Heneb: Clwyd-Powys Archaeology

Project PD24-133

Report 2097

Cefn Park, Wrexham

Archaeological Evaluation



Archaeoleg Clwyd-Powys
Heneb
Clwyd-Powys Archaeology

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13/03/2025	26/03/2025	10/04/2025
Report Status	Final	
Confidential until	N/A	

Bibliographic reference: Macrow, K., 2025. *Cefn Park Wrexham Archaeological Evaluation*. Unpublished report. Heneb Report No. 2097.

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Summary

In March 2025 Heneb: Clwyd-Powys Archaeology carried out a pre-determination archaeological evaluation for a proposed phased development of up to 900 residential dwellings with associated infrastructure and open space, at Cefn Park, Wrexham.

Ten trial trenches were targeted on potential archaeological features identified during geophysical survey, as requested by archaeological advisors to the Local Planning Authority. This provided a 0.92% sample of the application site.

No archaeological features were observed in any of the trenches with all the targeted anomalies being accounted for by natural variations in the underlying glacial sands and gravels, most noticeably by veins of finer sand or coarser gravels running through the deposits.

Crynodeb

Ym mis Mawrth 2025 cynhaliodd Heneb: Clwyd-Powys Archaeology werthusiad archaeolegol cyn-benderfynu ar gyfer datblygiad fesul cam arfaethedig o hyd at 900 o anheddau preswyl gyda seilwaith cysylltiedig a mannau agored, ym Mharc Cefn, Wrecsam.

Roedd deg ffos brawf yn targedu nodweddion archaeolegol posibl a nodwyd yn ystod yr arolwg geoffisegol

Ni welwyd unrhyw nodweddion archaeolegol yn unrhyw un o'r ffosydd gyda'r holl anghysondebau wedi'u chynnwys fel rhan o'r amrywiadau naturiol yn y tywod rhewlifol a'r graean gwaelodol, yn fwyaf amlwg gan wythiennau o dywod mân neu raean bras sy'n rhedeg trwy'r dyddodion.

1 Introduction

1.1. In March 2025 Heneb: Clwyd-Powys Archaeology carried out an archaeological evaluation on behalf of Tetra Tech for the proposed phased development of up to 900 residential dwellings with associated infrastructure and open space ahead of planning determination for an application to be submitted by the Harworth Group. The site is approximately 40 hectares in size which is currently in use as playing fields and in agricultural use as pasture and arable land, located at Cefn Park, Wrexham, LL13 9ND, NGR SJ 35690 50795 (Figures 1 and 2). No planning application had been put forward at the time of writing.

1.2.

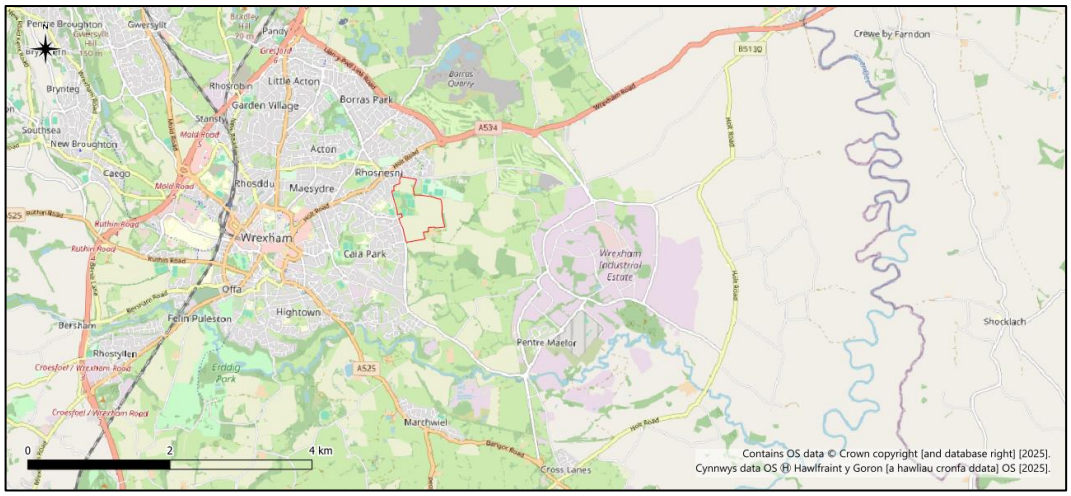


Figure 1: Location of the site (outlined in red)

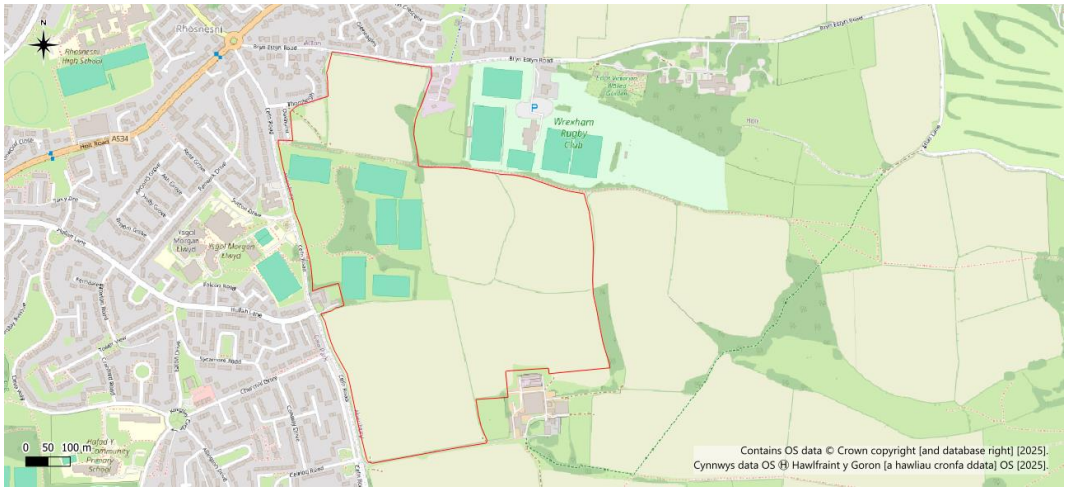


Figure 2. Plan of the proposed development area (outlined in red)

Location, geology and topography

1.3. The site was located on the east edge of Wrexham City east of Cefn Road and south of Bryn Estin Road. The site comprised agricultural land enclosed by hedgerows. The topography was broadly flat ranging between 67m and 86m above Ordnance Datum.

1.4. The underlying geology of the site comprised mudstone, sandstone and conglomerate sedimentary bedrock of the Salop Formation formed between 309.5 and 272.3 million years ago during the Carboniferous and Permian periods. The superficial deposits consisted of glaciofluvial sheet deposits of Devensian sand and gravel formed between 116 and 11.8 thousand years ago during the Quaternary period in an environment dominated by glacial activity (BGS 2025).

Planning background

1.5. During pre-application consultation the local planning authority's (Wrexham County Borough Council (WCBC)) archaeological planning advisor (APA) recommended an archaeological evaluation be carried out ahead of the planning application:

"*…to enable us to provide any further archaeological recommendations on the development site, if any are required*."

1.6. The APA used the anomalies plotted by the two phases of geophysical survey to position a small number of trenches specifically targeted to test the survey results by ground truthing. Negotiations between the client and the APA continued intermittently throughout 2024 and early 2025, and the removal of the playing fields in the west of the application site from plans for housing to be constructed over them, allowed some of the original trench locations to be dropped from the current site investigation.

1.7. This report presents the results of the archaeological investigation which addresses the local planning authority's requirements to provide initial data on the potential for buried archaeological remains to lie preserved within the site, and therefore assists with informed decision-making for the scheme.

Historic and archaeological background

1.8. The archaeological background of the site was fully assessed in a desk-based assessment (DBA) undertaken by Tetra Tech in 2021. The DBA can be summarised as follows:

1.9. "The site is situated within the medieval boundary of Cefn Park. The town of Wrexham is situated to its immediate west and was founded prior to 1220. At the time of this document, the Clwyd-Powys HER recorded 145 non-designated archaeological monuments and findspots within a 1km study area surrounding the site. The site was found to contain moderate to high potential for archaeological remains of Roman date; a moderate potential for archaeological remains of medieval date; and a moderate to high potential for archaeological remains of post-medieval to Modern date to be present within the application site.

1.10. Seven findspots identified on the HER were within the application site. These included: Roman coins of Marcus Aurelius and Hadrian; two spindle whorls dated to between the Roman and medieval period; three buckles dated from the medieval and post-medieval period. Other assets identified included a post-medieval boundary stone and an Industrial period pond. It was also noted by RCAHMW that a number of cropmarks were visible within the application site of unknown origin.

1.11. Twenty-two assets were located on the HER within the immediate proximity of the application site. These include collections of farm buildings dating to the post-medieval and Industrial periods."

1.12. Two geophysical surveys have been carried out on the site (Phase SI, 2022 and Magnitude Surveys, 2024). Several possible archaeological anomalies were identified to the north-west of the site. These included penannular anomalies with possible internal features, and a possible partial enclosure and associated linear anomalies. Anomalies of undetermined origin have been detected throughout the survey area, along with ridge and furrow trends, possible drainage regimes, and mapped and unmapped former field boundaries.

1.13. This phase of intrusive evaluation was conducted based on the results of the geophysical surveys conducted at the site (Figure 3). This phase of work is a reduced scope from the original design for trial trenching over the whole site, and targets anomalies detected by geophysical survey in the western part of the site only, excluding the extant playing fields.



Figure 3. Locations of trenches 7 to 18 overlaid on the MS 2024 Geophysical survey results.

2 Evaluation Results

2.1. The Evaluation was conducted between 10th and 12th of March 2025 in accordance with the Chartered Institute for Archaeologists' (CIfA) *Standard and Universal Guidance for Archaeological Field Evaluation.* The methodology applied for the investigation is described in Appendix 1, the approved written scheme of investigation (WSI).

2.2. A total of 10 trenches were excavated (Figure 4), which in total amounted to 369sqm, or a 0.92% sample of the 40.1ha application site. It was necessary to adjust the locations of some trenches to avoid tree roots and hedgerows.

2.3. A general impression of the site is given in Figure 5. Trench numbering was not sequential as only a selection from the original trench layout were required to be excavated, due to the removal of the playing fields in the western-most field from the development scheme.

2.4. Most trenches were targeted on anomalies from Magnitude Surveys' (MS) 2024 survey within their Area 3, with outlying trenches to the north and south targeted on Phase Investigation's (PI) 2022 survey, Areas 3 and 6 (Areas 1, 2 and 4 in the north-west of the site, and Areas 5 and 7 in the south have not been identified as requiring trial trenching).

2.5. MS survey areas 1, 2, and 4 – 6 were not trenched, because there were fewer anomalies to target, and no random trenching to investigate blank areas have been asked for at this stage of the project.



Figure 4. Trench plan with partial site boundary in red and trenches as dug in green.



Figure 5. General shot of the site during works. View to the south. Photo: Heneb PD24_133_054.

Trench 1

2.6. Trench 1 was aligned north-west to south-east, it measured 1.8m x 25m and was excavated to a maximum depth of 0.56m (Figure 6). The trench was targeted on a small circular anomaly which had been mapped in Phase Investigation's 2022 Area 3.

2.7. The earliest deposition consisted of natural glacial deposits of sand and gravel (01.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.47m below ground level (BGL). Overlying this was a layer of subsoil (01.02), 0.14m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub-rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (01.01), 0.33m thick, consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick, ceramic fragments and plastic debris.



Figure 6. Trench 1 upon opening. 1m scale. View to the west. Photo: Heneb PD24_133_001.

Trench 7

2.8. Trench 7 was aligned east to west, it measured 1.8m x 25m and was excavated to a maximum depth of 0.59m (Figure 7). It targeted a curvilinear geophysical anomaly running north-south across the approximate centre of the trench. This trench had to be moved approximately 5m to the east in order to avoid potential tree roots putting the targeted geophysical anomaly towards the west end of the trench.

2.9. The earliest deposition consisted of natural glacial deposits of sand and gravel (07.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.41m BGL. Overlying this was a subsoil (07.02) 0.12m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (07.01), 0.29m thick consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick, glass and ceramic fragments and plastic debris (Figure 8).



Figure 7. Trench 7 upon opening. The sandy area in the foreground aligns with the location of the geophysical anomaly. 1m scale. View to the east. Photo: Heneb PD24_133_006.



Figure 8. Representative section of Trench 7. 1m scale view to the north. Photo: Heneb PD24_133_007.

Trench 10

2.10. Trench 10 was aligned east to west, it measured 1.8m x 25m and was excavated to a maximum depth of 0.62m (Figure 9). It targeted a linear geophysical anomaly from MS's 2024 survey running north-south across the approximate centre of the trench.

2.11. The earliest deposition consisted of natural glacial deposits of sand and gravel (10.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.41m BGL. Overlying this was a layer of subsoil (10.02) 0.1m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub-rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (10.01), 0.3m thick consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick, glass and ceramic fragments, and plastic debris. There was no indication in the trench to explain why there had been a geophysical anomaly.



Figure 9. Trench 10 upon opening. 1m scale. View to the north. Photo: Heneb PD24_133_009.

Trench 11

2.12. Trench 11 was aligned north-east to south-west, it measured 1.8m x 25m and was excavated to a maximum depth of 0.43m (Figure 10). It targeted a linear geophysical anomaly from MS's 2024 survey running east-west across the approximate centre of the trench.

2.13. The earliest deposition consisted of natural glacial deposits of sand and gravel (11.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.31m BGL. Overlying this was a layer of subsoil (11.02), 0.02m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (11.01) 0.29m thick consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick, glass and ceramic fragments and plastic debris (Figure 11).



Figure 10. Trench 11 upon opening. 1m scale. View to the south-east. Photo: Heneb PD24_133_013.



Figure 11. Representative section of Trench 11. 1m scale. View to the west. Photo: Heneb PD24_133_015.

Trench 13

2.14. Trench 13 was aligned south-east to north-west, it measured 1.8m x 25m and was excavated to a maximum depth of 0.59m (Figure 12). It targeted a circular geophysical anomaly from MS's 2024 survey which appeared to be a ditch with an outer diameter of circa 20m and possible internal features.

2.15. The earliest deposit consisted of natural glacial deposits of sand and gravel (13.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.40m BGL. Overlying this was a layer of subsoil (13.02) 0.07m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (13.01) 0.33m thick consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick, glass and ceramic fragments and plastic debris.



Figure 12. Trench 13 upon opening. 1m scale. View to the north-west. Photo: Heneb PD24_133_018.

Trench 14

2.16. Trench 14 was aligned south-east to north-west, it measured 1.8m x 25m and was excavated to a maximum depth of 0.49m (Figure 13). It was excavated in a wet corner of the field and targeted a potential anomaly of uncertain origin identified in the PI geophysical survey.

2.17. The earliest deposition consisted of natural glacial deposits of sand and gravel (14.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.37m BGL. Overlying this was a subsoil layer (14.02) 0.12m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (14.01) 0.25m thick consisting of a dark brown sandy silt with occasional inclusions of brick fragments and plastic debris (Figure 14).



Figure 13. Trench 14 upon opening. Dark patches of mineralisation are visible in the centre of the trench. 1m scale. View to the north-west. Photo: Heneb PD24_133_022.



Figure 14. Representative section of Trench 14. 1m scale. View to the north. Photo: Heneb PD24_133_024.

Trench 15

2.18. Trench 15 was the first trench excavated. It was aligned north-east to south-west, it measured 1.8m x 25m and was excavated to a maximum depth of 0.47m with a sondage to a depth of 1m at its north-east end dug to test the natural deposits which continued beyond this depth (Figure 15).

2.19. The earliest deposition consisted of natural glacial deposits of sand and gravel (15.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.35m BGL. Overlying this was a subsoil layer (15.02) 0.08m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (15.01) 0.27m thick consisting of a dark brown sandy silt with occasional inclusions of brick fragments and plastic debris.

2.20. A portion of the trench was excavated to a higher level to investigate a possible linear feature from PI's 2022 survey Area 6 running across the trench which was revealed to be a natural undulation in the interface between the subsoil (15.02) and the underlying glacial deposits (15.03) (Figure 16).



Figure 15. Trench 15 upon opening. 1m scale. View to the south-west. Photo: Heneb PD24_133_027.



Figure 16. Area of natural undulation in the interface between subsoil (16.02) and the underlying glacial deposits (16.03) thought initially to be a possible feature. 1m scale. View to the south. Photo: Heneb PD24_133_028.

Trench 16

2.21. Trench 16 was aligned south-east to north-west, it measured 1.8m x 10m and was excavated to a maximum depth of 0.48m (Figure 17). It targeted a geophysical anomaly from MS's 2024 survey running north-east to south-west across the centre of the trench.

2.22. The earliest deposition present consisted of natural glacial deposits of sand and gravel (16.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.39m BGL. Overlying this was a subsoil layer (16.02) 0.2m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (16.01) 0.37m thick consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick and ceramic fragments and plastic debris.



Figure 17. Trench 16 upon opening the geophysical feature this trench was targeting is visible as the interface between the lighter sand at the top of the photo and darker, redder gravel in the foreground. 1m scale. View to the south-east. Photo: Heneb PD24_133_032.

Trench 17

2.23. Trench 17 was aligned north-east to south-west, it measured 1.8m x 10m and was excavated to a maximum depth of 0.38m (Figure 18). It targeted a geophysical anomaly from MS's 2024 survey running north-west to south-east across the centre of the trench.

2.24. The earliest deposition consisted of natural glacial deposits of sand and gravel (17.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.32m BGL. Overlying this was a subsoil (17.02), 0.04m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (17.01) 0.28m thick consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick and ceramic fragments and plastic debris.



Figure 18. Trench 17 upon opening. The natural variations in the glacial deposits seem to align with the targeted geophysical anomaly. 1m scale. View to the south-west. Photo: Heneb PD24_133_035.

Trench 18

2.25. Trench 18 was aligned north to south, it measured 1.8m x 10m and was excavated to a maximum depth of 0.40m (Figure 19). It targeted a geophysical anomaly from MS's 2024 survey running east to west across the centre of the trench.

2.26. The deposits present consisted of natural glacial deposits of sand and gravel (18.03) ranging from orange to yellow fine sand to yellow to mid-brown rounded to sub-rounded coarse pebbles. This was encountered at a depth of 0.33m BGL. Overlying this was a subsoil layer (18.02) 0.02m thick consisting of a mid-grey to reddish brown coarse sandy silt with frequent inclusions of sub rounded to rounded fine to coarse pebbles. Overlying this was a plough soil (18.01) 0.31m thick consisting of a dark brown sandy silt with occasional inclusions of post-medieval brick and ceramic fragments and plastic debris.



Figure 19. trench 18 upon opening. The variations in the natural deposits are clearly visible as three distinct bands across the trench with the central one aligning with the geophysical anomaly targeted. Modern plough scares are visible as the dark linear in the centre of the trench. 1m scale. View to the south. Photo: Heneb PD24_133_035.

3 Conclusions

3.1. The site has been ploughed to a depth of approximately 0.3m and whilst no archaeological features were observed in the evaluation trenches there is potential for archaeological features cut into the natural deposits to survive elsewhere on the site, especially if these are deeper features such as boundary or enclosure ditches.

3.2. All of the potential features identified during the geophysical survey for investigation corresponded to natural variations in the underlying glacial deposits. These variations were likely caused by glacial meltwater running along and under the bottom of the glacier removing smaller particles to leave veins of coarser gravel in some areas and depositing veins of finer grained deposits in other areas.

4 Archive Selection Strategy

PD234-133-Cefn Park (NGR SJ 35690 50795) Archaeological Evaluation 13.03.2025 Selection Strategy v2.0	
Project Management	
Project Manager	Tim Malim
Project Supervisor	Karl Macrow
Archives Manager	Sophie Edwards
Project Stakeholders	
Project Lead / Project Assurance	Neil Bayliss
Client / Landowner	Tetra Tech (agent)
Other	Harworth Group (ultimate client)
Collecting Institutions	
Regional HER	Clwyd-Powys
HER Enquiry Number	N/A
HER Event PRN	217666
Digital Archive Repository	Royal Commission on the Ancient and Historical Monuments of Wales
Documentary Archive Repository	N/A
Finds Archive Repository	N/A
Museum Accession Number	N/A

Digital Project Data			
Project sub-folders	**Data**	**Retained**	**Selected for Archive**
Admin			
H&S - RAMS	Risk Assessment	Y	N
WSI	Written Scheme of Investigation	Y	Y (as report appendix 1)
Client Data	Planning documents/other files provided by the client.	Y	N
Correspondence	Correspondence records relevant to the project	Y	N
Drafting	Working site drawings/illustrations	Y	N
Finds data	Finds catalogues/specialist reports etc	N/A	N/A
GIS data	Survey data	Y	Y
Metadata	Metadata report for all files submitted as part of the archive.	Y	Y
Photography	55 digital photographs (.tif)	N	Y
Report	HENEB Report 2097 (.docx/.pdf)	Y	Y
Report Illustrations	Illustrations generated for inclusion within the project report	N/A	N/A
Research Data	Research data – always secondary sources and available elsewhere	Y	N
Site data	Scanned site records	N/A	N/A
Temporary	Temporary storage for temporary files – always deleted at project completion	N	N

5 Appendix 1: Heneb WSI

1 Introduction

1.1. Heneb: Clwyd-Powys Archaeology has been instructed by TetraTech to undertake an archaeological evaluation for the proposed phased development of up to 425 residential dwellings with associated infrastructure and open space ahead of planning determination. The site is approximately 40.1 hectares in size which is currently in agricultural use as pastural and arable land, located at Cefn Park, Wrexham, LL13 9ND, NGR SJ 35690 50795 (Figure 1). No planning application had been put forward at the time of writing.

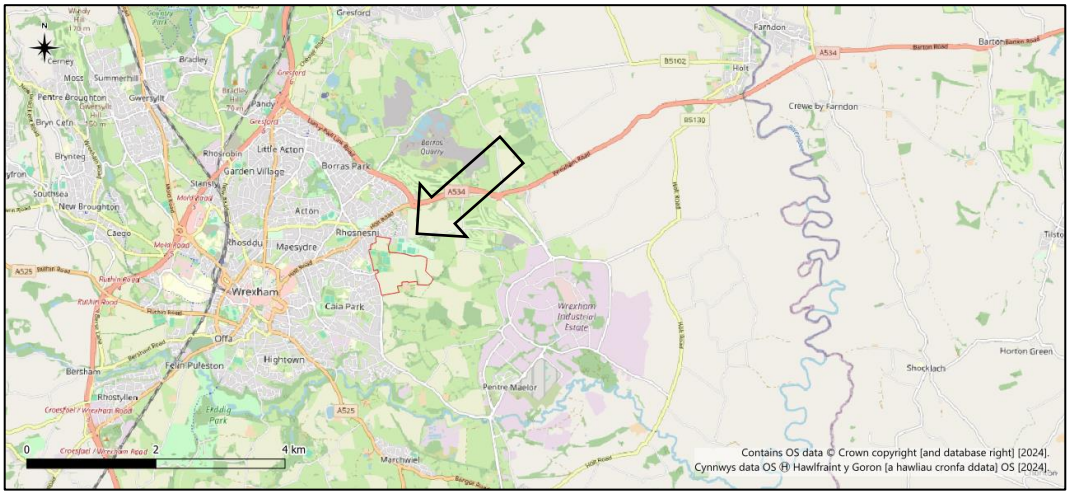


Figure 1: Location of the site (outlined in red)

Location, geology and topography

1.2. The site is located on the east edge of Wrexham City east of Cefn Road and south of Bryn Estin Road. The site comprises areas of green field divided by hedgerows and is approximately 40.1 hectares. The topography is broadly flat ranging between 67m and 86m above Ordnance Datum

1.3. The underlying geology of the site comprises mudstone, sandstone and conglomerate sedimentary bedrock of the Salop Formation formed between 309.5 and 272.3 million years ago during the Carboniferous and Permian periods. The superficial deposits consist of glaciofluvial sheet deposits of Devensian sand and gravel formed between 116 and 11.8 thousand years ago during the Quaternary period in an environment dominated by glacial activity (BGS 2025).

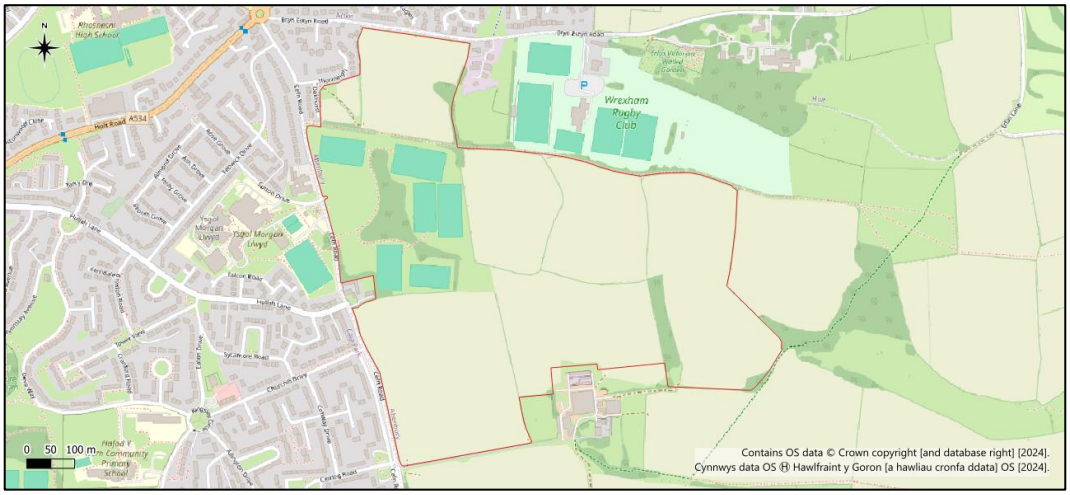


Figure 2: Plan of the proposed development area (outlined in red)

Planning background

1.4. The local planning authority archaeological planning advisor (APA) has recommended an archaeological evaluation be carried out ahead of the planning application:

1.5. "…to enable us to provide any further archaeological recommendations on the development site, if any are required."

1.6. This report presents a design for archaeological investigation which addresses the local planning authority's requirements and therefore provides the written scheme of investigation for their formal approval, prior to implementation of the scheme.

Historic and archaeological background

1.7. The archaeological background of the site was fully assessed in a desk-based assessment (DBA) undertaken by Tetra Tech in 2021. The DBA can be summarised as follows:

"The site is situated within the medieval boundary of Cefn Park. The town of Wrexham is situated to its immediate west and was founded prior to 1220. At the time of this document, the Clwyd-Powys HER recorded 145 non-designated archaeological monuments and findspots within a 1km study area surrounding the site. The site was found to contain moderate to high potential for archaeological remains of Roman date; a moderate potential for archaeological remains of medieval date; and a moderate to high potential for archaeological remains of post-medieval to Modern date to be present within the application site.

Nine findspots were identified on the HER within the application site. These included: Roman coins of Marcus Aurelius and Hadrian; two spindle whorls dated to between the Roman and medieval period; three buckles dated from the medieval and post-medieval period; a post-medieval boundary stone; and an Industrial period pond. It was also noted by RCAHMW that a number of cropmarks were visible within the application site of unknown origin.

Twenty-two assets were located on the HER within the immediate proximity of the application site. These include collections of farm buildings dating to the post-medieval and Industrial periods."

1.8. Two geophysical surveys have been carried out on the site (Phase SI, 2022 and Magnitude Surveys, 2024). Several possible archaeological anomalies were identified to the north-west of the site. These included penannular anomalies with possible internal features, and a possible

partial enclosure and associated linear anomalies. Anomalies of undetermined origin have been detected throughout the survey area, along with ridge and furrow trends, possible drainage regimes, and mapped and unmapped former field boundaries.

1.9. This phase of Trenching Evaluation will be conducted based on the results of the Geophysical Survey conducted at the site (figure 4).

2 Methodology

2.1. The evaluation will be conducted according to the Chartered Institute for Archaeologists' (CIfA) (2023) Standard and Universal Guidance for Archaeological Field Evaluation. This states that the purpose of field evaluation is to gain information about the archaeological resource within a given area or site (including its presence or absence, character, extent, date, integrity, state of preservation and quality), in order to make an assessment of its merit in the appropriate context, leading to one or more of the following:

a. the formulation of a strategy to ensure the recording, preservation or management of the resource.

b. the formulation of a strategy to mitigate a threat to the archaeological resource.

c. the formulation of a proposal for further archaeological investigation within a programme of research.

2.2. It is anticipated that the fieldwork will be carried out during spring of 2025. The LPA's APA will be informed when the work is about to commence, and an arrangement will be made for site monitoring following the completion of the groundworks.

2.3. The evaluation will comprise seven 25m x 2m trenches and three 2m x 1m trenches (or the equivalent). They have been targeted on geophysical anomalies. Utilities data have been acquired from the client and trenches have been designed to avoid these constraints.

2.4. It may be necessary to move trenches to avoid obstacles or subsurface features such as services not apparent on map sources. The client and regional APA will be consulted should this be required. The proposed trench locations are depicted in Figure 3 (and Table 01 with the coordinates of each trench). Trench locations will be scanned with a cable avoidance tool (CAT) prior to any groundworks taking place.

2.5. The evaluation trenching will be excavated to the first significant archaeological horizon, or to naturally derived soils or to a maximum depth of 1.2m. The general approach for each of the trenches will follow these procedures:

- The presence or absence of archaeological features encountered will be noted;
- Where features of archaeological interest are identified they will be systematically investigated by hand with sufficient work being undertaken to determine their date, character and function, using the conventional techniques for archaeological excavation and in accordance with CIfA Standard and Guidance;
- All features will be located as accurately as possible using GPS and other survey techniques, to be plotted on an overall plan of the development at an appropriate scale, showing boundaries depicted on OS mapping, or located by the identification of OS grid lines;

- Contexts will be recorded digitally or manually on individual record forms, using a continuous numbering system, and be drawn and photographed as appropriate;
- As appropriate plans will be drawn on permatrace to a scale of 1:10, 1:20 or 1:50, and locations surveyed in by GPS;
- Photography will be undertaken digitally with a minimum resolution of 12 mega pixels. Images will include a metric scale in each view and be logged in a photographic register;
- In the event of human burials being discovered the Ministry of Justice (MoJ) will be informed. The remains will initially be left in situ, and if removal is required, a MoJ licence will be applied for under the Burial Act 1857; and
- In the event of finding any artefacts covered by the provisions of the Treasures Act 1996 (amended), the appropriate procedures under this legislation will be followed.

2.6. Following completion of the groundworks and recording the trenches will be backfilled and consolidated by machine; if required a photographic record of each backfilled trench will be made.

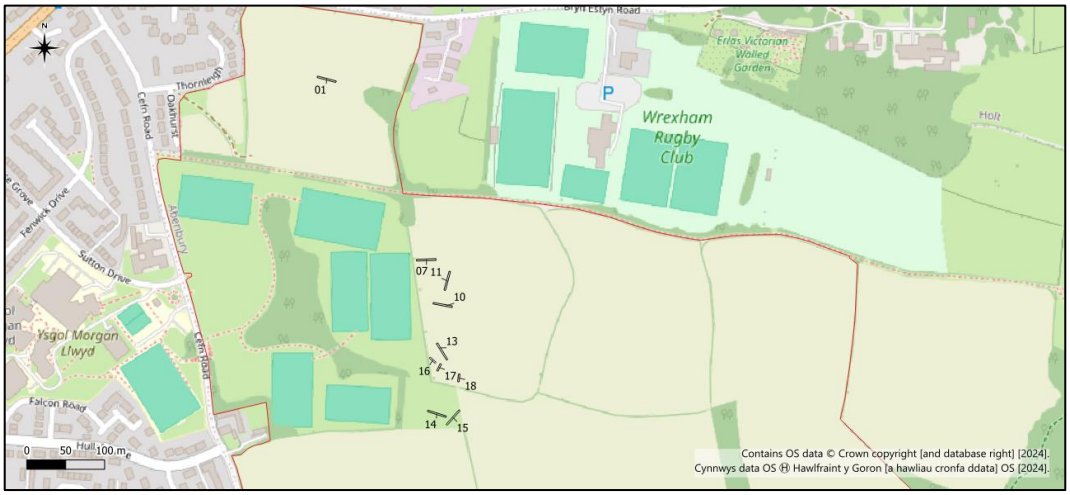


Fig. 3 Plan showing the trench locations within the footprint of the proposed development



Figure 4. Trench locations overlaid on Geophysical Survey results.

Table 01. Coordinates for each corner of each trench

Trench point No.	Easting	Northing
1.1	335435.4	351136.5
1.2	335459.6	351130.2
1.3	335459.1	351128.3
1.4	335434.9	351134.6
7.1	335562.6	350901.7
7.2	335587.6	350902.4
7.3	335587.7	350900.4
7.4	335562.7	350899.7
10.1	335584.2	350846.4
10.2	335608.8	350842
10.3	335608.4	350840
10.4	335583.8	350844.5
11.1	335604.4	350886.6
11.2	335606.4	350886.1
11.3	335599.9	350861.9
11.4	335598	350862.4
13.1	335588.1	350793.7
13.2	335589.8	350794.7
13.3	335602.9	350773.4
13.4	335601.2	350772.4
14.1	335577.2	350708.5
14.2	335601.1	350701
14.3	335600.5	350699
14.4	335576.6	350706.6
15.1	335600.6	350690.3
15.2	335617.2	350709
15.3	335618.7	350707.7
15.4	335602.1	350688.9
16.1	335580.3	350776.5

16.2	335587.8	350769.8
16.3	335586.5	350768.4
16.4	335579	350775
17.1	335588.5	350759.1
17.2	335592.9	350768.1
17.3	335594.7	350767.2
17.4	335590.3	350758.2
18.1	335616.6	350754.9
18.2	335618.5	350754.6
18.3	335617.4	350744.7
18.4	335615.5	350744.9

Artefact selection strategy

2.7. In accordance with section 4 of *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* Archaeological Archives Forum 2007 (revised 2011) a rigorous process of selection and discard will be followed so that only those elements that are considered of significance for potential future study will be retained. Bulk items such as ceramic building materials, stonework, large quantities of undiagnostic pottery, and material that is difficult to conserve such as worked wood, may be selected for discard once appropriate recording and analysis has been undertaken, on site or in the laboratory post-excavation.

2.8. Selection and discard is detailed below, but in general unstratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest. All artefacts will be retained from stratigraphically secure contexts of 18th-century date or earlier. In the case of later or disturbed contexts, all 18th-century or earlier material will be retained, together with a sample of later finds to assist with dating and phasing, unless later deposits/artefacts are deemed to be of high archaeological value.

2.9. Heneb has a retention policy for artefacts which prioritises as follows:

High priority for retention

- Rare finds from stratified and unstratified contexts
- Prehistoric and early medieval assemblages
- Key stratigraphic dating assemblages crucial to the structural development of the site
- Assemblages which are not well represented in museum collections

High priority for disposal

- Unstratified material unless intrinsically dateable and unusual/rare
- Artefacts from residual/intrusive contexts unless of key stratigraphic importance
- Assemblages already well represented in museum collections
- Unprocessed environmental/soil samples

Post-excavation and reporting

2.10. All artefacts and environmental samples will be treated in a manner appropriate to their composition and a sampling strategy will be developed as appropriate:

- All stratified finds will be collected by context, or where appropriate, individually recorded in three dimensions. Unstratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest.
- All finds and samples will be collected, processed, sorted, quantified, recorded, labelled, packed, stored, marked, assessed, analysed and conserved in a manner appropriate to their composition and in line with appropriate guidance.
- arrangements will be made to assess and study any artefacts, assemblages and environment samples, should this be required to fulfil the objectives of the evaluation.
- Any artefacts recovered during the evaluations will be deposited with an appropriate museum, subject to the permission of the owner.

2.11. Following the on-site work an illustrated report will be prepared containing conventional sections to include:

- Non-technical summary
- Introduction
- Site location
- Archaeological Background
- Aims & objectives
- Methodology
- Evaluation results
- Conclusions
- References
- Appropriate appendices on archives and finds

2.12. If material evidence is recovered that requires specialist assessment, Heneb has a team of external specialists who advise and undertake the appropriate levels of study. For the Clwyd-Powys region these include the following:

- Lithics Pippa Bradley
- Prehistoric pottery Francis Lynch
- Roman pottery Peter Webster
- Medieval pottery Stephanie Ratkai or Julie Edwards, Grosvenor Museum
- Thin section analysis Chris Doherty University of Oxford
- Roman glass Hilary Cool
- Metalwork identification and conservation Phillip Parkes University of Cardiff
- Faunal remains Archaeological Services University of Durham
- Palaeoenvironment Archaeological Services University of Durham
- Pollen Fiona Grant or Lampeter University
- Metallurgy Tim Young University of Cardiff
- C14 and OSL SUERC

2.13. The report summary will be provided in English and Welsh, in accordance with *the Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) V1* (July 2018).

Site archive

2.14. The overall archive will conform to guidelines described in Management of Research Projects in the Historic Environment (MoRPHE), Historic England 2015, the CIfA (2020b) Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives and The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales (NPAAW, 2017).

2.15. The paper and digital archive will be deposited with the National Monuments Record (NMR), RCAHMW, including a copy of the final report. This archive will include all written, drawn, survey and photographic records relating directly to the investigations undertaken. A digital copy of the report (and any digital photographs or other data required) will also be lodged with the Historic Environment Record.

3 Digital Data Management Plan (DDMP) (Version 3: October 2023)

3.1. Heneb is committed to managing digital records generated though our work to the highest standards. The Digital Data Management Plan (DDMP) has been designed in accordance with current guidance from the Chartered Institute for Archaeologists (CIfA), Historic England's Archaeological Digital Archiving Protocol (ADAPt) (2016), The Royal Commission on the Ancient and Historical Monuments of Wales RCAHMW Guidelines for Digital Archives (2015) and the Archaeology Data Services (ADS) Guidelines for Depositors (2021). Heneb also employs the FAIR Principles, to ensure that all relevant data is Findable, Accessible, Interoperable and Reusable.

Data Collection

3.2. All digital project data will be stored within a standard folder template, utilizing digital proformas where required and following a strict file naming policy. All digital files selected for archive will be pre-fixed with the unique project code. An example of the folder structure and common data formats is provided below.

	Project Folder		
	Folder name	**Contents**	**Files**
	Admin		
	H&S - RAMS	Risk assessments	DOCX, PDF
	WSI	Written Scheme of Investigation	DOCX, PDF
	Client data	Planning documents, plans, background	JPG, PDF
	Correspondence	Emails and letters	PDF, Outlook.msg

	Drafting	Working drawings	AI
	Finance	Quote, purchase order, costings	DOCX, PDF, XLSX
	Finds data	Catalogues, specialist reports etc	DOCX, PDF, XLSX
	GIS data	Project generated GIS including HER data, Mapping data Geophysical Survey data etc	MAP, SHP, XLSX, PRJ, DXF, TAB, SHX, QPJ, DAT, DBF, ID, DXF, DWG, BMP, JPG, ASC, QGS, XML, PMW, XCP
	Metadata	Project specific metadata	XLS
	Photography	Original and reduced images	NEFF, JPG, TIFF
	Report	Project report	DOCX, PDF
	Report Illustrations	Illustrations selected for the final report	JPG, PDF
	Research data	Background research	DOCX, PDF, JPG
	Site data	Site registers, recording forms, plans etc	DOCX, PDF, XLSX
	Temporary files	Storage for temporary files to be deleted prior to archiving	N/A

3.3. Where projects require specialist archaeological techniques, additional datasets may be generated. These will be incorporated into the folder structure as required and re-named accordingly.

Data Storage

3.4. Throughout the course of the project, data will be stored securely on Heneb IT infrastructure.

Data Selection

3.5. Heneb works across the regions of both England and Wales in which the following guidance may apply, depending on the project location.

- CIfA *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* (2020b).
- CIfA *Toolkit for selecting archaeological archives.*
- CIfA *Toolkit for managing digital data.*
- *Management of Research Projects in the Historic Environment: The (MoRPHE Project Manager's Guide* (2015).
- *National Standard and Guidance for Collecting and Depositing Archaeological Archives in Wales* (2017).
- The Royal Commission on the Ancient and Historical Monuments of Wales *RCAHMW Guidelines for Digital Archives* (2015)
- Guidance *for the Submission of Data to the Welsh Historic Environment Records (HERs) Version:2*
- Historic England's *Archaeological Digital Archiving Protocol* (ADAPt) (2016)
- Archaeology Data Services (ADS) *Guidelines for Depositors* (2021).
- *FAIR Guiding Principles for scientific data management and stewardship* (2016)

3.6. While some projects will generate a standard set of data, most project archives are unique and the creation of data is fluid, requiring periodic management and review throughout the course of the project to meet the specific requirements of individual stakeholders.

3.7. Data generated by a relatively small-scale project is likely to comprise; the final report (.pdf/.docx), digital photographs (.tif), site records including proformas/drawings (.pdf), metadata (.xls).

3.8. Larger projects may include additional data sets, such as site survey data, GIS polygons, specialist reports etc, and where required, additional digital sub-folders will be generated.

3.9. All project data, including digital, documentary, artefactual or environmental will be recorded in the final project selection strategy, a copy of which will be included in all project reports. Data that has been selected for retention, and/or deposition with a suitable repository beyond Heneb is recorded therein.

3.10. Correspondence records, financial records, research data and temporary files will automatically be de-selected from the final archivable dataset, as these do not form part of the overall archaeological record and may contain sensitive data.

Metadata

3.11. All digital data generated by the project and selected for archive will be accompanied with appropriate metadata, where required.

Preservation

3.12. Digital data selected for preservation within Wales will be deposited with the Royal Commission on the Ancient and Historical Monuments of Wales.

3.13. A digital PDF report, along with relevant photographs will also be deposited with the relevant Historic Environment Record (HER).

3.14. Associated physical archive material will be summarised within the final grey literature report/selection strategy to ensure that the physical archive is also traceable once disseminated.

Accessibility

3.15. Data will use standard software and formats where possible to maximise opportunities for use and reuse in the future.

3.16. Data submitted for long term preservation will be discoverable to interested parties though the RCAHMW and HER websites and may also be promoted by Heneb via the website or social media.

Responsibilities

3.17. The Project Manager will be responsible for the implementation of the DDMP throughout the course of the project.

3.18. The Project Manager, Project Supervisor and Head of Technology, Information and Planning will be responsible for data accumulated during the project, including its appropriate management, storage and backup.

3.19. Data will be checked routinely by the Project Manager as a means of quality assurance.

3.20. The Information and Archives Officer will be responsible for the compilation of all project specific metadata and final deposition of the digital project data and wider archive.

3.21. Following deposition with the relevant digital repository, data management will become the responsibility of the receiving organization.

3.22. A copy of relevant files generated by the project may be retained and stored securely by Heneb for future reference should it be required.

Ethics and Legal Compliance

3.23. Heneb has security protocols and policies in place relating to the ethical use of data which comply National Law and Industry Guidelines. Our Privacy Policy can be viewed here.

3.24. All data, including any sensitive data is stored securely to protect against its loss, misuse and alteration.

3.25. Heneb will take steps to ensure that any businesses we share data with will have security protocols and policies in place to manage and record data privacy and preferences correctly and that data is stored correctly.

3.26. Copyright for all data belongs to Heneb. Formal permissions from external specialists and contractors will be secured upon their engagement, where appropriate.

4 Resources and programming

4.1. The evaluation will be undertaken by a skilled archaeologist under the overall supervision of Tim Malim, a senior member of Heneb's staff who is also a member of the Chartered Institute for Archaeologists (CIfA). Heneb is also a CIfA Registered Organisation and as such agrees to abide by their Code of Conduct (2014) and the Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology (2014).

4.2. All report preparation will be completed by or with the assistance of the same field archaeologist(s) who conducted the site work. Copies of the report will be deposited with the client and the regional Historic Environment Record within one month of the completion of on-site works, subject to possible delays should specialist investigation of artefacts, samples etc be necessary. If appropriate, a short report will be published in Archaeology in Wales.

4.3. The client should be aware that in the event that significant archaeological remains are revealed there may be a requirement for more detailed excavation and specialist services. Any further work over and above the original evaluation and report would be the subject of a separate WSI and costing.

5 Appendix 1 Selection Strategy

PD24-133, Cefn Park, Wrexham (NGR SJ 35690 50795) Archaeological Evaluation 10.02.2025 **Selection Strategy v1.0**	
Project Management	
Project Manager	Tim Malim
Project Supervisor	Karl Macrow
Archives Manager	Sophie Watson
Project Stakeholders	
Project Lead / Project Assurance	Neil Bayliss
Client / Landowner	Tetra Tech
Other	
Collecting Institutions	
Regional Historic Environment Record	Clwyd-Powys

Digital Archive Repository	Royal Commission on the Ancient and Historical Monuments of Wales
Documentary Archive Repository	Royal Commission on the Ancient and Historical Monuments of Wales
Finds Archive Repository	
Other	N/A

Project Data

Digital Project Data - Management

Digital data generated by the project will be managed in accordance with the Heneb Digital Data Management Plan (Version 3), which is outlined in full under section 3 of the WSI.

In summary, digital data will be subject to regular review and management to ensure the final dataset is of suitable quality and appropriately referenced and structured, resulting in a findable, accessible, interoperable and reusable archive which has been prepared in accordance with the *CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives guidance* (2020b).

All digital files will be stored on Heneb infrastructure within a standard folder hierarchy and following a strict file naming policy. All digital files selected for archive will be data tagged with the unique project code. An example of the folder structure and specific files selected for archive will be recorded in the final selection strategy for the project and included within every Heneb report. Digital project data selected for archive will be accompanied by relevant project metadata and prepared according to the RCAHMW Guidelines for Digital Archives (Version 1). Digital data will be transferred via OneDrive upon the completion of the project as agreed with Helen Rowe (Senior Archivist - RCAHMW).

A copy of the digital report and a set of digital (.jpg) images will be submitted to the Historic Environment Record via HEDDOS in accordance with the *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* Version 2 (2022).

Project Specific Digital Data

Digital data expected for archaeological evaluation includes the following;
Photographs (.jpg / .tif)

Photographic Catalogue (.xls) *Microsoft Excel*

Grey Literature Report (.docx / .pdf) *Microsoft Word*

De-Selected Digital Data

All digital data generated by the project will be recorded in the final selection strategy and selected/de-selected data will be recorded therein.

Unsuitable or surplus data, such as blurred images or duplicate files, will be deleted from the final dataset.

Sensitive digital data is stored within dedicated project folders named Client Data, Correspondence and Finance and these will be automatically de-selected due to the nature of the data within. Project data will be retained on the Heneb servers for a period of 6 years, at which point it will be reviewed and managed as required in accordance with relevant organisational policies.

Physical Project Data (Documentary)

All physical documentary data will follow standard formats and conventions with appropriate labelling and referencing, resulting in findable, accessible, interoperable and reusable data (FAIR) which has been prepared in accordance with the *CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives guidance* (2020b).

Written and drawn records will utilise Heneb proformas and use standard conventions and terminology. Documents selected for archive will be accompanied with a paper copy of the selection strategy to ensure all elements of the archive are linked and traceable at all times.

Physical documentary data expected for an archaeological evaluation includes the following;
Trench recording forms

Context register

Context sheets

Site plans

Section drawings

Sample register

Finds register

Physical Project Data (Materials)

There is potential for artefactual material to be gathered during the fieldwork stage of the project.

The methodology for the treatment of materials is outlined in section 2 of the Written Scheme of Investigation. In summary, artefacts and contextual evidence that can help address specific research questions will be prioritised for retention and where appropriate, external specialist assessment may be employed to help identify the research potential of cohesive assemblages. In addition, local curators may be consulted as to whether specific local knowledge might be enhanced through study and retention of the collected archive, beyond any broader regional research questions.

In the instance that significant artefactual material is identified, a suitable repository will be identified and contacted once the nature, quantity and condition is known. The decision would be made by Heneb field services in conjunction with the relevant stakeholders, informed by the research potential and heritage significance of the archaeological evidence uncovered.

Karl Macrow

Project Archaeologist

10.02.2025