

# Archaeology Wales

## Cefn Du Farm Gaerwen Anglesey

Phase 1, Second Stage: Archaeological Strip, Map, Excavation Report



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Report No. 1480

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# Archaeology Wales

## Cefn Du Farm Gaerwen, Anglesey

Strip, Map, Excavation Report

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## Summary

*In May 2016 Archaeology Wales Ltd (AW) carried out an archaeological 'strip, map and sample excavation' on land at Cefn Du Farm, Gaerwen, Anglesey (centred on NGR 248870, 372120). The excavation comprised an area of c.2000m<sup>2</sup> and was undertaken on behalf of Menai Science Park on the recommendation of the Gwynedd Archaeological Planning Service (GAPS) in their capacity as Archaeological Advisors to Isle of Anglesey County Council / Cyngor Sir Ynys Môn, to fulfil a condition of a planning application 33C304C/DA/ECON for a proposed Science Park for the University of Bangor.*

*This second stage of works comprised a program of strip, map and excavation covering an area of c.2000m<sup>2</sup> located within the Phase 1 Development Zone. This area is the footprint of a new building and car parking area as indicated on the submitted planning documents.*

*The strip, map and excavate revealed a number of field boundaries belonging to a field system that predates the existing boundary layout of Cefn Du farm.*

*In Area A, the truncated remains of a curved boundary or enclosure ditch of unknown date was revealed. Two pits were located within the arc, further suggesting low-density enclosed activity.*

*The lack of prehistoric finds indicates that this area is primarily field-systems, located at a distance from the prehistoric settlement found in the area of 'strip, map and sample' undertaken in the Phase 2 site area in 2015, c.80m to the south.*

*The site is crossed by a grid of post-medieval drains, and it is clear that the area has been under plough during the post-medieval period, a likely cause for the evident truncation of many of the features excavated. The large oval features in Area B are likely linked to the agriculture of Cefn Du farm, where orchards were depicted in the late 19th century maps, along with an irregular feature that is possibly a pond. The investigation and recording of the track-way of the Cefn Du post-medieval farm layout supports the cartographic sources in indicating that the track-way has been in use since at least the late 19th century.*

*The following report provides a detailed account of the results of the excavation and includes an assessment of the finds and environmental assemblages recovered.*

# 1. Introduction

## 1.1 Project Background

In May 2016 Archaeology Wales Ltd (AW) carried out an archaeological 'strip, map and sample excavation' on land at Cefn Du Farm, Gaerwen, Anglesey (centred on NGR 248870, 372120). The excavation comprised an area of 2000m<sup>2</sup> and was undertaken on behalf of Menai Science Park, on the recommendation of the Gwynedd Archaeological Planning Service (GAPS), to fulfil a condition of planning application 33C304C/DA/ECON for a proposed Science Park on behalf of the University of Bangor.

The site is located in the south of Anglesey, just off junction 7 of the A55 North Wales Expressway, in an area of known archaeological and historical importance (**Figs. 1 & 2**). The site consists of three enclosed fields used as pasture for cattle and sheep and a cluster of buildings comprising Cefn Du Farm. Both the farmstead and the associated field system are likely to date to the nineteenth century.

This stage of 'strip, map and sample excavation' represents the second stage of the Phase 1 program of archaeological work, which was designed to mitigate the impacts of the proposed scheme, following the grant of outline planning permission.

The work comprised a program of strip, map and recording covering an area of c.2000m<sup>2</sup> located within the Phase 1 Development Zone. This area is the footprint of a new building and car parking area as indicated on the submitted planning documents.

The work followed a previous Desk-based Assessment and Site Visit (Amec 2013), a Geophysical Survey (Durham University 2013), an Evaluation of the Assessment and Geophysical Survey (Amec 2013a), an Archaeological Evaluation (Davies and Houlston AW 2014) and an Archaeological Excavation (Pitt and Shobbrook AW 2015).

The following report gives provides details of the results of the work undertaken. It also includes an assessment of the finds and environmental assemblages recovered.

The work was managed by Kate Pitt (ACIfA) and supervised by Andy Shobbrook (ACIfA). The AW Project Number is 2256 and the Site Code MSP/16/EX.

## 1.2 Desk-based Assessment

The Desk-based Assessment and Site Visit (Amec 2013) did not identify any designated historic assets within the site boundary. However, it was noted that excavations immediately to the north of the site along the route of the A55 revealed important evidence dating from the early Neolithic to the medieval period, in particular a late Iron Age / Romano-British farmstead consisting of a round house and several ancillary structures including a small industrial workshop and a possible granary. Further to the north, and approximately 500m from the site boundary, excavations at Capel Eithin (SAM: AN120) produced important evidence of occupation during periods spanning the Neolithic to the early medieval.

In addition to examining the results of these previous excavations, the Desk-based Assessment looked at the effect of the proposed development on historic assets located within pre-defined study areas. The majority of these comprised Grade II listed buildings located in the village of Gaerwen, the closest being an eighteenth century windmill located 120m from the site boundary.

The Desk-based Assessment concluded that the proposed development is unlikely to result in any substantial effect on the settings of any designated assets. However, the proximity of the two previous multi-period excavations to the north of the site, both of which uncovered evidence of at least regional significance, meant that the site was identified as having a high potential for the presence of archaeological remains. As a result, GAPS recommended that a geophysical survey of the site be undertaken.

### 1.3 The Geophysical Survey

The Geophysical Survey (Durham University 2013) identified a few features of potential archaeological interest, including a field boundary, pits and a pond, and a number of probable field drains, although the results were not indicative of extensive or significant archaeological remains. It was noted, however, that strong anomalies, which were probably caused by the underlying geology, dominated the results from the north-eastern part of the site, so archaeological features located in this area are likely to have been missed.

An evaluation of the results of the Assessment and Geophysical Survey (Amec 2013a) concluded that because the geological features are not judged to have significantly effected the survey results across the majority of the site, there is no indication of the presence of intense or complex archaeological remains within the site.

### 1.4 The Evaluation

As a result of the Desk-based Assessment, Site Visit and Geophysical Survey, GAPS recommended the excavation of forty, 20.0m long, evaluation trenches across the site (Fig. 2). The locations of the trenches were agreed with AW beforehand, the objective being to investigate all the area associated with the proposed planning application. The aim was to provide relatively uniform coverage across the site, although care was taken to target the few potential features identified by the geophysical survey.

The Archaeological Evaluation was undertaken by Archaeology Wales Ltd during August 2014. Following the initial excavation, GAPS recommended the excavation of seven additional trenches and pits, and the enlargement of four of the existing ones. Thirteen out of the 47 trenches and pits contained archaeological features. Despite the absence of datable features, evidence was recovered during the evaluation to suggest that prehistoric, Romano-British and post-medieval occupation occurred within the development area. This is in keeping with the extensive evidence for these and other periods recovered from the Cefn Du (Cutler et al 2012) and Capel Eithin (White 1981; White and Smith 1999) excavations further to the north. However, the density of features recovered was significantly less than from either of these earlier excavations, while

evidence of some important periods, in particular the early medieval, was seemingly absent all together.

## **1.5 The strip, map & sample excavation**

The results of the Archaeological Evaluation led GAPS to recommend an archaeological 'strip, map and sample excavation' to be carried out in the parts of the site that are threatened by the proposed development: in the centre of the southern field, the northern half of the north-eastern field, and in the smaller north-western field, as these represent the areas with moderate archaeological potential.

In August 2015, Archaeology Wales undertook a program of archaeological excavation of an area of c.7000 sq. m, encompassing the areas of archaeological evidence identified in Trenches 21 and 36 (Archaeology Wales report 1409, November 2015). This confirmed evidence for settlement in the form of pits, a hearth and a possible cereal- or nut-dryer, as well as a possible enclosure ditch. The features were concentrated in the north and west of the excavation area. Assessment of samples has established a good potential for environmental analysis, with hazel nuts, barley, apple and spelt being identified, characteristic of a Neolithic date. This is supported by the limited artefactual evidence, comprising three poorly preserved prehistoric sherds and a small number of lithics.

Both the excavation and the subsequent phases of post-excavation analysis and reporting have been undertaken to the requirements set out in a Written Scheme of Investigations. This was prepared by AW on behalf of Menai Science Park and subsequently approved by GAPS on behalf of Isle of Anglesey County Council / Cyngor Sir Ynys Môn.

## **2. Site Description**

### **2.1 Location, Topography and Geology**

The three fields comprising the site are bounded by the A55 North Wales Expressway in the north, the A5152 in the east, the A5 Holyhead Road in the south, and by a track leading to Cefn Du farm in the west. The village of Gaerwen is located to the southwest of the site, predominantly on land located to the south of the A5.

The fields are largely used for the pasture of cattle and sheep. They are relatively flat, with some undulations that appear geological in nature. The land slopes gently downwards from north to south and there are a number of springs and areas of wet ground, particularly in the south, indicative of a high water table. Water runs along a large ditch located along the western side of the southernmost field and there are indications that this represents a western diversion of an earlier water course located approximately 15-25m to the east; the ditch may have been cut to take water to a mill located near the southwest corner of the site.

The underlying geology is bedrock of the Central Anglesey Shear Zone and Berw Shear Zone Mica Schist and Coedana Complex - Mafic Gneiss. The superficial deposits are



largely unrecorded but in places the bedrock is overlain by Devensian Till (British Geological Survey 2013).

## 2.2 Historical Background

A brief historical assessment was carried out as part of the Desk-based Assessment (Amec 2013).

No previous archaeological investigations have taken place within the site at this time; although to the immediate north a program of archaeological work was undertaken prior to the construction of the A55. An initial evaluation at Cefn Du (Cutler et al 2012) was undertaken by GAT in 1999 and identified a rubble spread indicative of prehistoric settlement. Trial trenching also revealed a corn drying kiln and some possible prehistoric features. Subsequently, because of the high potential of the site, the entire length of the corresponding road corridor was excavated (centred on NGR 249140, 372290).

Early Neolithic occupation consisted of circular pits containing charcoal-rich deposits and heat-shattered burnt stone. A single, well defined, post-hole was recorded in association with this group and three short gullies were identified nearby. Two of these were irregular in shape and one was arc-shaped. The latter was filled with charcoal and burnt stone, probably 'pot-boilers'. No datable artefacts were found, but the charcoal from one of the pits was radiocarbon dated to 4050-3790 BC (Cutler et al 2012, 9).

Mid to late Neolithic evidence was represented by a group of twelve pits, six of which formed an arc 6m long. Three of these formed a cluster, while the others were located immediately to the south. Some of them had been truncated by later field boundaries. Abraded sherds dating to the mid to late Neolithic were recovered and one pit contained a large serrated piece of flint, probably late Neolithic in date. Radiocarbon dating of charcoal recovered from one of the pits gave a date of 3640-3360 BC. The group is thought to represent domestic activity. It was noteworthy that two types of pottery thought to be chronologically distinct were found together in three instances. (Cutler et al 2012, 9)

Mid to late Iron Age to Romano-British activity at Cefn Du was represented by a farmstead comprising a 8.2m (internal) diameter round house and several ancillary structures that had been terraced into the hillside. Archaeomagnetic dating of a hearth within the house to AD 120-170 probably represents the final occupation period (Cutler et al 2012, 18). The settlement included a small industrial workshop and a rectangular nine post structure, thought to be a granary.

Early medieval activity was represented by reuse of the roundhouse ruin and significant quantities of germinated barley, probably intended for malting, which produced a radiocarbon date of 390-720 AD. A stone surface and two associated structures were also located.

Medieval occupation was represented by a corn dryer. Its period of use was dated to AD 1000-1280 from radiocarbon analysis of wheat and barley grains found in an associated pit (Cutler, Davidson and Hughes 2012).

At Cefn-du farm a possible, pre-19th century, field system was identified. An assessment of estate maps undertaken by GAT and the National Library showed that the remains of the round house had become part of the north-western corner of a field named Cae Carrig on a map dating to 1756 (NLW Ms Map Vol. 53), while a later estate map dated c.1820-1840 shows the reorganisation of the field system, which was part of the Holland estate and remained mostly unchanged until the end of the 20th century, suggesting elements of the roundhouse were visible until the end of the 20th century.

Archaeological investigations in the wider study area have mainly focused on Capel Eithin scheduled monument (SAM: AN120), located approximately 500m to the north of the site (White 1981; White and Smith 1999). Significant discoveries from the Neolithic period onwards included a Bronze Age cremation cemetery, a stone-built Roman structure, 6.5m square, set within an earlier enclosure, which may have had a ritual function, and the remains of an early medieval cemetery, one of the most extensively excavated in western Britain (Williams 2006, 150). The graves forming the cemetery seem to have focussed around a central structure built within a rectangular trench that had straight sides and a flat bottom. The structure was accessed from the east and had a clay floor. Despite the name of the site, no religious building, either associated with the burials or otherwise, has yet been found in the area. The excavators noted that an inscribed sixth or seventh-century (DEVORIGI) stone, now lost but recorded in a c. 1698 manuscript, may have originated from the early medieval cemetery at Capel Eithin (Williams 2006, 153).

It is apparent that below ground archaeological remains are highly likely to continue beyond the excavated areas at both Cefn Du and Capel Eithin. This has clear implications for the site, particularly its northern areas.

### 2.3 Previous Archaeological Work

During August 2014, Archaeology Wales Ltd undertook an Archaeological Evaluation at the proposed development site.

The earliest feature recovered was a chert core of probable Neolithic date from topsoil deposits in Trench 18. Three struck lithics were recovered from topsoil in Trench 6 and one from Trench 2.

The most important discoveries made are probably represented by the group of curved ditch segments, some of which had terminal ends, which were mainly clustered together in the central part of the southern field (Trench 18, Trench 21 and Trench 36). These could represent evidence for enclosures, burial mounds or even the external drip gullies of buildings.

The first of a sequence of two ditches identified in the north-eastern field (Trench 4) tentatively also belongs to this group. However, it was replaced with a slightly larger, linear structure, which has parallels with ditches identified in the north-west (Trench 2 & Trench 41) and in the west of the southern field (Trench 35). These are considered more likely to represent enclosure or field boundary ditches. It should be noted, however, that the north-western ditch is on a similar alignment to a post-medieval field

boundary ditch found nearby during excavations in 1999 (Cutler, Davidson, and Hughes 2012).

Possible evidence for occupation during the Romano-British period is represented by a single sherd of pottery and an undated culvert. Two trackways, one which is still in use and crosses the centre of the site (Trench 42), and one, now abandoned, which is located in the northeast (Trench 45), represent the only evidence other than the farmhouse for post-medieval occupation (Davies and Houliston 2014).

In August 2015, Archaeology Wales undertook a program of archaeological excavation of an area of c.7000 sq. m. The archaeological 'strip, map and sample excavation' was carried out in advance of first phase of the proposed development, targeting the centre of the southern field, as this area had the most, all-be-it moderate, archaeological potential, as revealed by the archaeological evaluation undertaken in August 2014 (Davies and Houliston 2014).

A cluster of archaeological features was revealed in the western area of the excavation, the most significant of which was interpreted as a corn-dryer, from its form and character. However, a study of the environmental samples recovered from the feature, in combination with dating provided by the lithics, tentatively suggests it may represent evidence for Neolithic nut-drying, a food preparation process that could pre-date or compliment cereal-drying. The surrounding features, some ephemeral and mainly with few finds, are likely to relate to a temporary camp or activity at the periphery of the main settlement focus. There is evidence that this area of activity may have been enclosed, and it could be part of a large enclosure extending to the west of the excavation area.

In the northern part of the site, a hearth was recovered that provided further evidence of prehistoric cooking activity. The initial results of the environmental processing provided evidence for residues of barley, apple and spelt grain from the feature, again food types characteristic of the Neolithic period.

### 3. Aims and Objectives

The excavation was undertaken to:

- Establish the extent of the archaeological remains within the area of proposed development.
- Determine the extent, condition, nature, character, quality and date of archaeological remains present.
- Establish the ecofactual and environmental potential of archaeological features and deposits, sampling where necessary.
- Excavate and record all features such that they are thus preserved by record.

## 4. Methodology

The location of the 2000m<sup>2</sup> excavation area was agreed with GAPS prior to work commencing. The open-area trench was excavated using a tracked mechanical excavator equipped with a toothless ditching bucket to either the top of the uppermost surviving archaeological horizon or to the top of the natural soil horizon, whichever was encountered first.

The methodology followed by the excavation team is set out in detail in the WSI (see Appendix II). The excavation was monitored with visits by GAPS on behalf of Isle of Anglesey County Council / Cynghor Sir Ynys Môn by GAPS.

All areas were photographed using high resolution (14mp+) digital photography with images stored in \*RAW format for later conversion into Tiff files. All on-site illustrations were undertaken on drafting film using recognised conventions and scales (1:10, 1:20, 1:50) as appropriate.

All works were undertaken in accordance with the CIfA's Standards and Guidance for an archaeological excavation (2014), Standards and Guidance for a watching brief (2014) and current Health and Safety legislation.

Finds were recovered by hand during the course of the excavation and bagged by context. Deposits suitable for environmental sampling were taken in bulk and stored within sterile sample bags for later assessment.

## 5. Results

Detailed figures (plans and sections) have only been included if they contained identifiable features.

### 5.1 Description of Excavated Area by Andy Shobbrook

Within the excavation area, nine archaeological features were identified cut into the natural subsoil. Eight post-medieval land drains were also revealed, representing historic land management within the present field layout. The site was divided by the existing south western boundary of Cefn Du farmstead. The excavation area to the south was named Area A and the excavation area to the north Area B (Figure 3). The locations of the features discussed below are shown in Figures 3-5.

#### Subsoil and Topsoil

The depth of the removed topsoil (001) varied throughout the site, but was no deeper than 0.12m in any area. It consisted of a dark-brown clayey silt mixed with well sorted occasional sub-rounded and sub-angular stones.

The underlying subsoil deposit (002) was formed of moderately compacted grey silt clay and varied in depth across the site between 0.38m and 0.18m. It produced some post-medieval ceramics and modern glass.

The well-mixed nature of these upper deposits and the presence of plough marks on the surface of the underlying natural substrata (003) indicates that the field had, in the past, been frequently ploughed.

#### **Area A – Figure 4, Plates 1-7**

In the upper, north-eastern, corner of Area A, a 9m long segment of curvilinear ditch (011) was revealed (Figures 3-4). The feature was 0.14m deep in the centre and 1.48m wide. A single fill within the feature (012) consisted of a moderately compacted, mid-grey, silt-clay containing occasional small stones and rare flecks of charcoal.

Twelve metres to the southwest of 011, a second curvilinear ditch (013) measuring 14m in length, 0.74m wide and 0.22m deep was revealed. It was aligned roughly north-northeast to south-southwest. A dark deposit of grey clay silt (014) filled the ditch. It contained no datable artefacts and was sterile in nature.

Ditch 011 and 013 were shallow, truncated and on similar alignments. Tentatively, they could represent boundary or enclosure ditches, although as no datable finds were recovered from them, more definitive interpretation is not possible.

The fill of the ditch 013 was cut by a land drain (044) and a linear boundary ditch (019). The land drain was stone-lined and similar to others found in the same area. The linear ditch (019) was 35m long, aligned north-northwest to south-southeast, and crossed and exceeded the width of the excavated area. It continued for an unknown distance under both the north-east and south-west facing baulks of Area A. The ditch cut measured 3.10m wide by 0.31m deep. A dark grey clay (020) that formed within the ditch contained occasional inclusions of small sub-angular stones. No datable finds were recovered. Despite this, the feature is tentatively interpreted as the truncated remains of a field boundary ditch.

At the northern baulk of Area A, a further slot (043) was excavated through Ditch 019. Here it measured 1.9m wide by 0.4m deep. Within the base of the cut, the primary fill (039) consisted of a firm to moderately compacted red clay that contained frequent inclusions of small sub-angular stones. The secondary fill (038), which was up to 0.3m deep, consisted of a firm to moderately compacted grey clay containing frequent small sub-angular stones. A band of light brown clay-silt (040) had been deposited over the top of the ditch. It contained occasional inclusions of small sub-rounded stones. Overlying 040, a second band (041) of a dark brown clay silt had been deposited. A third band (042) represented the final episode of deposition and consisted of a light brown clay silt.

It is probably that ditch cuts 019 and 043 are part of the same feature and that clay bands 040, 041 and 042 are the remains of up-cast created during the excavation of the adjacent south western boundary of the present farmstead.

Running parallel with ditch 019, ditch cut 036 extended from the southern baulk of the excavation for 16m. It was 0.92m wide and 0.2m deep, and contained a fill of orange-brown silt clay (037) with occasional charcoal flecks and no finds. Ditch 036 was shallow and probably represents the truncated remains of a field boundary ditch.

A shallow linear pit (006), measuring 2.5m long by 0.7m wide and 0.37m deep, containing two separate fills, had been cut in a central location within Area A. The primary fill (007) comprised firmly to moderately compact dark grey clay that contained infrequent small sub angular stones and frequent small pieces of charcoal. It produced a single piece of unworked flint. The secondary fill (008), which was located within the southern western area of the pit, consisted of firm to moderately compacted grey clay containing infrequent small sub-angular stones with moderate flecks of charcoal.

Sub-oval pit 023 measured 0.36m in diameter by 0.17m deep and contained a blackish brown clay. No finds were recovered from this deposit although it closely resembled that associated with shallow linear pit 006 deposit 007. The pit had been truncated on its north-eastern side by stone-lined land drain (021).

Linear gully 004 measured 8m long, 0.9m wide and 0.26m deep. It was located within the far north eastern corner of area A, continuing under both the south-western and north-eastern baulks and heading in a north-east/south-west alignment. The fill of the gully (005) consisted of a compact dark grey clayey-silt containing no inclusions.

#### **Area B – Figure 5, Plates 8-9**

Linear gully 009 measured 10m long, 1.10m wide and 0.14m deep. It was located within the far north-eastern corner of Area B and continued under both south-western and north-eastern baulks, heading in a north-east/south-west alignment. The fill of the gully (010) comprised a compact, dark grey, sandy-clay and contained no inclusions. A modern pit (017) had truncated the south-eastern edge of the feature, with root action (015) also cutting into the feature's north-western edge.

This feature is assumed to be a continuation of gully 004 that was located in Area A. It could, therefore, represent a boundary belonging to a field system predating the existing layout of Cefn Du farm.

Sub-oval feature 033 was 7.5m long, 5m wide and 0.15m deep and located with the south-western corner of Area B. It was orientated north-east by south-west and could represent a natural depression. The fill of the feature (034) comprised firm to moderately compacted, mid greyish brown, silt-clay and contained two shards of post-medieval Buckley-type ware.

A second sub-oval feature (048), measuring roughly 8m long by 5m wide, was located alongside the northern edge of cut 033. It contained a single fill (035) of moderate to firmly compacted light bluish-grey clay.

The shape of the features and the composition of their fills tentatively suggests that they represent the remains of a pond(s) associated with the farm's historic past.

### **Track-way Trench – Figures 3 & 5, Plate 10**

A trench measuring 5.2m long, 1.8m wide and 0.5m deep was machine excavated across the existing track-way located to the south-east of the Cefn Du farmstead. Only half of the existing track-way could be excavated due to power lines encroaching on its north-eastern side. Machining continued to the surface of the natural soil horizon (003).

Cut 026 measured 0.95m wide, 0.30m deep. It cut into the natural clay (003) located in the mid and north-eastern corner of the trench. The cut made a slight depression that continued to rise south-westwards, underneath the existing track-way, which tentatively suggest the presence of a smaller, earlier, track way in this position. The cut was filled by a light greyish-brown silt-clay (025). Sealing this, was the existing metalled track-way (027). This feature had a slight comber to it, with the surface dropping slightly in the south-western. It had a maximum depth of 0.12m at its centre and was formed of compacted sub-angular and sub-rounded stones. A lens of buried turf (032), 0.07m deep, had been deposited over the natural clay (003) located within the south western corner of the trench. Constructed over the turf was the base of a stone and earth bank (031), which was parallel to the south-western side of the track-way. It was 1.70m wide at its base and 1.20m high. Loosely compacted blackish-brown topsoil had accumulated over the south western side of the metalled surface, forming against the north eastern face of stone bank 031. A modern service trench (046) that truncated the track-way, cutting into the natural clay, contained a single plastic water pipe. A ditch (029) associated with the track-way measured 0.58m wide and 0.14m deep, and contained a single fill (030) formed of loosely compacted blackish brown silt clay. This is assumed to be relatively modern in origin.

## **5.2 Finds**

A total of 9 items were recovered during the excavation. This comprised: 3 sherds of post-medieval pottery, 2 modern CBM fragments, 2 lithics, 1 post-medieval glass vessel fragment, and 1 piece of a post-medieval agricultural iron bar (see Appendix 3).

### **Finds Summary**

The finds assemblage was extremely limited. With the exception of the lithics, all of the finds are post-medieval or modern in character. They are likely to be associated with the adjacent post-medieval farm complex.

## **5.3 Environmental samples**

The site sampling policy followed that set out in the approved Specification. Samples were taken of all significant, non-contaminated, deposits. Samples were not taken from features where there was clear evidence of contamination resulting from bioturbation, i.e. where root action or other post-depositional processes had allowed modern and earlier material to penetrate into a context.

In all cases the aim was to obtain material suitable for dating such as carbon, and for improving the interpretation of the associated feature by recovering items such as charred bone, flint fragments and pottery sherds. 7 samples were taken in total, with the sample list being in Appendix 3. Of these samples, 1 was processed in house by Archaeology Wales, for initial specialist assessment. The unprocessed samples, flots and residues have all been retained.

## **5.4 Summary of the Results**

### **Prehistoric**

This stage of strip, map and excavate revealed a number of field boundaries belonging to a field system that predates the existing boundary layout of Cefn Du farm. In Area A, the truncated remains of a curved boundary or enclosure ditch of unknown date was revealed. Two pits were located within the arc, further suggesting low-density enclosed activity. The distinct lack of prehistoric finds indicates that this area is primarily field-systems, located at a distance from the prehistoric settlement found in the area of strip, map and sample undertaken c.80m to the south at site area Phase 2 in 2015. It is not conclusive as to whether these undated features are prehistoric in date, but their character and form, so similar to those found in the southern site area in 2015, suggests this.

### **Post-medieval**

The site is crossed by a grid of post-medieval drains, and it is clear that this area has been under plough during the post-medieval period, a likely cause for the evident truncation of many of the features excavated. The large oval features that produced Buckley-type ware in Area B are linked to the agriculture of the Cefn Du farm, where orchards were depicted in the late 19th century maps, and an irregular feature that is possibly a pond. The investigation and recording of the track-way of the Cefn Du post-medieval farm layout supports the cartographic sources that this track-way has been in use since at least the late 19th century.

## **6. Assessment**

### **6.1 Assessment of the finds assemblage**

The two lithic items recovered during the excavation were examined by Kate Pit following post-excavation processing. Neither showed evidence of having been worked. Consequently, further analysis is not recommended.

The remaining seven items in the finds assemblage were all post-medieval in date and likely associated with use of the adjacent farm complex. No items were of intrinsic interest so further study is not recommended.



## 6.2 Assessment of the charred plant remains from pit [006] by Wendy J. Carruthers

### Introduction

Excavations by Archaeology Wales (AW) on the site of a new Science Park at Gaerwen, Anglesey, revealed nine archaeological features cut into the natural subsoil. This assessment report concerns a soil sample was taken from the primary fill of the shallow linear pit [006]; sample 1, context 007. The fill was described as consisting of “firmly to moderately compacted dark grey clay that contained infrequent small sub angular stones and frequent small pieces of charcoal” (Irma Bernadus and Kate Pitt, pers.com.). The underlying geology is bedrock of the Central Anglesey Shear Zone and Berw Shear Zone Mica Schist and Coedana Complex – Mafic Gneiss. In places the bedrock is overlain by Devensian Till (British Geological Survey 2013).

### Methods

The 10 litre sub-sample of soil from context 007 (sample 1) was processed by Irma Bernadus (AW) using standard bucket floatation with a flot mesh of 250 microns. The residue was also retained on a 250 micron mesh. The processed soil sample amounts to 50% of the bulk sample originally taken. Both the dried flot and dried residue were sent to the author for assessment. In order to make sorting more efficient the flot and residue were dry sieved by the author prior to sorting using meshes of 3mm, 1mm and 250 microns. An Olympus ZX7 stereoscopic microscope was used for sorting (minimum magnification x10).

### Results

**Flot:** A 25ml flot was obtained but most of this consisted of fine silt and rootlets. The recovery of fine silt in the flot is a common problem on sites with this type of geology. Charred material was extremely scarce, with only a few small slithers of charcoal being observed. These were retained in a labelled tube in case they were required for radiocarbon dating. However, it is unlikely that they will be large enough for identification purposes. A charcoal specialist would be required to determine their suitability. No charred plant macrofossils were present.

**Residue:** The large residue (400ml) consisted of large stones and fine silt/sand with occasional fragments of charcoal. The charcoal fragments were a little larger than in the flot but they had failed to float because they were impregnated with silt. At least one fragment may be large enough for identification purposes but its poor state of preservation may make identification difficult and may make it unsuitable for dating. A charcoal specialist would need to make this decision. The charcoal has been retained in a labelled glass tube. No charred plant macrofossils were present.

### Conclusions

The subsample of 10 litres of soil from context 007, pit [006], produced no plant macrofossils and only a few small fragments of charcoal. Since most of the fragments are too small for identification purposes and the few larger fragments are heavily impregnated with fine silt it is uncertain if they are suitable for radiocarbon dating. A charcoal specialist would need to examine the fragments if a radiocarbon date is required. It is unlikely that many, if any, charred plant remains will be present in the unprocessed 50% of the bulk sample, but this cannot be ruled out as the distribution of charred remains is unpredictable and uneven.

## 7. Discussion and Conclusions

Evidence was recovered during the excavation to suggest that prehistoric and post-medieval occupation occurred within the development area. This is in keeping with the extensive evidence for these and other periods recovered from the Cefn Du (Cutler et al 2012) and Capel Eithin (White 1981; White and Smith 1999) excavations further to the north.

The very shallow features of ditch 011 and 013 are on the same alignment and are likely to represent the truncated remains of a curved boundary or enclosure ditch of unknown date. Pits 006 and 023 are located within the arc, further suggesting low-density enclosed activity. Ditch 013 is cut by field boundary 019, which is evidence that 013 is from an earlier phase of activity.

The distinct lack of prehistoric finds indicates that this area is primarily field-systems, located at a distance from the prehistoric settlement found in the area of strip, map and sample undertaken in the southern site area in 2015.

A number of field boundaries belonging to a field system predating the existing boundary layout of Cefn Du farm were revealed.

The site is crossed by a grid of post-medieval drains, and with mixed subsoil and plough-marks evident in the natural geology, it is clear this area has been under plough during the post-medieval period, a likely cause for the evident truncation of many of the features excavated. The large oval features in Area B are likely linked to the agriculture of the Cefn Du farm, where orchards were depicted in the late 19<sup>th</sup> century maps, and an irregular feature that is possibly a pond. The investigation and recording of the track-way of the Cefn Du post-medieval farm layout supports the cartographic sources that this track-way has been in use since at least the late 19<sup>th</sup> century.

There is a low to moderate potential for prehistoric and late post-medieval archaeology to be encountered in any further works in the immediate area.

Assessment of the finds and environmental assemblages has concluded that there is little potential for further analysis of the artefacts and ecofacts recovered during the excavation. However, although both assemblages are limited in size and importance, it is recommended that the Stratigraphic Sequences are fully analysed and written-up for inclusion in a final publication that includes the more important assemblages found further to the west. The prehistoric and post-medieval evidence are both likely to add to the understanding of local land-use during these periods.

The archive will be deposited with the finds in the Gwynedd Museum.

## 8. Acknowledgements

Thanks are due to Pryderi ap Rhisiart, Menai Science Park Ltd for his on-going support, GAPS, the field team, and to Irma Bernardus for the illustrations.

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## **APPENDIX I:** Figures

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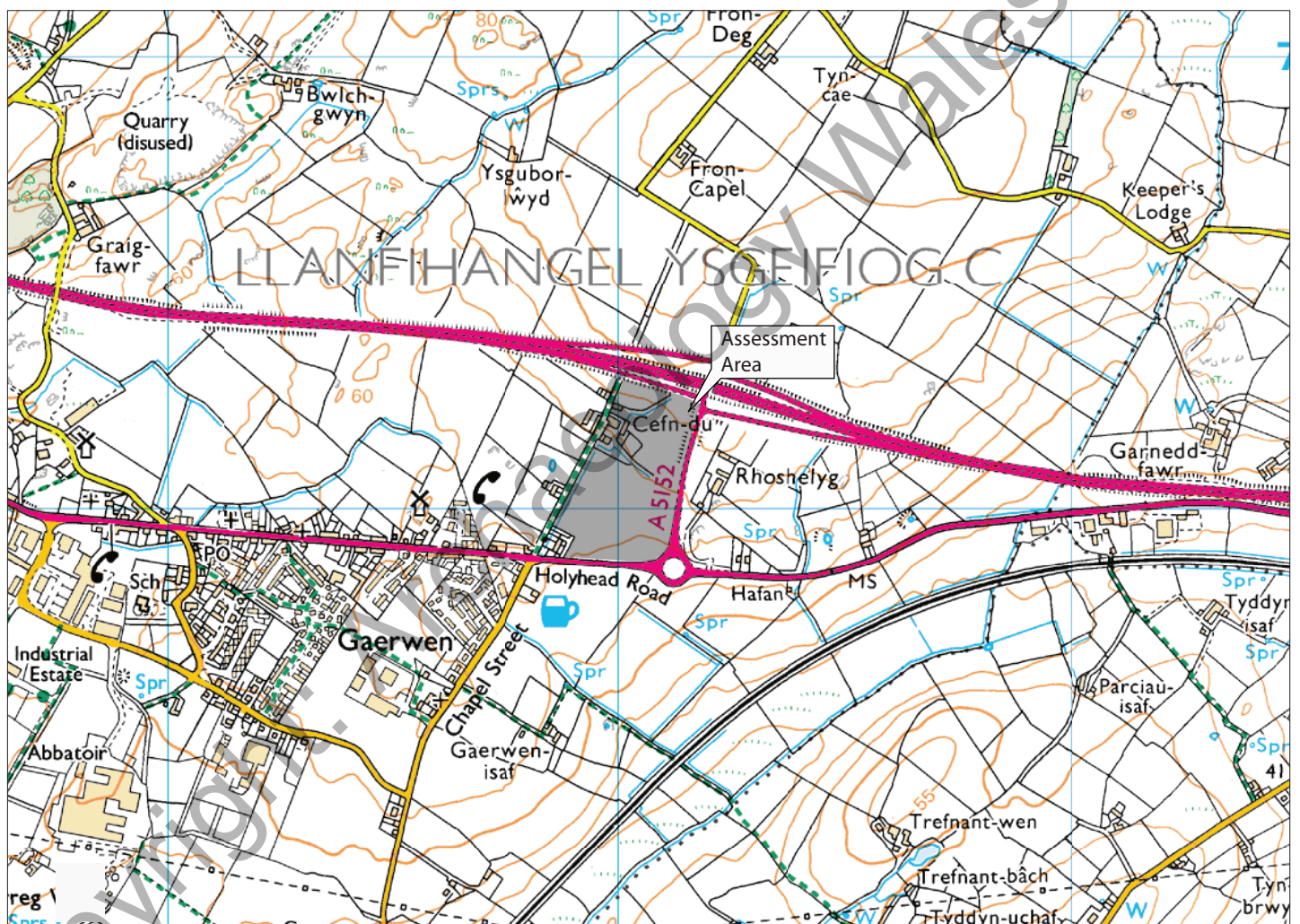


Fig. 1 Location map





Figure 2  
Overall Site Location Plan

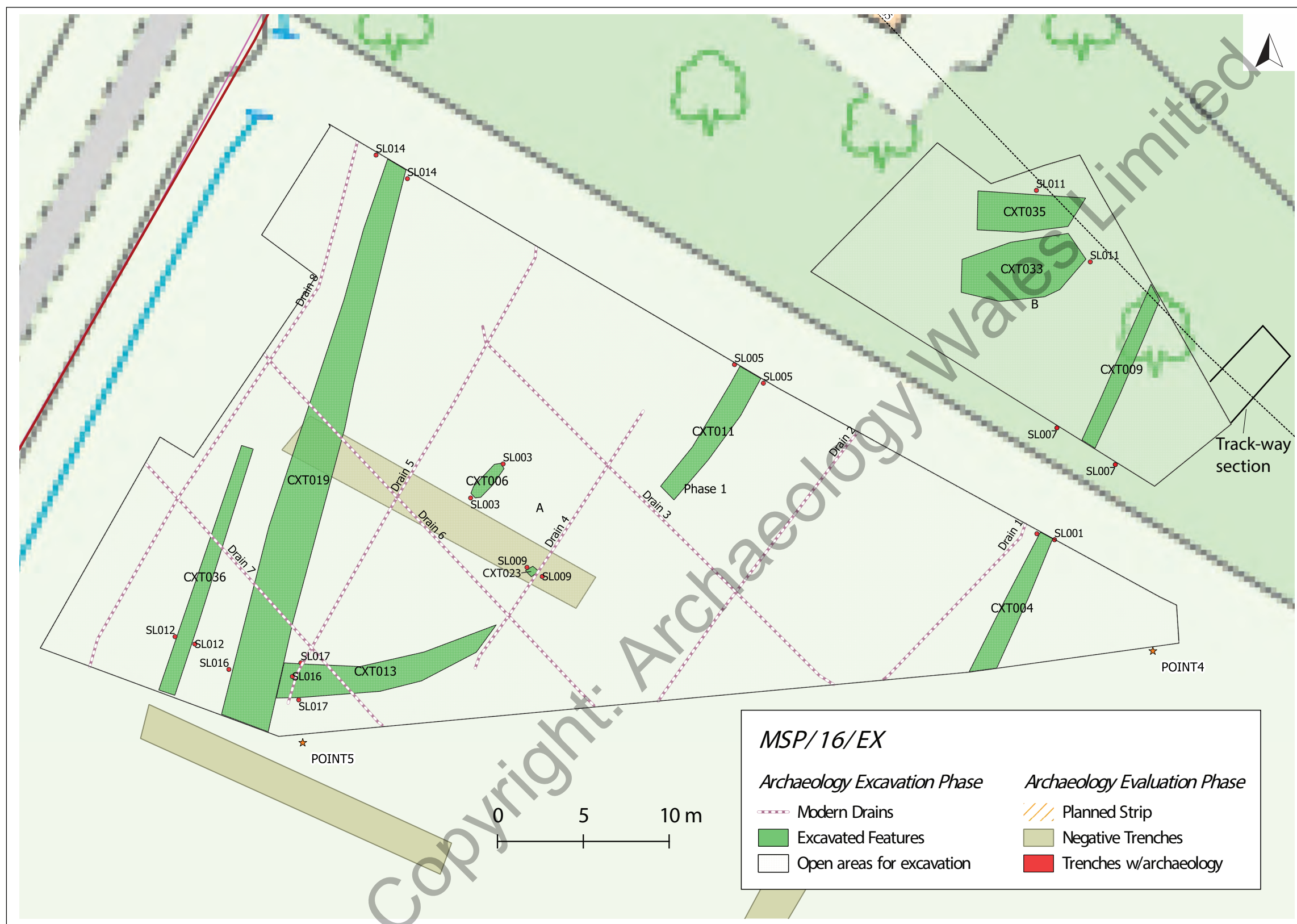
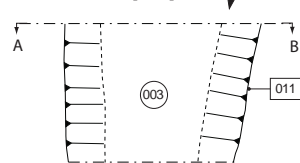


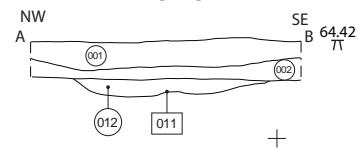
Figure 3  
Overall Site Plan



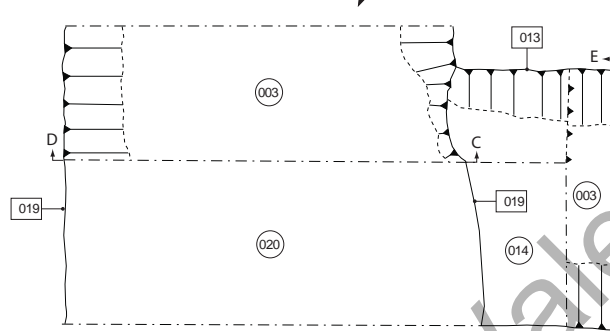
Plan of Ditch [011]



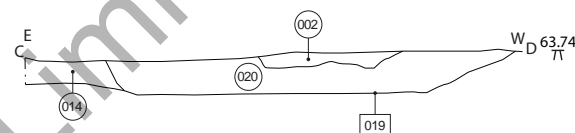
Section of Ditch [011]



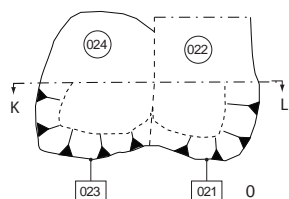
Plan of Ditches [013] and [019]



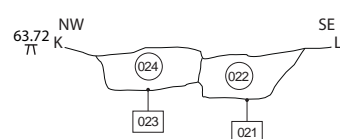
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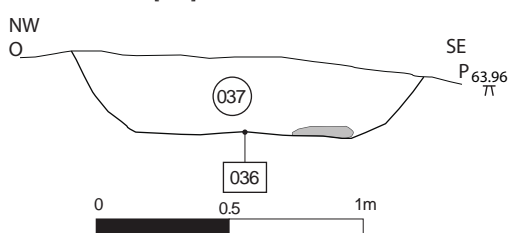
Plan of Post hole [023] and modern Drain [021]



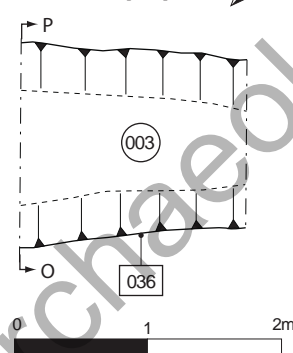
Section of Post hole [023] and modern Drain [021]



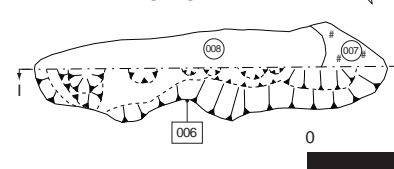
Section of ditch [036]



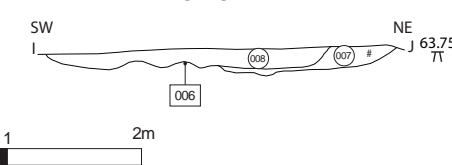
Plan of ditch [036]





Plan of oval Pit [006]

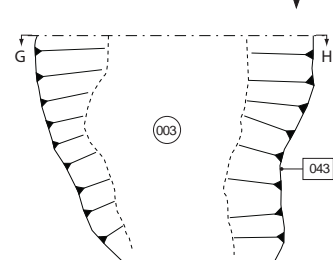


Section of oval Pit [006]

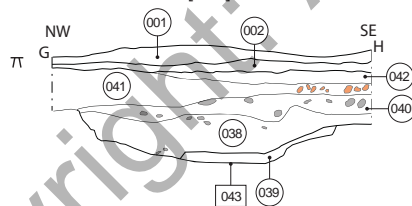


Key  
 Stone  
 Charcoal flecks

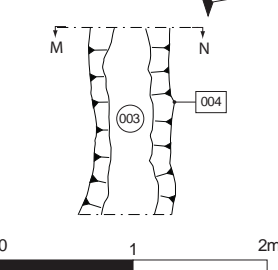
Plan of Ditch [043]



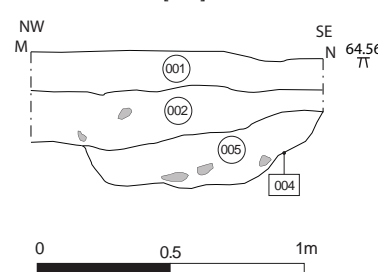
Section of Ditch [043]



Plan of Ditch [004]



Section of Ditch [004]



**Job Title:** Menai Science Park, Gaerwen

**Drawing Title:** Plans & sections Area A

**Date:** June 2016

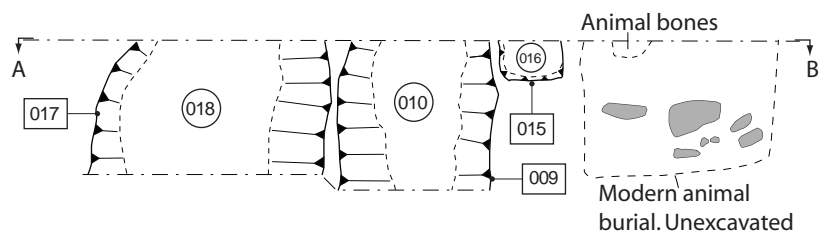
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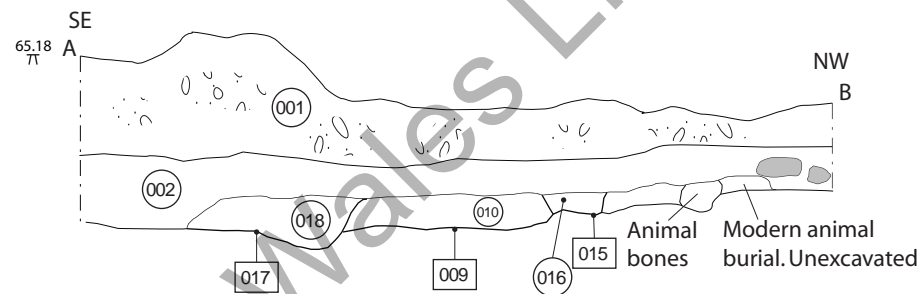
**Figure** 4



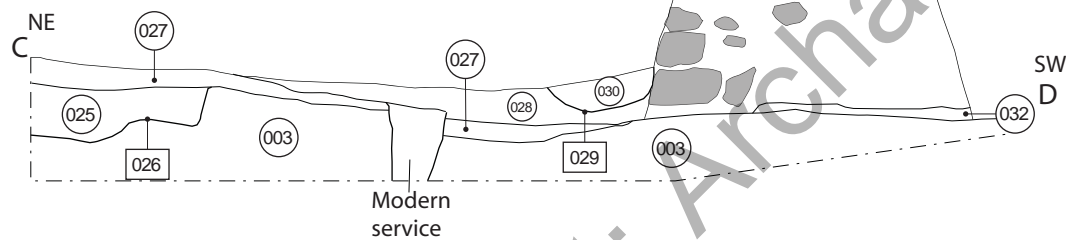
Plan of Gully [009], modern Pit [017] and possible Pit [015]



Section of Gully [009], modern Pit [017] and possible Pit [015]



Section of Trackway (027)



#### Key

- Stone
- Root disturbance
- Red clay

Figure 5

Plans & Sections Area B

Scale: 1:40 @ A4

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## **APPENDIX II:** Plates

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Plate 1. Section of Ditch 011, looking north-east. Scale 1m



Plate 2. Section of Ditch 013, looking north-east. Scale 1m





Plate 3. Section of Ditch 019, looking south-east. Scales 2 x 1m



Plate 4. Section of Ditches 019 and 043, looking north-east. Scale 1m





Plate 5. Section of oval Pit 006, looking north-west. Scale 1m



Plate 6. Section of Post hole 023, looking north-west. Scale 1m





Plate 7. Section of Gully 004, looking north-west. Scale 1m



Plate 8. Sections of Gully 009, modern Pit 017 and possible Pit 015, looking south-west. Scales 2 x 1m





Plate 9. Shot of Pond 033 and oval feature 048, looking south-west. Scales 2 x 1m



Plate 10. Section of Trackway 027, looking south-east. Scales 2 x 1m



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## **APPENDIX III: Catalogues**

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Finds catalogue Menai Science Park, Gaerwen

Site code: P2256 - MSP/16/EX

Number	Context	Description	Amount	Weight gram	Kept/Discard
Pottery					
	001	Glazed red earthenware; Post Medieval	1	18	D
	034	Buckley ware: Post Medieval	2	12	K
CBM					
	001	Modern	2	121	D
Glass					
	001	Post Medieval	1	2	D
Lithics					
	002	Possibly worked	1	1	K
	007	Not worked	1	5	K
Metal					
	002	Metal object	1	695	D
Total finds:					
Pottery			3		
CBM			2		
Glass			1		
Lithics			2		
Metal			1		
Total:			9		

Processed Samples Menai Science Park, Gaerwen, Anglesey

Site Code: MSP/16/EX                      Method: bucket floatation with 250 mu mesh

Sample number	Context	Soil Volume (L)	Sample Weight (Kg)	% Sample Processed	Flot weight (g)	Residue weight (g)	Weight of disc. Residue
1	007	10L	8.5	50%	21	699	n/a

C14 sample

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## **APPENDIX IV: Archive Cover Sheet**

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# ARCHIVE COVER SHEET

## Land at Cefn Du Farm, Gaerwen, Anglesey

Site Name:	Menai Science Park
Site Code:	MSP/16/EX
PRN:	-
NPRN:	-
SAM:	-
Other Ref No:	-
NGR:	NGR 248870, 372120
Site Type:	Green Field
Project Type:	Strip, Map, Excavate
Project Manager:	Kate Pitt
Project Dates:	May 2016
Categories Present:	Post-medieval to Modern
Location of Original Archive:	AW
Location of duplicate Archives:	Gwynedd Museum
Number of Finds Boxes:	NA
Location of Finds:	NA
Museum Reference:	NA
Copyright:	AW
Restrictions to access:	None

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## **APPENDIX V: Specification of Works**

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## **SPECIFICATION FOR ARCHAEOLOGICAL STRIP, MAP & RECORDING**

**AT**

**Menai Science Park, Cefn Du, Gaerwen  
Phase 1, Second stage**

**Prepared for:**

Menai Science Park  
Ltd

**Project No:**  
2256

**22 April 2016**

## NON TECHNICAL SUMMARY

This Specification details the proposal for archaeological 'strip, map & recording' associated with the proposed development of the Menai Science Park, Gaerwen, Anglesey, NGR 248870,372120. It has been prepared by Archaeology Wales Ltd for Menai Science Park, College Road, Bangor.

The work outlined below represents the **second stage** of **Phase 1** of a programme of archaeological work designed to mitigate the impacts of the proposed scheme, following the grant of outline planning permission.

This **second stage** will comprise a programme of strip, map and recording covering an area of 2000m<sup>2</sup> located within the Phase 1 Development Zone. This area is the footprint of a new building and car parking area as indicated on the submitted planning documents.

### 1. Introduction (see the attached plan)

The proposed development is for a new Science Park to be developed by the University of Wales, Bangor, and the Welsh Government (Planning Reference: 33C304B/ECON) at Cefn Du, Gaerwen, Anglesey. The overall development plot consists of an area of agricultural land around Cefn Du farmstead totalling approximately 7.9 hectares, centred on NGR 248870 372120.

The development proposal comprises the construction of Science Park, which will be developed in several phases. The plans are currently in the outline planning stage. The initial stage (Phase 1a) will comprise the development of the central area, along with access tracks. This will be succeeded by two further phases (Phase 2 a-c and Phase 3 a-c), one to the south, and one to the north. Although the sequence and timescales for the aspects of the development have yet to be finalised, they will be subject to a Reserved Matters application. Two further small areas of development are yet to be phased (Xa and Xb).

This Specification follows a Brief for Archaeological Mitigation (Ref.D1791, 31<sup>st</sup> March 2016) made by Jenny Emmett, Development Control Archaeologist with the Gwynedd Archaeological Planning Service (GAPS). They have been made in respect of GAPS's role as archaeological advisor to the Local Planning Authority. This Specification has been prepared by Archaeology Wales Ltd (henceforth - AW) at the request of Menai Science Park. It provides information on the methodology which will be employed by AW during archaeological works at the site. These works are to comprise a programme of strip, map & recording in an area located within the Phase 1 Development Zone.

All work will be undertaken in accordance with the standards and guidance of the Chartered Institute for Archaeologists, in particularly those for Excavation (2014). The work will be undertaken by suitably qualified staff (see Section 7 below) to the highest professional standards.

### 2 Site Description



The site comprises the proposed location of a new science park to be developed by the University of Wales, Bangor, in partnership with Welsh Government.

The site is located in the south of Anglesey, just off junction 7 of the A55 North Wales Expressway. The site consists of three enclosed fields used as pasture for cattle and sheep and a cluster of buildings comprising Cefn Du Farm.

The three fields comprising the site are bounded by the A55 in the north, the A5152 in the east, the A5 Holyhead Road in the south, and by a track leading to Cefn Du farm in the west. The village of Gaerwen is located to the southwest of the site, predominantly on land located to the south of the A5.

The fields are largely used for the pasture of cattle and sheep. They are relatively flat, with some undulations that appear geological in nature. The land slopes gently downwards from north to south and there are a number of springs and areas of wet ground, particularly in the south, indicative of a high water table. Water runs along a large ditch located along the western side of the southernmost field and there are indications that this represents a western diversion of an earlier water course located approximately 15-25m to the east.

The underlying geology is bedrock of the Central Anglesey Shear Zone and Berw Shear Zone Mica Schist and Coedana Complex - Mafic Gneiss. The superficial deposits are largely unrecorded but in places the bedrock is overlain by Devensian Till (British Geological Survey 2013).

The site has been subject to an archaeological desk-based assessment (AMEC 2013), geophysical survey (University of Durham 2013) and archaeological evaluation trenching (Archaeology Wales 2014).

Excavations immediately to the north of the site along the route of the A55 revealed important evidence dating from the early Neolithic to the medieval period, in particular a late Iron Age / Romano-British farmstead consisting of a round house and several ancillary structures including a small industrial workshop and a possible granary. Further to the north, and approximately 500m from the site boundary, excavations at Capel Eithin (SAM: AN120) produced important evidence of occupation during periods spanning the Neolithic to the early medieval.

The archaeological evaluation comprised the excavation of a total of 47 trenches across the proposed development area (see Figure 1). Archaeological features and deposits were recorded within 13 of these trenches, largely in the north and northeast areas of the site, and widely dispersed in the southern area of the site. No definitive dating evidence was contained within secured contexts although potential prehistoric activity is suggested by the presence of a chert core and struck lithics recovered from topsoil deposits. Curved ditch segments revealed in some trenches may indicate the presence of enclosures, burial mounds or buildings. Possible enclosure or field boundary ditches were also identified that may have parallels in the previous investigations to the north of the site. Potential Romano-British activity was suggested by a single pottery sherd and an undated stone-lined culvert. A probable post-medieval trackway, associated with the current farmstead, was also recorded.

In August 2015, Archaeology Wales undertook a programme of archaeological excavation of an area of c.7000 sq. m, encompassing the areas of archaeological evidence identified in Trenches 21 and 36 (Archaeology Wales report 1409, November 2015). This confirmed evidence for settlement in the form of pits, a hearth and a possible cereal- or nut-dryer, as well as a possible enclosure ditch. The features were concentrated in the north and west of the excavation area. Assessment of samples has established a good potential for environmental analysis, with hazel nuts, barley, apple and spelt being identified, characteristic of a Neolithic date. This is supported by the limited artefactual evidence, comprising three poorly preserved

prehistoric sherds and a small number of lithics.

The area covered by this specification revealed no archaeological deposits during evaluation stages and appears to be of low archaeological potential.

### **3 The proposed archaeological work**

#### **Strip, Map and Record: Phase 1 Building and Car Park Area 2000m2**

The area covered by this **first phase** of mitigation work covers 2000m2 within area Phase 1a (the central western area of the site). Previous evaluation excavations within this area did not reveal any archaeological features, but the First Stage of Strip and Map did reveal prehistoric settlement.

The purpose of the archaeological mitigation work is to ensure the identification, recording and interpretation of the archaeological resource of the defined area prior to its loss or concealment by development, and to inform subsequent decision making and mitigation strategies.

#### **Post fieldwork**

Archaeological 'strip, map and record' will be followed by the production of an Interim/Assessment Report detailing the findings.

Further Analysis and Publication will be undertaken on the recommendations of GAPS following the period of consultation.

### **4 Site specific objectives**

This Specification is for a phased programme of archaeological works to be undertaken prior to development works, in accordance with guidelines set out in Planning Policy Wales 2016 and Welsh Office Circular 60/96.

#### **Strip, map & record**

The primary objectives of the strip, map and record work will be to locate and describe all archaeological features that may be present within the area of greatest archaeological potential within the proposed development that may be impacted upon through groundworks during the construction phases of the development. This work proposes the mechanical excavation ('strip') of modern overburden to reveal potential archaeological features and deposits, followed by the cleaning, planning and recording ('map') of any such features and deposits and the sample excavation ('record') of identified features.

An initial Interim/Assessment report will be produced detailing the findings of the strip, map and record work. This report will include an assessment of the wider archaeological and historical significance and importance of any findings. It will include a review of findings from similar sites, both published and un-published (where possible) in order to locate any possible parallels. The work will also aim to highlight any relevant research issues within national and regional research frameworks (Research Framework for the Archaeology of Wales).

A full and comprehensive Final Report combining the results of the 'strip, map & record', any further work undertaken in relation to the scheme, and any further Analysis or artefacts or ecofacts recovered during the fieldwork, will be produced on completion.

## 5 Methodology

### General

The archaeological strip, map & record will be undertaken by AW staff following professional best practice.

All work will be carried out by suitably qualified archaeologists with relevant level membership of the Chartered Institute for Archaeologists (CIfA) and will follow the CIfA Standard and Guidance for an archaeological excavation (2014).

It is proposed that this strip, map and record will be undertaken in stages corresponding to the phased development (see Figures 1 & 2). Stage 2 will involve the strip, map and record of 2000m<sup>2</sup> within the central area of buildings and carpark, Area 1a, as indicated on Figure 2.

### Detailed

The designated areas as laid out in Figure 2 will be excavated to the top of the archaeological horizon under close archaeological supervision. All mechanical excavation will be undertaken using a toothless bucket.

All areas will be hand cleaned using hoes and/or pointing trowels to prove the presence, or absence, of archaeological features and to determine their significance. In each area the excavation of the minimum number of archaeological features will be undertaken, to elucidate the character, distribution, extent and importance of the archaeological remains. This will include 50% of all discrete features, such as pits and postholes, through half-sectioning, 10% of all linear features through 1m slots, and 100% of all intersections between features to identify relationships and phasing between the features. If safety reasons preclude manual excavation to natural, hand augering may be used to try to assess the total depth of stratification within the features. Archaeological deposits/horizons will be analysed by sondage whilst walls will be fully exposed (where required and possible). The depth of the excavation will conform to current safety requirements. If excavation is required below 1.2m the options of using shoring or stepped trenching will be discussed with GAPS.

Should remains be encountered which need to be further exposed to enable understanding of significance and/or recording this will be undertaken with the agreement of GAPS, the client and AW Ltd.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as applicable, and these will be related to Ordnance Survey datum and published boundaries where appropriate.

Recording will be carried out using Archaeology Wales recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts in accordance with the AW technical manual – Procedures for Excavation and Site Recording 2011.

Written, drawn and photographic records of an appropriate level of detail will be maintained throughout the course of the project. Digital photographs will be taken using cameras with resolutions of 14 mega pixels or above. Photographs will initially be taken as high resolution digital and will be converted to TIFF format for archiving. Should suitable remains be identified that require excavation, photographs will also be taken in black and white and colour slide (35mm film).

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries and related to the developer's site plan. The location of all

features will also be recorded using a Topcon GTS725 total station or similar GPS survey equipment.

### Monitoring

GAPS will be contacted prior to the commencement of ground works, and subsequently once the work is underway.

GAPS will be provided with notice of the start date, a projected timetable and a copy of the Health and Safety Risk Assessment no less than 5 working days prior to the commencement of the work.

Any changes to the specification that the contractor may wish to make after approval will be communicated to GAPS for approval on behalf of Planning Authority.

Representatives of GAPS will be given access to the site so that they may monitor the progress of the archaeological work. No area will be back-filled, until GAPS has had the opportunity to inspect it, unless permission has been given in advance. GAPS will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

Should further archaeological investigations be required this will be agreed between GAPS, the client and AW Ltd before any such work is undertaken.

### Artefacts

Archaeological artefacts recovered during the course of the excavation will be cleaned and labelled using an accession number which will be obtained from the repository/museum which is to be agreed with GAPS. A single number sequence will be allocated to all finds. The artefacts will be stored appropriately until they are deposited with the museum.

All artefacts recovered during the project will be retained and be related to the contexts from which they were derived. All typologically distinct and closely datable finds will be recorded three-dimensionally.

The analysis will carefully consider any artefactual or economic information and provide an assessment of the viability, for further study, of such information. It will be particularly important to provide an indication of the relative significance of such material for any subsequent decision-making process regarding mitigation strategies.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC (United Kingdom Institute of Conservation) qualified conservator (Phil Parkes of Cardiff Conservation Services).

A catalogue by context of all artefactual material found, quantified by number, weight, or both, and containing drawings and photographs of suitable artefacts will be compiled.

Pottery will be analysed to the standards outlined in "Guidelines for the Preparation of Pottery Archives" (1994) as prepared by the Study Group for Roman Pottery in consultation with the IfA. All other material will be analysed following the advice given in the Institute for Archaeologists: Standard and guidance for the collection, documentation, conservation and research of archaeological materials (Oct 2008).

The requirements for the conservation of artefacts will be unpredictable until after

the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Site should be used as guidance).

#### Environmental and technological samples

Samples will be taken where necessary when suitable deposits are located. These will be retained for processing. The level of post-excavation processing will be dependent on the results of the archaeological investigation.

Any features containing deposits of environmental or technological significance will be sampled. Samples could include, but not be restricted to the following: C14, AMS, soil bulk samples, soil micromorphology, soil pollen, metallurgical or archaeomagnetic. The application of specialist on-site analytical techniques, such as thermoluminescence dating, will depend on the nature of any findings. If required, the project manager should arrange, through a suitably qualified expert the assessment of the environmental potential of the site through examination of suitable deposits. The assessment of potential should consider the guidelines set out in the English Heritage publication 'Guidelines for Environmental Archaeology' 2011.

The requirements for the analysis and conservation of samples will be unpredictable until after the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved as per EH (2011) (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Sites should be used as guidance).

#### Human remains

Human remains will be left in situ, covered and protected when discovered. No further investigation will normally be undertaken until GAPS and the local Coroner have been informed. After discussion, it may be appropriate to take bone samples for C14 dating. If removal is essential it can only take place under the appropriate Ministry of Justice and Environmental Health regulations.

#### Contingency Arrangements

In the event of significant archaeological features being discovered all activities in this area of the site will be temporarily suspended. This will allow a period of consultation with GAPS and if required the opinion of specialists to be sought.

Following such consultation, recommendations will be presented to the Developer and the Local Planning Authority in the form of a specification for further archaeological works, to be subject to the approval of GAPS.

#### Specialists

In the event of certain finds/features etc. being discovered during either the strip, map and record or any watching brief work, AW Ltd may have to seek specialist opinion for assistance. Such specialists will be accessed either internally within AW itself or from an

external source. A list of external specialists is given in the table below.

Type	Name	Tel No.
Flint	Dr Amelia Pannett	02920 899509
Animal bone	Jen Kitch	07739 093712
CBM, heat affected clay, Daub etc.	Rachael Hall	01305 259751
Clay pipe	Hilary Major	01376 329316
Glass	Andy Richmond	01234 888800
Cremated and non-cremated human bone	Malin Holst	01759 368483
Metalwork	Kevin Leahy	01652 658261
Neo/BA pottery	Dr Alex Gibson	Bradford University
IA/Roman pottery	Jane Timby	01453 882851
Charcoal (wood ID)	John Carrot	01388 772167
Waterlogged wood	Nigel Nayling	University of Wales (Lampeter)
Molluscs and pollen	Dr James Rackham	01992 552256
Charred and waterlogged plant remains	Wendy Carruthers	01443 233466

## 6 Post-Fieldwork Programme

### Liaison with regional HER

The regional HER (maintained by Gwynedd Archaeological Trust (GAT; Bangor)) will be contacted prior to any post-fieldwork analysis commencing for:

- any PRN (primary record number) identifiers required and
- to discuss compatibility of any outputs (databases, spreadsheets, image and document archives) with the HER.

### Conservation

After agreement with the landowner and GAPS, arrangements will be made for the long term conservation and storage of all artefacts in an appropriate local or county museum.

### Archive

A project archive will be prepared in accordance with the National Monuments Record (Wales) agreed structure and be deposited with the local Museum on completion of site analysis and report production. It will also conform to the guidelines set out in EH MORPHE 2006.

All digital images will be stored in archive stable format, i.e. TIFF format, on digital optical disc. A contact sheet and photo record will also be contained within the archive

corresponding to the images on disc.

Digital copies of the report, all correspondence & scanned images will also be stored on digital optical disc.

### Reporting

An illustrated Assessment / Interim report will be produced in accordance with EH MORPHE 2006 within 4 months of the completion of the site investigations detailing the findings of the strip, map and record work.

The report will include the following:

1. A Non-technical summary
2. A Location plan(s) showing the area/s covered by the work, artefacts, structures and features found
3. A Plan and section drawings with ground level, ordnance datum and vertical and horizontal scales.
4. Written description and assessment of all deposits identified, including their character, function, interpretation, potential dating and relationship to adjacent features.
5. Specialist description, illustration and assessment of all artefacts and samples.
6. An indication of the potential of archaeological deposits which survive in adjacent areas.
7. Statement of the local, regional and national context (significance and importance) of the remains.
8. Recommendations for further analysis and publication, based on the results of the above, in particular 4, 5 & 7.
9. A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

A summary of the project results, excluding any confidential information, may be prepared for wider dissemination (e.g. Archaeology in Wales and special interest and period-specific journals).

Copies of report will be sent to Menai Science Park, GAPS and the regional HER (maintained by GAT).

### Archive Format & Deposition

The full site archive will be deposited within one month of the completion of the Final Report.

The material archives (artefacts/ecofacts etc.) will be deposited with Llangefni Museum. The documentary archives (paper and digital) will be deposited with the NMRW. Both archives will reference each other so that they can be located/linked.

AW will agree the location and timing of the deposition of the archive before the contract commences.

The archive will include all site notes, finds, documents, drawings, photographs, digital data and a copy of the final report and any prior draft versions. All of these items will be clearly quantified in tabular form in an 'archive deposition statement' located at the rear of the clients report, and their ultimate location and proposed date of deposition stated.

## **7 Resources and timetable**

### Standards

The work will be undertaken by AW staff using current best practice.

All work will be undertaken to the standards and guidelines of the CIfA.

### Staff

The project will be managed by Kate Pitt, MA ACIfA, supervised by Andy Shobbrook BA ACIfA. The machine clearance of the site will be undertaken by Andy Shobbrook. The site team will comprise Andy Shobbrook and Chris Lane, both of whom have work on numerous AW sites in north Wales. Kate, Andy and Chris worked on the First Stage Strip and Map, so they know the site well.

### Equipment

The project will use existing AW equipment.

### Timetable of archaeological works

The start date on site will be in the week of the 2/5/16. We anticipate that the site work will last approximately 2 weeks. Our aim will be to complete the Interim/Assessment Report within 4 months of the conclusion of the site investigations.

### Insurance

AW holds Insurance through the Towergate insurance service.

### Health and safety

All members of staff will adhere to the requirements of the Health & Safety at Work Act, 1974, and the Health and Safety Policy Statement of Archaeology Wales Ltd.

AW will produce a detailed Risk Assessment for approval by the client before any work is undertaken.



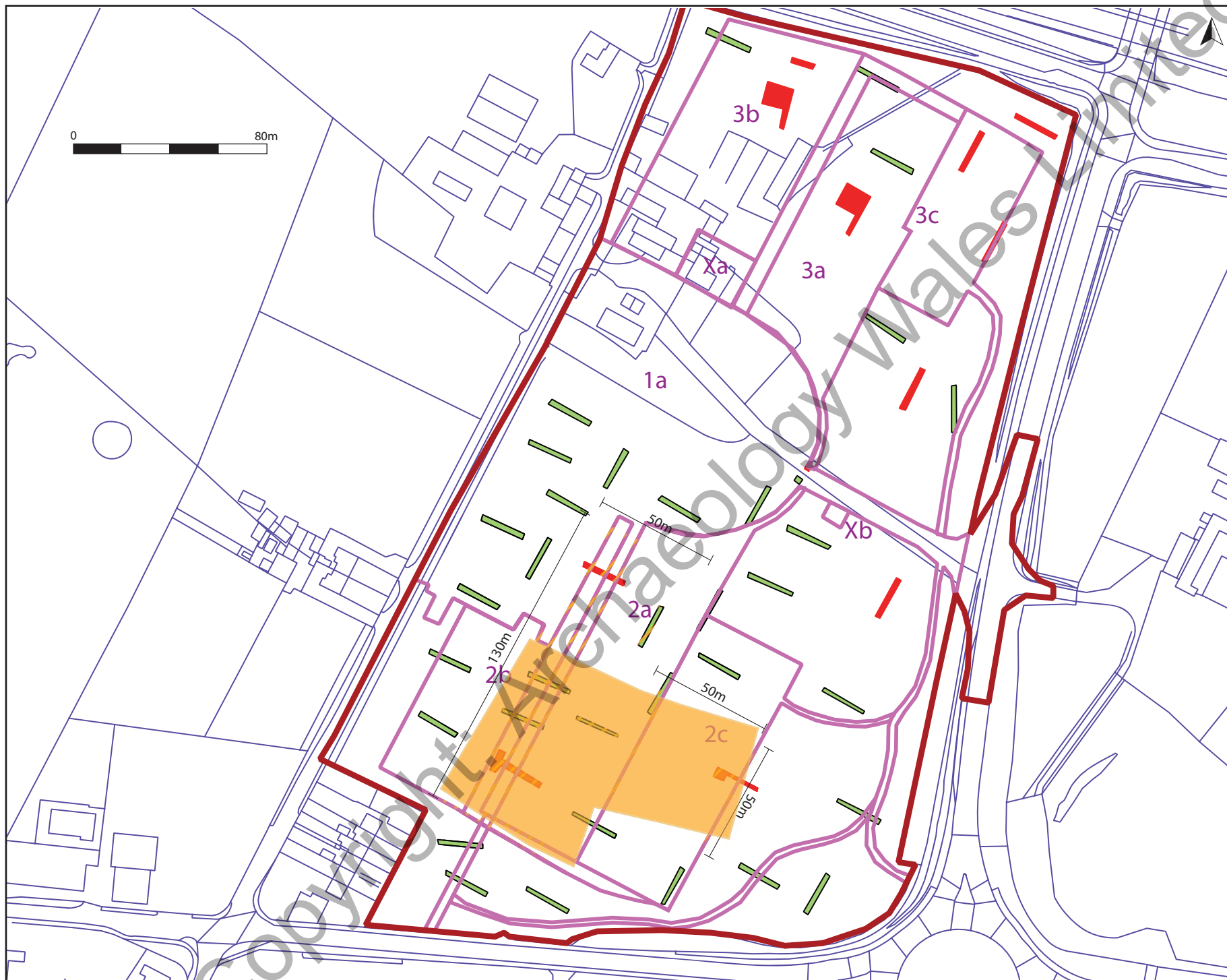
## 8 References

Amec 2013 J7, A55, Gaerwen: Archaeological Desk-Based Assessment Amec report no. 34291rr15

Davies, I & Houlston, M 2014 Menai Science Park, Gaerwen: Archaeological Evaluation Archaeology Wales Report No. 1273

Durham University 2013 J7, A55, Gaerwen, Anglesey: Geophysical Survey Archaeological Services, Durham University report no. 3194

Pitt, K and Shobbrook, A, 2015 Excavation at Cefn Du Farm, Gaerwen, Anglesey, Archaeology Wales Report No. 1409



- Site Boundary
- Phased development
- Area of strip map & sample 2015
- Evaluation trench containing archaeological features
- Evaluation trench containing no features

Figure 1.  
Site Location Plan

PHASE 1			
1a	5,000sqm	3 stories	151 parking spaces
TOTAL	5,000sqm		151 parking spaces
SUB-TOTAL	5,000sqm		151 parking spaces

PHASE 2			
2a	4,000sqm	3 stories	98 parking spaces
2b	2,776sqm	2 stories	42 parking spaces
2c	1,093sqm	2 stories	61 parking spaces
TOTAL	7869sqm		201 parking spaces
SUB-TOTAL	12,869sqm		352 parking spaces

PHASE 3			
3a	4,000sqm	3 stories	76 parking spaces
3b	4,000sqm	3 stories	96 parking spaces
3c	1,640sqm	3 stories	42 parking spaces
Xa	194sqm*	2 stories	0 parking spaces
TOTAL	9,834sqm		214 parking spaces
TOTAL(ALL)	22,703sqm		566 parking spaces



Figure 2  
Plan of Phase 1a

# *Archaeology Wales*

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