

FFORDD LLWYN BLEDDYN, RACHUB / LLWYN BLEDDYN ROAD, RACHUB

Gwerthusiad Archeolegol (Arolwg Topograffig & Ffos Arbrofol) /
Archaeological Evaluation (Topographic Survey & Trial Trench)



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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Yr Amgylchedd Hanesyddol yn Cofnodi Prif Gyfeirnod /
Historic Environment Record Event Primary Reference Number 45663

Prosiect Rhif / Project No. G2630

Adroddiad Rhif / Report No. 1518

Wedi'i baratoi ar gyfer / Prepared for:
Adra

Rhagfyr 2019 / December 2019

Ysgrifenydd gan / Written by: Robert Evans
Lluniau gan/Illustrations by: Bethan M Jones & Neil McGuiunness


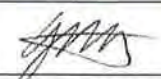

Delwedd clawr blaen / Front Cover image:
Golygfa gyffredinol o'r safle yn dangos ffensys rhwyll Netlon nos Wener /
General view of site showing Netlon mesh fencing as of Friday evening (G2630_062)

Cyhoeddwyd gan Ymddiriedolaeth Archaeolegol Gwynedd
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Published by Gwynedd Archaeological Trust
Gwynedd Archaeological Trust
Craig Beuno, Garth Road,
Bangor, Gwynedd, LL57 2RT

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Mae Ymddiriedolaeth Archaeolegol Gwynedd yn Gwmni Cyfyngedig (Ref Cof. 1180515) ac yn Elusen (Rhif Cof. 508849)
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Approvals Table				
	Role	Printed Name	Signature	Date
Originated by	Document Author	ROBERT EVANS		9/3/2020
Reviewed by	Document Reviewer	JOHN ROBERTS		09/03/20
Approved by	Principal Archaeologist	JOHN ROBERTS		09/03/20

Revision History			
Rev No.	Summary of Changes	Ref Section	Purpose of Issue
1	Minor amendments to text. Additional detail added to Figure 05	3.1, 3.2, 5.1	For GAPS approval
2	Inclusion of radiocarbon dating results	All	For GAPS approval

CONTENTS

CRYNODEB ANNHECHNEGOL	5
NON-TECHNICAL SUMMARY	6
1 INTRODUCTION	7
1.1 Aims and Objectives	8
1.2 Acknowledgements.....	8
2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND.....	9
2.1 Introduction.....	9
2.2 Archaeological Assessment and Geophysical Survey	11
3 METHODOLOGY	13
3.1 Trial Trenching	13
3.2 Topographic Survey.....	15
4 RESULTS	16
4.1 Trench 01 (Figure 05).....	16
4.1.1 Introduction.....	16
4.1.2 Results.....	16
4.2 Trench 02 (Figure 05).....	17
4.2.1 Introduction.....	17
4.2.2 Results.....	17
4.3 Trench 03 (Figure 05).....	18
4.3.1 Introduction.....	18
4.3.2 Results.....	18
4.4 Trench 04 (Figure 05).....	19
4.4.1 Introduction.....	19
4.4.2 Results.....	19
4.5 Trench 05 (Figure 05).....	20
4.5.1 Introduction.....	20
4.5.2 Results.....	20
4.6 Trench 06 (Figure 06).....	21
4.6.1 Introduction.....	21
4.6.2 Results.....	21

4.7	Trench 07 (Figure 07).....	23
4.7.1	Introduction.....	23
4.7.2	Results.....	23
4.8	Trench 08 (Figure 05).....	25
4.8.1	Introduction.....	25
4.8.2	Results.....	25
4.9	Topographic Survey (Figures 08 and 09)	26
4.9.1	Introduction.....	26
4.9.2	Results.....	26
5	POST-EXCAVATION ASSESSMENT AND ANALYSIS	27
5.1	Artefacts.....	27
5.2	Ecofacts	28
5.2.1	Ecofact Processing.....	28
5.2.2	Ecofact Assessment.....	28
5.2.3	Ecofact Analysis (Radiocarbon Dating).....	29
6	CONCLUSION	30
6.1	Discussion	30
6.2	Recommendations	32
7	SOURCES CONSULTED	33
	APPENDIX I.....	35
	Reproduction of approved written scheme of investigation, Gwynedd Archaeological Trust, November 2019.....	35
	APPENDIX II.....	36
	Photographic Metadata	36
	APPENDIX III	37
	Context Register.....	37
	APPENDIX IV	39
	Ecofact Register.....	39
	APPENDIX V	40
	Artefact Register	40
	APPENDIX VI.....	41
	Drawing Register	41

APPENDIX VII	42
Reproduction of Archaeological Research Services Ltd Report 2020/15	42
APPENDIX VIII.....	43
Reproduction of Scottish University Environmental Research Centre Radiocarbon Dating certificates.....	43

CRYNODEB ANNHECHNEGOL

Dirprwyodd Ymddiriedolaeth Archeolegol Gwynedd gan Adra i ymgymryd gwertusiad archeolegol (arolwg topograffeg a phrawf ffosydd) o blaen i ddatblygiad preswyl awgrymedig ar dir agos i Ion Llwyn Bleddyn, Rachub, Gwynedd.

Roedd yr arolwg topograffeg ei lleoli ar y rhan gogledd-ddwyrain o'r safle a dynodedig tystiolaeth i derfynau ac amgaeadau blaenorol. Roedd y prawf ffosydd ei lleoli i'r gorllewin o'r ardal arolwg topograffeg; dadorchuddia Ffos 2 derfyn cae clawdd cerrig a phridd; Ffos 4 cynwysedig ceuffordd gyda thystiolaeth o atgyweiriad roedd seiliedig gan haen rwbwl dymchweliad; Ffos 6 cynwysedig lefel sefydliad gyda gweddillion o gwt ffarm flaenorol Stad Penrhyn seiliedig gan weithgaredd dymchweliad; dynodedig Ffos 7 terfyn cae blaenorol, cwter a chapen cerrig gyda thyllau pyst cysylltiedig sy'n awgrymog o weithgaredd cynhynaseddol. Roedd y pedwar ffosydd eraill cynwysedig gweithgaredd cyfyng archeolegol. Yn y cyfan, dynodwyd yr arolwg gweithgareddau archeolegol cyn-hanesyddol hwyr i gyfnodau ol-canoloesol. Mae asesiad a dadansoddiad ôl-gloddio o bedwar sampl palaeoamgylcheddol a adferwyd o Ffos 7 wedi cael eu cynnal. Cadarnhaodd y canlyniadau bresenoldeb gweithgaredd o'r cyfnod Oes Haearn Diweddar i gyfnod y Rhufeiniaid. Ategwyd hyn ymhellach trwy nodi crochenwaith cyfnod Rhufeinig yn yr un ffos.

Seiliedig ar ganlyniadau hyn mae'n argymelledig fod rhaglen o leddfiad ei ymgymryd ar y safle i ddeall ymhellach y cwmpas a graddfa o'r gweithgaredd archeolegol.

NON-TECHNICAL SUMMARY

Gwynedd Archaeological Trust was commissioned by Adra to undertake an archaeological evaluation (topographic survey and trial trenching) in advance of a proposed residential development on land near Llwyn Bleddyn Road, Rachub, Gwynedd.

The topographic survey was located at the north-eastern part of the site and identified evidence for former boundaries and enclosures. The trial trenches were located to the west of the topographic study area: Trench 2 uncovered a stone and earthen bank field boundary; Trench 4 contained a hollow way with evidence of repair that was sealed by demolition rubble; Trench 6 included foundation level remains of a former Penrhyn Estate outbuilding sealed by demolition activity; Trench 7 identified a former field boundary, stone capped gully and associated postholes suggestive of prehistoric activity. The remaining four trenches contained limited archaeological activity. Overall, the archaeological evaluation identified activity from the late prehistoric to post medieval periods. Post-excavation assessment and analysis of four palaeoenvironmental samples recovered from Trench 7 has been undertaken. The results confirmed the presence of Late Iron Age / Roman period activity. This was further supported by the identification of Roman period pottery in the same trench.

Based on these results it is recommended that a programme of mitigation is carried out on the site to further understand the scope and scale of the archaeological activity.

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was commissioned by Adra to undertake an archaeological evaluation in advance of a proposed residential development on land near Llwyn Bleddyn Road, Rachub, Gwynedd (NGR SH61986802; postcode: LL57 3EF; Figure 01). This included the production of an orthostatic view to map the potential archaeology in the wet unimproved area at the northeast of the development area, and evaluation trenching (Figures 08 and 09). The development area measures 1.2ha and the proposals include 30No house plots, along with associated access and amenities, located at the southern end of a large triangular shaped field of improved open pasture (Figure 02). The archaeological evaluation comprised 8No trial trenches within the development area that were located in response to the results of an archaeological assessment and geophysical survey (GAT Report 1500; cf. [para. 2.2](#)). Based on these results, post-excavation assessment and analysis of four palaeoenvironmental samples recovered from Trench 7 was undertaken and radiocarbon dates received; assessment of Roman period pottery from the same trench was also completed.

The UAV survey took place on 28th October 2019, and the trial trenching from 21st to 28th November 2019; the subsequent post-excavation assessment and analysis was undertaken between December 2019 and March 2020. All works were in accordance with a written scheme of investigation approved by Gwynedd Archaeological Planning Services (cf. [Appendix I](#)), as well as the following guidelines:

- *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); and
- *Standard and Guidance for Archaeological Field Evaluation* (Chartered Institute for Archaeologists, 2014).

GAT 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 and a member of the Federation of Archaeological Managers and Employers (FAME).

The regional Historic Environment Record Enquiry No. for the archaeological evaluation is GATHER1192 and the event primary reference number is 45663.

1.1 Aims and Objectives

The key aims and objectives of the evaluation were to:

- establish the date and nature of any archaeological remains identified and assess their implications for understanding the historical development of the area, in conjunction with the known archaeological record;
- if no additional archaeological activity is identified, establish why this may be the case; and
- To place the results in context, with reference to *A Research Framework for the Archaeology of Wales Version 03, Final Refresh Document March 2017*.

1.2 Acknowledgements

GAT would like to thank the following for their contribution and support:

- *GAT Project team*: Robert Evans, Neil McGuinness, Bethan Jones and Stuart Reilly;
- *Plant Machinery and Fencing*: R. G. Hire;
- *Welfare*: Caernarfon Commercials;
- *Client (Adra)*: Richard Roberts and Ian Gillespie;
- *Tenant Farmer*: Mr. Hughes;
- *Ecofact Assessment*: Archaeological Research Services Limited;
- *Ecofact Analysis (Radiocarbon Dating)*: Scottish University Environmental Research Centre; and
- *Gwynedd Archaeological Planning Services*: Tom Fildes.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

A brief examination of the regional Historic Environment Record demonstrates that the assessment area within an area of known archaeological activity, with two sites located within the field designated for development:

- The site of a cockpit is (Primary Reference Number 3674) located at NGR SH62006800 at the southern end of the field within the development footprint; and
- An enclosed field system (Primary Reference Number 5891) comprising lines of boulders, assumed to be the remains of wall foundations, located alongside a small stream, within an area of low-lying land at NGR SH62006810, located to the immediate northwest of the development area.

The development area in historic times formed part of Cefn Bedw farm, the property of the Coetmor Estate until the early years of the 19th century, when it came into the hands of the Penrhyn Estate. Unfortunately no maps have been traced of the development area before the tithe map of the parish of Llanllechid of 1840 (National Library of Wales) which only shows divisions in the landscape based on blocks of estate holdings with no attempt made to show individual fields, although the homestead of Cefn Bedw is shown. The land on which the development is due to take place is shown as forming part of Plot number 95, under the ownership of the Earl of Egmont and the occupation of Richard Owen, and consisting of an area of 30 acres 1 rood and 17 perches (*ibid.*). The former layout of nearby fields, a sinuous field system of post-medieval origin, is however shown on a Penrhyn estate map of 1855 along with Cefn Bedw farm (Bangor Archives, Penrhyn MSS 2218).

By the time of the Ordnance Survey First to Third Edition Ordnance Survey 1-inch to 25-mile County Series Map Sheet of the area (Sheets XX.2 and XX.6; 1889, 1900 and 1914 respectively; cf. Figure 04) shows the development area within an enclosed field that matches the current boundaries. A stream, footpath and dispersed wooded area are located along the northwest boundary, which are still present, with the remainder of the field, as now, represented as open pasture. The plot is located at the western end of Rachub, with the main settlement located to the immediate east; this layout has not fundamentally changed, beyond two recent housing estates to the south and northeast of the development site.

GAT undertook an archaeological assessment in advance of the construction of the housing estate northeast of the development site (GAT Report 807), followed by a watching brief during construction (GAT Report 1226). Information from these reports will be consulted during the current assessment and evaluation.

The development is located within the Registered Historic Landscape of Ogwen Valley (Gw10) and the Historic Landscape Characterisation area designated as *Fieldscape around Llanllechid*. There are scheduled monuments in the vicinity of the development site, including the Coed Uchaf Hut Group (Scheduled Monument CN176; NGR SH61606840), located 310m to the northwest of the proposed development site and Hut Circles West of Corbri (Scheduled Monument CN287; NGR SH61606840), which are located 700m to the north of the proposed development site.

2.2 Archaeological Assessment and Geophysical Survey

The archaeological evaluation was undertaken in response to the results of an archaeological assessment and geophysical survey (GAT Report 1500). The report concluded that the plot had been significantly improved agriculturally, although prominent glacial boulders still protruded from the ground suggesting these stones were much in evidence before field clearance, and were likely used in the construction of local post-medieval settlement. The stone walled field boundaries to the west and south were also constructed of local fieldstone and shown to date to between 1855 and 1889, as they are not shown on the cartographic evidence resulting from Coetmor estate or later Penrhyn estate management (Figure 04), but shown on the 25 inch 1st edition Ordnance Survey map (Figure 03). Six specific features, three probably prehistoric to mediaeval in date, and three post-medieval, probably relating to the farm of Cefn Bedw, were identified, for which topographic survey and evaluation by archaeological trial trenching was recommended. The possible cockpit noted on the Gwynedd HER was not observed on the ground during the assessment walkover.

Feature No	Primary Reference Number	Site Name	Period	NGR
01	81382	Terraced area with associated enclosure wall	Prehistoric/Medieval?	SH62026806
02	5891	Remnant of walling	Prehistoric/medieval?	SH62026818
03	81383	Round houses and enclosures, forming a probable settlement group	Prehistoric/medieval?	SH62056805
04	81384	Cefn Bedw farmstead and outbuildings	Post-medieval	SH61996800
05	81385	Field boundary system	Post-medieval	SH61206800
06	3674	Cock pit	Post-medieval	SH62006800

The three potential prehistoric features were identified in the eastern part of the development area and were interpreted as a possible enclosure settlement, similar to the Coed Uchaf enclosure and hut group (PRN 294, SM Cn174, SH61606840), 310m to the northwest. The settlement site appears to have been disturbed by field clearance but may indicate more extensive buried archaeology across the development area.

The geophysical survey did not identify any probable archaeological anomalies: no traces of the Cefn Bedw buildings or the field boundaries depicted on the 1840 tithe map or the

Penrhyn estate map of 1855 were located (Figure 03). Five possible archaeological anomalies were identified: a bank (Anomaly 1), a hearth (Anomaly 2), kilns (Anomalies 2, 3 and 4) and a pit (Anomaly 5); these could not be demonstrated conclusively to be archaeological in origin and further evaluation was recommended as Anomaly 1 in particular may be related to the prehistoric settlement activity to the east. The survey identified high levels of magnetic disturbance resulting from discarded ferrous metal objects and it was proposed that these could also be masking archaeological features, particularly on the southern and southeastern sides of the survey area. Based on these results, targeted trial trenching was recommended across the development site to target the location of the geophysical anomalies as well as to investigate the site as a whole.

In addition, a topographic survey was recommended for Features 1 to 3, located in the less improved part of the development area to the north-east, to enable the possible prehistoric remains to be placed in a wider context with the known prehistoric sites in the wider area. This was subsequently carried out and a plan produced from the orthostatic aerial photographic view.

3 METHODOLOGY

3.1 Trial Trenching

The archaeological evaluation comprised eight targeted trenches, which were designed to target, where possible, the known and suspected archaeological features identified during the assessment and survey phases of the project (GAT Report 1500; cf. Figure 01). The aim was to expose and characterise the respective anomalies, recovering datable ecofacts and artefacts if possible, with the results informing subsequent strategies. Full excavation of all features exposed was not considered at this stage.

Trenches 4 and 6 targeted the probable location of the former farmhouse of Cefn Bedw, as indicated on the historic mapping; Trenches 3, 5, 7 and 8 targeted evidence of the former field systems in the area along with anomalies identified during the geophysical survey, and Trenches 1 and 2 target other potential anomalies and control areas (Figure 03).

All trenches were located with a Trimble GPS unit, based on the following coordinates and orientation. As a result of consultations with GAPS, Trench 7 was subsequently extended 5m to the northeast:

Trench Number	Size	Orientation	Centreline endpoint	Centreline endpoint
Trench 1	20x2m	NNE-SSW	E 261934.30 N 367980.88	E 261941.41 N 367999.74
Trench 2	20x2m	WSW-ENE	E 261954.86 N 368003.71	E 261972.37 N 368013.37
Trench 3	20x2m	NNW-SSE	E 261974.32 N 368018.75	E 261964.66 N 368036.29
Trench 4	20x2m	NNE-SSW	E 261986.04 N 368016.47	E 261991.94 N 368035.64
Trench 5	20x2m	WSW-ENE	E 261968.67 N 368044.98	E 261986.33 N 368054.48
Trench 6	20x2m	WSW-ENE	E 262018.55 N 368003.77	E 261999.31 N 367998.33
Trench 7	20x2m	WSW-ENE	E 262005.98 N 368019.02	E 262023.40 N 368028.36

Trench Number	Size	Orientation	Centreline endpoint	Centreline endpoint
Trench 8	20x2m	WSW-ENE	E 262034.63 N 368021.30	E 262053.69 N 368027.71

The evaluation was undertaken between Thursday 20th November and Friday 30th November (Plates 1-4). The trenches were excavated as far as the glacial horizon or an archaeological horizon, whichever was encountered first, by machinery supplied by a GAT approved subcontractor (*RG Hire*). Information was recorded using GAT pro-formas and photographic images were taken using a digital SLR (Nikon D3100) camera set to maximum resolution (4,608 × 3,072 14.2 effective megapixels) in RAW format. A photographic record was maintained on site using GAT pro-formas and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process (archive numbering system G2630_032 to G2630_112; cf. [Appendix II](#)); photographic images were archived in TIFF format using Adobe Photoshop.

The following dissemination will be applied:

- A digital report will be provided to the client and the Gwynedd Archaeological Planning Services (draft report then final report);
- A paper report plus a digital report will be provided to the Gwynedd Historic Environment Record along with an event primary reference number summary and core primary reference data, in accordance with *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* Version 1.1; and
- A digital report and project archive will be sent to the Royal Commission on Ancient and Historical Monuments Wales (RCAHMW), in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata.

3.2 Topographic Survey

A topographic survey was carried out with the use of a small Unmanned Aerial Vehicle (UAV), usually referred to as a 'drone', by the GAT licenced UAV remote pilot, Neil McGuinness, over the north-eastern part of the land near Llwyn Bleddyn Road. The survey area was a strip of land that forms a narrow boggy valley through which runs the stream. This area is centred on National Grid Reference SH 62056805 (Figures 08-09). The decision to carry out the UAV survey was made because manual survey of the area was considered to be impractical as a result of the watercourse and surrounding very boggy terrain rendering ground survey a potentially unsafe activity.

The UAV work carried out on 28th October 2019, and involved taking a large number of GIS registered vertical photographs from the UAV, which was flown to allow overlapping vertical images to be taken which can be subsequently tiled together. These were subsequently used to produce an orthostatic image, from which a measured plan could be drawn.

4 RESULTS

All individual features, deposits and fills identified within the trenches were given a unique context number. For the purposes of this section, context numbers within square brackets (e.g. [705]) represent cut features, such as pits, ditches and also structures. Context numbers within round brackets (e.g. (708)) represent deposits and fills. For a complete list of the contexts identified see Appendix III. Significant identified features have been given PRN (Primary Reference Number) numbers, for inclusion on the Gwynedd HER. In the text these numbers follow the letters PRN.

4.1 Trench 01 (Figure 05)

4.1.1 Introduction

Trench 1 was opened within an area of disturbance shown on the geophysical survey (Evans and McGuinness 2019), to test the significance of the results. The trench was orientated southwest-northeast and was 20.27m long by 1.82m wide, and dug to a maximum depth of 0.63m.

4.1.2 Results

A topsoil 0.21m deep of a loose medium brown silty clay (101) overlay a plastic medium orange brown silty clay (102), which extended to a depth of 0.45m below the ground surface, and contained small to large rounded and angular stones within the matrix. At a depth of 0.56m orangey brown boulder clay was encountered (103) which was interpreted as a natural glacial deposit (Plates 5-6). No archaeology was encountered or recorded within the trench

4.2 Trench 02 (Figure 05)

4.2.1 Introduction

Trench 2 was opened within an area of disturbance shown on the geophysical survey (Evans and McGuinness 2019), to test the significance of the results. The trench was orientated northeast-southwest and was 20m long by 2m wide, and dug to a maximum depth of 0.5m. It uncovered a section of a stone and earthen bank field boundary.

4.2.2 Results

A topsoil of a cohesive mid brown clayey loam extending to a depth of 0.2m (201) overlay a light orangey brown silty clay mixed with occasional small rounded stone subsoil (202), which extended to a depth of 0.3m. This in turn overlay compact orangey brown boulder clay (203) which is interpreted as a glacial deposit. Set upon the glacial deposit were the remnants of a stone and earth bank [204], which has been interpreted as a former field boundary (Plates 7-9) (PRN 81663). The boundary consisted of local fieldstone dry stones and earth, and was orientated north-west-southeast crossing the trench about 9m from the southwest end of the trench, and was 1.8m wide. It was possibly a revetment wall as the ground was lower on the northeast side, and had a rough stone face along the northeast edge. It was dominated by a large sub-rounded boulder (1.28m by 1.25m by 0.45m), placed on an earth and stone bank, with large- medium sized sub-rounded stones used for the facing. The bank matrix included light orangey brown silty clay comparable to (202), and no artefacts were recovered from the cleaning. There is currently no indication at present for the date of the feature, but it forms part of a relict field system that may provide reveal more information with further investigation.

4.3 Trench 03 (Figure 05)

4.3.1 Introduction

Trench 3 was opened in the hope of identifying a field boundary noted on the 1855 Penrhyn Estate map (Bangor Archives, Penrhyn MSS 2218). The trench was orientated North northwest-south southeast and was 20.09m long by 1.98m wide, and dug to a maximum depth of 0.43m.

4.3.2 Results

A mid greyish brown sandy silt loam with frequent bioturbation (301) overlay a light orangey brown silty clay subsoil (302) with frequent small to very large rounded stones (up to 1.5m by 0.6m at a depth of 0.28m below the ground level. At 0.4m below ground level a light orangey brown clay, with occasional large to very large stone inclusions were encountered (303). This is interpreted as glacial boulder clay (Plate 10). No archaeology was encountered.

4.4 Trench 04 (Figure 05)

4.4.1 Introduction

Trench 4 was opened within an area of disturbance shown on the geophysical survey (Evans and McGuinness 2019), to test the significance of the results. The area was believed to have been on or close to the site of the post-medieval farmhouse of Cefn Bedw (Bangor Archives, Penrhyn MSS 2218). The trench was orientated north-south and was 20m long by 2m wide, and dug to a maximum depth of 0.48m. It was found to be located over a hollow towards the centre of the trench that appeared to have a roughly cobbled surface.

4.4.2 Results

A topsoil of a soft cohesive mid brown clayed loam mixed with moderate small stones and occasional fragments of slate (401) was noted to overly at a depth of 0.18m a layer of demolition rubble (Plate 13), which was concentrated in the centre and northern end of the trench (402). Fine cohesive mid greyish brown silty and sandy clay was mixed with very frequent slate fragments and frequent small to medium sized pebbles and subangular stones. Some of the slate was clearly fragments of former worked roofing slates, which are considered to have been sourced from local slate quarries (Jones, *pers. comm.*). This demolition rubble overlay a layer of cobbles, which probably formed a former surface (403), at a depth of 0.3m (Plate 14) (PRN 81664). It had been disturbed, but consisted of small to medium sized sub-rounded and sub-angular pebbles (Plate 12). This overlay compact, coarse light orange and grey sandy clay mixed with frequent stones at a depth of 0.48m, which is interpreted as glacial boulder clay (404).

The trench is interpreted as containing an approximately 4m wide shallow hollow (0.48m deep) running east-west across the trench, 10m from the southern end of the trench (Plate 11). This hollow was probably created by the repeated use as a driveway, probably approaching the former farmhouse of Cefn Bedw. The surface was at some point stabilised by the laying of a cobbles surface [404], which was later damaged when the demolition rubble (403), probably created when Cefn Bedw was demolished, was spread over the hollow way to fill it in.

4.5 Trench 05 (Figure 05)

4.5.1 Introduction

Trench 5 was opened within an area of disturbance shown on the geophysical survey (Evans and McGuiness 2019), to test the significance of the results. The trench was orientated east-west and was 20m long by 1.8m wide, and dug to a maximum depth of 0.5m. The anomalies noted are likely to be the natural boulders of large dimensions lying within the glacial horizon.

4.5.2 Results

A topsoil of loose medium brown silty clay (501, Plate 16) overlay at a depth of 0.36m to 0.5m a light orangey brown glacial boulder clay (502) which contained large to very large (up to 0.2m by 1.5m) rounded boulders within the clay that appears to be a natural deposit within the glacial horizon (Plate 15). No archaeology was encountered.

4.6 Trench 06 (Figure 06)

4.6.1 Introduction

Trench 6 was opened within an area of disturbance shown on the geophysical survey (Evans and McGuinness 2019), and the location of a rectangular outbuilding shown on historic mapping to test the significance of the surviving evidence. The trench was orientated northeast-south west and was 19.4m long by 2m wide, and dug to a maximum depth of 0.52m. Below demolition the remains of the 19th century outbuilding and associated cut features were encountered.

4.6.2 Results

At a depth of around 0.25m below the silty loam topsoil (601) demolition rubble was encountered (602) (Plate 30). This consisted of a compact light greyish brown clay matrix mixed with very frequent fragments of slate, moderate medium to large sub-rounded and subangular stones mixed with small concentrations of mortar (Plates 27-28). Below this the remnants of a single brick floor surface with mortared edge to the northeast (603) (PRN 81665). It appeared to have been laid directly on to the natural boulder clay, and measured 1.5m by 1.5m and to a depth of 0.07m and was 9m from both the southwest and northeast edge of the trenches (Plates 18- 22). The floor overlay the natural orangey brown boulder clay (605), into which a number of features were cut. To the northeast of the brick floor a compacted natural clay floor surface (613) was revealed after the removal of demolition deposit (602), which lay directly at the interface with the clay natural deposit (605). A remnant of a slate tile floor surface [606] was noted directly above the compact clay (613) in the centre of the trench (Plates 23, 29), covering an area of 2.05m by 0.78m (Plate 23). It consisted of purple and grey flat slate slabs up to 0.65m long, 0.4m wide and 0.01m thick, occasionally subrectangular but mostly irregularly shaped. The purple material is likely to have come from Bryn Hafod-y-Wern Slate Quarry, a quarry that was abandoned by the Penrhyn estate in 1845, suggesting that the building must pre-date this. Although the quarry subsequently re-opened this was by a rival company, the Penrhyn estate is unlikely to have used its slates then (Gwyn 2015, 311-312). Another much less substantial remnant [612] was identified at the extreme west end of the trench.

A stone lined drain [607]; 0.35m wide ran approximately north-south across the west end of the trench; the cut was edged with vertically set subangular and sub-rounded fieldstones up

to 0.28m by 0.18m and appears to have been formerly capped with slates 0.4m wide and 0.005m thick [608] (Plate 24). The drain was filled by mid-brownish clay silt, with small fragments of charcoal and fragments of post-medieval ceramics and occasional fragments of angular slate. The drain cut a subrectangular feature [610], which remained unexcavated owing to the limited amount of the feature available within the trench. A pit (604) was identified under the west end of the demolition deposit (602) filled with a single fill (614) (Plates 25-26). It appeared sub-rounded with a sharp break of slope to the top with almost vertical sides with a flattish base. It was 1.3m by >1.05m and 0.22m deep (the exact dimensions are unknown because the feature extended beyond the trench confines) (Plate 26). There were no post-medieval artefacts in the light greyish brown silty clay fill (614), suggesting it may predate the 19th century building.

The evidence from the trench suggests that there is significant surviving remains of a post-medieval, probably 18th or 19th century, outbuilding associated with the former Cefn Bedw farm (PRN 81384). This building is shown on the Penrhyn estate map of 1855 (Bangor Archives, Penrhyn MSS 2218). It appears that the building was deliberately demolished and the rubble from the demolition spread, however significant remains of this building survives at foundation level. It is also possible that the foundations cut earlier archaeology.

4.7 Trench 07 (Figure 07)

4.7.1 Introduction

Trench 07 was opened to investigate two possible field boundaries, of which one was encountered. On 25th November 2019 the trench was extended by 5m upon which features [706], [708] and [710] were encountered. The trench was orientated northeast-south west and was 25m long by 1.8m wide, and dug to a maximum depth of 0.46m. The gully and pit/posthole features encountered are strongly suggestive of prehistoric activity in the area.

4.7.2 Results

Below 0.17m of loose mid brown silty clay topsoil (701), a plastic mid brown silty clay subsoil was encountered (702). This overlay yellowish -orange glacial boulder clay (703) at a depth of 0.46m below the ground surface (Plate 32). Set into this boulder clay a possibly prehistoric field boundary [704] was set, which protruded to within 0.05m of the current ground surface (Plate 33) (PRN 81666). The boundary lay on a northwest-southeast axis roughly at the centre of the trench, constructed of glacial boulders and field stones (max size 0.9m by 0.9m by 0.5m), with small subangular stones within the matrix. It may possibly have still been in use during the early 19th century given the presence of purple slate waste and post medieval Buckley ware, CBM clay pipe stem and blue and white china within the soil matrix of sandy and silty clay around the wall (705). These were not retained, and the boundary is probably part of the field systems recorded on the Gwynedd HER as PRN 81385. At the base of the feature small sherds Roman Black Burnished ware (Small Find 701, context 705) were encountered. This suggests that the material culture was relict from agricultural activity in the vicinity, but also that the boundary wall may have been *in situ* over a long period of time.

All the possible prehistoric features discussed below were cut into the glacial horizon (703). A linear feature [706] running approximately north south across the trench and 1.88m wide was located at the southwest end of the original trench, cut into (703), causing the 5m extension of the trench to be required (Plate 34). It was a 'V' shaped gully or drain 0.31m deep with a sharp break of slope at the top and steep sides, with capping stones [714] placed above the cut. The capping stones were covered in a loose very dark mid brown sandy silt clay containing frequent charcoal (sample 703), which was 0.09m deep and 1.88m wide. The layer also concealed a post-hole [717], 0.48m long and 0.56m wide, which was sealed by deposit (707). Evidence of *in situ* burning and heat affected stone was also present

in this layer, suggesting it may be a demolition layer. The fill of the gulley was a very dark brown sandy silt and clay which was charcoal rich (716). Due to the presence of a large stone near the base of pit [717] it was not possible to ascertain the true depth, however in shape, form and provenance it is similar to the other postholes discussed below. The fill (718), a mid-brown sandy clay had a high proportion of very stony inclusions (sample 704).

A shallow sub-oval pit [708] with a gradual break of slope and concave base, 0.82m by 0.68m and 0.14m deep was located southwest of the linear feature (Plate 36). The primary fill of the pit (709) consisted of a loose mid brown sandy silty clay with charcoal lenses (sample 702), and subangular stones were placed within its centre. Frequent charcoal inclusions were enhanced by the recovery of two small slag fragments in the sample. About 1m away from this pit on the north edge of the trench was a possible round post-hole [710], 0.52m by 0.38m and 0.08m deep, with a gradual break of slope and concave sides (Plate 31, 35). It was filled with very dark brown silty clay containing some gravel and frequent charcoal (711) from which an environmental sample was taken (Sample 701). The cut of the post-hole, rather shallow in nature, but its shape and form, along with pit [708], gulley [706] and post-hole [717], suggests the presence of a small concentration of possibly prehistoric features (Plate 34). A further possible post-hole [712], noted just visible in the northern edge of the trench was not excavated as insufficient elements of it could be seen. It contained a very dark brown silt fill with charcoal inclusions clearly visible which was not excavated (713). The evidence suggests the presence of important late prehistoric archaeology in Trench 7, and the pit and gulley group has been designated PRN 81667. The features probably also form part of the wider possible roundhouse and enclosure settlement recorded during the assessment phase (PRN 81383).

4.8 Trench 08 (Figure 05)

4.8.1 Introduction

Trench 8 was opened within an area of disturbance shown on the geophysical survey (Evans and McGuinness 2019), to test the significance of the results. The trench was orientated southwest-northeast and was 20 m long by 2m wide, and dug to a maximum depth of 0.45m. It was located at the easternmost section of the site adjacent to and parallel with Maes Bleddyn Road. Shallow topsoil went straight onto natural boulder clay (Plate 37).

4.8.2 Results

A topsoil of loose mid-brown clayey loam mixed with moderate medium to large subangular and sub-rounded stones (801) overlay at a depth of 0.2m a soft cohesive predominantly orange with grey to the west boulder clay (802). Nothing of archaeological significance was encountered but a 1916 George V penny was recovered from the topsoil. This is thought likely to have been lost during 20th century agricultural activity.

4.9 Topographic Survey (Figures 08 and 09)

4.9.1 Introduction

The topographic survey was carried out over the north-eastern part of the land near Llwyn Bleddyn Road, where a strip of land forms a narrow boggy valley through which runs the stream and a public footpath. This area is centred on National Grid Reference SH 62056805. This area has not at this stage been targeted with evaluation trenching.

4.9.2 Results

The UAV survey produced a very clear orthostatic image (Figure 08) from which a plan was produced (Figure 09). The edges of the marsh area are clearly defined, as were the significant quantities of protruding stones. The latter give evidence of probable former field boundaries and enclosures, particularly to the north, centre and south of the survey area (PRNs 5891, 81385). These, given their morphology and construction with large boulders, are similar in character to those evidenced in the evaluation trenching to the west, with their survival being put down to the lower level of agricultural improvement that has been carried out in this area. Insufficient evidence has been uncovered to identify any more complex archaeological features. It is also possible that some of the stones, particularly those on the higher ground at the south of the plan, are the result of field clearance or became exposed following the insertion of an 11kV cable that crosses the site along the edge of the higher ground to the south-west.

5 POST-EXCAVATION ASSESSMENT AND ANALYSIS

Further to the fieldwork results, the recovered ecofacts and artefacts were submitted for post-excavation assessment and analysis and selected pottery sherds were assessed.

5.1 Artefacts

Four small sherds of pottery were identified in Trench 07 and were recovered from subsoil (705) beneath the base of a large orthostatic field boundary [704]. The largest sherd measured 17mm by 11mm and 3mm thick (Small Find 701) all sherds showed evidence of burnishing on the outer face, and had a hard gritty fabric, which was a dark greyish brown, with a lighter internal surface. The sherds were too small to be certain, but seemed to be hand-made rather than wheel thrown. They were interpreted as Black Burnished Ware (DOR BB1) and probably date from the 2nd or 3rd century AD.

It is recommended that the sherds are retained at Gwynedd Archaeological Trust for further comparative analysis if additional archaeological mitigation is undertaken on site. It is then recommended that the artefacts are accessioned to the Gwynedd Museum and Archives Service *Storiol* facility, in line with their 2009 guidelines, for final archiving (subject to landowner approval).

5.2 Ecofacts

Four ecofact samples from Trench 07 were submitted for processing, assessment and analysis.

Sample no	Context no	Feature type
701	711	Primary fill of possible post hole [710]
703	707	Layer covering stone capped v-shaped gulley, possibly buried soils
702	709	Primary fill of pit [708]
704	718	Stony fill of posthole [718]

5.2.1 Ecofact Processing

The primary aim of the ecofact processing was to recover charred macroplant and charcoal for species identification and radiocarbon dating selection.

The processing was completed by Gwynedd Archaeological Trust and comprised flotation and wet sieving of the samples using a 500 micron mesh to collect the residue (which collects more than the 1mm = 1000 micron), with the flotation debris collected in a 250 micron mesh. The flotation debris was weighed, catalogued and examined for charred macroplant and charcoal; the residues were sorted to recover non-floating ecofacts; once sorted the residues were discarded. Suitable charred macroplant and charcoal were submitted from specialist assessment.

5.2.2 Ecofact Assessment

The ecofact assessment was completed by Archaeological Research Services Ltd (ARS Ltd Report 2020/15; cf. [Appendix VII](#)). Botanical macrofossil identification was undertaken using a low-power binocular microscope (x40) with botanical macrofossil identification utilised plates and guides, as well as comparison with a modern reference collection. Plant nomenclature followed Stace (1997) and cereal identification utilised the guide by Jacomet (2006). The report concluded that all contexts contained charred archaeobotanical material considered appropriate for radiocarbon dating: the charcoal recovered from the primary fill

(711) of posthole [710] included charred twig fragments from short-lived growths; possible spelt grains from the layer (707) covering the stone-capped v-shaped gully were thought suitable for dating in general, as well as dating the presence of food resources at the site. Hazelnut shells recovered from the primary fill (709) of pit [708] also represented datable remains (ibid.: 3). It is recommended that remaining ecofacts are retained at Gwynedd Archaeological Trust for further comparative analysis if additional archaeological mitigation is undertaken on site.

5.2.3 Ecofact Analysis (Radiocarbon Dating)

Selected charred macroplants and charcoal were submitted to the Scottish University Environmental Research Centre (SUERC) for radiocarbon dating. The results are reproduced below and the radiocarbon dating certificates reproduced in [Appendix VIII](#).

Sample No	Context No.	Context Type	Material	Lab Ref. No	Calibrated date	Period
701	711	Fill of posthole [710]	Twig fragment	SUERC-92249	49 cal BC - 72 cal AD	Late Iron Age
702	709	Fill of pit [708]	Hazelnut shell	SUERC-92250	5 - 132 cal AD	Late Iron Age / Roman
703	707	Layer (707)	Spelt grain	SUERC-99251	51 - 215 cal AD	Late Iron Age / Roman
703	707	Layer (707)	Spelt grain	SUERC-92252	117 cal BC - 30 cal AD	Late Iron Age
704	718	Fill of posthole [717]	Polygonaceae seed	SUERC-92256	40 cal BC - 87 cal AD	Late Iron Age

The radiocarbon dating results identified activity from the 1st century BC to the early third century AD, suggesting settlement from the late Iron Age into the Roman period.

6 CONCLUSION

6.1 Discussion

GAT was commissioned by Adra to undertake an archaeological evaluation in advance of a proposed residential development on land near Llwyn Bleddyn Road, Rachub, Gwynedd. A topographic survey using an unmanned aerial vehicle (UAV) was carried out over the north-eastern part of the land near Llwyn Bleddyn Road, where a strip of land forms a narrow boggy valley through which runs the stream. Evidence for former boundaries and enclosures were identified, but it has proved difficult to identify more complex archaeology.

Eight 20m by 2m trenches were opened to the west of the topographic study area, the location of which was based on evidence for the potential recovery of archaeological information from the geophysical survey results and historic cartographic evidence. Trenches 01, 03, 05 and 08 resulted in little archaeological information being recovered. Trench 02 uncovered a section of stone and earthen bank field boundary that may be prehistoric but could be later in date. Trench 4 was located over a hollow way (sunken trackway created by many years of wear and tear, leading in this case to the former Cefn Bedw) that appears to have been repaired by the setting of a cobbled surface within it, with the demolished rubble of the former nearby Cefn Bedw farmhouse spread within it after the farmhouse demolition. The trench therefore has given evidence of a number of phases of post medieval activity relating to the settlement and agriculture in the area. Trench 06 contained evidence for a substantial quantity of post-medieval building and demolition activity, relating to a probable outbuilding shown on a Penrhyn Estate map of 1855 (Bangor Archives, Penrhyn MSS 2218). Trench 07 encountered a field boundary, stone capped gully and associated postholes. The evidential morphology suggested possible prehistoric activity in the area and that the evidence is of some significance. The evidence from Trench 07 was thought likely to be at least partially related to the probable field system identified in the topographic survey, and connected to PRN 5891. This suggested that the system extended west from the area previously identified; ecofacts recovered from relevant contexts were submitted for processing, assessment and analysis to test this. The radiocarbon dating results identified activity from the 1st century BC to the early third century AD, suggesting settlement from the late Iron Age into the Roman period. The Black Burnished Ware sherds probably date from the 2nd or 3rd century AD, providing further evidence of activity within this period. The results from Trench 07 provide important opportunities to explore key themes of the *Research Framework for the Archaeology of Wales – Roman*, including: *Settlement Patterns*,

Interaction between newcomers and indigenes, The archaeology of the early campaigning years: pre-Flavian and Flavian and the results from further mitigation will be important for understanding these themes on a wider scale within the site.

6.2 Recommendations

The archaeological evaluation trenching has identified activity from the late prehistoric to post medieval period, with specific activity dated to the late Iron Age / Roman period. Based on these results, it is recommended that a programme of archaeological mitigation be carried out within the development area to identify further activity and examine whether evidence for additional settlement and phasing is present. This programme should be carried out as agreed with Gwynedd Archaeological Planning Service (GAPS).

7 SOURCES CONSULTED

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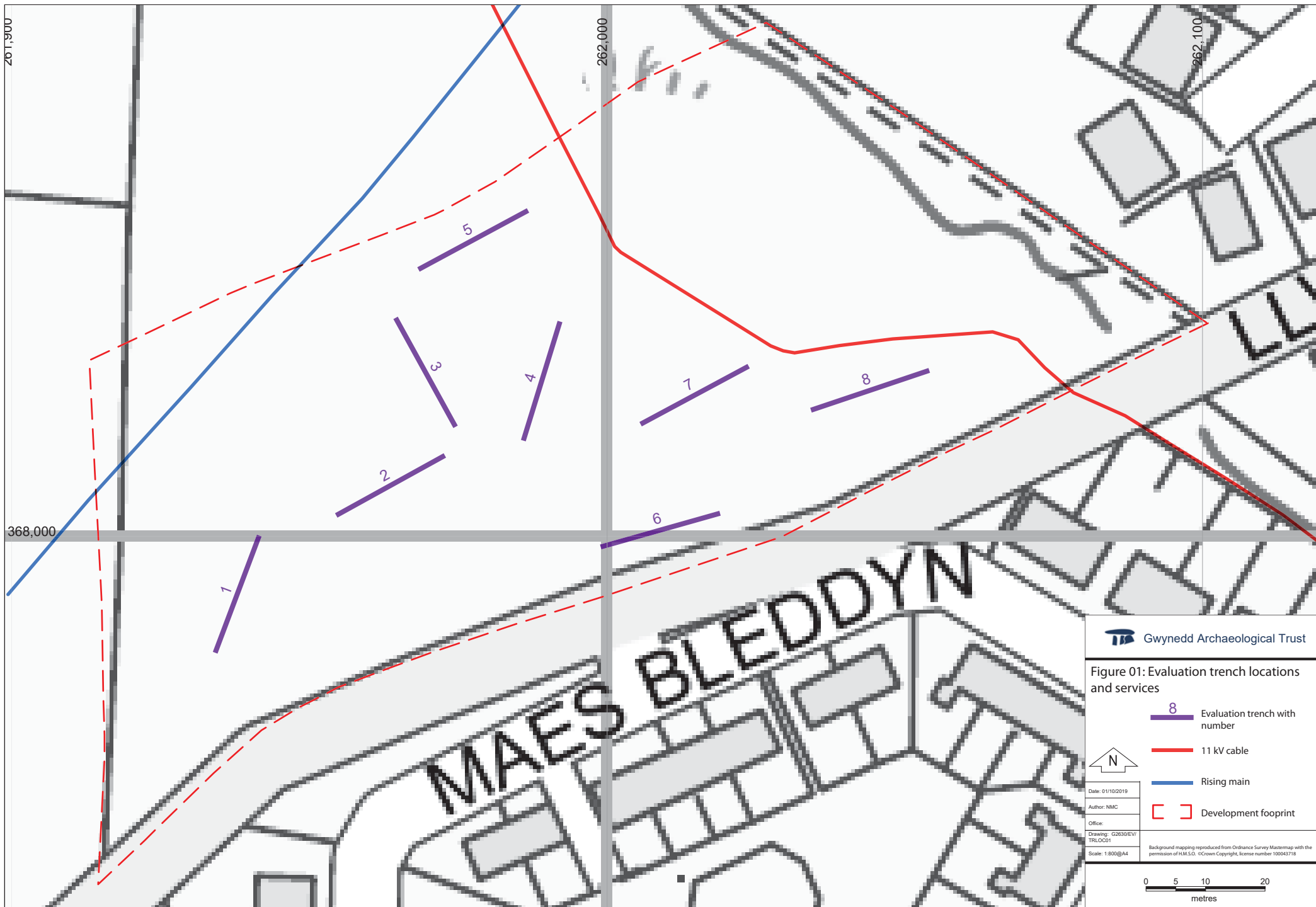



Figure 01: Evaluation trench locations and services

 Evaluation trench with number

 11 kV cable

 Rising main

 Development footprint

Date: 01/10/2019

Author: MMC

Office:

Drawing: G2030/EV/

TRLOC01

Scale: 1:800@A4

Background mapping reproduced from Ordnance Survey Mastermap with the permission of H.M.S.O. © Crown Copyright, licence number 100043718



HOUSING KEY

- 14 No. 4P2B AFFORDABLE (84m²)
- 8 No. 5P3B AFFORDABLE (96m²)
- 3 No. 5P3B SIDE ENTRY AFFORDABLE (96m²)
- 4 No. 3P2B BUNGALOW AFFORDABLE (59m²)
- 1 No. 7P4B AFFORDABLE (118m²)

D	Revised PL & Annotation etc;	2019.07.17	AL
C	Revised PL, House Types, Parking, Paths, Plot & Site Levels etc;	2019.06.25	AL
B	Revised PL, Annotation, Plot Positions, Parking, Highways, Sub-station, Landscaping etc;	2019.06.05	AL
A	Revised Plot Positions, Boundary Treatment, POA, Parking, Landscaping etc;	2019.05.21	AL

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PROJECT
Maes Bleddyn, Rachub
for CCG

DRAWING TITLE
PLANNING - PROPOSED SITE
PLAN

SCALE 1: 500 @ A2	DATE 15.05.2019	DRAWN AL	CHECKED SV
DRAWING STATUS C973	PLANNING 003	REVISION D	

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Registered Office: 1 Price Street, Hamilton Square, Birkenhead CH41 6JH

PRINTED: 17/07/2019 16:43:49

1 SITE PLAN - PROPOSED
SCALE: 1 : 500

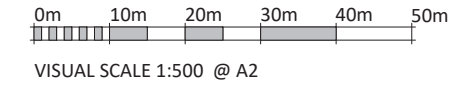
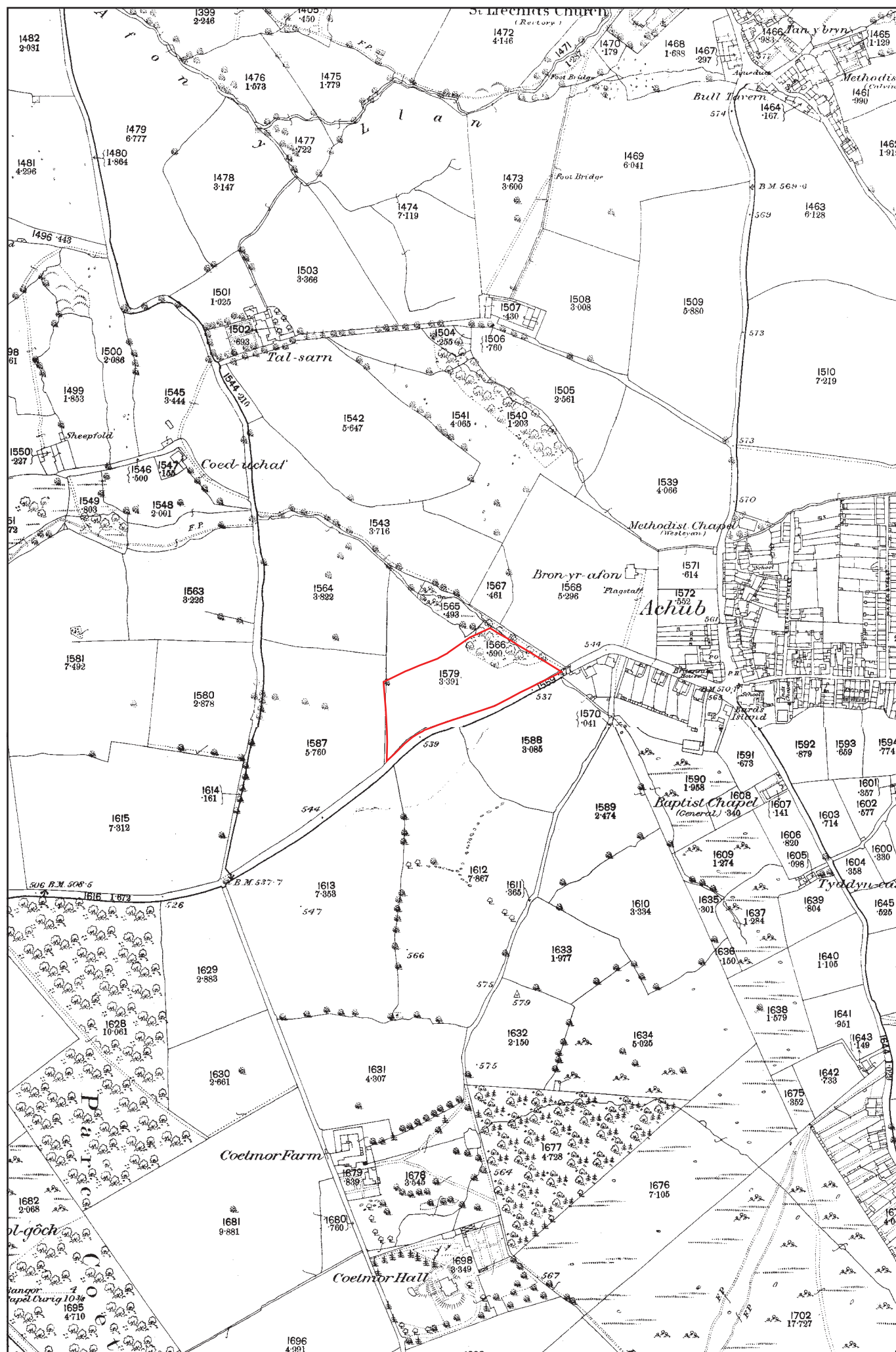
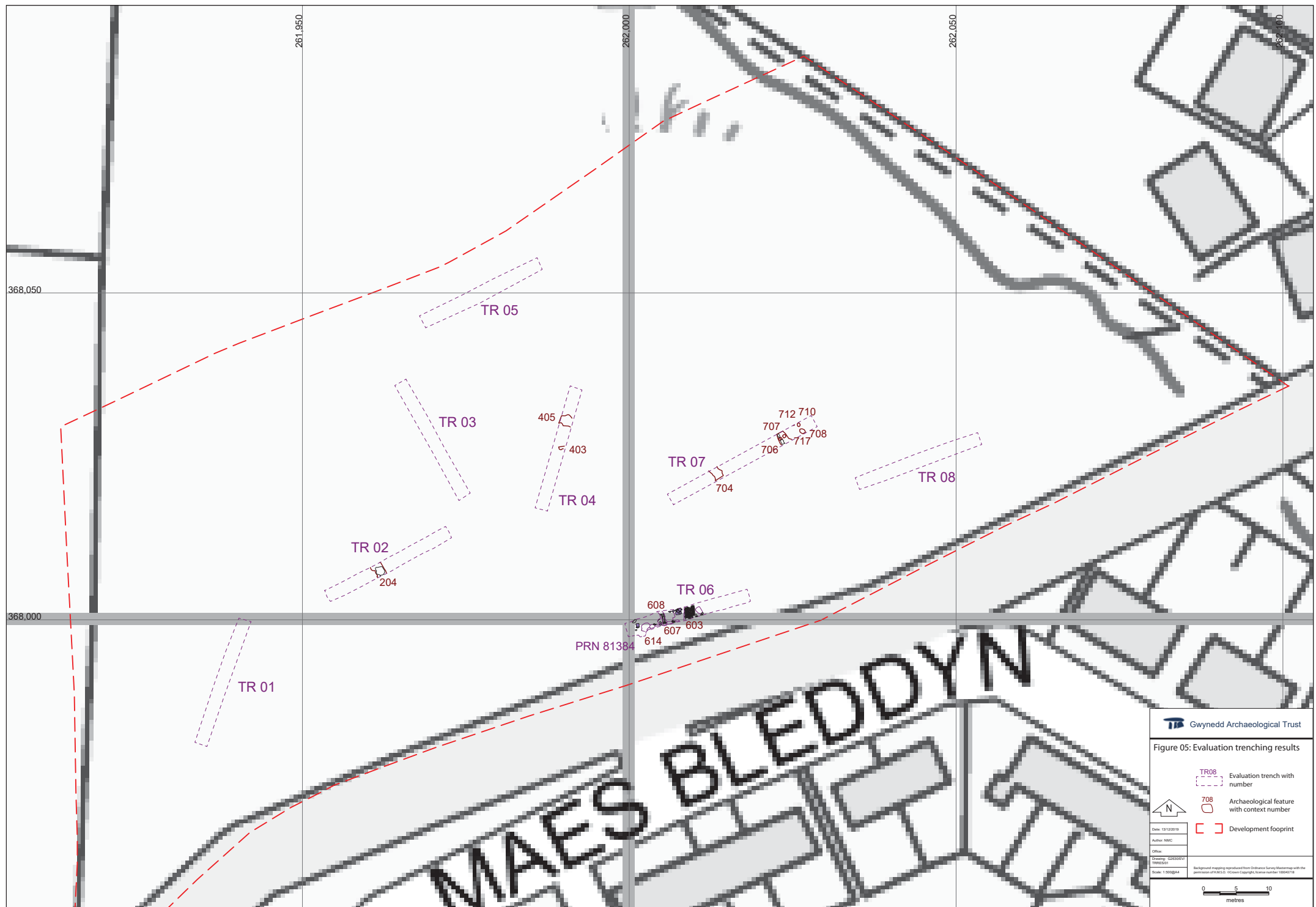




Figure 03: Reproduction of an 1855 Penrhyn Estate map of Llanllechid (Bangor Archives, Penrhyn MSS 2218), showing proposed trench layout. Services and development area outline are shown in red. Scale 1:1000 @A4





Gwynedd Archaeological Trust

Figure 05: Evaluation trenching results

TR08 Evaluation trench with number

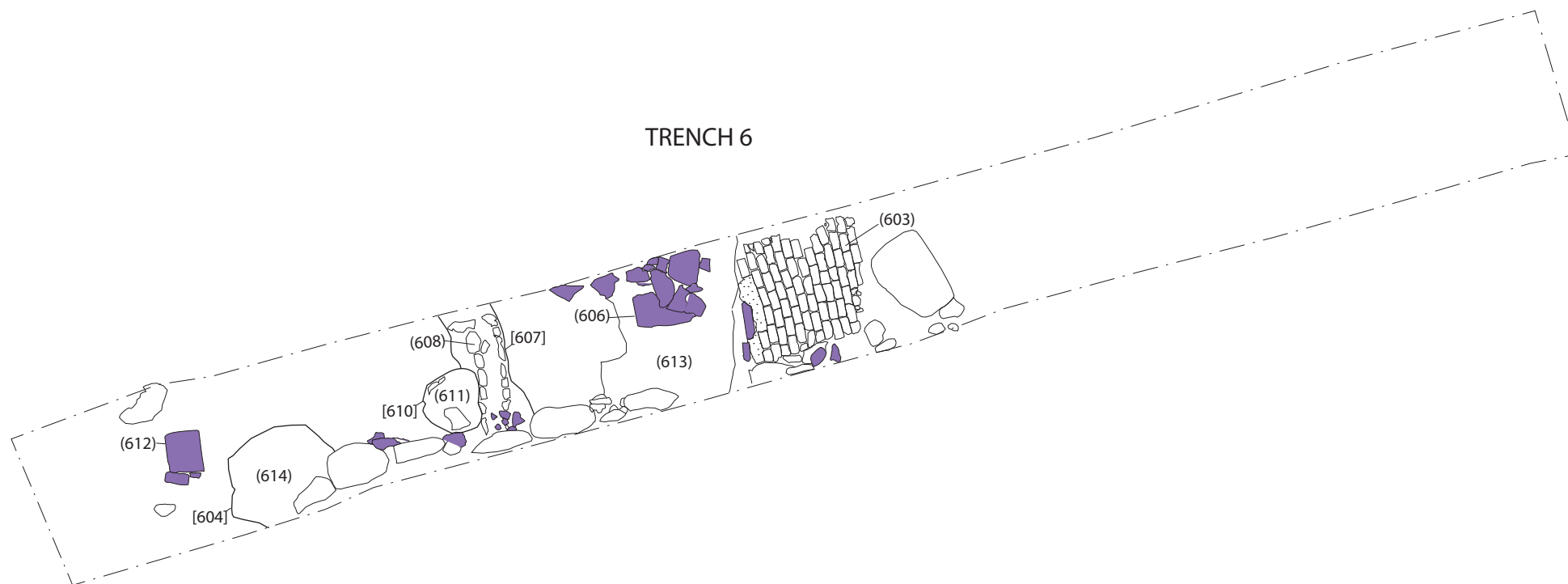
708 Archaeological feature with context number

Development footprint

Date: 13/12/2019
 Author: NMC
 Office:
 Drawing: 02/20/2019
 Scale: 1:500

Background mapping reproduced from Ordnance Survey Mapping with the permission of NAG. © Crown Copyright. Licence number: 10004718

0 5 10 metres



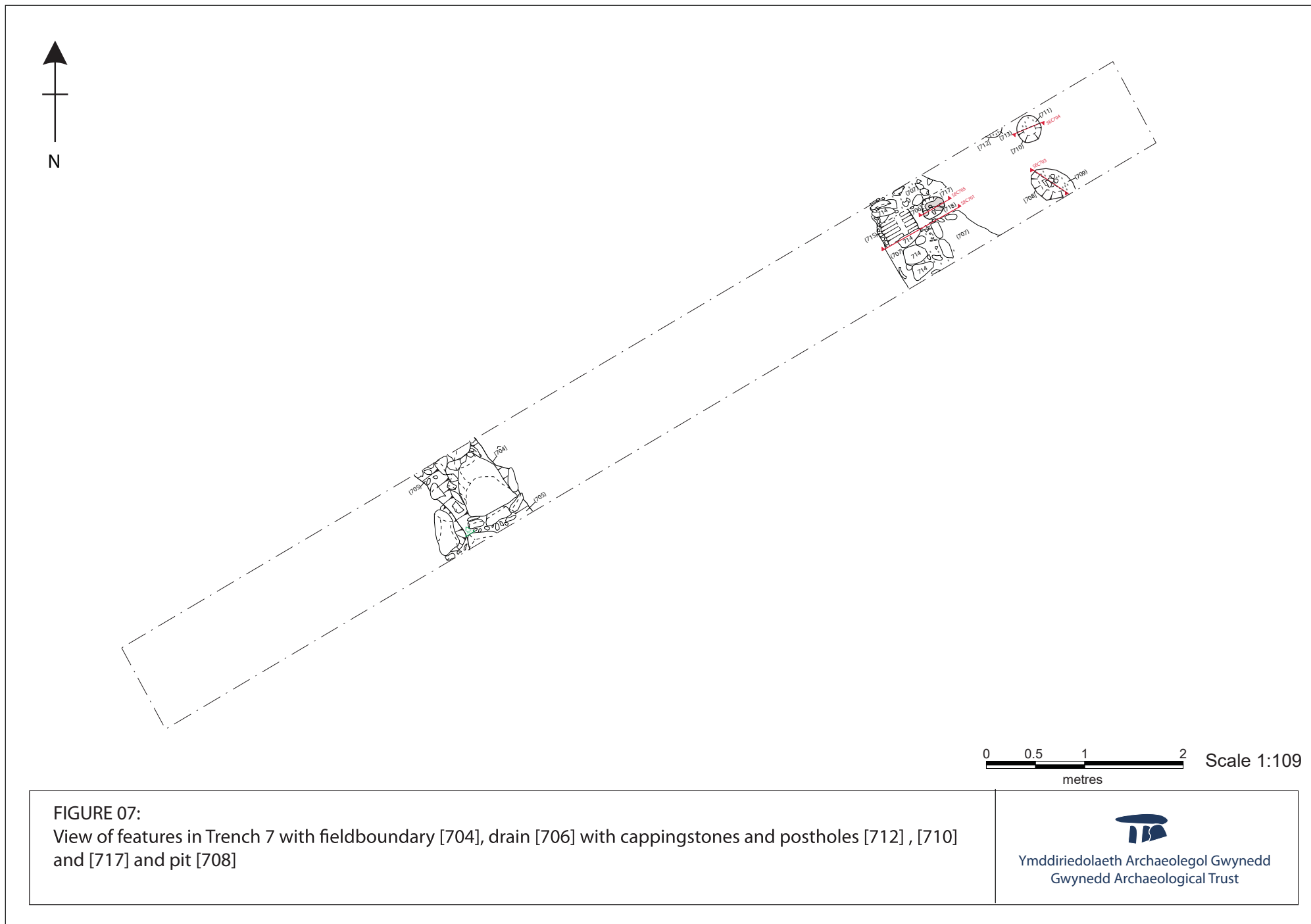
0 0.5 1 2 Scale 1:75
metres

FIGURE 06:

View of features associated with outbuilding; including brick surface (603), remnants of slate flooring (606) and (612), drain [607] and clay floor surface (613) within Trench 06.



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Gwynedd Archaeological Trust





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Figure 08: Orthoview of PRN 5891 from aerial survey

— Proposed development lies to the south of this line



Date: 20/10/2019
Author: HMC
Office:
Drawing: 02030
Unit: 20/10/2019
Scale: 1:2500A3

0 2.5 5
metres

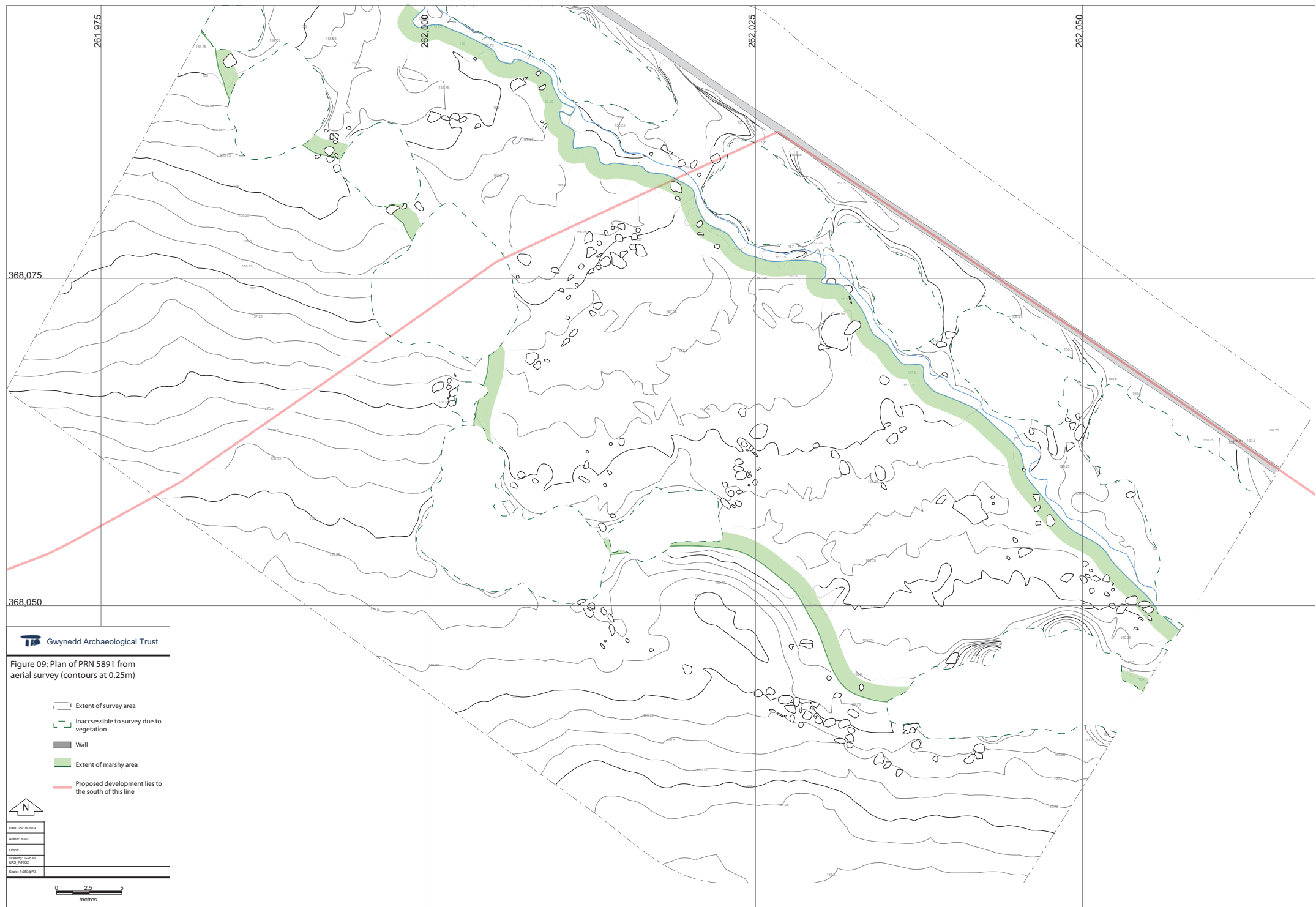




Plate 1: Pre-start condition survey of evaluation field (east of Trench 08); scale not used; view from the east (archive reference: G2630_042).



Plate 2: Pre-start condition survey of evaluation field (south of Trench 06); scale not used; view from the south (archive reference: G2630_043).



Plate 3: Pre-start condition survey of evaluation field (south of Trench 06); scale not used; view from the southeast (archive reference: G2630_044).



Plate 4: Pre-start condition survey of evaluation field (south of Trench 06); scale not used; view from the northwest (archive reference: G2630_045).



Plate 5: View of Trench 01; scale 2x1m; view from the southwest (archive reference: G2630_063).



Plate 6: Representative section of northwest facing baulk within Trench 01; scale 1x1m; view from the northwest (archive reference: G2630_065).



Plate 7: Post-excavation shot of Trench 02; scale 2x1m; view from the southwest (archive reference: G2630_073).



Plate 8: Post-excavation shot of Trench 02; scale 2x1m; view from the northeast (archive reference: G2630_075).



Plate 9: Plan view of Context 204 within Trench 02; scale 2x1m; view from the northwest (archive reference: G2630_072).



Plate 10: Pre-excavation shot of Trench 03; scale 2x1m; view from the northwest (archive reference: G2630_056).



Plate 11: Post-excitation shot of Trench 04; scale 2x1m; view from the north (archive reference: G2630_090).



Plate 12: View east of cobblestones at the southern edge of hollow within Trench 04; scale 1x1m; view from the west (archive reference: G2630_092).



Plate 13: View of west facing section within Trench 04; scale 2x1m; view from the west (archive reference: G2630_093).



Plate 14: View north of hollow at northern end of Trench 04 with surviving cobblestones; scale 2x1m; view from the south (archive reference: G2630_095).



Plate 15: Pre-excavation shot of Trench 05; scale 2x1m; view from the west (archive reference: G2630_054).



Plate 16: Representative section of southern face of baulk within Trench 05; scale 1x1m; view from the south (archive reference: G2630_055).



Plate 17: View of Trench 06 after removal of demolition deposit (Context 602); scale 2x1m; view from east-northeast (archive reference: G2630_085).



Plate 18: Post-excitation shot of remnant of brick floor within Trench 06; scale 2x1m; view from the southwest (archive reference: G2630_059).



Plate 19: Post-excavation shot of remnant of brick floor within Trench 06; scale 2x1 m; view from the northeast (archive reference: G2630_060).



Plate 20: Post-excavation shot of remnant of brick floor within Trench 06; scale 2x1 m; view from the northwest (archive reference: G2630_058).



Plate 21: Overhead view of Trench 06; scale as shown.



Plate 22: Oblique view of brick floor within Trench 06 (Context 603); scale 1x1m; view from the west (archive reference: G2630_097).



Plate 23: View northwest of slate floor within Trench 06 (Context 606); scale 1x1m; view from the southeast (archive reference: G2630_098).



Plate 24: View northeast within Trench 06 of drain (Context 607) and pit (Context 610); scale 1x1m; view from the southwest (archive reference: G2630_100).



Plate 25: View south-southeast of pit within Trench 06 (Context [604]); scale 1x1m; view from north-northwest (archive reference: G2630_101).



Plate 26: View southeast of pit within Trench 06 (Context [604]); scale 1x1m; view from the northwest (archive reference: G2630_102).



Plate 27: View south-southeast of demolition deposit within Trench 06 (Context 602); scale 1x2m; view from north-northwest (archive reference: G2630_105).



Plate 28: Oblique view of demolition deposit within Trench 06 (Context 602); scale 1x2m; view from the west (archive reference: G2630_107).



Plate 29: View east-northeast of compact floor within Trench 06 (Context 613); scale 1x1m; view from west-southwest (archive reference: G2630_108).



Plate 30: View south-southeast of representative section through building rubble within Trench 06 (Context 602); scale 1x0.5m; view from north-northwest (archive reference: G2630_109).



Plate 31: Pre-excitation view of Contexts [706], [708], [710] and [712] within Trench 07; scale 2x1m; view from the east (archive reference: G2630_076).



Plate 32: Representative section of baulk within Trench 07; scale 1x1m (archive reference: G2630_051).



Plate 33: View of early field boundary (Context 7 04) within Trench 07; scale 2x1m; view from the north (archive reference: G2630_070).



Plate 34: View of southwest facing section of Context [706] within Trench 07; scale 1x1m; view from the southwest (archive reference: G2630_081).



Plate 35: View of southeast facing section within Trench 07 of possible posthole (Context [710]); scale 1x1m; view from the southeast (archive reference: G2630_083).



Plate 36: View of southeast facing section within Trench 07 of possible pit (Context [708]); scale 1x1m; view from the southwest (archive reference: G2630_084).



Plate 37: Post-excitation shot of Trench 08; scale 2x1m; view from east-northeast (archive reference: G2630_050).



Plate 38: Condition survey of ground conditions in field post-evaluation; scale n/a; (archive reference: G2630_110).

APPENDIX I

**Reproduction of approved written scheme of investigation, Gwynedd
Archaeological Trust, November 2019.**

LLWYN BLEDDYN ROAD RACHUB (G2630)




WRITTEN SCHEME OF INVESTIGATION FOR
ARCHAEOLOGICAL EVALUATION
(TRIAL TRENCHING)

Prepared for Adra

October 2019



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

Approvals Table				
	Role	Printed Name	Signature	Date
Originated by	Document Author	ROBERT EMMS		18/11/2019
Reviewed by	Document Reviewer	JOHN ROBERTS		18/11/19
Approved by	Principal Archaeologist	JOHN ROBERTS		18/11/19

Revision History			
Rev No.	Summary of Changes	Ref Section	Purpose of Issue

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

LLWYN BLEDDYN ROAD RACHUB (G2630)

WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL EVALUATION (TRIAL TRENCHING)

Prepared for *Adra*, November 2019

CONTENTS

1	INTRODUCTION	6
1.1	Monitoring Arrangements	7
1.2	Historic Environment Record	8
2	Archaeological and historical background	9
2.1	Introduction	9
2.2	Archaeological Assessment and Geophysical Survey	10
3	METHODOLOGY	12
3.1	Trial Trenching	12
3.1.1	Introduction	12
3.1.2	Trench Locations	13
3.2	Data processing and report compilation	15
3.3	Human Remains	16
3.4	Ecofacts	17
3.5	Artefacts	18
3.6	Monitoring Arrangements	20
4	Fieldwork Archiving	21
5	PERSONNEL	22
6	SOCIAL MEDIA	23
7	INSURANCE	24
7.1	Public/Products Liability	24
7.2	Employers Liability	24
7.3	Professional Indemnity	24
8	SOURCES CONSULTED	25
FIGURE 01	26
Proposed trench layout	26
FIGURE 02	27
Reproduction of <i>Ainsley Gommon Architects</i> Drawing No. 003 Revision D, Denoting Development Proposals		27

FIGURE 03	28
Reproduction of an 1855 Penrhyn Estate Map of Llanllechid (Bangor Archives, Penrhyn Mss 2218), with the trench layout overlaid.	
FIGURE 04	28
Reproduction of Ordnance Survey First Edition Ordnance Survey 1-inch to 25-mile County Series Map Sheets XX.2 and XX.6; 1889. Scale 1:5000 @A4.	29

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by Adra to prepare a written scheme of investigation for an archaeological evaluation (trial trenching) in advance of a proposed residential development on land near Llwyn Bleddyn Road, Rachub, Gwynedd (NGR SH61986802; postcode: LL57 3EF; Figure 01). The development area measures 1.2ha and is located within a field of improved open pasture at the western end of Rachub (Figure 01). The residential development is located at the southern end of a large triangular shaped field and will include 30No house plots, along with associated access and amenities, as indicated on Figure 02.

The evaluation will be undertaken from November 2019 and will conform to the following guidelines:

- *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); and
- *Standard and Guidance for Archaeological Field Evaluation* (Chartered Institute for Archaeologists, 2014).

GAT 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 and a member of the Federation of Archaeological Managers and Employers (FAME).

1.1 Monitoring Arrangements

The archaeological evaluation 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.

1.2 Historic Environment Record

In line with the GAT 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). In line with this guidance, all submitted reporting will need to include the equivalent of a non-technical summary in Welsh and English at the front of the report combined with short bilingual summaries of the principal Historic Assets recorded during the event. These requirements are mandatory. The GAT HER enquiry number is GATHER1166 and the event primary reference number is PRN 45527

The GAT HER will also be responsible for supplying Primary Reference Numbers (PRN) for new assets identified and recorded.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

A brief examination of the regional Historic Environment Record demonstrates that the assessment area within an area of known archaeological activity, with two sites located within the field designated for development:

- The site of a cockpit is (Primary Reference Number 3674) located at NGR SH62006800 at the southern end of the field within the development footprint; and
- An enclosed field system (Primary Reference Number 5891) comprising lines of boulders, assumed to be the remains of wall foundations, located alongside a small stream, within an area of low-lying land at NGR SH62006810, located to the immediate northwest of the development area.

The development area in historic times formed part of Cefn Bedw farm, the property of the Coetmor Estate until the early years of the 19th century, when it came into the hands of the Penrhyn Estate. Unfortunately no maps have been traced of the development area before the tithe map of the parish of Llanllechid of 1840 (National Library of Wales) which only shows divisions in the landscape based on blocks of estate holdings with no attempt made to show individual fields, although the homestead of Cefn Bedw is shown. The land on which the development is due to take place is shown as forming part of Plot number 95, under the ownership of the Earl of Egmont and the occupation of Richard Owen, and consisting of an area of 30 acres 1 rood and 17 perches (*ibid.*). The former layout of nearby fields, a sinuous field system of post-medieval origin, is however shown on a Penrhyn estate map of 1855 along with Cefn Bedw farm (Bangor Archives, Penrhyn MSS 2218).

By the time of the Ordnance Survey First to Third Edition Ordnance Survey 1-inch to 25-mile County Series Map Sheet of the area (Sheets XX.2 and XX.6; 1889, 1900 and 1914 respectively; cf. Figure 04) shows the development area within an enclosed field that matches the current boundaries. A stream, footpath and dispersed wooded area are located along the northwest boundary, which are still present, with the remainder of the field, as now, represented as open pasture. The plot is located at the western end of Rachub, with the main settlement located to the immediate east; this layout has not fundamentally changed, beyond two recent housing estates to the south and northeast of the development site.

GAT undertook an archaeological assessment in advance of the construction of the housing estate northeast of the development site (GAT Report 807), followed by a watching brief during construction (GAT Report 1226). Information from these reports will be consulted during the current assessment and evaluation.

The development is located within the Registered Historic Landscape of Ogwen Valley (Gw10) and the Historic Landscape Characterisation area designated as Fieldscape around Llanllechid. There are scheduled monuments in the vicinity of the development site, including the Coed Uchaf Hut Group (Scheduled Monument CN176; NGR SH61606840), located 310m to the northwest of the proposed development site and Hut Circles West of Corbri (Scheduled Monument CN287; NGR SH61606840), located 700m to the north of the proposed development site.

2.2 Archaeological Assessment and Geophysical Survey

GAT have completed an assessment and geophysical survey of the proposed development area (GAT Report 1500). The report concluded that the plot had been significantly improved agriculturally, although prominent glacial boulders still protruded from the ground suggesting these stones were much in evidence before field clearance, and were likely used in the construction of local post-medieval settlement. The stone walled field boundaries to the west and south were also constructed of local fieldstone and date to between 1855 and 1889, as shown on the cartographic evidence resulting from Coetmor estate or later Penrhyn estate management. Six specific features, three probably prehistoric to mediaeval in date, and three post-medieval, probably relating to the farm of Cefn Bedw, were identified, for which topographic survey and evaluation by archaeological trial trenching was recommended. The possible cockpit noted on the Gwynedd HER was not observed on the ground during the assessment walkover.

Feature No	Primary Reference Number	Site Name	Period	NGR
01	81382	Terraced area with associated enclosure wall	Prehistoric/Medieval?	SH62026806
02	5891	Remnant of walling	Prehistoric/medieval?	SH62026818
03	81383	Round houses and enclosures, forming a probable settlement group	Prehistoric/medieval?	SH62056805

Feature No	Primary Reference Number	Site Name	Period	NGR
04	81384	Cefn Bedw farmstead and outbuildings	Post-medieval	SH61996800
05	81385	Field boundary system	Post-medieval	SH61206800
06	3674	Cock pit	Post-medieval	SH62006800

The three potential prehistoric features were identified in the eastern part of the development area and were interpreted as a possible enclosure settlement, similar to the Coed Uchaf enclosure and hut group (PRN 294, SM Cn174, SH61606840), 310m to the northwest. The settlement site appears to have been disturbed by field clearance but may indicate more extensive buried archaeology across the development area.

The geophysical survey did not identify any probable archaeological anomalies: no traces of the Cefn Bedw buildings or the field boundaries depicted on the 1840 tithe map or the Penrhyn estate map of 1855 were located. Five possible archaeological anomalies were identified: a bank (Anomaly 1), a hearth (Anomaly 2), kilns (Anomalies 2, 3 and 4) and a pit (Anomaly 5); these could not be demonstrated conclusively to be archaeological in origin and further evaluation was recommended as Anomaly 1 in particular may be related to the prehistoric settlement activity to the east. The survey identified high levels of magnetic disturbance resulting from discarded ferrous metal objects and it was proposed that these could also be masking archaeological features, particularly on the southern and southeastern sides of the survey area. Based on these results, targeted trial trenching was recommended across the development site to target the location of the geophysical anomalies as well as to investigate the site as a whole.

In addition, a topographic survey was recommended for Features 1 to 3, located in the less improved part of the development area to the north-east, to enable the possible prehistoric remains to be placed in a wider context with the known prehistoric sites in the wider area. This was subsequently carried out and a plan produced from the orthostatic aerial photographic view created.

3 METHODOLOGY

3.1 Trial Trenching

3.1.1 Introduction

A total of eight targeted trenches will be undertaken for the archaeological evaluation, which will be opened and closed by a tracked excavator supplied by an approved subcontractor. The aim will be to expose and characterise the respective anomalies, recovering datable ecofacts and artefacts if possible. Full excavation of all features exposed is not being considered within the allotted timeframe but the fieldwork will be sufficient to allow the features to be characterised and artefact and/or ecofacts recovered (if present). All trenches will be located with a Trimble GPS unit. GAT staff will include 1xSupervisor and 1xSite Technicians for an 8 day period. All fieldwork will be completed in accordance with industry standards and the GAT Field Manual. The trenches will be carefully de-turfed using an excavator fitted with a toothless bucket, the turf will then be stored close to the trench, and will then be re-laid during the backfilling process.

The details of each of the eight trenches are listed below, and the work forms part of a phased process, with the results informing subsequent strategies. They are designed to target, where possible, the known and probable archaeological features identified during the assessment and survey phases of the project, and avoid the 11Kv cable that runs NW-SE on the eastern side of the site, and a water pipe that runs SW-NE across the NW corner of it (Figure 01). Trenches 4 and 6 target the probable location of the former farmhouse of Cefn Bedw, as indicated on the historic mapping, Trenches 3, 5, 7 and 8 target evidence of the former field systems in the area along with anomalies identified during the geophysical survey, and 1 and 2 target other potential anomalies and control areas (Figure 03). These trenches are targeting the agriculturally improved portion of the field; consideration of the lower lying, less improved, north-eastern part of the site awaits the results of this evaluation.

3.1.2 Trench Locations

Trench Number	Size	Orientation	Centreline endpoint	Centreline endpoint
Trench 1	20x2m	NNE-SSW	E 261934.30 N 367980.88	E 261941.41 N 367999.74
Trench 2	20x2m	WSW-ENE	E 261954.86 N 368003.71	E 261972.37 N 368013.37
Trench 3	20x2m	NNW-SSE	E 261974.32 N 368018.75	E 261964.66 N 368036.29
Trench 4	20x2m	NNE-SSW	E 261986.04 N 368016.47	E 261991.94 N 368035.64
Trench 5	20x2m	WSW-ENE	E 261968.67 N 368044.98	E 261986.33 N 368054.48
Trench 6	20x2m	WSW-ENE	E 262018.55 N 368003.77	E 261999.31 N 367998.33
Trench 7	20x2m	WSW-ENE	E 262005.98 N 368019.02	E 262023.40 N 368028.36
Trench 8	20x2m	WSW-ENE	E 262034.63 N 368021.30	E 262053.69 N 368027.71

The works are currently scheduled to begin on Thursday 20th November and run until Friday 30th November.

- The eight trenches will be excavated as far as the glacial horizon or an archaeological horizon, whichever is encountered first. The trenches will be excavated by machinery supplied by *RG Hire*;
- All eight trenches and any identified features will be recorded using GAT pro-formas. The trenches, and any identified features, will be located using a *Trimble R8* GPS unit;
- Photographic images will be taken using a digital SLR (Nikon D3100) camera set to maximum resolution (4,608 × 3,072 14.2 effective megapixels) in RAW format; a photographic record will be maintained on site using GAT pro-formas and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process. Photographic images will be archived in TIFF format using Adobe Photoshop; the

archive numbering system will start from **G2630_032**. A photographic ID board will be used during the evaluation to record site code, image orientation and any relevant context numbers.

3.2 Data processing and report compilation

Following completion of the stages outlined above, a report will be produced within one month incorporating the following:

1. Non-technical summary
2. Introduction
3. Aims and objectives
4. Background
5. Methodology
6. Results
7. Conclusions and further recommendations
8. List of sources consulted.
9. Appendix I – approved GAT project design
10. Appendix II – photographic metadata
11. Appendix III – context register
12. Appendix IV – ecofact register
13. Appendix V – artefact register

Should dateable artefacts and ecofacts be recovered, an **interim report** will be submitted summarising the results, along with an assessment of potential for analysis written scheme of investigation (in line with the MAP2 process).

Illustrations will include plans of the location, site plans and sections. Historical maps, when appropriate and if copyright permissions allow, will be included. A draft copy of the report will be sent to the GAPS Planning Archaeologist and to the client prior to production of the final report.

3.3 Human Remains

If any human remains are identified during the course of the evaluations, the GAPS Planning Archaeologist will be informed immediately. If the remains cannot be preserved in situ their recovery will take place under appropriate regulations, with due sensitivity and regard for health and safety issues as recommended in *Updated Guidelines to the Standards for Recording Human Remains* (Chartered Institute for Archaeologists, 2017). In order to excavate human remains, a Ministry of Justice licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. In accordance with the Ministry of Justice licence, recovered remains will be reburied once the investigation and/or assessment/analysis are complete.

Non-fragmented skeletal remains will be excavated using wooden tools and collected and stored in polyethylene bags (with appropriate references for context, grave number, et al) and placed in a lidded cardboard archive box (note: separate boxes for each grave) and stored in a suitable manner within GAT premises. If significant quantities of human remains are encountered, a human osteologist will be contacted and appointed to advise the team during the fieldwork. The osteologist will be an external appointment: Dr. Genevieve Tellier | Tel: 01286 238827 | email: northwalesosteology@outlook.com who will assist in devising the excavation, recording and sampling strategy for features containing human remains. The osteologist should also help to ensure that adequate post-excavation processing of human remains is carried out so that the material is in a fit state for assessment during the post-excavation stage. For inhumations, this will involve washing, drying, marking and packing.

If human remains are recovered that are deemed suitable for further assessment/analysis, this will be completed in accordance with the osteologist's requirements and with *The Role of the Human Osteologist in an Archaeological Fieldwork Project* (Historic England, 2018).

3.4 Ecofacts

Should any deposits deemed suitable for dating be identified, samples will be taken from sealed contexts, with not less than 40 litres for bulk samples. The sampling strategy will be undertaken in accordance with the principles set out in *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage, 2011). Recourse will be made to relevant specialists for palaeoenvironmental analysis and dating. Any required specialists will be consulted during the evaluation to advise GAT on a sampling strategy. For any ecofact samples taken from human burials, this will be completed in accordance with an appointed osteologist's guidance.

3.5 Artefacts

Diagnostic artefacts will be retained for further examination and identification. Pottery sherds of 19th and 20th century date will be examined on site and the context from which they were retrieved noted but the sherds will not be retained, unless they are in a stratified archaeological context directly associated with the post-medieval house of Cefn Bedw, when they will be retained. The artefacts will be treated according to guidelines issued by the UK Institute of Conservation, in particular the advice provided within *First Aid for Finds* (Watkinson and Neal 2001).

Any waterlogged artefacts (e.g. wood or leather) that are to be recovered for post-excavation assessment and analysis will be processed in accordance with *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage, 2011) and specifically in accordance with Brunning and Watson (2010) for waterlogged wood and Historic England (2012) for waterlogged leather. In such cases an external specialist will be contacted to agree an appropriate sampling and recovery strategy via Lucy Whittingham | Project Manager (post-excavation) | AOC Archaeology | telephone: 0208 843 7380 | email: lucy.whittingham@aocarchaeology.com).

All finds are the property of the landowner; however, it is Trust policy to recommend that all finds are donated to an appropriate museum (in this case *Storiol*, Ffordd Gwynedd, Bangor LL57 1DT), where they can receive specialist treatment and study. Access to finds must be granted to the Trust for a reasonable period to allow for analysis and for study and publication as necessary. Trust staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown, on whose behalf the Portable Antiquities Scheme acts as advisor on technical matters, and may be the recipient body for the objects.

The Treasure Valuation Committee, based at the British Museum, and informed by the Portable Antiquities Scheme, will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives

no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

GAT will contact the landowner (via the Penrhyn Estate) for agreement regarding the transfer of artefacts, initially to GAT and subsequently to the relevant museum (Storiol, Bangor). A GAT produced pro-forma will be issued to the landowner where they are given the option to donate the finds or to record that they want them returning to them once analysis and assessment has been completed. Artefacts to be donated will then be transferred to Storiol, Bangor.

3.6 Monitoring Arrangements

The GAPS Planning Archaeologist will be kept informed of the project timetable and of the subsequent progress and findings. This will allow time to arrange monitoring visits and attend site meetings (if required) and enable discussion about the need or otherwise for further works (if required) as features of potential archaeological significance are encountered. The contact details are: 01248 370926.

4 FIELDWORK ARCHIVING

Following the completion of the fieldwork, a programme of fieldwork archiving will be completed based on following task list:

1. Pro-formas: all cross referenced and complete;
2. Photographic Metadata: completed in *Microsoft Access* and cross-referenced with all pro-formas;
3. Sections: all cross referenced and complete;
4. Survey data: downloaded using a Computer Aided Design package;
5. Plans: all cross referenced and complete;
6. Artefacts (if relevant): quantified and identified; register completed;
7. Ecofacts (if relevant): quantified and register completed;
8. Context register (if relevant): quantified and register completed.

All data will be processed, final illustrations will be compiled and a report will be produced which will detail and synthesise the results. A full archive including plans, photographs, written material and any other material resulting from the project will also be prepared.

On completion, the following dissemination will apply:

- A paper report(s) plus digital report(s) will be provided to the client/consultant and the GAPS Planning Archaeologist (draft report then final report);
- A paper report plus a digital report will be provided to the Gwynedd HER within six months of project completion (final report only). If appropriate, digital information such as the project database, GIS table(s) and photographs, will also be submitted to the regional Gwynedd HER. All digital datasets submitted will conform to the required HER standards;
- A digital report and archive (including photographic and drawn) data will be provided to the Royal Commission on Ancient and Historic Monuments Wales (RCAHMW; final report only). This will be in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata;

5 PERSONNEL

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section. The assessment will be completed by a Project Archaeologist who will have responsibility for completing compiling the gazetteer, preparing the site archive, liaising with GAPS and *Adra* and preparing the draft report and final report. The archaeological trial trenching will be undertaken by a team of Project Archaeologists, who will have responsibility for arranging site access. The survey results will be incorporated into the assessment report and included in the gazetteer. The project manager will be responsible for reviewing and approving the report prior to submission.

Copies of the site specific risk assessment will be supplied to the client and sub-contractor prior to the start of fieldwork. Any risks and hazards will be indicated prior to the start of work via a submitted risk assessment. All GAT staff will be issued with required personal safety equipment, including high visibility jacket, steel toe-capped boots and hard hat. All GAT fieldwork is undertaken in accordance with the Trust's Health and Safety Manual, Policy and Handbook which were prepared by Ellis Whittam.

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 21/06/2020

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 21/06/2020

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

POLICY NUMBER 9446015

EXPIRY DATE 22/07/2020

8 SOURCES CONSULTED

1. English Heritage, 1991, Management of Archaeological Projects
2. English Heritage, 2015, Management of Research Projects in the Historic Environment (MoRPHE).
3. Evans, R., 2009. *Land Adjacent to Bron Arfon, Llanllechid Archaeological Desk Based Assessment* (G2087). Gwynedd Archaeological Trust Report No. 807.
4. Evans, R., 2015. *Bron Arfon, Llanllechid Archaeological Desk Watching Brief* (G2087). Gwynedd Archaeological Trust Report No. 1226.
5. Evans, R and McGuinness, N 2019. *Llwyn Bleddyn Road, Rachub: Archaeological Assessment & Evaluation (Geophysical Survey)* (G2630). Gwynedd Archaeological Trust Report No. 1500.
6. *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (Version 1.1)
7. Ordnance Survey First Edition Ordnance Survey 1-inch to 25-mile County Series Map Sheets XX.2 and XX.6; 1889.
8. Ordnance Survey Second Edition Ordnance Survey 1-inch to 25-mile County Series Map Sheets XX.2 and XX.6; 1900.
9. Ordnance Survey Third Edition Ordnance Survey 1-inch to 25-mile County Series Map Sheets XX.2 and XX.6; 1914.
10. Royal Commission on Ancient and Historic Monuments of Wales 2015 *Guidelines for digital archives*
11. Standard and Guidance for Archaeological Geophysical Survey (Chartered Institute for Archaeologists, 2014).
12. Standard and Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists, 2014).

FIGURE 01

Proposed trench layout

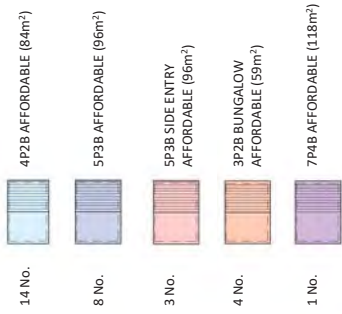


FIGURE 02

Reproduction of *Ainsley Gommon Architects* Drawing No. 003 Revision D, Denoting Development Proposals.



HOUSING KEY



NO	SUBMISSION	DATE	BY
D	Revised PL & Annotation etc;	2019.07	AL
C	Revised PL, House Types, Parking, Paths, Plot & Site Levels etc;	2019.06	AL
B	Revised PL, Annotation, Plot Locations, Parking, Highways, etc	2019.06	AL
A	Revised Plot Positions, Boundary Treatment, POA, Parking, Landscaping etc;	2019.05	AL

PROJECT
Maes Bledodyn, Rachub
for CCG

DRAWING TITLE
PLANNING - PROPOSED SITE
PLAN

SCALE	DATE	DRAWN	CHECKED
1:500 @A3	15.05.2019	AL	SV
DRAWING STATUS			
PLANNING			
JOB NO			
DRAWING NO	REVISION		
C973	003	D	



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PRINTED: 17/07/2019 16:43:49

1 | SITE PLAN - PROPOSED

SCALE: 1 : 500

VISUAL SCALE 1:500 @ A2



FIGURE 03

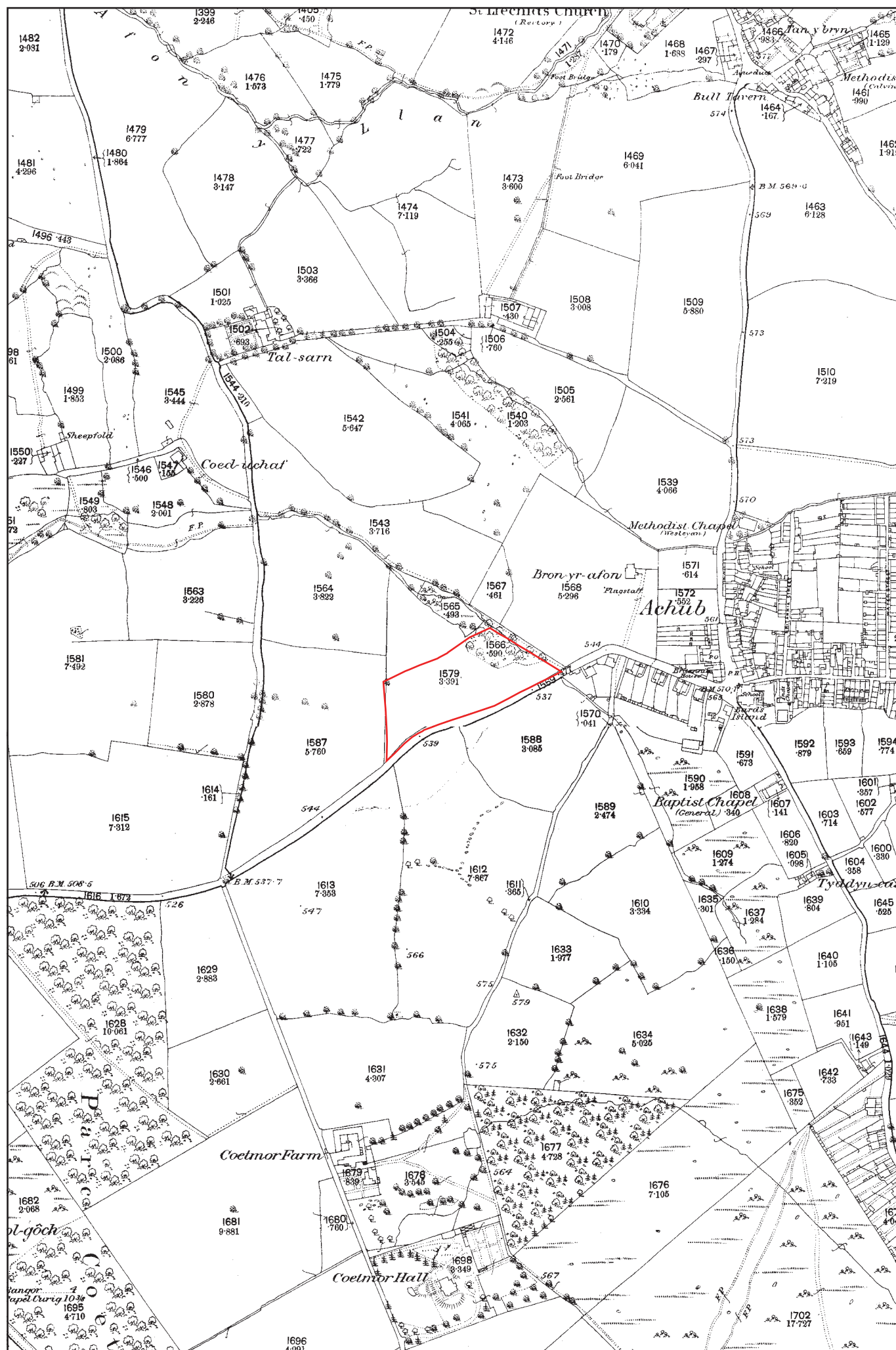
Reproduction of an 1855 Penrhyn Estate Map of Llanllechid (Bangor Archives, Penrhyn Mss 2218), with the trench layout overlaid.



Figure 03: Reproduction of an 1855 Penrhyn Estate map of Llanllechid (Bangor Archives, Penrhyn MSS 2218), showing proposed trench layout. Services and development area outline are shown in red. Scale 1:1000 @A4

FIGURE 04

Reproduction of Ordnance Survey First Edition Ordnance Survey 1-inch to 25-mile County Series Map Sheets XX.2 and XX.6; 1889. Scale 1:5000 @A4.



APPENDIX II

Photographic Metadata

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_032	Evaluation	n/a	Access and entrance into evaluation field	n/a	W	not used	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_033	Evaluation	n/a	Pre-start condition survey of evaluation field	n/a	SW	not used	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_034	Evaluation	Trench 01	Pre-excavation shot of Trench 01	n/a	SW	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_035	Evaluation	Trench 02	Pre-excavation shot of Trench 02	n/a	SW	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_036	Evaluation	Trench 03	Pre-excavation shot of Trench 03	n/a	SE	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_037	Evaluation	Trench 04	Pre-excavation shot of Trench 04	n/a	S	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_038	Evaluation	Trench 05	Pre-excavation shot of Trench 05	n/a	NE	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_039	Evaluation	Trench 06	Pre-excavation shot of Trench 06	n/a	SW	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_040	Evaluation	Trench 07	Pre-excavation shot of Trench 07	n/a	W	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_041	Evaluation	Trench 08	Pre-excavation shot of Trench 08	n/a	SSW	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_042	Evaluation	Trench 08	Pre-start condition survey of evaluation field (east of Trench 08)	n/a	E	not used	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	1
G2630_043	Evaluation	Trench 06	Pre-start condition survey of evaluation field (south of Trench 06)	n/a	S	not used	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	2
G2630_044	Evaluation	Trench 06	Pre-start condition survey of evaluation field (south of Trench 06)	n/a	SE	not used	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	3
G2630_045	Evaluation	Trench 06	Pre-start condition survey of evaluation field (south of Trench 06)	n/a	NW	not used	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	4
G2630_046	Evaluation	n/a	Pre-start condition survey of northern limit marked with fencing	n/a	W	not used	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_047	Evaluation	Trench 07	Pre-excavation shot of Trench 07	n/a	NE	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_048	Evaluation	Trench 07	Pre-excavation shot of Trench 07	n/a	SW	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_049	Evaluation	Trench 08	Post-excavation shot of Trench 08	n/a	WSW	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	
G2630_050	Evaluation	Trench 08	Post-excavation shot of Trench 08	n/a	ENE	2x1m	Stuart Reilly	21/11/19	Gwynedd Archaeological Trust	37

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_051	Evaluation	Trench 07	Representative section of baulk within Trench 07	n/a	n/a	1x1m	Bethan Jones	22/11/19	Gwynedd Archaeological Trust	32
G2630_052	Evaluation	Trench 08	Representative section of southwest facing baulk within Trench 08	n/a	SW	1x1m	Bethan Jones	22/11/19	Gwynedd Archaeological Trust	
G2630_053	Evaluation	Trench 05	Pre-excavation shot of Trench 05	n/a	E	2x1m	Bethan Jones	22/11/19	Gwynedd Archaeological Trust	
G2630_054	Evaluation	Trench 05	Pre-excavation shot of Trench 05	n/a	W	2x1m	Bethan Jones	22/11/19	Gwynedd Archaeological Trust	15
G2630_055	Evaluation	Trench 05	Representative section of southern face of baulk within Trench 05	n/a	S	1x1m	Bethan Jones	22/11/19	Gwynedd Archaeological Trust	16
G2630_056	Evaluation	Trench 03	Pre-excavation shot of Trench 03	n/a	NW	2x1m	Robert Evans	22/11/19	Gwynedd Archaeological Trust	10
G2630_057	Evaluation	Trench 03	Pre-excavation shot of Trench 03	n/a	SE	2x1m	Robert Evans	22/11/19	Gwynedd Archaeological Trust	
G2630_058	Evaluation	Trench 06	Post-excavation shot of remnant of brick floor within Trench 06	603	NW	2x1m	Stuart Reilly	22/11/19	Gwynedd Archaeological Trust	20
G2630_059	Evaluation	Trench 06	Post-excavation shot of remnant of brick floor within Trench 06	603	SW	2x1m	Stuart Reilly	22/11/19	Gwynedd Archaeological Trust	18
G2630_060	Evaluation	Trench 06	Post-excavation shot of remnant of brick floor within Trench 06	603	NE	2x1m	Stuart Reilly	22/11/19	Gwynedd Archaeological Trust	19

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_061	Evaluation	Trench 06	Southwest facing section within Trench 06 of Contexts 601 and 602	601 & 602	SW	2x1m	Stuart Reilly	22/11/19	Gwynedd Archaeological Trust	
G2630_062	Evaluation	n/a	General view of site showing Netlon mesh fencing as of Friday evening	n/a	SW	not used	Bethan Jones	22/11/19	Gwynedd Archaeological Trust	
G2630_063	Evaluation	Trench 01	View of Trench 01	n/a	SW	2x1m	Bethan Jones	25/11/19	Gwynedd Archaeological Trust	5
G2630_064	Evaluation	Trench 01	View of Trench 01	n/a	NE	2x1m	Bethan Jones	25/11/19	Gwynedd Archaeological Trust	
G2630_065	Evaluation	Trench 01	Representative section of northwest facing baulk within Trench 01	1001, 1002 & 1003	NW	1x1m	Bethan Jones	25/11/19	Gwynedd Archaeological Trust	6
G2630_066	Evaluation	Trench 03	Representative section of northeast facing baulk within Trench 03	301 & 302	NE	1x1m; 1x0.3m	Robert Evans	25/11/19	Gwynedd Archaeological Trust	
G2630_067	Evaluation	Trench 02	Northeast facing section within Trench 02 of Context 204	204	NE	2x1m	Stuart Reilly	26/11/19	Gwynedd Archaeological Trust	
G2630_068	Evaluation	Trench 02	Northeast facing section within Trench 02 of Context 204	204	NE	2x1m	Stuart Reilly	26/11/19	Gwynedd Archaeological Trust	
G2630_069	Evaluation	Trench 02	Southeast facing representative section within Trench 02	201 to 203	SE	2x1m	Stuart Reilly	26/11/19	Gwynedd Archaeological Trust	

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_070	Evaluation	Trench 07	View of early field boundary (Context 7004) within Trench 07 *note: north arrow should be pointing south*	7004 & 7005	N	2x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	33
G2630_071	Evaluation	Trench 07	View of early field boundary (Context 7004) within Trench 07	7004 & 7005	S	2x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	
G2630_072	Evaluation	Trench 02	Plan view of Context 204 within Trench 02	204	NW	2x1m	Stuart Reilly	26/11/19	Gwynedd Archaeological Trust	9
G2630_073	Evaluation	Trench 02	Post-excavation shot of Trench 02	203 & 204	SW	2x1m	Stuart Reilly	26/11/19	Gwynedd Archaeological Trust	7
G2630_074	Evaluation	Trench 02	Southwest facing section within Trench 02 of Context 204	204	SW	2x1m	Stuart Reilly	26/11/19	Gwynedd Archaeological Trust	
G2630_075	Evaluation	Trench 02	Post-excavation shot of Trench 02	203 & 204	NE	2x1m	Stuart Reilly	26/11/19	Gwynedd Archaeological Trust	8
G2630_076	Evaluation	Trench 07	Pre-excavation view of Contexts [7006], [7008], [7010] and [7012] within Trench 07	7006, 7008, 7010 & 7012	E	2x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	31
G2630_077	Evaluation	Trench 07	Pre-excavation view of Context [7006] within Trench 07	7006	E	1x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_078	Evaluation	Trench 07	Pre-excavation view of Context [7008] within Trench 07	7008	E	1x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	
G2630_079	Evaluation	Trench 07	Pre-excavation view of Context [7010] within Trench 07	7010	S	1x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	
G2630_080	Evaluation	Trench 07	Pre-excavation view of Context [7012] within Trench 07	7012	S	1x0.1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	
G2630_081	Evaluation	Trench 07	View of southwest facing section of Context [7006] within Trench 07	7006 & 7007	SW	1x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	34
G2630_082	Evaluation	Trench 07	View of possible roundhouse within Trench 07 showing drain, capping stones, stone filled posthole and buried soil	7006, 7007 & 7015	E	1x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	
G2630_083	Evaluation	Trench 07	View of southeast facing section within Trench 07 of possible posthole (Context [7010])	7010 & 7011	SE	1x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	35
G2630_084	Evaluation	Trench 07	View of southeast facing section within Trench 07 of possible pit (Context [7008])	7008 & 7009	SW	1x1m	Bethan Jones	26/11/19	Gwynedd Archaeological Trust	36
G2630_085	Evaluation	Trench 06	View of Trench 06 after removal of demolition deposit (Context 602)	602	ENE	2x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	17

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_086	Evaluation	Trench 06	View of Trench 06 after removal of demolition deposit (Context 602)	602	WSW	2x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	
G2630_087	Evaluation	Trench 07	View of northwest facing section within Trench 07 of stone-filled posthole (Context [7017])	7017 & 7018	N	1x1m	Bethan Jones	27/11/19	Gwynedd Archaeological Trust	
G2630_088	Evaluation	Trench 07	View of northwest facing section within Trench 07 of stone-filled posthole (Context [7017])	7017 & 7018	N	1x1m	Bethan Jones	27/11/19	Gwynedd Archaeological Trust	
G2630_089	Evaluation	Trench 04	Post-excavation shot of Trench 04	404	S	2x1m	Stuart Reilly	27/11/19	Gwynedd Archaeological Trust	
G2630_090	Evaluation	Trench 04	Post-excavation shot of Trench 04	403 & 404	N	2x1m	Stuart Reilly	27/11/19	Gwynedd Archaeological Trust	11
G2630_091	Evaluation	Trench 04	View east of cobblestones at the centre of Trench 04	403 & 404	W	2x1m	Stuart Reilly	27/11/19	Gwynedd Archaeological Trust	
G2630_092	Evaluation	Trench 04	View east of cobblestones at the southern edge of hollow within Trench 04	403	W	1x1m	Stuart Reilly	27/11/19	Gwynedd Archaeological Trust	12
G2630_093	Evaluation	Trench 04	View of west facing section within Trench 04	401 & 402	W	2x1m	Stuart Reilly	27/11/19	Gwynedd Archaeological Trust	13

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_094	Evaluation	Trench 04	View of west facing section within Trench 04 (oblique)	401 & 402	SW	2x1m	Stuart Reilly	27/11/19	Gwynedd Archaeological Trust	
G2630_095	Evaluation	Trench 04	View north of hollow at northern end of Trench 04 with surviving cobblestones	403 & 404	S	2x1m	Stuart Reilly	27/11/19	Gwynedd Archaeological Trust	14
G2630_096	Evaluation	Trench 06	View south-southeast of brick floor within Trench 06 (Context 603)	603	NNW	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	
G2630_097	Evaluation	Trench 06	Oblique view of brick floor within Trench 06 (Context 603)	603	W	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	22
G2630_098	Evaluation	Trench 06	View northwest of slate floor within Trench 06 (Context 606)	606	SE	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	23
G2630_099	Evaluation	Trench 06	Oblique view north of slate floor within Trench 06 (Context 606)	606	S	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	
G2630_100	Evaluation	Trench 06	View northeast within Trench 06 of drain (Context 607) and pit (Context 610)	606 & 610	SW	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	24
G2630_101	Evaluation	Trench 06	View south-southeast of pit within Trench 06 (Context [604])	604	NNW	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	25
G2630_102	Evaluation	Trench 06	View southeast of pit within Trench 06 (Context [604])	604	NW	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	26

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_103	Evaluation	Trench 06	View east-northeast of slate floor within Trench 06 (Context 612)	612	WSW	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	
G2630_104	Evaluation	Trench 06	View south-southeast of demolition deposit within Trench 06 (Context 602)	602	NNW	1x2m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	
G2630_105	Evaluation	Trench 06	View south-southeast of demolition deposit within Trench 06 (Context 602)	602	NNW	1x2m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	27
G2630_106	Evaluation	Trench 06	View south-southeast of demolition deposit within Trench 06 (Context 602)	602	NNW	1x2m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	
G2630_107	Evaluation	Trench 06	Oblique view of demolition deposit within Trench 06 (Context 602)	602	W	1x2m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	28
G2630_108	Evaluation	Trench 06	View east-northeast of compact floor within Trench 06 (Context 613)	613	WSW	1x1m	Neil McGuinness	27/11/19	Gwynedd Archaeological Trust	29
G2630_109	Evaluation	Trench 06	View south-southeast of representative section through building rubble within Trench 06 (Context 602)	602	NNW	1x0.5m	Robert Evans	28/11/19	Gwynedd Archaeological Trust	30
G2630_110	Evaluation	n/a	Condition survey of ground conditions in field post-evaluation	n/a		n/a	Bethan Jones	02/12/19	Gwynedd Archaeological Trust	38

Photo Record Number	Project Phase	Site Sub-Division	Description	Context Number (S)	View From	Scale(S)	Creator	Date	Originating Organisation	Plate
G2630_111	Evaluation	n/a	Condition survey of ground conditions in field post-evaluation	n/a		n/a	Bethan Jones	02/12/19	Gwynedd Archaeological Trust	
G2630_112	Evaluation	n/a	Condition survey of ground conditions in field post-evaluation	n/a		v	Bethan Jones	02/12/19	Gwynedd Archaeological Trust	

APPENDIX III

Context Register

Context Number	Trench	Brief Description	PRN
101	1	Loose mid brown silty clay	N/A
102	1	Plastic mid-orange brown silty clay	N/A
103	1	Glacial orange boulder clay	N/A
201	2	Mid brown clay loam topsoil	N/A
202	2	Light orangey brown silty clay subsoil	N/A
203	2	Compact orange glacial boulder clay	N/A
204	2	Remnants of stone and earthen bank field boundary	81663
301	3	Mid greyish brown sandy silt loam topsoil	N/A
302	3	Light orangey brown silty clay subsoil	N/A
303	3	Light orangey brown glacial boulder clay	N/A
401	4	Mid brown clayey loam topsoil	N/A
402	4	Demolition rubble	N/A
403	4	Layer of cobbles	81664
404	4	Light orangey brown sandy glacial clay	N/A
501	5	Loose medium brown silty clay topsoil	N/A
502	5	Glacial boulder clay	N/A
601	6	Topsoil	N/A
602	6	Demolition rubble	N/A
603	6	Remnants of brick floor surface	81665
604	6	Possible cut feature beneath (603) and cut into (605)	81665
605	6	Mid orangey brown natural boulder clay	N/A
606	6	Remnant of slate floor surface	81665
607	6	Cut for stone lined drain	81665
608	6	Stone lining of [607]	81665
609	6	Fill of [607]	81665
610	6	Cut feature to the west [607]	81665
611	6	Fill of [610]	81665
612	6	Remnant slate floor surface at the west end	81665

Context Number	Trench	Brief Description	PRN
		of the trench	
613	6	Compacted natural clay floor surface beneath demolition rubble (602)	81665
614	6	Fill of pit [608]	81665
701	7	Loose mid brown silty clay topsoil	N/A
702	7	Plastic medium brown silty clay subsoil	N/A
703	7	Yellowish brown glacial boulder clay	N/A
704	7	Field boundary	81666
705	7	Fill of [704]	81666
706	7	Cut of possible ditch/gulley	81667
707	7	Fill of [706]	81667
708	7	Cut of feature with evidence of burning	81667
709	7	Fill of [708]	81667
710	7	Cut of circular feature	81667
711	7	Charcoal rich fill of circular feature [710]	81667
712	7	Charcoal filled feature on NW of baulk	81667
713	7	Fill of [712]	81667
714	7	Capping stones above drain [706]	81667
715	7	Buried soil	81667
716	7	Basal fill in drain [706]	81667
717	7	Cut of posthole	81667
718	7	Stoney fill in posthole [717]	81667
801	8	Loosed mid-brown clayey loam topsoil	N/A
802	8	Orangey brown and grey glacial boulder clay	N/A

APPENDIX IV

Ecofact Register

Sample No.	Context	purpose of sample	no. of buckets	% of deposit sampled
701	711	Recovery of charcoal for dating, ecofacts and artefacts	1	50
702	709	Recovery of charcoal for dating, ecofacts and artefacts	3	30
703	707	Recovery of charcoal for dating, ecofacts and artefacts	2	50
704	704	Recovery of charcoal for dating, ecofacts and artefacts	1	50

APPENDIX V

Artefact Register

One artefact was recovered, consisting of four sherds of possible Romano-British pottery from context (705) in Trench 7.

Find No.	Context	Description	Weight
701	705	Four small sherds of late of late prehistoric or Roman pottery	5g

APPENDIX VI

Drawing Register

DWG No.	Sheet No.	Size	Scale	Trench	Description
401	03	A2	1:20	4	Post-ex plan of (403)
402	03	A2	1:20	4	West facing section through backfill (402)
601	04	A4	1:10	6	North northwest facing representative section through rubble (602)
701	01	A4	1:20	7	Plan of field boundary [704]
702	02	A4	1:10	7	North facing Section through gulley [706]
703	02	A4	1:10	7	Southwest facing section through pit [708]
704	02	A4	1:10	7	South facing section through post hole [710]
705	02	A4	1:10	7	North facing section through post-hole [717]
706	01	A4	1:20	7	Plan of gulley [706], capping stones [714]

APPENDIX VII

Reproduction of Archaeological Research Services Ltd Report 2020/15

Llwyn Bleddyn Archaeobotanical Assessment

By Luke Parker PCifA

Checked by Dr Robin Holgate MCifA

ARS Ltd Report 2020/15



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Introduction

The archaeobotanical remains from four sampled archaeological features were investigated in order to assess the potential for providing information on the nature of the features and assisting with establishing a chronology for the site.

Botanical macrofossil identification was undertaken using a low-power binocular microscope (x40). Botanical macrofossil identification utilised plates and guides from Martin and Barkley (2000) and Cappers *et al.* (2006), as well as comparison with a modern reference collection. Plant nomenclature follows Stace (1997). Cereal identification utilised the guide by Jacomet (2006). Uncharred organic material was identified however is viewed as being recent biological activity as no evidence for permanent water saturation was present. No other method for organic preservation beyond charring was identified.

Results

All flots contained fairly large quantities of charred material (Table 1), alongside varying quantities of modern rootlets. This charred material consisted of predominantly small (<2mm) fragments of charcoal, as well as smaller quantities of moderate (2-10mm) charcoal fragments. Charred cereal remains were present within the primary fill (711) of possible posthole [710] and the layer (707) covering the v-shaped gully. Glumed wheat grains were identified within the layer (707) covering the v-shaped gully and a single glumed wheat grain was recovered from the primary fill (709) of pit [708]. The grains were generally in good condition with a limited degree of surface abrasion; however it was still difficult to distinguish whether they were either spelt (*Triticum spelta*) or emmer (*Triticum dicoccum*) wheat grains. They do appear to be more 'spelt-like' and lack the distinctive dorsal 'hump' of emmer wheat. A single barley grain (*Hordeum sp.*) was also recovered. Very small numbers of around two to five charred glume bases were recovered from the primary fill (701) which are considered as possibly being spelt glume bases. This identification is tentative, as although they are relatively rounded in shape, they are somewhat thicker than would otherwise be expected for spelt. The glume bases may indicate processing of cereals; however the quantities of charred material are not sufficient to be sure. Cultivation of spelt wheat began during the Iron Age in Wales (Cunliffe 2010, 437) inferring an age of Iron Age or Romano-British period for this context.

Charred wild seeds were present in small numbers within the archaeobotanical assemblages. Small quantities of charred Polygonaceae (knotweed family) were present within the stony fill (718) of posthole [718] and the primary fill (711) of possible posthole [710]. A single charred holly seed (*Ilex aquifolium*) was recovered from the layer (707) covering the v-shaped gully. Five fragments of charred hazelnut shell were recovered from the primary fill (709) of pit [708].

All contexts contain charred archaeobotanical material which would be considered appropriate for radiocarbon dating. The charcoal recovered from the primary fill (711) of posthole [710] included charred twig fragments: short-lived growths which would induce negligible 'old wood effect'. The possible spelt grains from the layer (707) covering the stone-capped v-shaped gully would be suitable for dating, as well as dating the presence of food resources at the site. The hazelnut shells recovered from the primary fill (709) of pit

[708] also represent datable remains. The stony fill of posthole [718] contains charred polygonaceae seeds which may be used for radiocarbon dating; however the small quantity would be around the minimum quantity of material required for dating.

References

Cappers, R., Bekker, R. and Jans, J. 2006. *Digitale Zadenatlas Van Nederland/Digital Seed Atlas of the Netherlands*. Barkhuis.

Cunliffe, B. 2010. *Iron Age Communities in Britain*. 4th Edition. Routledge London and New York. pp.437

Jacomet, S. 2006. *Identification of cereal remains from archaeological sites*, 2nd Edition. IPAS, Basel University.

Martin, A. and Barkley, W. 2000. *Seed Identification Manual*. University of California Press.

Stace, C. 1992. *New Flora of the British Isles*. 2nd Edition. Cambridge.

Llwyn Bleddyn Archaeobotanical Assessment

Sample no	Context no	Feature type	Flot weight	Grains	Chaff	Non-Cereal Macrofossils		Charcoal			Notes
						Uncharred	Charred	<2mm	2-10mm	>10mm	
701	711	Primary fill of possible post hole [710]	19.23g		+	40%	+	55%	5%		cf. spelt glume bases; charred Polygonaceae; small numbers of twig fragments
703	707	Layer covering stone capped v-shaped gulley, possibly buried soils	128.66g	+++		20%	+	65%	15%		Single holly seed; cf. spelt wheat grains; 1 barley grain
702	709	Primary fill of pit [708]	237.24g	+		20%	++	55%	25%		Hazelnut shells; single cf. spelt grain
704	718	Stony fill of posthole [718]	23.27g			35%	+	60%	5%		Charred Polygonaceae

Table 1. Flot contents recovered from archaeological contexts. Percentages given as percentage of total flot. Quantification of charred archaeobotanical remains: + =0-10 individuals, ++ =11-20 individuals, +++ =21-30 individuals, ++++ =30-50 individuals, +++++ =>50 individuals

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APPENDIX VIII

Reproduction of Scottish University Environmental Research Centre Radiocarbon Dating certificates

RADIOCARBON DATING CERTIFICATE

03 March 2020

Laboratory Code SUERC-92249 (GU55200)

Submitter Bethan Jones
Gwynedd Archaeological Trust
Craig Beuno
Ffordd y Garth
Bangor
Gwynedd LL57 2RT

Site Reference G2630: Llwyn Bleddyn, Rachub

Context Reference 711

Sample Reference <701>

Material Charcoal : Twig fragment

$\delta^{13}\text{C}$ relative to VPDB -25.4 ‰

Radiocarbon Age BP 1990 ± 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

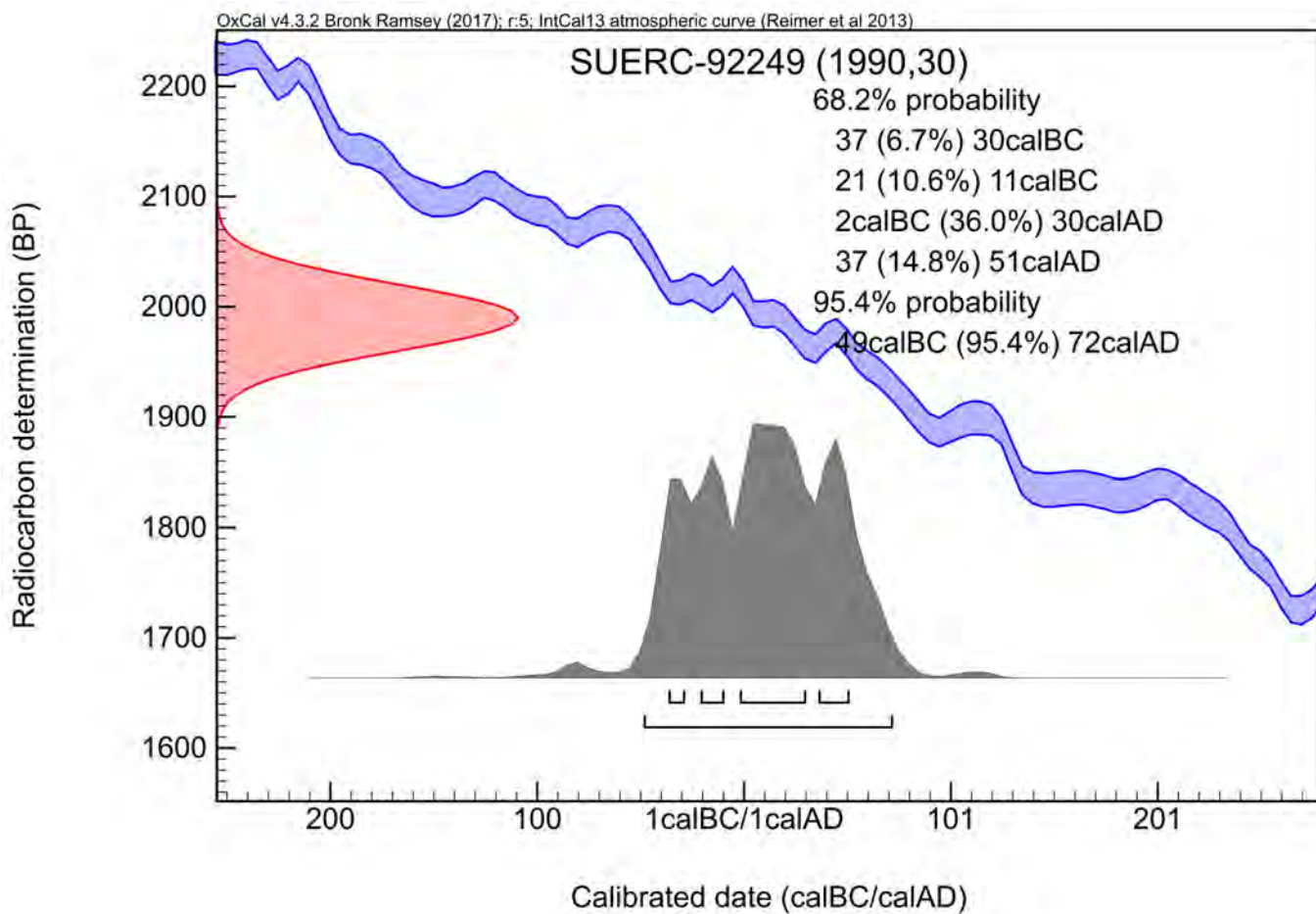
For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

E. Dunbar

Checked and signed off by :

P. Naysmith



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

RADIOCARBON DATING CERTIFICATE

03 March 2020

Laboratory Code SUERC-92250 (GU55201)

Submitter Bethan Jones
Gwynedd Archaeological Trust
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Ffordd y Garth
Bangor
Gwynedd LL57 2RT

Site Reference G2630: Llwyn Bleddyn, Rachub

Context Reference 709

Sample Reference <702>

Material Charcoal : Hazelnut shell

$\delta^{13}\text{C}$ relative to VPDB -23.8 ‰

Radiocarbon Age BP 1927 \pm 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

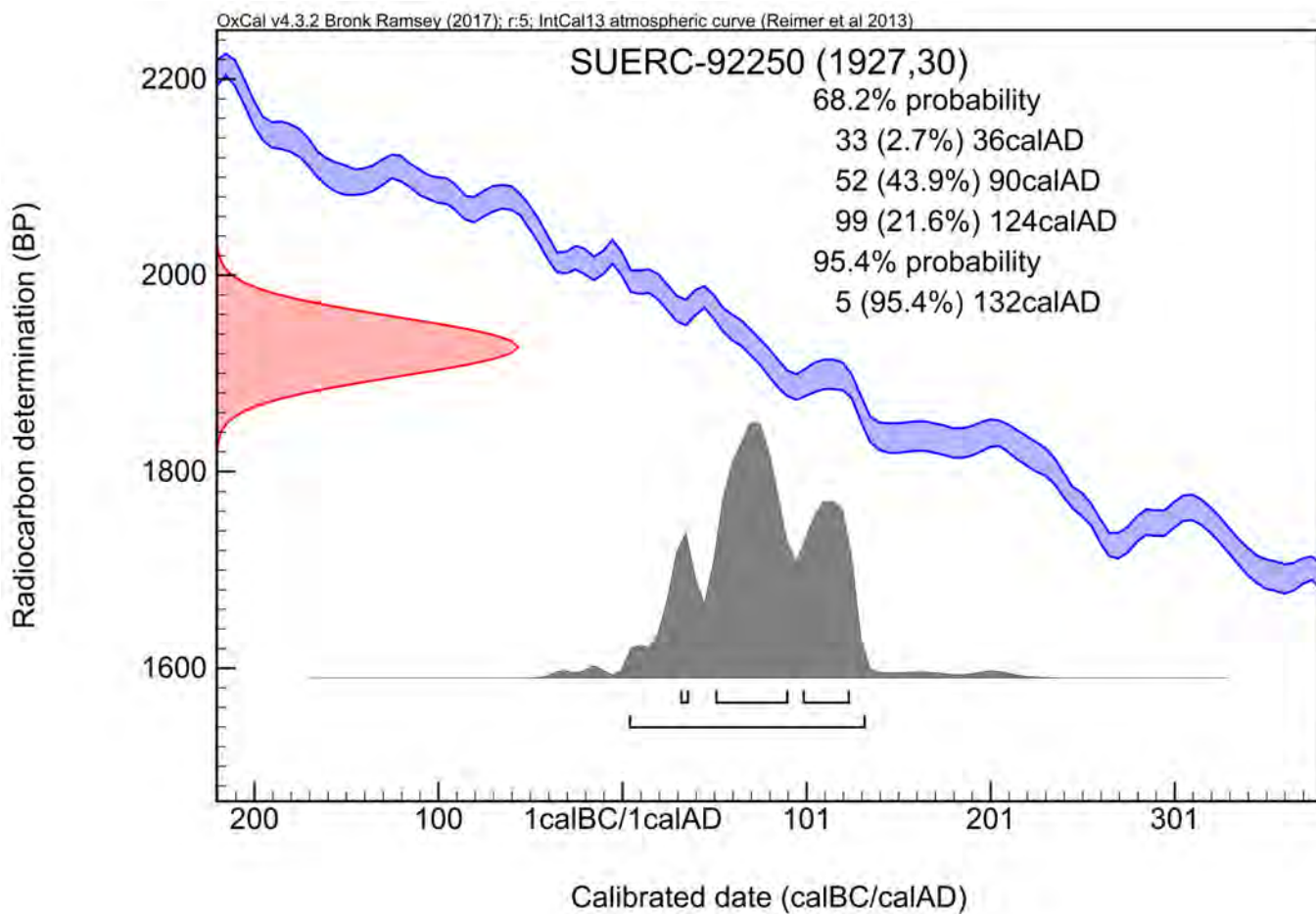
For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

E. Dunbar

Checked and signed off by :

P. Naynab



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

RADIOCARBON DATING CERTIFICATE

03 March 2020

Laboratory Code SUERC-92251 (GU55202)

Submitter Bethan Jones
Gwynedd Archaeological Trust
Craig Beuno
Ffordd y Garth
Bangor
Gwynedd LL57 2RT

Site Reference G2630: Llwyn Bleddyn, Rachub

Context Reference 707

Sample Reference <703>

Material Charcoal : Spelt grain

$\delta^{13}\text{C}$ relative to VPDB -22.2 ‰

Radiocarbon Age BP 1897 ± 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

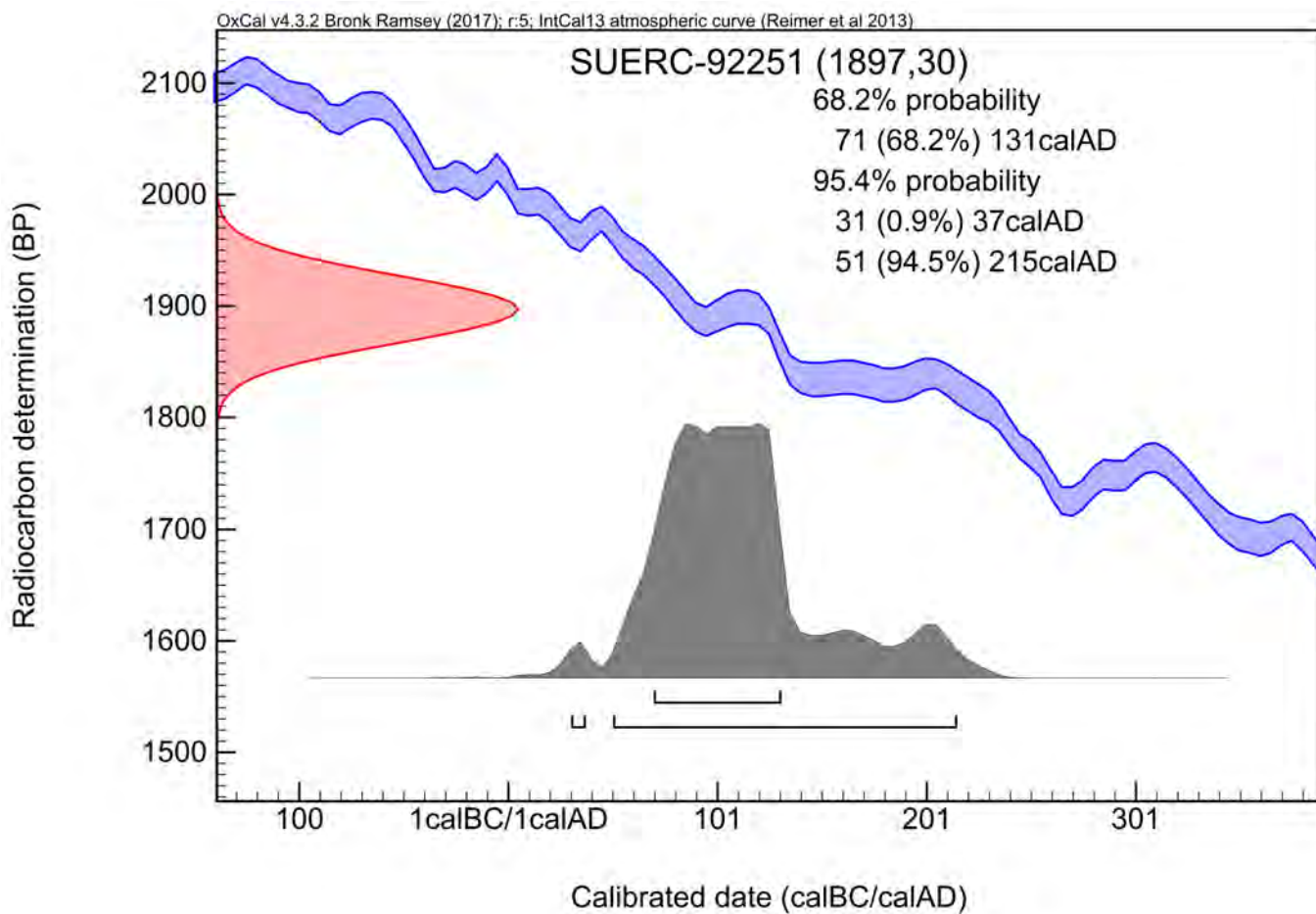
For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

E. Dunbar

Checked and signed off by :

P. Naynab



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

RADIOCARBON DATING CERTIFICATE

03 March 2020

Laboratory Code SUERC-92252 (GU55203)
Submitter Bethan Jones
Gwynedd Archaeological Trust
Craig Beuno
Ffordd y Garth
Bangor
Gwynedd LL57 2RT
Site Reference G2630: Llwyn Bleddyn, Rachub
Context Reference 707
Sample Reference <703>
Material Charcoal : Spelt grain
 $\delta^{13}\text{C}$ relative to VPDB -22.9 ‰

Radiocarbon Age BP 2035 \pm 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

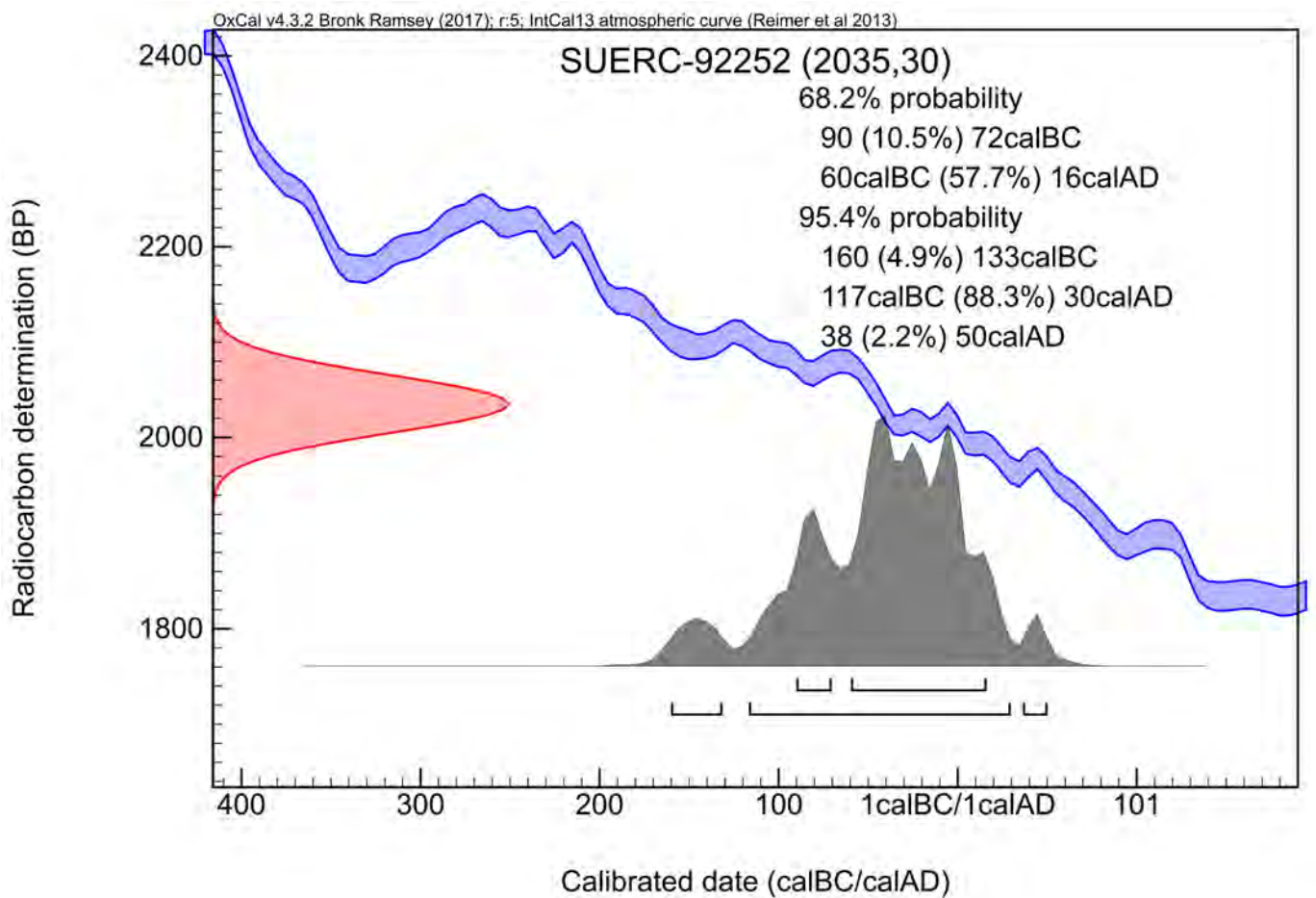
For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

E. Dunbar

Checked and signed off by :

P. Naysmith



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

RADIOCARBON DATING CERTIFICATE

03 March 2020

Laboratory Code SUERC-92256 (GU55204)
Submitter Bethan Jones
Gwynedd Archaeological Trust
Craig Beuno
Ffordd y Garth
Bangor
Gwynedd LL57 2RT
Site Reference G2630: Llwyn Bleddyn, Rachub
Context Reference 718
Sample Reference <704>
Material Charcoal : Polygonaceae seed
 $\delta^{13}\text{C}$ relative to VPDB -24.7 ‰

Radiocarbon Age BP 1961 \pm 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

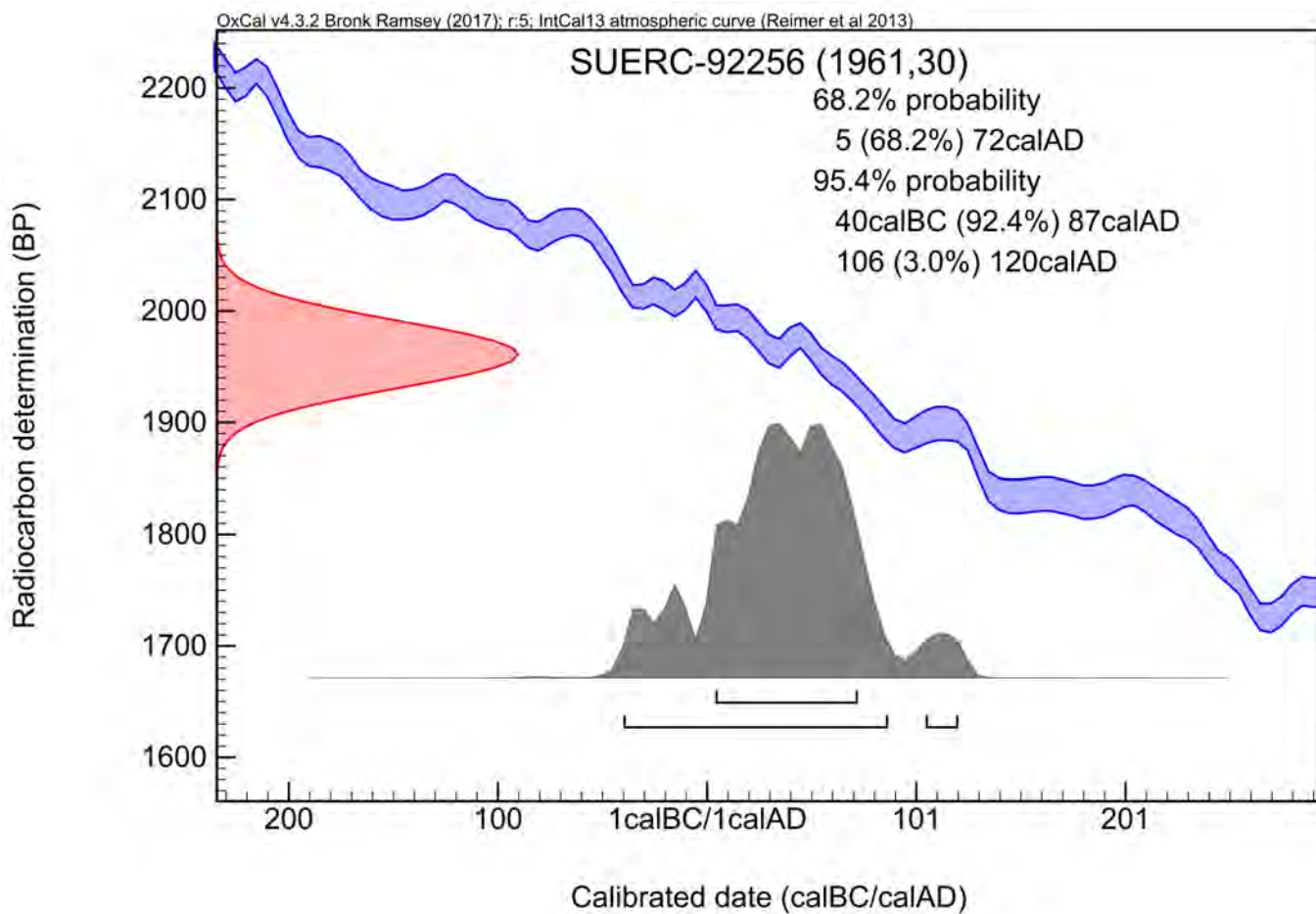
For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

E. Dunbar

Checked and signed off by :

P. Naynab



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87



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