not used; view from S (archive reference: G2673_035).



Plate 09: View of adit No:4 entrance portal (The Coal Authority)



Plate 10: View of adit No:4 portal and gabion basket cascade (The Coal Authority)



Plate 11: View to spoil heap discharge from top of spoil heap; scale Not used; view from ENE (archive reference: G2673_039).



Plate 12: Drainage channel where spoil heap discharge meets adit No:3 and No:4 discharge; scale Not used; view from N (archive reference: G2673_041).



Plate 13: Modern drain in field next to track; scale 1x1m; view from N (archive reference: G2673_038).



Plate 14: Drain from spoil heaps; scale 1x1m; view from NE (archive reference: G2673_044).



Plate 15: Drain from spoil heaps; scale Not used; view from NE (archive reference: G2673_043).



Plate 16: Grid covered entrance to adit/channel on track; scale Not used; view from W (archive reference: G2673_024).



Plate 17: Shaft behind Parc Mine Office and spoil tip - Adit No:2; scale Not used; view from N (archive reference: G2673_030).



Plate 18: Cover for shaft - Near to Parc Mine Office; scale 1x1m; view from SE (archive reference: G2673_026).

APPENDIX I

Gwynedd Archaeological Trust Written Scheme of Investigation

PARC MINE (G2673)

WRITTEN SCHEME OF INVESTIGATION FOR
DESK-BASED ASSESSMENT

Prepared for

The Coal Authority

January 2021



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

All GAT staff should sign their copy to confirm the project specification is read and understood and retain a copy of the specification for the duration of their involvement with the project. On completion, the specification should be retained with the project archive:

Name

Signature

Date

PARC MINE (G2673)

WRITTEN SCHEME OF INVESTIGATION FOR AN ARCHAEOLOGICAL ASSESSMENT

Prepared for *The Coal Authority*, January 2021

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1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been commissioned by The Coal Authority to undertake an archaeological assessment at the former Parc Mine site, near Trefriw, Conwy (NGR SH786606024; postcode LL27 0HX; [Figure 01](#)), ahead of the construction of flow monitoring structures at Level No. 3 and No.4 adits, as well as the surrounding area (Figure 02). Parc Mine is located in the Nant Gwydyr valley, approximately 1.6km southwest of Llanrwst and approximately 5km north of Betws-y-Coed. The site lies within the Snowdonia National Park on land managed by NRW on behalf of the Welsh Government Woodland Estate. The assessment will be undertaken in January 2021 and will be completed in accordance with the following guidance:

- *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* Version 1.1 (The Welsh Archaeological Trusts, 2018);
- *Guidelines for digital archives* (Royal Commission on Ancient and Historic Monuments of Wales, 2015);
- *Management of Archaeological Projects* (English Heritage, 1991);
- *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England, 2015);
- *Standard and Guidance for historic environment desk-based assessment* (Chartered Institute for Archaeologists, 2020);
- *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (Chartered Institute for Archaeologists, 2014)
- *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (Chartered Institute for Archaeologists, 2020);
- *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (Chartered Institute for Archaeologists, 2014); and
- *Understanding Historic Buildings: A Good to Good Recording Practice* (Historic England, 2016).

Gwynedd Archaeological Trust is certified to ISO 9001:2015 and ISO 14001:2015 (Cert. No. 74180/B/0001/UK/En) and is a Registered Organisation with the Chartered Institute for Archaeologists.

1.1 Aims and Objectives

The key aims and objectives are to undertake:

- a detailed breakdown of the known archaeology in the vicinity of the site;
- an assessment of previous land use compiled from an analysis of historical maps, aerial photographs and other archive materials;
- a listing of the heritage-related planning constraints that may affect the site;
- a ranking of the potential for archaeology of each of the archaeological periods to be found within the site; and
- provide recommendations for future intrusive survey and construction excavation activities on site (requirements that would need to be in place during these or similar activities).

This will be delivered in the form of a desk-based study with walkover and heritage asset gazetteer.

1.2 Monitoring Arrangements

The archaeological mitigation will be monitored by the Gwynedd archaeological Planning Service (GAPS); the content of this WSI and all subsequent reporting by GAT must be approved by GAPS prior to final issue.

1.3 Historic Environment Record

In line with the Gwynedd Historic Environment Record (HER) requirements, the HER will be contacted at the onset of the project to ensure that any data arising is formatted in a manner suitable for accession to the HER and follows the guidance set out in *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (The Welsh Archaeological Trusts, 2018). The HER will be informed of the project start date, location including grid reference, estimated timescale for the work, and further relevant information associated with the project.

The GAT HER Enquiry Number for this project is GATHER1365 and the Event PRN is 46012. The GAT HER will also be responsible for supplying Primary Reference Numbers (PRN) for any new assets identified and recorded.

Prior to submission of data to the HER on completion of the project, a bilingual event summary document will be prepared in *Microsoft Word* based on the format defined in section 4.2 of *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (Version 1.1).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The site is part of the wider industrial landscapel that includes the scheduled Hafna and Vale of Conwy mines (Scheduled Monuments 326 and 327 respectively) and is recorded in the regional Historic Environment Record as Parc Lead Mine Primary Reference Number (PRN) 20689.

Assets within or in proximity to the assessment area include:

PRN	Name	Type	Location (NGR)
8816	Ffridd Sian Mine Smithy, Trefriw	Blacksmiths Workshop	SH78616044
8883	Parc Mine, Kneebone Cutting	Mine	SH78746004
8884	Cilstent Adits	Post Medieval Adit	SH78806010
20689	Lead Mine, Parc	Lead Mine	SH78706020
21597	Fuchslas Mine, Trefriw	Lead Mine	SH78806030

An examination of the First to Third Edition 25-inch to 1-mile Ordnance Survey Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8 (published 1889, 1900 and 1913 respectively; cf. [Figures 04](#), [05](#) and [06](#)) shows the evolution of the mine infrastructure within that timeframe. On the First Edition map, the mine is listed as the *De Eresby Lead Mine*, visible as a shafts, waste tips, buildings and interlinked tracks. On the Second Edition Map, published eleven years later, it is now referred to as the *Parc Lead Mine* and the visible infrastructure is more extensive, including tramways and larger buildings. The Third Edition map is similar to the Second Edition, but there are more waste tips present.

3 METHODOLOGY

3.1 Introduction

Gwynedd Archaeological Trust will undertake an archaeological assessment at the former Parc Mine site, near Trefriw, Conwy, ahead of the construction of flow monitoring structures at Level No. 3 and No.4 adits (Figure 02), as well as the surrounding areas (Figure 03).

The Level No.3 adit portal is located at NGR SH78756015 ([Figure 02](#)) and is accessed by descending a vegetated bank adjacent to the N-S running forestry track from the Nant Gwydyr road. The original access to the car park and tourist information board/viewing point is currently provided with temporary Heras fencing following a collapse of ground along the line of the level in 2011. The portal (entrance to level No. 3) is approximately 2.5m by 2.5m in size and appears to be constructed of concrete side walls with a base cast in-situ (Source: *The Coal Authority*). Level No. 4 adit portal is located below and c.57m to the northwest of the Level No.3 adit at NGR SH78736020 ([Figure 02](#)). The floor level of this adit is approximately 8m lower than the floor level of Level No.3. The level is gridded at the portal, flooded at its base and choked with rock debris to full height at 3.7 m. The portal is brick and masonry lined and is approximately 1.15 m wide by 1.8 m high. The material choking the level is confined by the external portal grille, with debris to approximately half height at this point. The material appears to comprise well sorted angular cobbles and very coarse gravel, with some vegetation and leaf litter that appears to have been deposited when high flow conditions were present. The slope above the Level No.4 portal is steep with small (<5 m tall) pine trees present. The slope appears to comprise waste rock material (Source: *The Coal Authority*).

Additional flow monitoring structures are also proposed for the following assets:

- *Parc Spoil Heap Discharge*, located c.250m to the north of Level Nos. 3 and 4 adits, at NGR SH78716046; it is currently assumed by *The Coal Authority* outflow from an underground drainage system draining the reprofiled spoil heaps;
- *Parc Spoil Heap Surface Drain*, located at NGR SH78736020;
- *Parc Spoil Heap Issue*, located at NGR SH SH78846071; and
- 'Toe drain' upstream of spoil heap issue, located c.500m northeast of Level Nos. 3 and 4 adits at NGR SH78836070.

This assessment will involve a desk-based study incorporating a walkover survey and a heritage asset gazetteer.

3.2 Assessment (Desktop Study)

A desk-based assessment is defined as “a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage....Significance is to be judged in a local, regional, national or international context as appropriate” (ClfA 2020, 4).

The desk-based assessment will involve a study of the following resources:

1. The regional Historic Environment Register ((HER) Gwynedd Archaeological Trust, Craig Beuno, Ffordd y Garth, Bangor, Gwynedd LL57 2RT) will be examined for information concerning the mitigation area, defined as the Parc Mine site detailed in Figures 01 and 02. Examination of the core HER will be undertaken, including the 6-inch and 25-inch County Series Ordnance Survey maps and any secondary information held within the HER, including Bennett, J. & Vernon, R., 1995, *Mines of the Gwydyr Forest Part 3*, Gwyn, D., 1998, *Gwynedd Metal Mines Survey* and Frost, P. & Thomas, D. 1998 *Forest Enterprise Welsh Heritage Assets Survey*. All identified features will be mapped, described and added to a gazetteer of sites and the relative importance of any sites defined. All identified features will be mapped, described and added to a gazetteer of sites and the relative importance of any sites defined;
2. The National Monuments Record of Wales (Royal Commission on the Ancient and Historical Monuments of Wales, Plas Crug, Aberystwyth SY23 1NJ) will be checked for sites additional to the HER;
3. Aerial photographs from the National Monuments Record of Wales (Royal Commission on the Ancient and Historical Monuments of Wales, National Monuments Record of Wales, Plas Crug, Aberystwyth SY23 1NJ) will be examined for potential features. This will include 1946 RAF vertical aerial photographs;
4. The online catalogue search of the National Library of Wales (Penglais Rd, Aberystwyth SY23 3BU);
5. Archive data, including primary and secondary sources, historic maps and estate maps will be examined at the regional archives, if open and accessible. Archive data will include historic mapping such as the local tithe map and schedule;

6. Light Detection and Ranging (LiDAR) data will be examined from the Lle Geo-Portal at <http://lle.gov.wales/home> for information on potential surface features using digital terrain modelling and digital surface modelling;

3.3 Walkover Survey

A walkover survey will be undertaken that will incorporate the assessment area study area, as outlined red in Figures 01 and 02. The aim will be to visit and record known assets, including the Level No. 3 and No. 4 adits associated assets. The assets will be mapped and located in advance as part of the desk based assessment, using a combination of historic and GIS based data; this information will then be used to geo-locate assets, which will then be located and described on GAT pro-formas. The assets will then be added to the overall gazetteer and their relative importance defined, along with any newly identified assets. Only features that can be safely accessed will be directly recorded. A handheld GPS unit will also be used during the walkover survey. A photographic record will be maintained in RAW format using a digital SLR set to maximum resolution (Nikon D3000; resolution: $3,872 \times 2,592$ [10.2 effective megapixels]) and photographic metadata table will be completed and included in the report. Photographic images will be archived in TIFF format; the archive numbering system will start from G2673_001.

3.4 Gazetteer of Features

A gazetteer will be compiled for any existing and newly identified sites, based on information sourced from the desk based assessment and field survey; the gazetteer will be prepared in the following format and will include:

Feature Number	
Site name	
PRN number	
Grid reference	
Period	
Site type	
Assessment category	
Description	
Impact	
Recommendation for further assessment/evaluation	
Recommendation for mitigatory measures	

The following categories will be used to define the assessment category of the archaeological asset:

Category A - Sites of National Importance.

Scheduled Monuments, Listed Buildings of grade II* and above, as well as those that would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both. Sites that are scheduled or listed have legal protection, and it is recommended that all Category A sites remain preserved and protected *in situ*.

Category B - Sites of regional or county importance.

Grade II listed buildings and sites which would not fulfil the criteria for scheduling or listing, but which are nevertheless of particular importance within the region. Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

Category C - Sites of district or local importance.

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened. Category C sites nevertheless merit adequate recording in advance of damage or destruction.

Category D - Minor and damaged sites.

Sites that are of minor importance or are so badly damaged that too little remains to justify their inclusion in a higher category. For Category D sites, rapid recording, either in advance of or during destruction, should be sufficient.

Category E - Sites needing further investigation.

Sites, the importance of which is as yet undetermined and which will require further work before they can be allocated to categories A - D are temporarily placed in this category, with specific recommendations for further evaluation.

The impact of the proposed works on any asset will be identified using the following impact criteria, defined either as *none, slight, unlikely, likely, significant, considerable* or *unknown* as follows:

None:

There is no construction impact on this asset.

Slight:

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

Unlikely:

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

Likely:

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

Significant:

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

Considerable:

The total removal of an asset or its partial removal which would effectively destroy the remainder of the site.

Unknown:

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

The existing gazetteer prepared for Frost, P. & Thomas, D. 1998 Forest Enterprise Welsh Heritage Assets Survey will be reviewed and the entries relevant to the assessment study area will be re-assessed.

3.5 Working Project Archive Selection Strategy and Data Management Plan

As stated in Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (Chartered Institute for Archaeologists, 2020), para. 3.3.1, “Project specifications, research designs or similar documents should include a project- specific Selection Strategy and a Data Management Plan. The Chartered Institute for Archaeologists states that “(I)t is widely accepted that not all the records and materials collected or created during the course of an Archaeological Project require preservation in perpetuity. These records and materials constitute the Working Project Archive which will be subject to Selection, in order to establish what will be retained for long-term curation” (<https://www.archaeologists.net/selection-toolkit>). The working project archive in this instance will comprise digital data including photographic data, documentation and written data, as well as paper records, including project pro-formas. The Data Management Plan will be stored on a project specific form in the GAT project database (format: *Microsoft Access*) and the Selection Strategy will be based on a GAT pro-forma (format *Microsoft Word*; cf. [Appendix III](#)) that will be appended to the final report.

This working project archive data will be processed as follows:

1. Pro-formas: all cross referenced and scanned for digital archiving;
2. Photographic Metadata: cross-referenced with all pro-formas and completed in *Microsoft Excel*;

Information from these will be used to compile the project report. The physical archive will be stored in a designated project folder and the location confirmed in the Data Management Plan; the digital dataset will be stored on a dedicated Trust server, with the location confirmed in the Data Management Plan via a specific hyperlink. External datasets for the HER and RCAHMW are as defined in the dissemination strategy below.

The project report will include the following:

1. Front cover;
 2. Inner cover;
 3. Figures and Plates List;
 4. Non-technical summary (Welsh/English);
 5. Introduction;
 6. Methodology;
 - i. Desk-based assessment;
 - ii. Field survey;
 7. Results;
 - a. Desk based assessment;
 - i. Location and geological summary;
 - ii. Statutory and non-statutory designations;
 - iii. Environmental remains and soil morphology;
 - iv. Historical and archaeological background;
 - v. Cartographic evidence;
 - vi. Artefact potential;
 - vii. Aerial photographs and LiDAR;
 - b. Field survey;
 - c. Gazetteer of features;
 8. Conclusions and recommendations;
 - a. Conclusion;
 - b. Table of sites and recommendations;
 9. Acknowledgements;
 10. Bibliography;
 - a. Primary sources;
 - b. Secondary sources;
 11. Figures; inc.:
 - location plan;
 - historic mapping;
 - location plan with identified features.
 12. Plates; inc.
 - Illustrative examples from the field survey
 13. Appendix I (approved written scheme of investigation);
 14. Appendix II (Sites listed on GAT Historic Environment Record);
 15. Appendix III (Definition of mitigation terms);
 16. Appendix IV (Photographic metadata - field survey);
 17. Appendix V (Selection Strategy)
- Back cover.

Illustrations will include plans of the location of the study area and archaeological sites. Historical maps, when appropriate and if copyright permissions allow, will be included.

The following dissemination and archiving of the report and digital dataset will be applied:

- A digital report will be provided to the client and GAPS (draft report then final report);
- A digital report will be provided to the regional Historic Environment Record; this will be submitted within six months of project completion (final report only), along with a digital dataset comprising an Event PRN summary. The report and dataset will be submitted in accordance with the required standards set out in *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (Version 1.1); and
- A digital report and digital archive dataset will be provided to Royal Commission on Ancient and Historic Monuments, Wales (final report only), in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. The dataset will be prepared in the format required by RCAHMW and will include:
 - Photographic metadata (Microsoft Access);
 - Photographic archive (TIFF format);
 - Project Information form (Excel);
 - File Information form (Excel) – Microsoft Word report text final;
 - File Information form (Excel) – Photographic metadata (general);
 - File Information form (Excel) – Adobe PDF report final; and
 - File Information form (Excel) - Photographic metadata (detail).

4 PERSONNEL

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section and undertaken by a team of project archaeologists. The project archaeologists will be responsible for the desk based assessment and field survey, as well as Gwynedd Archaeological Planning Service liaison and client liaison. The project archaeologists will be responsible for completing the field survey pro-formas and the archive itemised above. The project archaeologists will also be responsible for submitting a draft final report to the project manager for review and approval. The reports will then be submitted as per the arrangements defined in the data management plan.

5 HEALTH AND SAFETY

The GAT Project Archaeologist(s) will be CSCS certified. Copies of the site specific risk assessment will be supplied to the client prior to the start of the field survey. All GAT staff attending will be issued with required personal safety equipment, including high visibility jacket, steel toe-capped boots and hard hat.

Due to the location and terrain, specific allowance will need to be made and appropriate control measures applied, including for the following:

- Access on foot only, with frequent overgrowth, over uneven terrain;
- Intermittent phone signal; and
- Adverse weather, including falling branches in high winds.

6 SOCIAL MEDIA

One of the key aims in the GAT mission statement is to improve the understanding, conservation and promotion of the historic environment in our area and inform and educate the wider public. To help achieve this, GAT maintains an active social media presence and seeks all opportunities to promote our projects and results. With permission, GAT would like the opportunity to promote our work on this scheme through our social media platforms. This could include social media postings during our attendance on site as well as any postings to highlight results. In all instances, approval will be sought from client prior to any postings.

7 INSURANCE

7.1 Public/Products Liability

Limit of Indemnity- £5,000,000 any one event in respect of Public Liability

INSURER Aviva Insurance Limited

POLICY TYPE Public Liability

POLICY NUMBER 24765101CHC/UN/000375

EXPIRY DATE 21/06/2021

7.2 Employers Liability

Limit of Indemnity- £10,000,000 any one occurrence.

The cover has been issued on the insurers standard policy form and is subject to their usual terms and conditions. A copy of the policy wording is available on request.

INSURER Aviva Insurance Limited

POLICY TYPE Employers Liability

POLICY NUMBER 24765101 CHC / UN/000375

EXPIRY DATE 21/06/2021

7.3 Professional Indemnity

Limit of Indemnity- £5,000,000 in respect of each and every claim

INSURER Hiscox Insurance Company Limited

POLICY TYPE Professional Indemnity

EXPIRY DATE 22/07/2021

8 SOURCES CONSULTED

1. Bennett, J. & Vernon, R., 1995, *Mines of the Gwydyr Forest Part 3*;
2. Chartered Institute for Archaeologists, 2014, *Standard and guidance for historic environment desk-based assessment* (Chartered Institute for Archaeologists, 2020);
3. Chartered Institute for Archaeologists, 2014, *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*
4. Chartered Institute for Archaeologists, 2020, *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*
5. Chartered Institute for Archaeologists, 2014, *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*
6. English Heritage, 1991, *Management of Archaeological Projects (MAP2)*
7. Frost, P. & Thomas, D. 1998 *Forest Enterprise Welsh Heritage Assets Survey* (CPAT Report 284).
8. *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* Version 1.1 (The Welsh Archaeological Trusts, 2018);
9. *Guidelines for digital archives* (Royal Commission on Ancient and Historic Monuments of Wales, 2015);
10. Gwyn, D., 1998, *Gwynedd Metal Mines Survey* (GAT Report 291); and
11. Historic England, 2015, *Management of Research Projects in the Historic Environment (MoRPHE)*
12. Royal Commission on Ancient and Historic Monuments of Wales, 2015, *Guidelines for digital archives*

FIGURE 01

Parc Mine Site Location Plan. Scale: as shown. Source: *The Coal Authority*

Figure 1: Location of Parc Mine Site

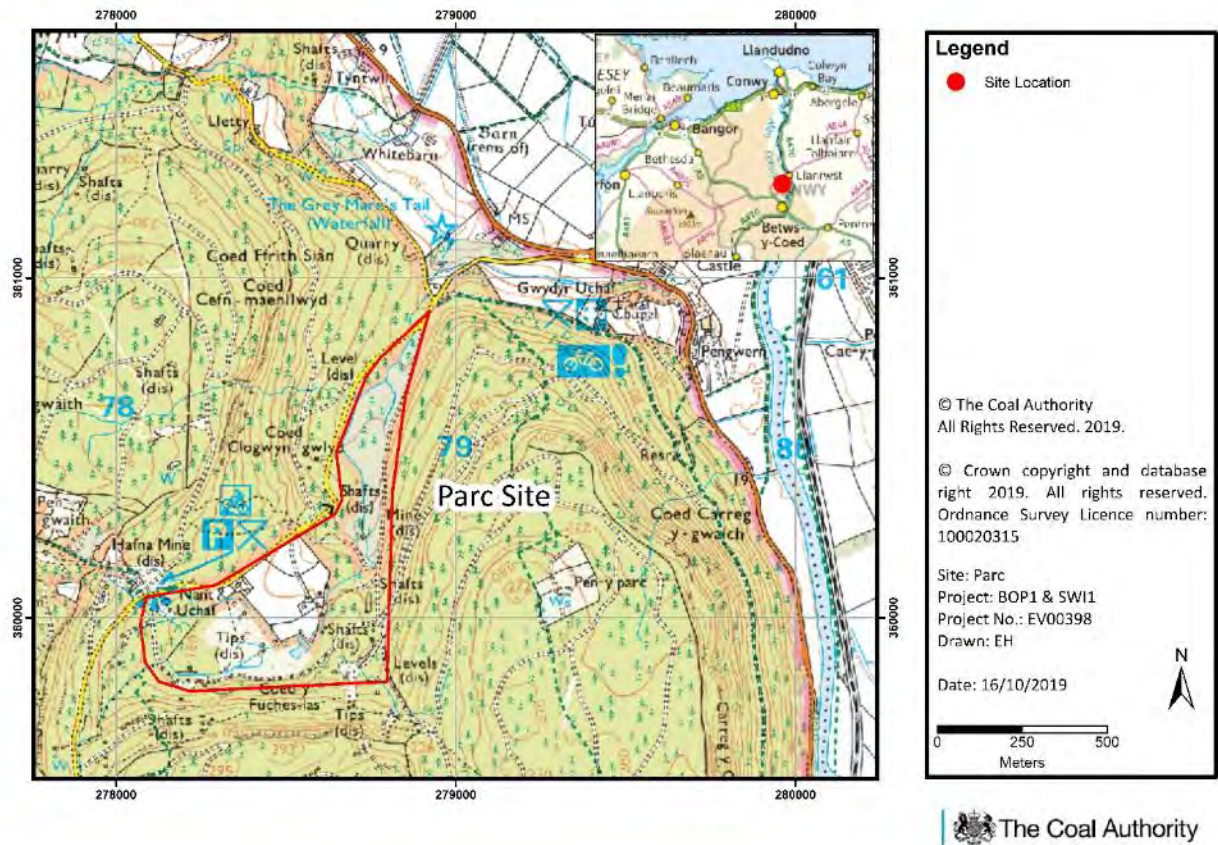


FIGURE 02

Site Overview, showing the location of Level No.3 and Level No.4 portals and Llyn Fuches Las. Scale: as shown. Source: *The Coal Authority*

Figure 2: Site Overview, showing the location of Level No.3 and Level No.4 portals and Llyn Fuchas Las

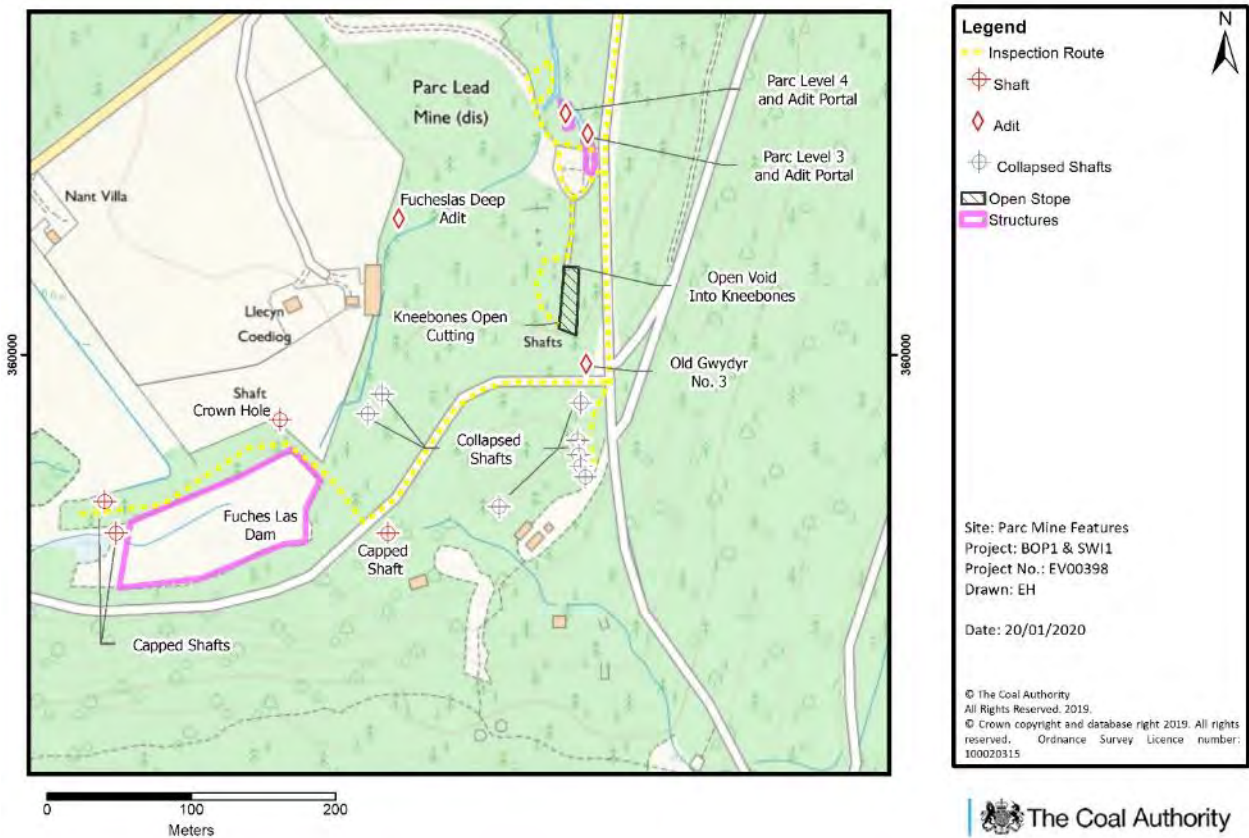


FIGURE 03

Proposed location of flow monitoring structures Scale: not shown.

Source: *The Coal Authority*

Figure 3: Proposed location of flow monitoring structures

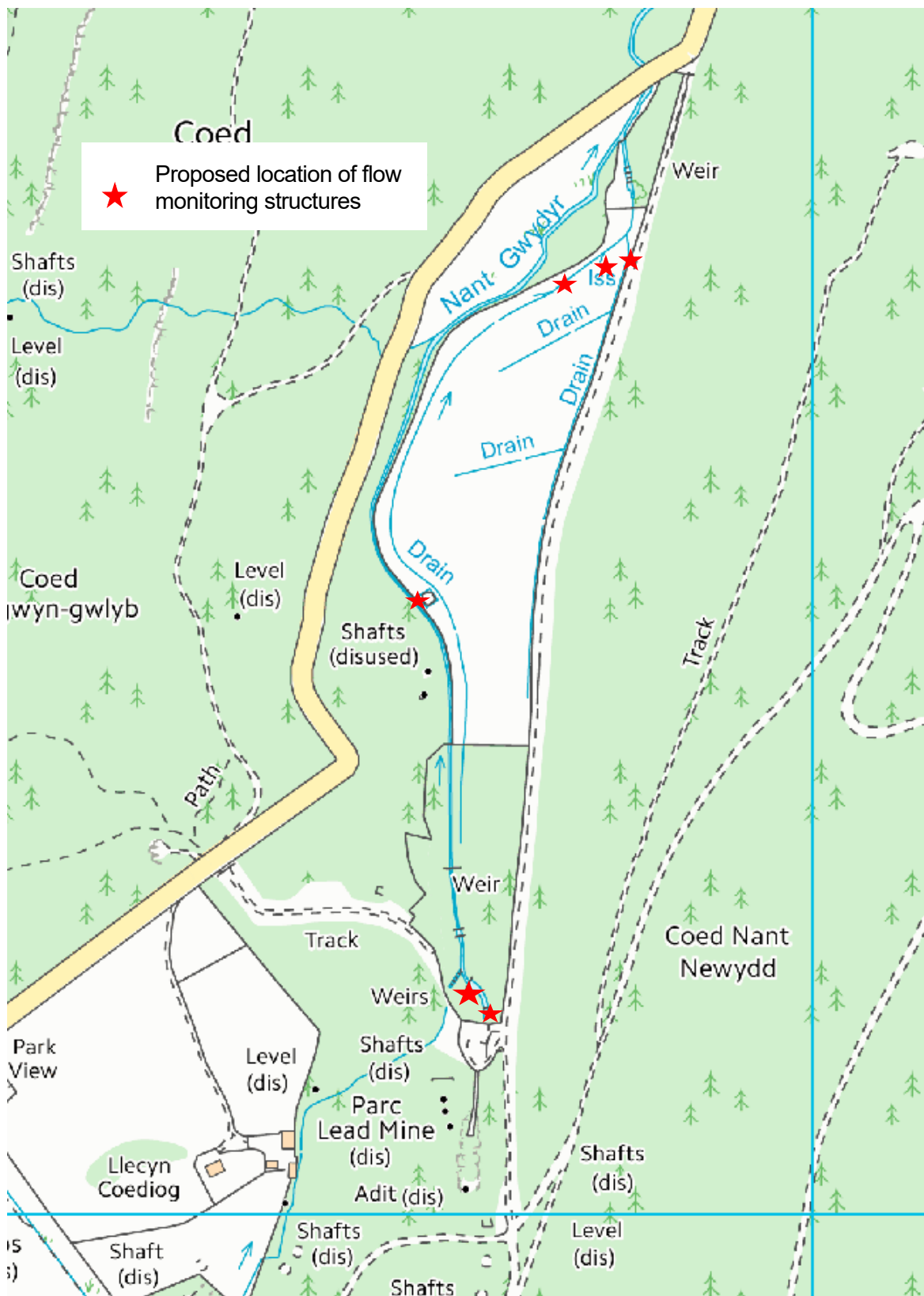


FIGURE 04

**Reproduction of Ordnance Survey First Edition 25-inch to 1-mile
Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published
1889. Scale 1:7500@ A4.**

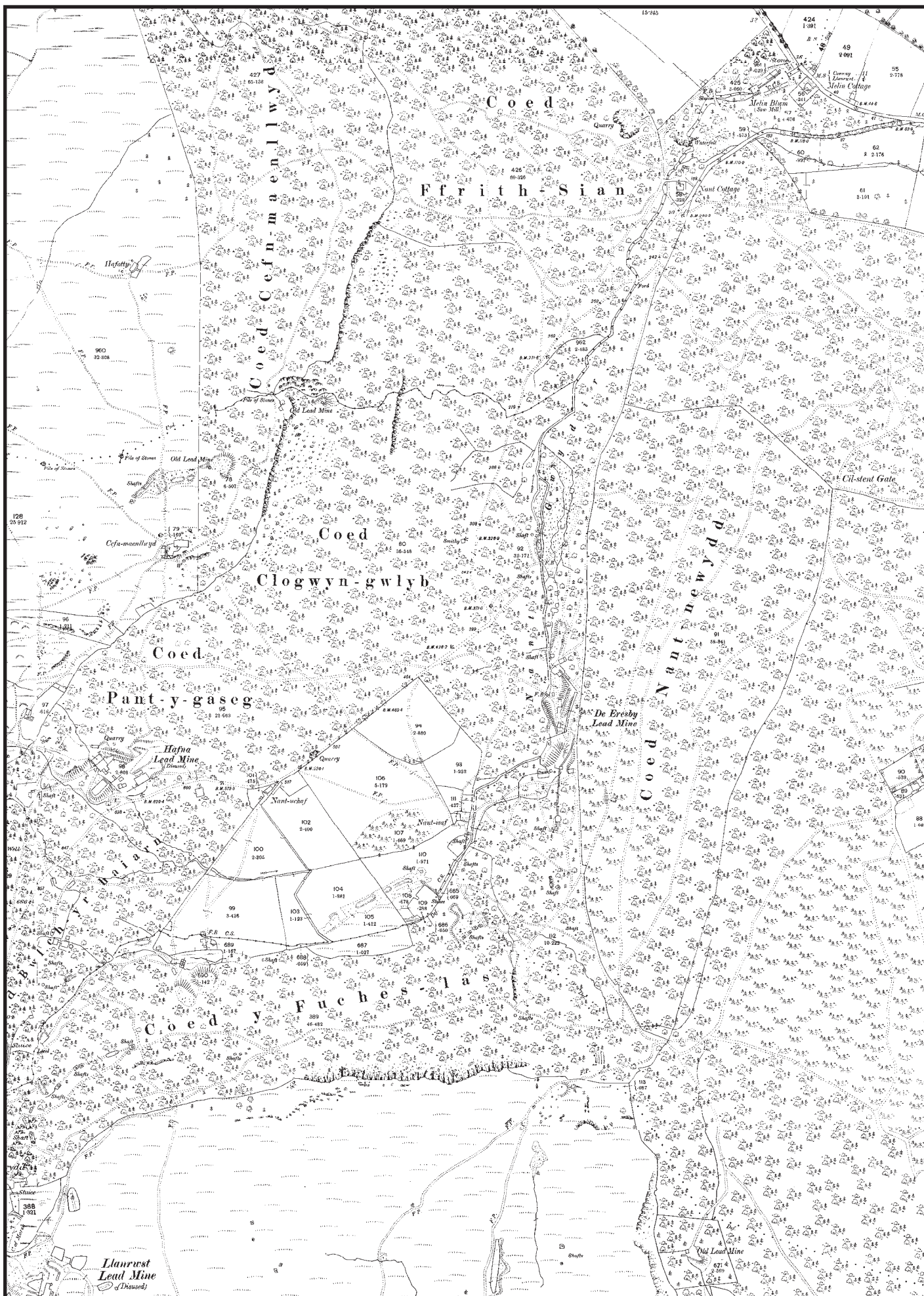


FIGURE 04: Reproduction of Ordnance Survey First Edition 25-inch to 1-mile Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published 1889. Scale 1:7500@ A4.

FIGURE 05

**Reproduction of Ordnance Survey Second Edition 25-inch to 1-mile
Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published
1900. Scale 1:7500@ A4.**

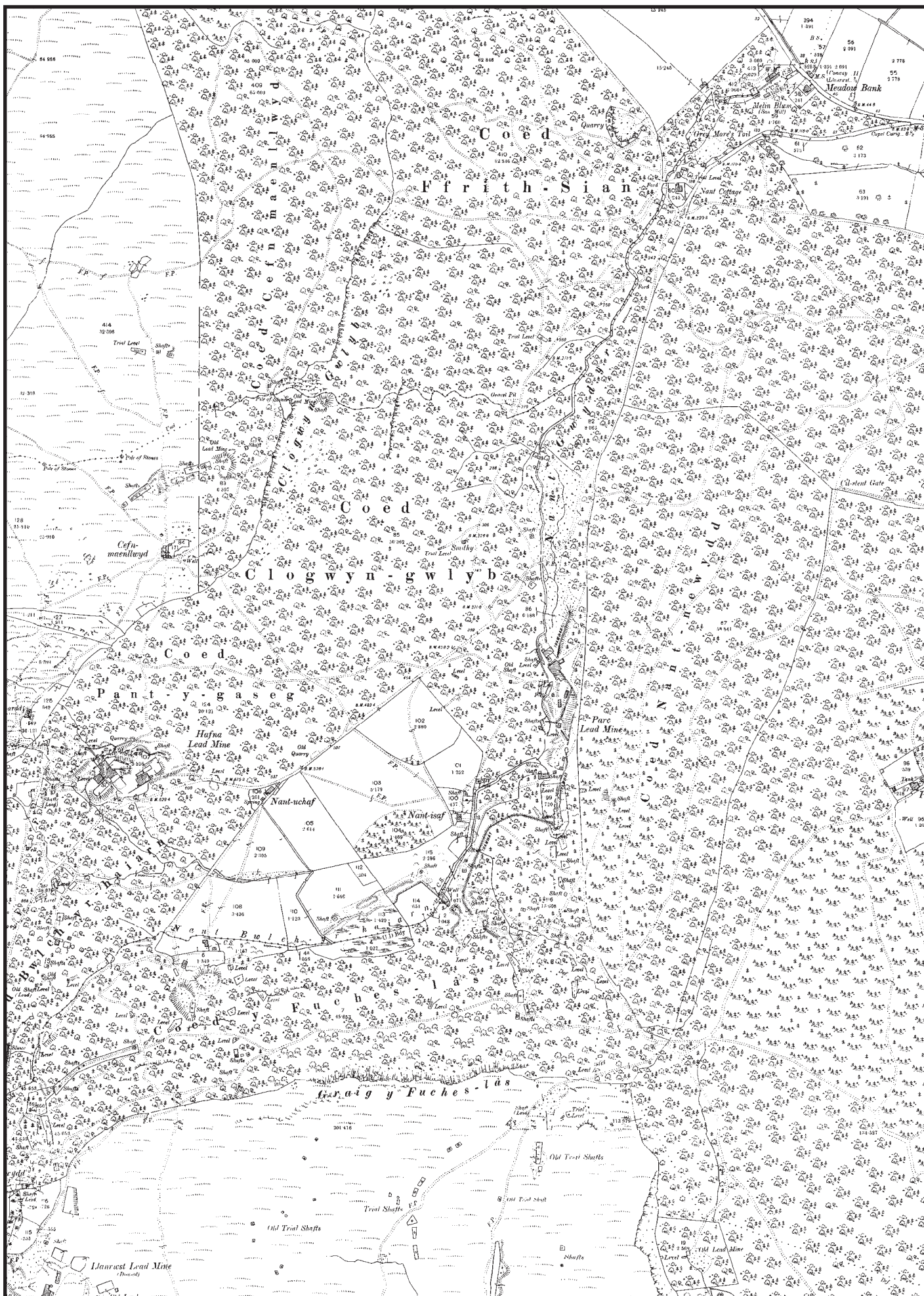


FIGURE 05: Reproduction of Ordnance Survey Second Edition 25-inch to 1-mile Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published 1900. Scale 1:7500@ A4.

FIGURE 06

**Reproduction of Ordnance Survey Third Edition 25-inch to 1-mile
Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published
1913. Scale 1:7500@ A4.**

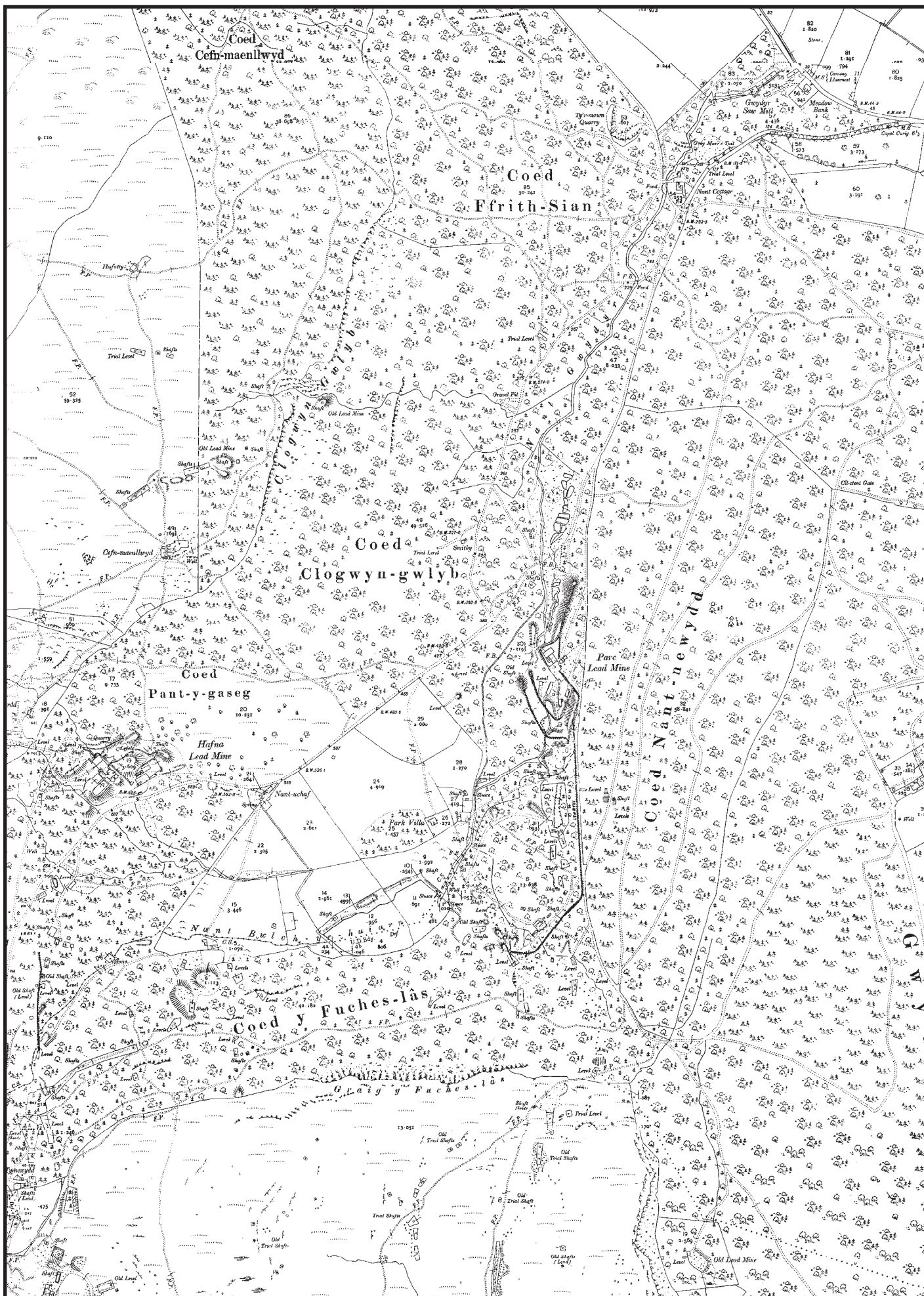


FIGURE 06: Reproduction of Ordnance Survey Third Edition 25-inch to 1-mile Caernarvonshire County Series Map Sheets XIX.5 and XVIII.8, published 1913. Scale 1:7500@ A4.

APPENDIX I

Gwynedd Archaeological Trust basic recording pro-forma

YMDDIRIEDOLAETH ARCHAEOLEGOL GWYNEDD ARCHAEOLOGICAL TRUST		
BASIC RECORDING FORM	Project name	Project number
Feature name		Feature Number
NGR		
Description		
Recommendations for further assessment		
Photographic record numbers		
Digital		
	Visit date	Visit by

APPENDIX II

Gwynedd Archaeological Trust photographic metadata pro-forma



Digital Photographic Record

Include main context numbers for each shot, drawing numbers for sections and any other relevant numbers for cross referencing.

Delete any unwanted photos **immediately** from the camera.

Regularly upload photographs to computer.

[illegible]

APPENDIX III

Gwynedd Archaeological Trust Selection Strategy

G2673_Parc_Mine

18/01/2021 v1.0

Selection Strategy

Project Information

Project Management

Project Manager	John Roberts
Archaeological Archive Manager	John Roberts
Organisation	Gwynedd Archaeological Trust

Stakeholders		Date Contacted
Collecting Institution(s)		
Project Lead / Project Assurance		
Landowner / Developer		
Other		

Resources

Resources required

Describe the resources required to implement this Selection Strategy, particularly if unusual resources are required.

Context

Describe below the context of this Selection Strategy. You should refer to:

- The aims and objectives of the project;
- Local Authority guidance (including the brief);
- Research Frameworks;
- The repository collection development policy and/or deposition policy;
- Material-specific guidance documents.

Note: This section may be copied from your Project Design/WSI to ensure all Stakeholders receive this context information.

1 – Digital Data

Stakeholders

Name the individual(s) responsible for the Digital Data Selection decisions (i.e. Archaeological Archive Manager, Project Manager, Collections Curator).

Selection

Location of Data Management Plan (DMP)

Selection of digital data elements should be considered in your project's DMP. For the purpose of the Selection Strategy, you can either copy the selection section of your DMP below, or attach it as an appendix to this document. Please indicate here if the DMP is attached.

P:\Project Database

The selection strategy in your DMP should:

- 1.1 Define what digital data will be selected for inclusion in the archaeological archive, how this will be done, and why. Do not forget to consider that specialists may have digital data that should be included in the archaeological archive.
- 1.2 Identify the selection review points during the project (i.e. project planning, data gathering, analysis and reporting and archive compilation).
- 1.3 Reference all relevant standards, policies or guidelines (e.g. digital repository deposition requirements) and specialist advice sought.
- 1.4 Identify any selection decisions that differ from standard guidelines and explain why.

De-Selected Digital Data

The procedure for dealing with De-selected digital data and what specialist advice informed this process should be recorded in your DMP. Please copy this information here or attach your DMP as an appendix to this document.

tbc

Amendments

Detail any amendments to the above selection strategy here.

Date	Amendment	Rationale	Stakeholders

2 – Documents

Stakeholders

Name the individual(s) responsible for the Documents Selection decisions (i.e. Archaeological Archive Manager, Project Manager, Repository Representative).

Selection

Describe your Selection Strategy for the Documents elements of the archaeological archive. To do this you must:

- 2.1 Define which documents will be selected for inclusion in the archaeological archive, how this will be done, and why. Do not forget to consider that specialists may have documents that should be included in the archaeological archive.
- 2.2 Identify the selection review points during the project (e.g. project planning, data gathering, analysis and reporting and archive compilation).
- 2.3 Reference all relevant standards, policies or guidelines (e.g. digital repository deposition requirements) and specialist advice sought.
- 2.4 Identify any selection decisions that differ from standard guidelines and explain why.

De-Selected Documents

Describe the procedure for dealing with De-selected material and what specialist advice has informed this procedure.

Amendments

Detail any amendments to the above selection strategy here.

Date	Amendment	Rationale	Stakeholders

3 – Materials

Note: This step should be completed for each material component of the archaeological archive. Copy this table for the various materials as required, providing the 'Material Type' and a section identifier (eg. '3.1') for each.

Material type

Section 3.

Stakeholders

Name the individual(s) responsible for the Materials Selection decisions (i.e. Archaeological Archive Manager, Project Manager, Repository Representative).

Selection

Describe your Selection Strategy for each material type and or object type. To do this you must:

- 3.1 State the Selection Strategy you are applying to each category of material, how this will be done, and why.
- 3.2 Identify the selection review points during the project (e.g. project planning, data gathering, analysis and reporting and archive compilation).
- 3.3 Reference all relevant standards, policies or guidelines (e.g. thematic, period, and regional, Research Frameworks, repository deposition policies) and specialist advice sought.
- 3.4 Identify any selection decisions that differ from standard guidelines and explain why.

The Materials Selection Template may be useful in structuring this section.

Uncollected Material

If you are practising selection in the field, describe the process that will be applied. To do this you must:

- Detail how you will characterise, quantify and record all uncollected material on site.
- Explain how you will dispose of, or re-distribute, uncollected material.

De-Selected Material

Describe what you will do with the de-selected material. All processed material should have been adequately recorded before de-selection.

Amendments

Detail any amendments to the above selection strategy here.

Date	Amendment	Rationale	Stakeholders

Materials Selection Template

This table may be inserted into Section 3 of the main [Selection Strategy Template](#) to help present differing selection strategies for different material types

Find Type	Selection Strategy	Stakeholders	Review Points

APPENDIX II

Sites listed on Gwynedd Archaeological Trust Historic Environment Record

Primary Reference Number	Period	Name	Type	Community Status	
4662	BRONZE AGE	Bronze Palstave, Findspot (HERWALES_GAT)	FINDSPOT	Trefriw	
24057	POST MEDIEVAL	Felin Blwm, Trefriw (HERWALES_GAT)	WATER MILL	Trefriw	
4620	POST MEDIEVAL	Tithe Barn, W of Llanrwst (HERWALES_GAT)	TITHE BARN	Trefriw	
8813	POST MEDIEVAL	Ore Hopper, Vale of Conway Mine (HERWALES_GAT)	ORE BIN	Trefriw	
8850	POST MEDIEVAL	Bryn Eisteddfod Mill, Trefriw (HERWALES_GAT)	MILL	Trefriw	
56483	POST MEDIEVAL	Building, Ty'n-yr-ardd (HERWALES_GAT)	BUILDING	Trefriw	
8796	POST MEDIEVAL	Hafna Processing Mill, Betws-y-Coed (HERWALES_GAT)	CRUSHING MILL	Trefriw	Scheduled Monument
21597	POST MEDIEVAL	Fuchclas Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
21601	POST MEDIEVAL	Mine, Gamfa Fawr, Gwydyr Forest (HERWALES_GAT)	LEAD MINE	Betws-y-Coed	
21591	POST MEDIEVAL	Felin Blwm, Trefriw (HERWALES_GAT)	LEAD WORKS	Trefriw	
21594	POST MEDIEVAL	Ffrith Hafotty Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
21570	POST MEDIEVAL	Coed Bwlch Yr Haiarn Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
21568	POST MEDIEVAL	Clogwyn Gwlyb Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
20686	POST MEDIEVAL	Lead Mine, D'eresby Consols, Gwydyr Forest (HERWALES_GAT)	LEAD MINE	Betws-y-Coed	
4663	ROMAN	Roman Objects, Findspot (HERWALES_GAT)	FINDSPOT	Trefriw	
21664	POST MEDIEVAL	Pant Yr Ewig Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
5633	POST MEDIEVAL	Cannon Stone, Pont y Pair (HERWALES_GAT)	ROCK CANNON	Trefriw	
21680	POST MEDIEVAL	Rhafna Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
56484	POST MEDIEVAL	Weir, W of Meadowbank (HERWALES_GAT)	WEIR	Trefriw	
21681	POST MEDIEVAL	Rhaiadrwst Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
8797	POST MEDIEVAL	Mill, Vale of Conway Mine (HERWALES_GAT)	CRUSHING MILL	Trefriw	
21696	POST MEDIEVAL	Tynyrardd Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
8814	MODERN	Office, Vale of Conway Mine (HERWALES_GAT)	MINE OFFICE	Trefriw	
9046	POST MEDIEVAL	Hafna Mine Buildings, Trefriw (HERWALES_GAT)	BUILDING	Trefriw	
11334	POST MEDIEVAL	Nant-isaf Cottage, SW of Llanrwst (HERWALES_GAT)	COTTAGE	Trefriw	Listed Building
20685	POST MEDIEVAL	Lead Mine, Vale of Conwy (HERWALES_GAT)	LEAD MINE	Trefriw	Scheduled Monument
9044	POST MEDIEVAL	Ffridd Sian Trial Level, Trefriw (HERWALES_GAT)	LEVEL	Trefriw	
9041	POST MEDIEVAL	Pen Y Ffridd Quarry Building, Trefriw (HERWALES_GAT)	BUILDING	Trefriw	
8851	POST MEDIEVAL	Bryn Eisteddfod/Vale of Conway Mine Building, Betws-y-Coed (HERWALES_GAT)	BUILDING	Betws-y-Coed	
8818	POST MEDIEVAL	Tan Yr Eglwys Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw	
8816	POST MEDIEVAL	Ffridd Sian Mine Smithy, Trefriw (HERWALES_GAT)	BLACKSMITHS WORKSHOP	Trefriw	
8812	MODERN	Parc Mine Office, Betws-y-Coed (HERWALES_GAT)	MINE OFFICE	Betws-y-Coed	
9100	POST MEDIEVAL	Nant Uchaf, Trefriw (HERWALES_GAT)	BUILDING	Trefriw	
8964	POST MEDIEVAL	Pen Y Ffridd Building, Trefriw (HERWALES_GAT)	BUILDING	Trefriw	
8961	POST MEDIEVAL	Pant Yr Ewig Mine Lower Adit, Trefriw (HERWALES_GAT)	ADIT	Trefriw	
8884	POST MEDIEVAL	Cilstent Adits, Cilstent Adits (HERWALES_GAT)	ADIT	Cilstent Adits	
8862	MODERN	Hafna Mill Workshops/Stores/Mine Office, Trefriw (HERWALES_GAT)	BUILDING	Trefriw	

8858	POST MEDIEVAL	Gwydyr Estate, Cilstent Gate (HERWALES_GAT)	GATEWAY	Trefriw
8855	POST MEDIEVAL	Gwaynllifion Deep Adit Cabin, Betws-y-Coed (HERWALES_GAT)	INDUSTRIAL BUILDING	Betws-y-Coed
9047	POST MEDIEVAL	Bryn Eisteddfa Mine Building, Betws-y-Coed (HERWALES_GAT)	BUILDING	Betws-y-Coed
9051	POST MEDIEVAL	Newtons Shaft, Betws-y-Coed (HERWALES_GAT)	SHAFT	Betws-y-Coed
8986	POST MEDIEVAL	Gwaynllifion Shafts Iii, Betws-y-Coed (HERWALES_GAT)	SHAFT	Betws-y-Coed
9028	POST MEDIEVAL	Pen Y Ffridd Shaft Iv, Trefriw (HERWALES_GAT)	SHAFT	Trefriw
9030	POST MEDIEVAL	Pen Y Ffridd Shaft Ii, Trefriw (HERWALES_GAT)	SHAFT	Trefriw
8815	POST MEDIEVAL	Pant Yr Ewig Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
9032	POST MEDIEVAL	Tan Yr Eglwys Level Iv, Trefriw (HERWALES_GAT)	LEVEL	Trefriw
8817	POST MEDIEVAL	Rhaiadyrwst Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
9034	POST MEDIEVAL	Tan Yr Eglwys Level Ii, Trefriw (HERWALES_GAT)	LEVEL	Trefriw
8819	POST MEDIEVAL	Pen Y Ffridd Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
8821	POST MEDIEVAL	High Hafna Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
8822	POST MEDIEVAL	Coed Ffrith Sian Shafts and Levels, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
20153	POST MEDIEVAL	Pen y Ffridd Slate Quarry, Trefriw (HERWALES_GAT)	SLATE QUARRY	Trefriw
8852	MODERN	High Hafna Compressor Shaft, Trefriw (HERWALES_GAT)	CANDIDATE TERM	Trefriw
20160	POST MEDIEVAL	Slate Quarry, Gwydir (HERWALES_GAT)	SLATE QUARRY	Trefriw
8857	POST MEDIEVAL	Ancaster Estate Deer Park Wall, Betws-y-Coed (HERWALES_GAT)	PARK WALL	Betws-y-Coed
20680	POST MEDIEVAL	Lead Mine, Bryn Eisteddfod (HERWALES_GAT)	LEAD MINE	Betws-y-Coed
8859	POST MEDIEVAL	Pen-y-parc, Gwydir (HERWALES_GAT)	BUILDING	Trefriw
20683	POST MEDIEVAL	Lead Mine, Bwlch Garw (HERWALES_GAT)	LEAD MINE	Trefriw
8883	POST MEDIEVAL	Parc Mine, Kneebone Cutting (HERWALES_GAT)	MINE	Trefriw
20687	POST MEDIEVAL	Lead Mine, Bryn Y Fawnog (HERWALES_GAT)	LEAD MINE	Trefriw
8960	POST MEDIEVAL	Pant Yr Ewig Mine Dressing Floor, Trefriw (HERWALES_GAT)	DRESSING FLOOR	Trefriw
20688	POST MEDIEVAL	Lead Mine, Hafna (HERWALES_GAT)	LEAD MINE	Trefriw
8962	POST MEDIEVAL	Hafodty Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
20689	POST MEDIEVAL	Lead Mine, Parc (HERWALES_GAT)	LEAD MINE	Trefriw
8983	POST MEDIEVAL	Gwaynllifion Shafts Xii, Betws-y-Coed (HERWALES_GAT)	SHAFT	Betws-y-Coed
20691	POST MEDIEVAL	Lead Mine, Ffridd Sian (HERWALES_GAT)	LEAD MINE	Trefriw
9027	POST MEDIEVAL	High Hafna Reservoir I, Trefriw (HERWALES_GAT)	RESERVOIR	Trefriw
20693	POST MEDIEVAL	Lead Mine, Cefn Maenllwyd (HERWALES_GAT)	LEAD MINE	Trefriw
9029	POST MEDIEVAL	Pen Y Ffridd Shaft I, Trefriw (HERWALES_GAT)	SHAFT	Trefriw
21015	POST MEDIEVAL	Lead Trial, Tan Yr Eglwys (HERWALES_GAT)	TRIAL MINE	Trefriw
9031	POST MEDIEVAL	Pen Y Ffridd Shaft Iii, Trefriw (HERWALES_GAT)	SHAFT	Trefriw
21016	POST MEDIEVAL	Lead Level, Llanrhychwyn (HERWALES_GAT)	LEVEL	Trefriw
9033	POST MEDIEVAL	Tan Yr Eglwys Level I, Trefriw (HERWALES_GAT)	LEVEL	Trefriw
21027	POST MEDIEVAL	Level, Nant Cottage (HERWALES_GAT)	LEVEL	Trefriw
9035	POST	Tan Yr Eglwys Level Iii, Trefriw (HERWALES_GAT)	LEVEL	Trefriw

	MEDIEVAL			
21617	POST MEDIEVAL	Gwaith Ucha Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
9043	POST MEDIEVAL	Lletty Trial Level, Trefriw (HERWALES_GAT)	LEVEL	Trefriw
21625	POST MEDIEVAL	Johnie Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
9045	POST MEDIEVAL	Hafna Shafts, Trefriw (HERWALES_GAT)	SHAFT	Trefriw
21665	POST MEDIEVAL	Parc Ysgubor Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
9048	POST MEDIEVAL	Fuches Las Workings, Betws-y-Coed (HERWALES_GAT)	LEAD MINE	Betws-y-Coed
21666	POST MEDIEVAL	Park Yr Hisglog Mine, Betws-y-Coed (HERWALES_GAT)	LEAD MINE	Betws-y-Coed
9093	POST MEDIEVAL	Pen Y Ffridd Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
21669	POST MEDIEVAL	Pen y Gwaith Mine, Trefriw (HERWALES_GAT)	LEAD MINE	Trefriw
8811	MODERN	Parc Mine Magazine, Betws-y-Coed (HERWALES_GAT)	MAGAZINE	Betws-y-Coed
40087		Report on the Pre-reclamation Archaeological Survey and Excavation of the Vale of Conway Mine Complex, Llanrwst (HERWALES_GAT)	Building Survey	Trefriw

APPENDIX III

Definition of Mitigation Terms

Definition of field evaluation techniques

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

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

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

Definition of Mitigatory Recommendations

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

None:

No impact so no requirement for mitigatory measures.

Detailed recording:

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

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

Basic recording:

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

Strip, Map and Sample:

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

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

Watching brief:

This is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

Avoidance:

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

Reinstatement:

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

APPENDIX IV

Gwynedd Archaeological Trust Photographic Metadata

PHOTO RECORD NUMBER*	DESCRIPTION*	VIEW FROM	SCALE(S)	Creator of Digital Photo	Date of creation of Digital Photo	ORIGINATING ORGANISATION	Plates
G2673_001	General view of parc No 3 level (principal)	NE	1x1m	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_002	Detail of culvert above watercourse at No 3 level	N	1x1m	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_003	Collapsed culvert at No 3 level	NE	1x1m	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_004	Remains of the former powder magazine at the No 2 adit entrance	W	1x1m	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_005	No 2 adit entrance	ENE	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_006	Detail showing thickness of walls of the former powder magazine	W	1x1m	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_007	General view of entrance to the surface area of the mine	NE	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_008	General view of the former powder magazine and channelled over course at No 3 level	SW	1x1m	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_009	Fragmentary remains of sluice in culvert adjacent to former magazine	SW	1x1m	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	

PHOTO RECORD NUMBER*	DESCRIPTION*	VIEW FROM	SCALE(S)	Creator of Digital Photo	Date of creation of Digital Photo	ORIGINATING ORGANISATION	Plates
G2673_010	General views of waterfall in Nant through thick woodland	NNW	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_011	General views of waterfall in Nant through thick woodland	NNW	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_012	Very dramatic view of waterfall from path leading to Parc Mine adit 3	N	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_013	General view of Parc Mine site in woodland	NW	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_014	View of sign in upper woodland blocking access to mine	NNE	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_015	General view of upper area of mine	NE	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_016	Bridge over Nant cottage, showing 1954 date (w of Nant)	WNW	Not used	Robert Evans	05/02/2021	Gwynedd Archaeological Trust	
G2673_017	Kneebone cutting from viewing platform	N	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	4
G2673_018	Kneebone cutting from viewing platform	N	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	

PHOTO RECORD NUMBER*	DESCRIPTION*	VIEW FROM	SCALE(S)	Creator of Digital Photo	Date of creation of Digital Photo	ORIGINATING ORGANISATION	Plates
G2673_019	View north from viewing platform above No:3 adit	S	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	Cover
G2673_020	Shaft/channel to west of No:3 adit - Possibly No:4 adit	E	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_021	Stepped weir below No:3 adit	W	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_022	Discharge from weir below No:3 adit	S	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_023	View toward shaft/channel west of adit No:3 - Possibly No:4 adit	NE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_024	Grid covered entrance to adit/channel on track near feature 13	W	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	16
G2673_025	View over mine workings above No:3 adit and kneebone cutting	S	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_026	Cover for shaft - Near to managers house	SE	1x1m	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	18
G2673_027	Gable end - Manager's house	E	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	

PHOTO RECORD NUMBER*	DESCRIPTION*	VIEW FROM	SCALE(S)	Creator of Digital Photo	Date of creation of Digital Photo	ORIGINATING ORGANISATION	Plates
G2673_028	Manager's house	SW	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	2
G2673_029	Manager's house	SE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	3
G2673_030	Shaft behind Managers house and spoil tip - Adit No:2	N	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	17
G2673_031	Magazine	NE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	1
G2673_032	View towards adit No:3 from track	E	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_033	Concrete weir at adit No:3	NE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	5
G2673_034	View into adit No:3	N	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	6
G2673_035	View down from adit No:3	S	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	8
G2673_036	View towards adit No:3 - stone wall	NW	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	

PHOTO RECORD NUMBER*	DESCRIPTION*	VIEW FROM	SCALE(S)	Creator of Digital Photo	Date of creation of Digital Photo	ORIGINATING ORGANISATION	Plates
G2673_037	Concrete weirs at adit No:3	E	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	7
G2673_038	Modern drain in field next to track	N	1x1m	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	13
G2673_039	View to spoil heap discharge from top of spoil heap	ENE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	11
G2673_040	View to spoil heap discharge from top of spoil heap - zoomed out	ENE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_041	Drainage channel where spoil heap discharge meets adit No:3 and No:4 discharge	N	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	12
G2673_042	View down drainage channel around spoil heaps	SW	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_043	Drain from spoil heaps	NE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	15
G2673_044	Drain from spoil heaps	NE	1x1m	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	14
G2673_045	Drain from spoil heaps - Joining other drainage channel	ENE	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	

PHOTO RECORD NUMBER*	DESCRIPTION*	VIEW FROM	SCALE(S)	Creator of Digital Photo	Date of creation of Digital Photo	ORIGINATING ORGANISATION	Plates
G2673_046	Slabs over drainage channel by weir	NW	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_047	Weir	SW	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	
G2673_048	View from road bridge toward weir	NNW	Not used	Carol Ryan Young	06/07/2021	Gwynedd Archaeological Trust	



Gwynedd Archaeological Trust
Ymddiriedolaeth Archaeolegol Gwynedd

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