

LAND ADJACENT TO SPRING GARDENS, WHITLAND, CARMARTHENSHIRE: ARCHAEOLOGICAL EXCAVATION



Prepared by DAT Archaeological Services
For: Langdale Western Ltd



DYFED ARCHAEOLOGICAL TRUST

RECORD NO: 118129

REPORT NO: 2019-48

April 2020



LAND ADJACENT TO SPRING GARDENS, WHITLAND, CARMARTHENSHIRE: ARCHAEOLOGICAL EXCAVATION

By

C Enright, F Murphy & P Poucher

The report has been prepared for the specific use of the client. Dyfed Archaeological Trust Limited can accept no responsibility for its use by any other person or persons who may read it or rely on the information it contains.

Ymddiriedolaeth Archaeolegol Dyfed Cyf
Corner House, 6 Stryd Caerfyrddin, Llandeilo,
Sir Gaerfyrddin SA19 6AE
Ffon: Ymholiadau Cyffredinol 01558 823121
Adran Rheoli Treftadaeth 01558 823131
Epost: info@dyfedarchaeology.org.uk
Gwefan: www.archaeolegdyfed.org.uk

Dyfed Archaeological Trust Limited
Corner House, 6 Carmarthen Street, Llandeilo,
Carmarthenshire SA19 6AE
Tel: General Enquiries 01558 823121
Heritage Management Section 01558 823131
Email: info@dyfedarchaeology.org.uk
Website: www.dyfedarchaeology.org.uk

Cwmni cyfyngedig (1198990) ynghyd ag elusen gofrestredig (504616) yw'r Ymddiriedolaeth.
The Trust is both a Limited Company (No. 1198990) and a Registered Charity (No. 504616)
CADEIRYDD CHAIR: Jennifer Protheroe-Jones. CYFARWYDDWR DIRECTOR: K Murphy BA MIFA

**LAND ADJACENT TO SPRING GARDENS, WHITLAND,
CARMARTHENSHIRE –
ARCHAEOLOGICAL EXCAVATION**

Client

Langdale Western Ltd

Event Record No

118129

Report No

2019-48

Project Code

FS17 026

Report Prepared By

Charlie Enright, Fran Murphy & Phil
Poucher

Fieldwork Directed By

Charlie Enright

Illustrated By

Hubert Wilson

Report Approved By

Fran Murphy

Rev Number	Description	Undertaken	Approved	Date
_V1	First Draft	CE	FM	19/08/2020

LAND ADJACENT TO SPRING GARDENS, WHITLAND, CARMARTHENSHIRE

ARCHAEOLOGICAL EXCAVATION

CONTENTS

EXECUTIVE SUMMARY	1
1 INTRODUCTION	2
1.1 Project Background	2
1.2 Scope of the Project	3
1.3 Report Outline	3
1.4 Abbreviations	4
1.5 Illustrations	4
1.6 Timeline	4
2 SITE LOCATION	5
3 AIMS & METHODOLOGY	11
4 RESULTS	13
<i>General</i>	13
<i>Curvilinear gulley / possible roundhouse</i>	16
<i>Adjacent posthole structure</i>	17
<i>Building</i>	20
<i>Posthole structure</i>	27
<i>Posthole spread</i>	31
<i>Possible well</i>	33
<i>Pit [038]</i>	35
<i>The enclosure ditch</i>	36
<i>Later ditches</i>	47
<i>Modern features</i>	51
5 POTTERY ASSESSMENT by Peter Webster	53
6 AN INVESTIGATION INTO THE PALAEOENVIRONMENTAL POTENTIAL OF SAMPLES ORIGINATING FROM EXCAVATIONS AT SPRING GARDENS, WHITLAND by Rosalind McKenna	57
7 DISCUSSION	64
7.1 Function and dating	64
<i>General</i>	64
<i>Possible roundhouse / early prehistoric activity</i>	64

<i>Building</i>	65
<i>Four-post structures</i>	65
<i>Southern structures</i>	66
<i>Enclosure ditch</i>	66
<i>Enclosure as a whole</i>	67
<i>Later ditches</i>	68
7.2 Phasing	68
8 CONCLUSIONS	69
9 SOURCES	70
APPENDIX I: CONTEXT REGISTER	71
APPENDIX II: RADIOCARBON DATES	86
 TABLES	
Table 1: Archaeological and Historical Timeline for Wales	4
 FIGURES	
Figure 1: Site Location	6
Figure 2: Development site boundary and initial interpreted outline of crop mark	7
Figure 3: Provisional development site layout plan. The area of the access road is highlighted in blue, the initial interpreted outline of the crop mark is shown as a green line and the extent of the geophysical survey is within the red boundary	8
Figure 4: Grey-scale plot of geophysical survey results	9
Figure 5: Interpretation of geophysical survey results	10
Figure 6: Trench layout proposal overlaid on the geophysical survey results	11
Figure 7: Plan showing the area of the archaeological investigation and identified features	15
Figure 8: Possible roundhouse and adjacent posthole structure plan and section drawings	18
Figure 9: Pit [044]	32
Figure 10: North facing section through Ditch [004] at the southern terminus	33
Figure 11: South facing section through Ditch [004] on the western side of the enclosure, Section I	42
Figure 12: East facing through Ditch [004] on the northern side of the enclosure, Section J	44
Figure 13: East facing section through Ditch [004] on the northern side of the enclosure, Section K, showing the stepped profile	45

Figure 14:	Detail of the intercutting ditches in the northwest corner of the excavated area	49
-------------------	--	----

PHOTOGRAPHS

Photo 1:	Aerial photograph of crop mark PRN 11782, looking south	3
Photo 2:	A mechanical excavator with a flat-bladed bucket removing the overburden across the site	14
Photo 3:	Aerial photo of the entire excavation area	14
Photo 4:	Representative section showing topsoil [001] and underlying silty-clay deposit [002] overlying the natural horizon	16
Photo 5:	Curvilinear gully [012]	17
Photo 6:	The four-posted structure adjacent to the curvilinear gully [012], pre-excavation	19
Photo 7:	The four-posted structure adjacent to the curvilinear gully [012], post-excavation	19
Photo 8:	The remains of the probable building represented by beam slots [099 – 106] and a row of postholes along its western edge	21
Photo 9:	The remains of the probable building demarcated by the row of postholes on the west and south sides and one central posthole	21
Photo 10:	View of the postholes along the south and west edge of the building	22
Photo 12:	Posthole [068] pre-excavation	23
Photo 13:	Posthole [070] with the fill removed but packing stones left in place	23
Photo 14:	Posthole [060] with the fill removed but packing stones left in place	24
Photo 15:	Posthole [062] half sectioned	24
Photo 16:	Posthole [068] post-excavation	25
Photo 17:	Posthole [062] (foreground) showing evidence of a recut and truncating the beam slot [099] (background)	25
Photo 18:	Posthole [062] (right) showing evidence of a recut and truncating the beam slot [099] (left)	26
Photo 19:	Pit [106] found on the northwest corner of the building	26
Photo 20:	Post hole structure pre-excavation	28
Photo 21:	Excavating posthole structure (clockwise from back: [115], [116], [009] and [007])	28
Photo 22:	Posthole [007] excavated with large packing stones	29
Photo 23:	Excavating posthole [009]	29
Photo 24:	Posthole [009] post excavation	30

Photo 25:	Posthole [112], less substantial than the other examples seen within the posthole structure	30
Photo 26:	Pit [044] pre-excavation	33
Photo 27:	Possible well [043] with recut [032]	34
Photo 28:	Black staining and stones at the base of [032]	34
Photo 29:	Pit [038] that contained Late Iron Age pottery	35
Photo 30:	Aerial view of the excavation area showing sub-rectangular enclosure [004]	36
Photo 31:	Metalled road surface (199)	37
Photo 32:	Metalled road surface (199)	37
Photo 33:	Flooded sections excavated on the southern edge of the enclosure ditch	38
Photo 34:	South facing section of excavation northern ditch terminus (Section A)	39
Photo 35:	Ditch section H north facing section	41
Photo 36:	Posthole [011] found in ditch section I	42
Photo 37:	Post hole [011] half sectioned	43
Photo 38:	Section P west facing section, showing stony primary fills tipping in from the internal edge of the enclosure	43
Photo 39:	Ditch section K view of east facing section	45
Photo 40:	Ditch [004] sections L (foreground) and M (rear)	46
Photo 41:	Section O south facing section showing stony primary fills	46
Photo 42:	Ditches [135] and [136] cutting into the main enclosure ditch [004] in the northwest corner	48
Photo 43:	Ditches [015] and [018] cutting main enclosure ditch [004]	50
Photo 44:	Ditches [015] and [018] after excavation	50
Photo 45:	Ditches [015] and [018]	51
Photo 46:	Trench 1. Modern trackway is visible in the foreground and deposit (076) seen towards the centre of the trench	52
Photo 47:	The Iron Age vessel from (037)	54
Photo 48:	The amphora from (173)	54
Photo 49:	The amphora from (179)	55
Photo 50:	The Severn Valley Ware jar from (161)	55
Photo 51:	Sherds of Medieval pottery from (013)	56

LAND ADJACENT TO SPRING GARDENS, WHITLAND, CARMARTHENSHIRE ARCHAEOLOGICAL EXCAVATION

EXECUTIVE SUMMARY

In October and November 2019, DAT Archaeological Services undertook an excavation on behalf of Langdale Western Ltd on land adjacent to Spring Gardens in Whitland, Carmarthenshire. The work was undertaken as part of planning consent for 70 new dwellings.

The excavation recorded remains of prehistoric to medieval date but the bulk of the archaeological remains represent a Romano-British farmstead, with possible late Iron Age origins. A rectangular ditched enclosure enclosed an area of approximately 0.2ha, with a single entrance to the east. Within the enclosure evidence for domestic as well metal working activity was recorded. It would appear the site fell out of use by the mid-2nd century.

CRYNODEB GWEITHREDOL

Ym mis Hydref a mis Tachwedd 2019 cynhaliodd Ymddiriedolaeth Gwasanaethau Archeolegol DAT gloddiad ar ran Langdale Western Ltd ar dir ger Gerddi'r Gwanwyn yn Hendy Gwyn Ar Dâf, Sir Gaerfyrddin Roedd y gwaith wedi'u wneud fel rhan o ganiatâd cynllunio 70 tai newydd.

Cofnododd y cloddio weddillion cynhanesyddol i'r canol oesoedd ond mae'r mwyafrif o'r olion archeolegol a'i wreiddiau yn fferm Romano-Brydeinig o ddiwedd yr Oes Haearn. Roedd yna ffos wedi ei gaeedi o ardal oddeutu 0.2ha gyda un fynedfa i'r Dwyrain. Yn yr amgaead cofnodwyd tystiolaeth ar gyfer gweithgaredd ddomestig yn ogytsal â metal. Mae'n ymmdangos nad oedd y safle wedi cael ei ddefnyddio erbyn canol yr 2ail ganrif.

**LAND ADJACENT TO SPRING GARDENS, WHITLAND,
CARMARTHENSHIRE –
ARCHAEOLOGICAL EXCAVATION**

1 INTRODUCTION

1.1 Project Background

- 1.1.1 Dyfed Archaeological Trust - Field Services carried out an archaeological excavation in association with a proposed development on land adjacent to Spring Gardens in Whitland, Carmarthenshire (Figure 1 and 2). Reserved Matters approval was given for development under reference W/35037, pursuant to outline planning permission granted under planning Reference W/17567 which included a Condition (13) relating to archaeology.
- 1.1.2 Archaeological mitigation had been requested by Dyfed Archaeological Trust – Development Management (DAT-DM), in their role as archaeological advisors to the Local Planning Authority (Carmarthenshire County Council). Subsequent to further discussion with DAT-DM a Written Scheme of Investigation was produced for a programme of archaeological strip, map and record on the site.
- 1.1.3 The proposed development area measures approximately 2.6ha in size and comprises the construction of 70 dwellings within the area. Road layout to the site will be made from Spring Gardens between the properties of Dol-awel and 1 Rose Cottages (Figure 3).
- 1.1.4 A rectangular enclosure had previously been identified from aerial surveys, although no surface earthwork remains existed (PRN 11782; Photo 1; figures 2 and 3). In 2007 the enclosure was archaeologically evaluated, confirming the presence of a series of ditches forming a large rectangular enclosure, with, what was thought to be, a smaller rectangular annex to the north. The evaluation trenches revealed no evidence for the survival of archaeological features within the enclosure ditches, although the four trenches excavated concentrated on the ditches and the northern annex to the enclosure. Therefore, trenches did not investigate the internal area of the main enclosure to the south and thus there was considered a high potential that archaeological remains could still survive within this part of the enclosure. No dating evidence was recovered from the evaluation, but due to the shape of the enclosure it was most likely thought to date from the Iron Age or Roman period.
- 1.1.5 In 2018 an evaluation trench was placed in the proposed entranceway to the site, this work was undertaken by DAT in conjunction with a geophysical survey across the area of the crop mark enclosure (Figure 3). No significant archaeological features were revealed during the evaluation but the geophysical survey did confirm the presence of the rectangular enclosure described above, as well as the presence of possible archaeological anomalies within the enclosure, including pits possibly contemporary with the enclosure (Figure 4 and 5).
- 1.1.6 The Roman road which runs west from Carmarthen to Wiston in Pembrokeshire passes close to the north part of the development site. Part of the road line is still clearly visible as a substantial agger (raised road line) in the fields to the northwest of the proposed development plot (south side of the A40), and this section has been designated as a Scheduled Monument (CM279).

- 1.1.7 It is considered very likely a Roman fort is present at Whitland (lying equidistant between the fort at Carmarthen and that recently discovered at Wiston, Pembrokeshire). The shape of the enclosure and its proximity to the Roman road increased confidence that it could date from the Romano-British period.
- 1.1.8 The archaeological excavation was undertaken in accordance with the Chartered Institute of Archaeologists' (CIFA) Standard and Guidance for an Archaeological Field Excavation (2014).
- 1.1.9 The archaeological excavation took place over seven weeks between the 7th October and 4th November 2019.
- 1.1.10 The Event Record Number (ERN) for the project is 118129.



Photo 1: Aerial photograph of crop mark PRN 11782, looking south (© DAT).

1.2 Scope of the Project

- 1.2.1 The implementation of a programme of archaeological Strip, Map and Record across the site of the rectangular cropmark enclosure within the proposed residential development area on land northwest of Spring gardens, Whitland, Carmarthenshire. The results of all stages of archaeological works undertaken at the site, in advance of or during the proposed development will be included in a detailed archaeological report. An archive of the results of all stages of the archaeological works will be prepared.

1.3 Report Outline

1.3.1 This report provides a summary and discussion of the archaeological investigations and their results.

1.4 Abbreviations

1.4.1 Sites recorded on the Regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Gradiometer readings are measured in NanoTesla (nT).

1.5 Illustrations

1.5.1 Printed map extracts are not necessarily produced to their original scale.

1.6 Timeline

1.6.1 The following timeline (Table 1) is used within this report to give date ranges for the various archaeological periods that may be mentioned within the text.

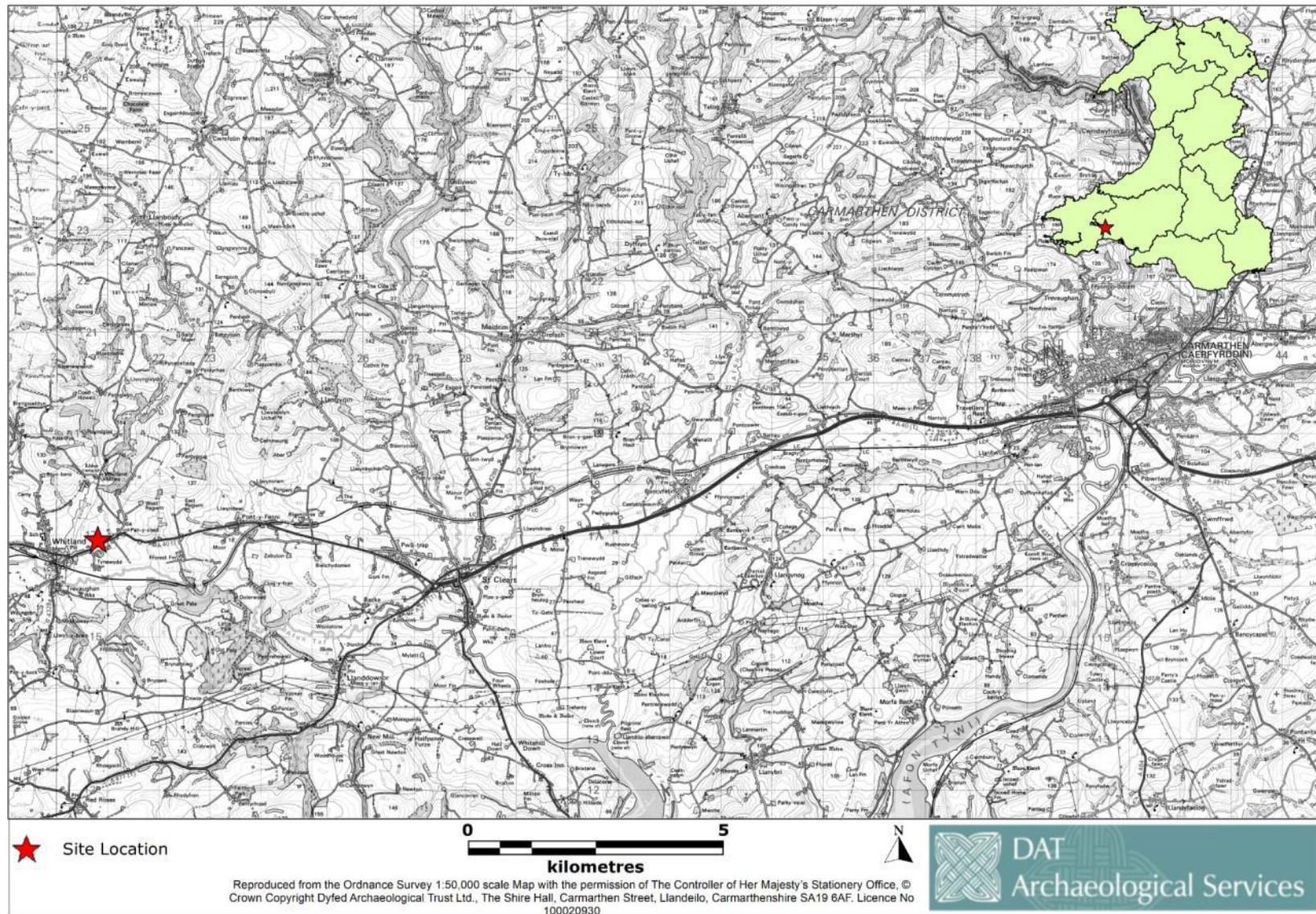
Period	Approximate date	
Palaeolithic –	c.450,000 – 10,000 BC	Prehistoric
Mesolithic –	c. 10,000 – 4400 BC	
Neolithic –	c.4400 – 2300 BC	
Bronze Age –	c.2300 – 700 BC	
Iron Age –	c.700 BC – AD 43	
Roman (Romano-British) Period –	AD 43 – c. AD 410	Historic
Post-Roman / Early Medieval Period –	c. AD 410 – AD 1086	
Medieval Period –	1086 – 1536	
Post-Medieval Period ¹ –	1536 – 1750	
Industrial Period –	1750 – 1899	
Modern –	20 th century onwards	

Table 1: Archaeological and Historical Timeline for Wales.

¹ The post-medieval and industrial periods are combined as the post-medieval period on the Regional Historic Environment Record as held by Dyfed Archaeological Trust

2. SITE LOCATION

- 2.1 The proposed development lies on land to the north-west of Spring Gardens (the B4328), Whitland, Carmarthenshire (centred on SN 20762 16906; Figures 1, 2, and 3).
- 2.2 The core of the current settlement of Whitland is centred on the junction of several roads, including the B4328, to the west of the development site, close to the confluence of the Afon Gronw and Taf. Linear settlement has since expanded along these roads. The development site previously comprised a field of pasture backing residential development along Spring Gardens, which forms the southern and eastern boundary to the site. Hedgerows form the northern and western boundary, with further agricultural land beyond.
- 2.3 Ground slopes gradually down to the west/southwest, as well as slightly to the north into a local watercourse that drains along the northern boundary of the field, before continuing to rise slightly to the north. Whitland has developed along the base of the Afon Taf valley, which runs west to east approximately 700m to the south of the site, which then feeds into Carmarthen Bay 13km to the southeast. The railway line also follows the valley base, as does the main A40, which formally ran along Spring Gardens, but now runs along a bypass to the north of Whitland and the development site.
- 2.4 The proposed development comprises the construction of 70 dwellings within the area. Road access to the site will be made from Spring Gardens between the properties of Dol-awel and 1 Rose Cottages. The proposed development layout is shown in Figure 3.

**Figure 1:** Site Location.

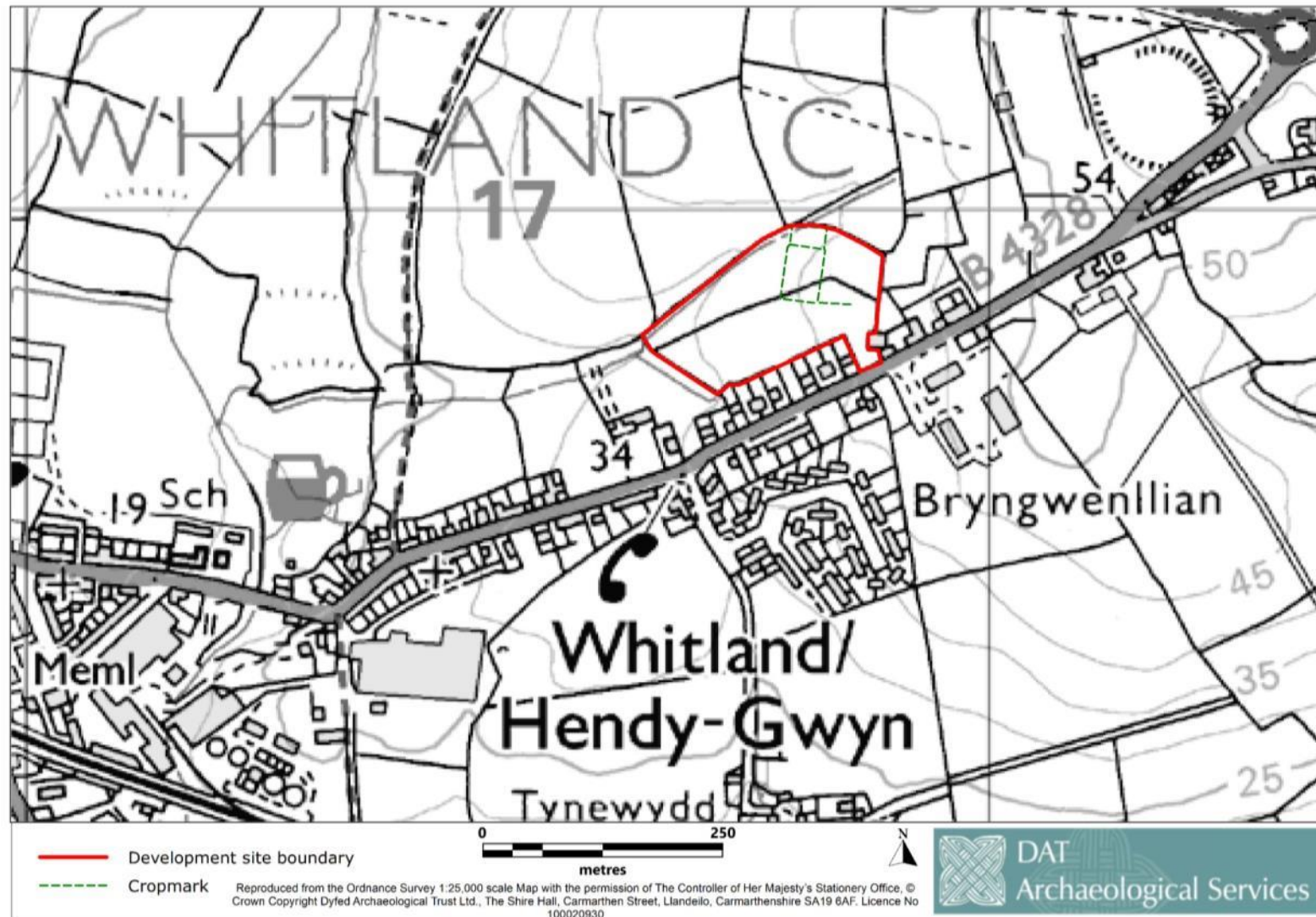


Figure 2: Development site boundary and initial interpreted outline of crop mark.



Figure 3: Provisional development site layout plan. The area of the access road is highlighted in blue, the initial interpreted outline of the crop mark is shown as a green line and the extent of the geophysical survey is within the red boundary

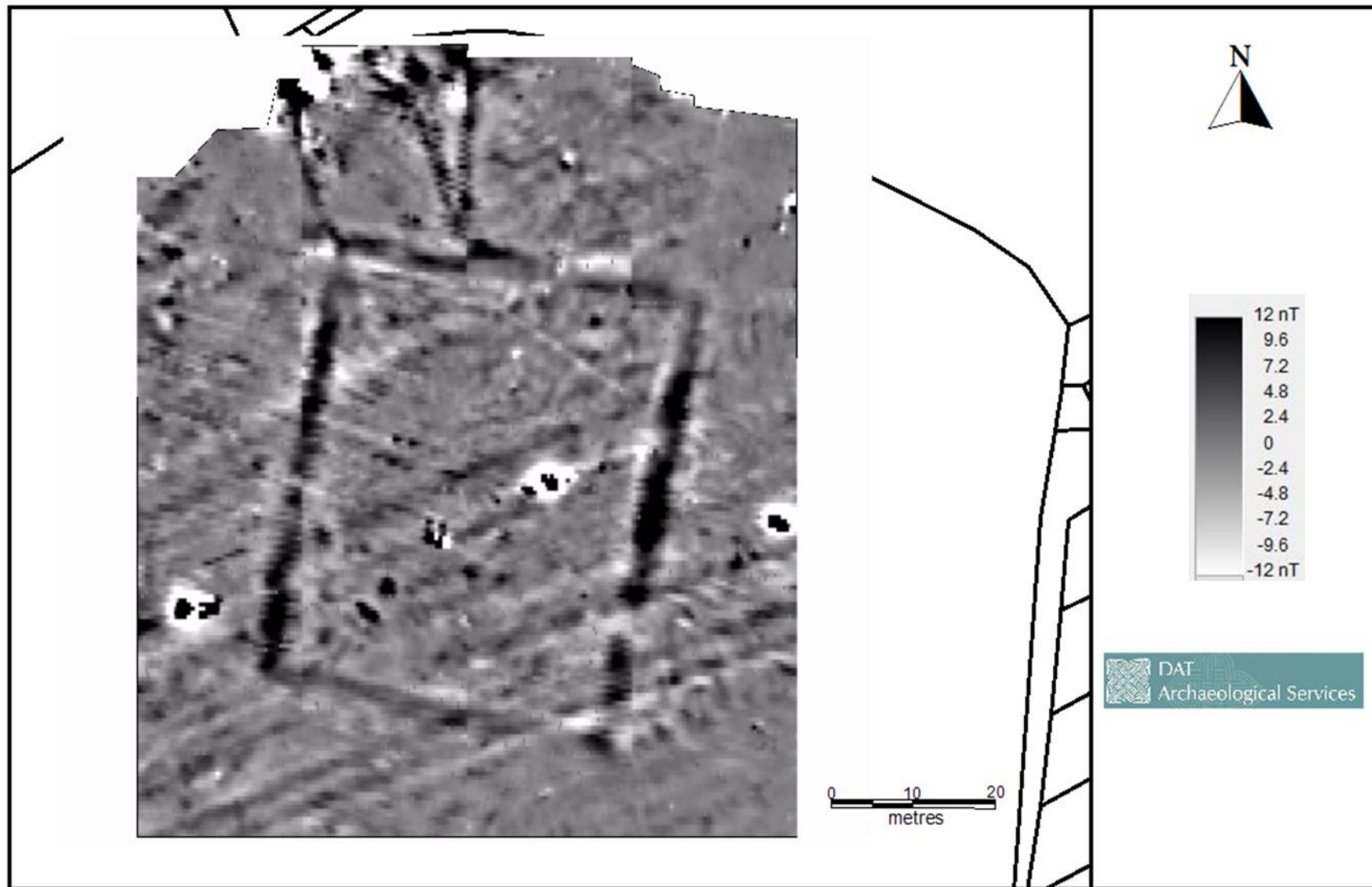


Figure 4: Grey-scale plot of geophysical survey results.



Figure 5: Interpretation of geophysical survey results.

3 AIMS & METHODOLOGY

3.1 The aims of the strip, map and record excavation were:

- to establish the state of preservation, character, extent and date range for any archaeological deposits or remains identified;
- To preserve through record all archaeological remains within the defined area in mitigation of total destruction of the remains that would occur through construction. All remains were appropriately investigated and recorded;
- Production of a report and an archive of the results, finds, records, photographs and plans created.
- Following the results of the excavation to decide whether further mitigation is required.

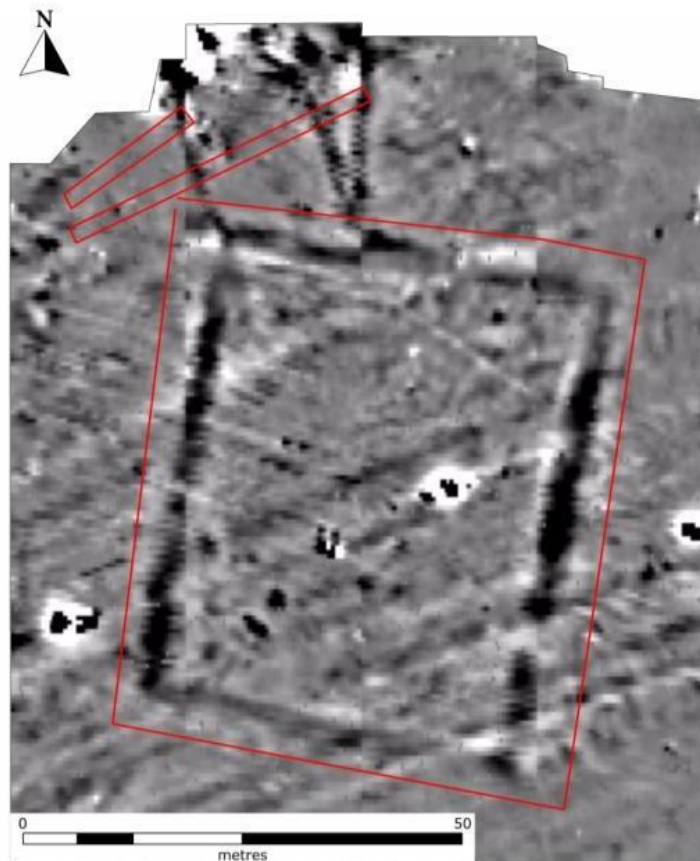


Figure 6: *Trench layout proposal overlaid on the geophysical survey results.*

3.2 Prior to excavation a Written Scheme of Investigation (WSI) was prepared, and subsequently approved by the local planning authority (LPA) on the advice of Dyfed Archaeological Trust – Development Management, in their capacity as archaeological advisors to the LPA. The WSI outlined the methodology to be followed during the course of the archaeological investigations.

- 3.3 The area of the main rectangular enclosure as identified from aerial photography and geophysical survey was marked out by use of GPS survey equipment, including a buffer zone surrounding the enclosure. This area, measuring approximately 73m by 63m was stripped by mechanical excavator using a flat bladed bucket under close archaeological supervision. The stripped area was extended to ensure the full extent of the rectangular enclosure was exposed. The excavation removed all the non-archaeologically significant overburden, down onto either archaeological levels or to the top of the geological deposits.
- 3.4 The annex enclosure to the north was investigated by two trenches, one 38.5m long, the other 18m long, both 2m wide. These trenches were similarly opened by mechanical excavator using a flat bladed bucket under close archaeological supervision. These trenches were excavated down onto either archaeological levels or to the top of the geological deposits.
- 3.5 Following machine stripping, a number of areas were further hand-cleaned to detect the presence, or absence, of archaeological features and deposits. 20% of the enclosure ditches were excavated, in 16 separate locations, including termini. Identified structures were fully cleaned and sample excavated. Identified features and deposits were then fully or partially excavated to determine their character, extent, date and importance.
- 3.6 All archaeological deposits and features were recorded by archaeological context record sheet, scale drawing/detailed survey, photography and site notebooks. Significant deposits were recorded by scale drawing or survey; drawn plans were related to Ordnance Datum and, where possible, known boundaries.
- 3.7 All artefacts recovered during the archaeological work was retained, and returned to the DAT offices, where they were washed and dried. The artefacts were then identified and quantified. The bulk of the recovered artefacts comprised pottery fragments, these were sent to an external specialist for detailed assessment.
- 3.8 Features containing deposits of environmental significance were sampled and appropriately stored. Twelve deposits were initially sampled. Two were subsequently discarded, and the remaining 10 samples were sent to external specialists for processing and assessment. The samples were processed using standard water flotation methods, with the flot sieved and examined under a low-power binocular microscope.
- 3.9 Three samples were retrieved suitable for radiocarbon dating. These samples were sent to a specialist laboratory for scientific dating.

4 RESULTS

General

- 4.1 All numbers within the text within brackets []/() refer to the unique context number given to all individual deposits using the open-ended numbering system in accordance with the DAT Archaeological Services' Recording Manual². A context register can be found in Appendix I. Square brackets [] refer to a cut feature, rounded brackets () to a deposit.
- 4.2 In total, an area measuring 4712m² was machine excavated across three areas using a mechanical excavator with a flat-bladed bucket (Photo 2), this included the main excavation area located over the enclosure (labelled as Trench 1) and two additional trenches (Trench 2 & 3) targeting the ditches of the "annex" to the north (Photo 3).
- 4.3 Pottery artefacts recovered during the excavation have been examined by Peter Webster, a report on the finds is included in Section 5. During the excavation samples were taken from deposits considered to have high archaeological potential for the recovery of environmental remains. The samples were analysed by Brython Archaeology and Rosalind McKenna and a report of their findings has been included in Section 6. Three samples were sent for RadioCarbon dating with BetaAnalytic Inc. These dates have been included within the following description, with the Report Sheet included as Appendix II.
- 4.4 Excavation across all three trenches demonstrated that the development area is consistently overlain by a silty-clay topsoil deposit (001), averaging 0.22m thick and brown in colour. Below this was an orange-brown silty-clay deposit (002) up to 0.13m thick. One fragment of possible medieval pottery was recovered from this deposit. A number of artefacts were recovered from unstratified contexts, including several fragments of medieval pottery, post-medieval pottery and clay pipe stems, likely to be from these two deposits. As these upper deposits were removed by the mechanical excavator a firm, orange clay natural horizon (003) was revealed (Photo 4). The entire area was stripped to the interface with this natural horizon and often bedrock geology was also exposed. It was at this level that archaeological deposits and features were exposed (Fig. 7).
- 4.5 The excavation revealed the main rectangular enclosure, as well as several features contained within the bounds of the enclosure; one feature being truncated by the enclosure ditch. A later series of features was revealed to the northwest. The following section describes the features contained within the bounds of the enclosure ditch, before describing the enclosure ditch itself, and finally the later features to the northwest.

² Dyfed Archaeological Trust Field Services use a Recording Manual based on the one developed by English Heritage Centre for Archaeology.



Photo 2: A mechanical excavator with a flat-bladed bucket removing the overburden across the site to reveal archaeological deposits.



Photo 3: Aerial photo of the entire excavation area. North is to the top of the image.



Figure 7: Plan showing the area of the archaeological investigation and identified features.



Photo 4: Representative section showing topsoil [001] and underlying silty-clay deposit [002] overlying the natural horizon. 2 x 1m and 0.5m scales.

Curvilinear gully / possible roundhouse

- 4.6 Located towards the northwest corner of the enclosure was a curvilinear gully [012]. The line of the gully was truncated by the main enclosure ditch [004]; the only feature to be positively truncated by the enclosure. The gully cut through (003) and into the natural bedrock, the sides were smooth gradual slopes to a concave base. The gully measured approximately 0.40m wide at the top and 0.20 – 0.30m deep (Photo 5). The gully cut was higher along the southern edge, and more substantial to the south, becoming shallow and diffuse to the north. To the west the gully was truncated by the enclosure ditch. Despite the lack of gully to north and west, the curvilinear nature would suggest it enclosed a circular area, with an overall estimated internal diameter of approximately 7.00m. No obvious entrance across the gully was discernible, although this may have lain within the truncated section.
- 4.7 The gully contained a single fill, numbered separately in each excavated section as (027) and (028), comprising a loose, brown, silty clay. A single piece of fired clay was retrieved from context (028) during excavation. Samples were taken from both deposits (027) and (028). A very small fragment of metallic slag was retrieved from (028), and these deposits also contained a very small number of plant macrofossils, including grass, cereal (indeterminate species) and hazelnut, and a larger quantity of charcoal fragments, including willow/poplar, oak and indeterminate wood. The quantity of retrieved macrofossils and charcoal provides little definitive interpretative information, however, the fragments of willow/poplar charcoal from deposit (027) were submitted for radiocarbon dating. This returned a date with the greatest probability of between 3517 – 3396 BC, dating to the Early Neolithic period. This date is further discussed in Section 7.

- 4.8 Along the eastern edge, the gully appears to have cut an earlier feature [036]. This feature was amorphous in shape with difficult to discern edges. It was filled with (035), a loose, orange-brown silty clay. No artefactual or archaeological evidence was recovered and it seems possible this was a natural feature such as an animal burrow or tree throw.

Adjacent posthole structure

- 4.9 Adjacent to gully [012] on its eastern side were the remains of a square four-posted structure (Photo 6 & 7). Each of the four postholes ([020], [022], [024] & [026]) were of similar dimensions, each sub-circular to oval in plan, and measuring on average 0.63m in diameter, and 0.20m to 0.30m deep. The postholes had moderate to steep sides, and a concave base, with [022], [024] and [026] having shallower east sides, potentially indicating the angle of post removal. The postholes were also all tightly packed with packing stones, the fill of each posthole was a loose, brown silty clay. No artefacts were retrieved from the posthole fills. A sample was taken from (023), the infilling material of post hole [024]. A number of charcoal fragments were recovered, largely from indeterminate species, with some oak and a small number from hazel. The hazel charcoal was sent for radiocarbon dating, which returned a date with the greatest probability of between 1623 – 1496 BC, dating to the Early Bronze Age. This date is further discussed in Section 7. Posthole [020] had been truncated by a modern land drain.
- 4.10 The four postholes enclose a square to rectangular area, measuring approximately 3m NNE to SSW, by 2.8m. The feature is located immediately adjacent to the curvilinear feature described above, approximately 0.5m to its east.



Photo 5: Curvilinear gully [012]. View northeast, 2x1.0m scale.

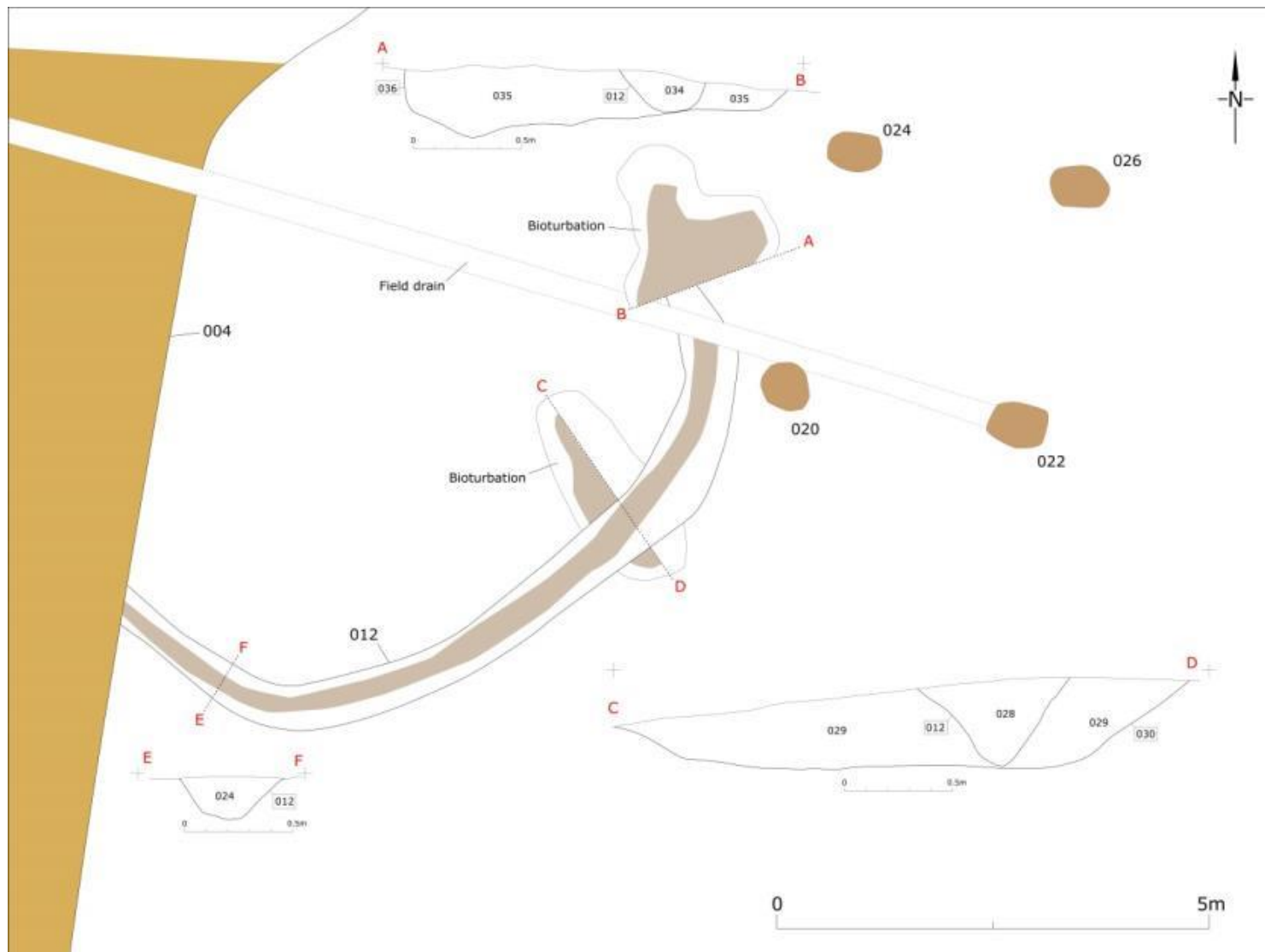


Figure 8: Possible roundhouse and adjacent posthole structure plan and section drawings.



Photo 6: The four-posted structure adjacent to the curvilinear gully [012], pre-excavation.
View northeast, 2x1m scale.



Photo 7: The four-posted structure adjacent to the curvilinear gully [012], post-excavation.
View northeast, 2x1m scale.

Building

- 4.11 Evidence of the remains of a probable building was recorded towards the northeast corner of the site, which appears to have been built on the same alignment as the main enclosure, suggesting they are likely to be contemporary. The building is represented by a series of beam slots cut into the natural horizon (Photo 8), and is demarcated by an L-shaped row of post holes on its south and west side and one central posthole within the interior of the beam slots (Photo 9 & 10). The beam slots were difficult to discern and only visible for a short period of time after hard trowelling the area, they were even more difficult to excavate with any certainty as to edges. The postholes were easily identifiable by the protruding packing stones.
- 4.12 The beam slots, [099] to [104], enclose an area measuring 7.60m NNE to SSW, by 4.98m wide. The best-preserved beam slot was excavated to reveal a 0.20m wide slot, with steeply sloping sides and a flat base that was 0.15m deep (Figure 8; Photo 11). The fill (202) comprised friable mid-brown silt with the occasional small stone and charcoal fleck inclusion. No artefacts were recovered, and the infilling material was not suitable for further sampling. The overlying subsoil in this area contained a single fragment of probable medieval pottery, but this was not retrieved from an identified feature. The form of the beam slots suggests a rectangular building partitioned to create three individual rooms, comprising one main room measuring 4.7m NNE - SSW by 4.1m wide, with two small rooms at the southern end of the building measuring 2m NNE - SSW, the easternmost 2m wide, the westernmost 1.6m wide.
- 4.13 Along the western edge of the building were six postholes ([068], [070], [056], [072], [058], [060]), two postholes along the south ([062] & [064]), in addition there was one central posthole within the beam slots [098]. Each posthole was roughly circular in shape and ranged from 0.19m to 0.55m wide with the average width being 0.31m wide. Each posthole was excavated to reveal steep sloping edges to a concave base (Photo 15). flecks. Typical depths ranged from 0.16m to 0.26m but posthole [068] was the deepest at 0.42m (Photo 16 & 18). Each pit was filled with a loose, mid-brown silt packed with a relatively substantial quantity of large packing stones (Photos 12-14) and occasional charcoal. No artefacts were recovered from the infilling material. A larger posthole [098] lay within the bounds of the beam slots, in the southwest corner of the main 'room'. This posthole was sub-oval, 0.8m in diameter, but only 0.16m deep. It was filled with a similar loose mid brown silt (097) with large stone inclusions.
- 4.14 Deposit (067), the fill of posthole [068], was sampled and processed, which revealed a small amount of hammerscale within the material, along with a small number of charcoal fragments, largely indeterminate in species, but including some oak. This material was not considered suitable for further dating.
- 4.15 Posthole [062] on the southern edge of the building lay adjacent to the southern end of a beam slot [099]. The posthole showed evidence of being recut, which also appeared to have cut into the beam slot (Photo 17 & 18), suggesting potential repair work or extension to the original beam slot structure.
- 4.16 The postholes on the western side ran parallel to the beam slots, approximately 1.5m further to the west. Similarly to the south, the postholes lay parallel but approximately 0.8m to the south of the beam slot.

- 4.17 Located on the northeast corner of the building lay a possible pit or large posthole [105]. As with the beam slots it was very difficult to discern in plan and took several hard trowels to define any edges. The pit was roughly circular in shape with a diameter of 1.10m, 0.30m deep with sharp vertical edges and a flat base (Photo 18). The fill of the pit (106) consisted of a heat affected clayey-silt with moderate amounts of charcoal flecks but no stones. No artefacts were recovered from the infilling material.



Photo 8: *The remains of the probable building represented by beam slots [099 – 106] and a row of postholes along its western edge. View south, 4x1.0m scales.*



Photo 9: *The remains of the probable building demarcated by the row of postholes on the west and south sides and one central posthole. The beam slots fade very quickly after cleaning. View west, 4x1.0m scales.*



Photo 10: View of the postholes along the south and west edge of the building. View northeast, 1x1.0m scale & 0.5m scale.



Photo 11: Excavated section of beam slot [104] in interior of building. View east, 0.5m scale.



Photo 12: Posthole [068] pre-excavation. View south, 0.5m scale.



Photo 13: Posthole [070] with the fill removed but packing stones left in place.
View west, 0.5m scale.



Photo 14: Posthole [060] with the fill removed but packing stones left in place.
View north, 0.5m scale.



Photo 15: Posthole [062] half sectioned. The steeply sloping sides and the concave base were generally seen in each posthole excavated around the building.
View north, 0.5m scale.



Photo 16: Posthole [068] post-excavation. View east, 1x.0.5 scale.



Photo 17: Posthole [062] (foreground) showing evidence of a recut and truncating the beam slot [099] (background). View north, 0.5m scale.



Photo 18: Posthole [062] (right) showing evidence of a recut and truncating the beam slot [099] (left). View east, 0.5m scale.



Photo 19: Pit [106] found on the northwest corner of the building.

Posthole structure

- 4.18 To the south of the structure described above lie a series of six postholes potentially forming a rectangular structure. On the west are postholes [007] and [008] as well as one other probable posthole in the northwest corner. It appears to have been severely truncated horizontally with little remains left to excavate. On the east side are postholes [009], [112] and [115]. Initially, posthole [115] was not obvious until a number of hard trowels. Overall the postholes demarcated an area measuring 6.5m long and 3.0m wide, on a NNW to SSE alignment (Photo 20 & 21).
- 4.19 The central posthole of each side were [007] and [009] and these were the most substantial measuring 0.80m and 0.75m in diameter. The postholes had clear rock-cut edges, almost vertical sides and concave bases at a depth of 0.45m (Photos 22 - 23). Each was filled with a loose, brown-orange silty clay with frequent amounts of large angular stones and occasional charcoal flecks including a significant quantity of large packing stones suggesting they may have supported a large and heavy structure. A sample was taken from (110), the fill of [007]. A small quantity of hammerscale was retrieved from the sample, along with fragments of charcoal, of largely indeterminate species, with some oak and a fragment of hazel. The material was not considered suitable for radiocarbon dating.
- 4.20 At the southern end of the possible structure were postholes [008] (southwest corner) and [115] (southeast corner). Posthole [115] was the smallest at just 0.19m wide (although its north-western edge was eroded making it appear larger) and posthole [008] was 0.60m wide with signs of root disturbance or animal burrowing on the southern side. Each posthole was approximately 0.30m deep. Infill material also consisted of loose, brown silty clay with frequent amounts of large angular stones and occasional charcoal flecks.
- 4.21 In the northeast corner of the structure was posthole [112]. This posthole was a broad and shallow and far less substantial than the other examples excavated, identified largely by the presence of packing stones. The posthole measured 0.55m wide and just 0.20m deep (Photo 25). Adjacent to posthole [112] in the northwest corner of the structure a possible posthole was recorded, but very shallow and ephemeral.
- 4.22 At the north end of the structure was a sub-oval shaped area of heat-affected clay. No cut feature was identified associated with this area, and it would appear the underlying natural ground had become reddened through heat activity above.



Photo 20: Post hole structure pre-excavation. View north, 2x1.0m scale.



Photo 21: Excavating posthole structure (clockwise from back: [115], [116], [009] and [007]).



Photo 22: Posthole [007] excavated with large packing stones. 0.5m scale.



Photo 23: Excavating posthole [009].



Photo 24: Posthole [009] post excavation. 0.5m scale.



Photo 25: Posthole [112], less substantial than the other examples seen within the posthole structure. 0.5m scale.

Posthole spread

- 4.23 Towards the southern edge of the enclosure was a second larger group of eight postholes ([118], [120], [122], [124], [128], [130] & [132]), potentially arranged in two parallel rows, with one pit [126] located on the western end of the southern row. If related to an individual structure the postholes would enclose an area measuring 16.0m WNW – ESE by 5.0m wide. Each of the postholes was roughly circular in shape and typically ranged from 0.25m to 0.45m wide and averaged 0.20m deep. The two easternmost postholes [118] and [120] were filled with a firm blue-grey silty clay, deposits (117) and (119) respectively. The remaining postholes were filled with a generally loose mid brown silty clay that was mostly sterile.
- 4.24 Pit [126] in the most northwest corner of the posthole spread was sub-oval in shape measuring 1.12m long, 0.63m wide and 0.28m deep. It had gently sloping sides, and a flat base. It was filled by (125), a light brown silt. No artefacts or material suitable for environmental sampling were retrieved. This pit was cut by pit [044]. In plan, the pit was sub-circular to sub-square in shape measuring 1.10m long and 1.0m wide (Figure 9; Photo 26), with a shallow concave base. At the base of the pit was deposit (039), a moderately compacted mid grey/brown clay, 0.05m thick, which appeared to line the lower part of the cut. A sample of this deposit was taken for environmental processing. The deposit contained relatively significant fragments of metal slag, hammerscale and metallic spheroids, as well as fragments of heat-affected clay and a possible iron nail and small blade fragment. A large quantity of oak charcoal was also recovered from the deposit, the oak charcoal however was not considered a reliable material for further radiocarbon dating. This deposit was overlaid by (095), a black silty-clay containing a large chunk of charred wood, along with some slag material. The uppermost fill (096) was a moderately compacted mottled pink-brown clay with remnants of what appeared to be degraded earthen bricks. Approximately 2.1m to the south of this pit lay a sub-oval patch of heat-affected material, 1.5m north-south, by 0.8m.
- 4.25 To the west lay a small outlying posthole [045], sub-circular in shape, measuring 0.4m in diameter, and 0.25m deep. It contained a single fill of loose mid-brown silty clay. No artefacts were recovered.

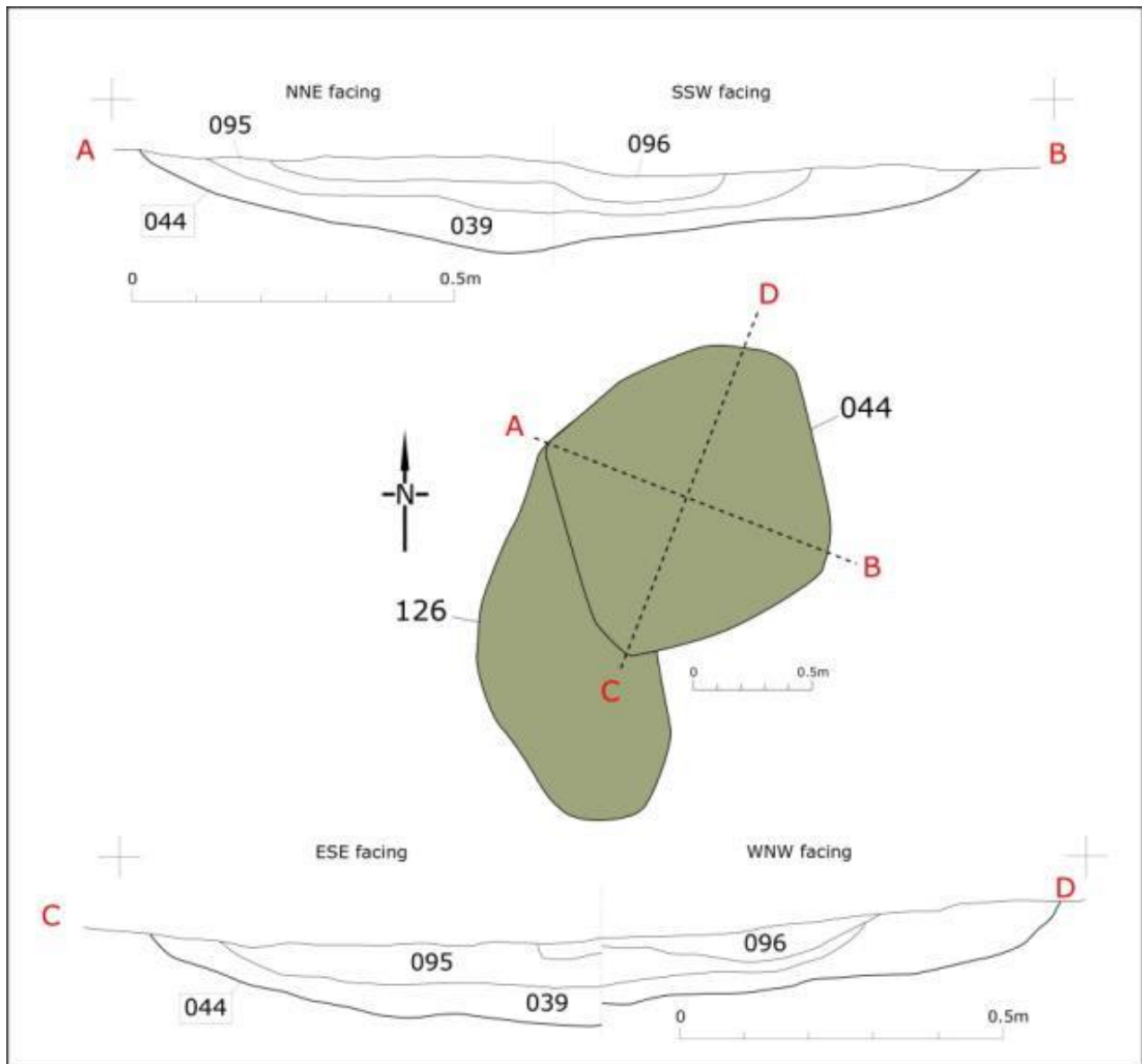


Figure 9: Pit [044]



Photo 26: Pit [044] pre-excavation. View southeast, 1x1.0m scale.

Possible well

- 4.26 In the southwest corner of the enclosure was pit [043], this was a large circular pit approximately 1.70m in diameter. As the pit was half sectioned it became apparent that it was possibly recut by a later, shallower pit [032] (Photo 27).
- 4.27 Pit [043] had steep, almost vertical edges and the bottom of the pit could not be fully excavated as it was entirely inundated with water, but an estimated depth of 1.60m was given through probing. It was filled with a loose, orange-brown silty clay (042). No artefacts were retrieved from this deposit, and due to the water inundation no samples were taken.
- 4.28 A later sub-circular pit [032] was cut into the upper levels of deposit (042). The pit was 1.3m in diameter, contained within the limits of pit [042]. It had steep sloping sides with a concave base and was approximately 0.46m deep. The pit was filled with a loose, brown silty clay (031), which became stonier towards the base of the deposit (Photo 28) and appeared to have a blackish staining on the base of the cut. No artefacts were recovered from this deposit.



Photo 27: Partially excavated possible well [043] with recut [032].
View south, 1x1.0m & 1x0.5m scale.



Photo 28: Black staining and stones at the base of [032].
View south, 1x1.0m & 1x0.5m scale.

Pit [038]

- 4.29 This isolated pit was located towards the western part of the enclosure, midway along the length. Pit [038] was sub-oval in shape and measured approximately 0.60m in length (east-west) and 0.40m wide. The pit was 0.20m deep with steep sloping sides and a flat base, cut into natural bedrock (Photo 29). The pit was filled with (037), a loose, charcoal-rich silty clay with frequent small angular stones. From the fill of the pit, 12 sherds of pottery composed of a dark grey/brown fabric were retrieved. These appear to be from a shallow dish from the Late Iron Age period. A sample of the fill was also taken for environmental processing. A further collection of small fragments of pottery was recovered, all of a similar material to the late Iron Age dish, along with a number of plant macrofossils and charcoal fragments. The macrofossils comprised largely of hazelnut shells, and indeterminate cereals, as well as a small amount of bramble. The charcoal was exclusively oak. A fragment of hazelnut shell was sent for radiocarbon dating, this returned a date with the greatest probability of between 3708 – 3637 BC, dating to the Early Neolithic period. This date is further discussed in Section 7.



***Photo 29: Pit [038] that contained Late Iron Age pottery; post-excavation.
View north, 0.5m scale.***

The enclosure ditch

- 4.30 After the site strip the full extent of the enclosure ditch was visible in plan and assigned an overall number [004], forming a continuous ditch with one break in the circuit towards the southeast. The enclosure ditch [004] (Photo 30) measured a total length of 189m and enclosed an internal area measuring 39m by 51m, 0.2ha in size. The enclosure was sub-rectangular in shape with squared corners, aligned roughly south-south-west to north-north-east (Photo 27).
- 4.31 The break in the circuit is assumed to represent an entranceway across the ditch. This was located on the lower east side and was 3.0m wide. Directly inside the entrance was a remnant of a metalled surface (199) comprised of medium-large, flat stones, laid roughly level, compacted into the underlying natural clay. This covered an area extending 4.2m east to west, by 3.1m north to south, irregular in outline but somewhat more regular northern and southern sides. It is believed that this represents a former road surface (Photo 31 & 32). A single piece of gravel tempered ware with an internal green glaze was found above the metalled surface during cleaning, but from an overlying deposit and therefore not necessarily contemporary with the road surface. This pottery is probably from the North Devon region and dates from the 17th – 18th century.



Photo 30: Aerial view of the excavation area showing sub-rectangular enclosure [004].
View north.



Photo 31: Metalled road surface (199). View east, 2x1.0m scale.

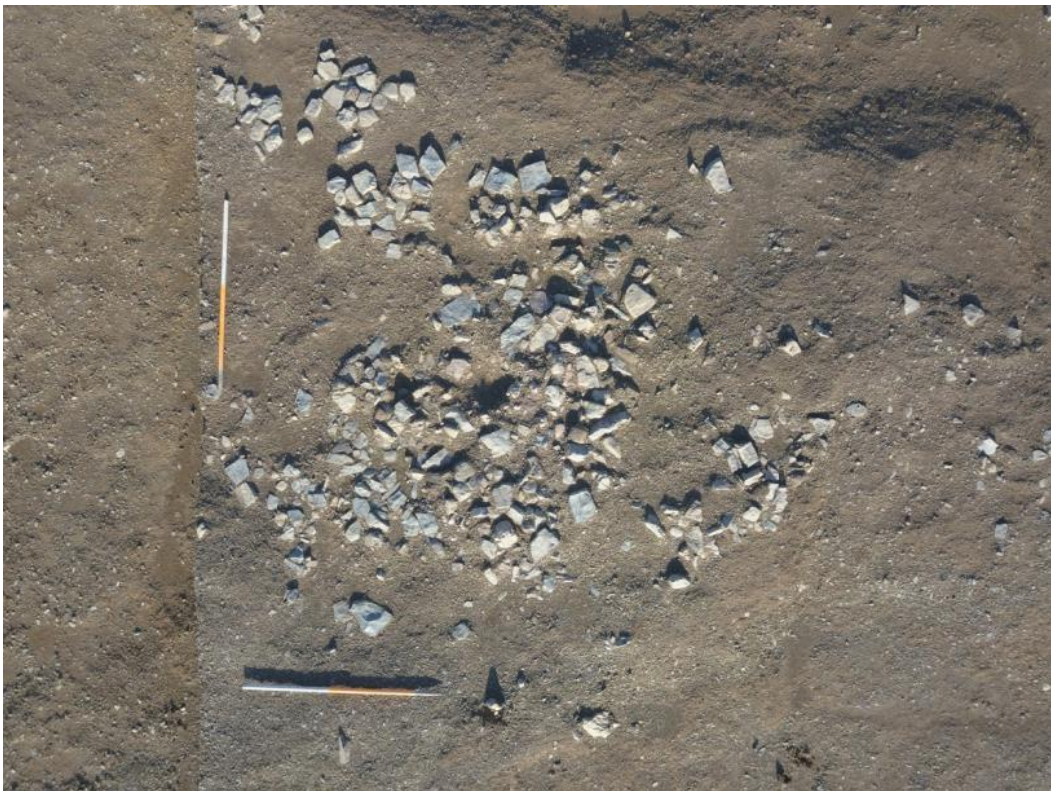


Photo 32: Metalled road surface (199). View east, 2x1.0m scale.

- 4.32 In total sixteen sections (A – P) were excavated through the enclosure ditch, investigating each side, corner and entranceway terminus. However, because of the high water table on the southern part of the site sections C – G could not be completed as they were flooded throughout the duration of the excavation (Photo 33), and refilled rapidly on emptying. Water levels fluctuated around the site throughout the excavation and not all sections could be fully excavated. Sections A, B, H, K, O and P were fully excavated and recorded.



Photo 33: *Flooded sections excavated on the southern edge of the enclosure ditch.*

- 4.33 **Section A** was excavated at the northern entrance terminus (Photo 34). This revealed a gently curving terminus in plan, with a relatively shallow V-shaped profile to the ditch, with moderately to gently sloping sides, slightly concave on the west (interior) and slightly convex on the east (exterior), and a narrow concave base. The ditch was 3.9m wide at this point, and 1.04m deep (to 39.04mOD), containing several infilling deposits.
- 4.34 The lowest fill comprised a stony deposit (184), 0.09m thick, similar in composition to the surrounding natural material, potentially, therefore, representing a primary deposit of collapsed edges or washed in up-cast material. This was overlaid by (183), (182), (181), a mix of stony silty clay deposits, and (180), a firm light grey clay, to a relatively level horizon infilling the lower 0.55m of the ditch. The upper 0.5m were infilled by deposits (179), (178), (177), and (176). Deposit (179) was a 0.23m thick deposit of reddish-brown silt, containing mid-2nd century pottery and fragments of fired clay. The remaining deposits were brown silty layers, no further artefacts were retrieved. A sample of the upper fill (176) was environmentally processed, but the only material recovered was fragments of oak charcoal no suitable for dating.

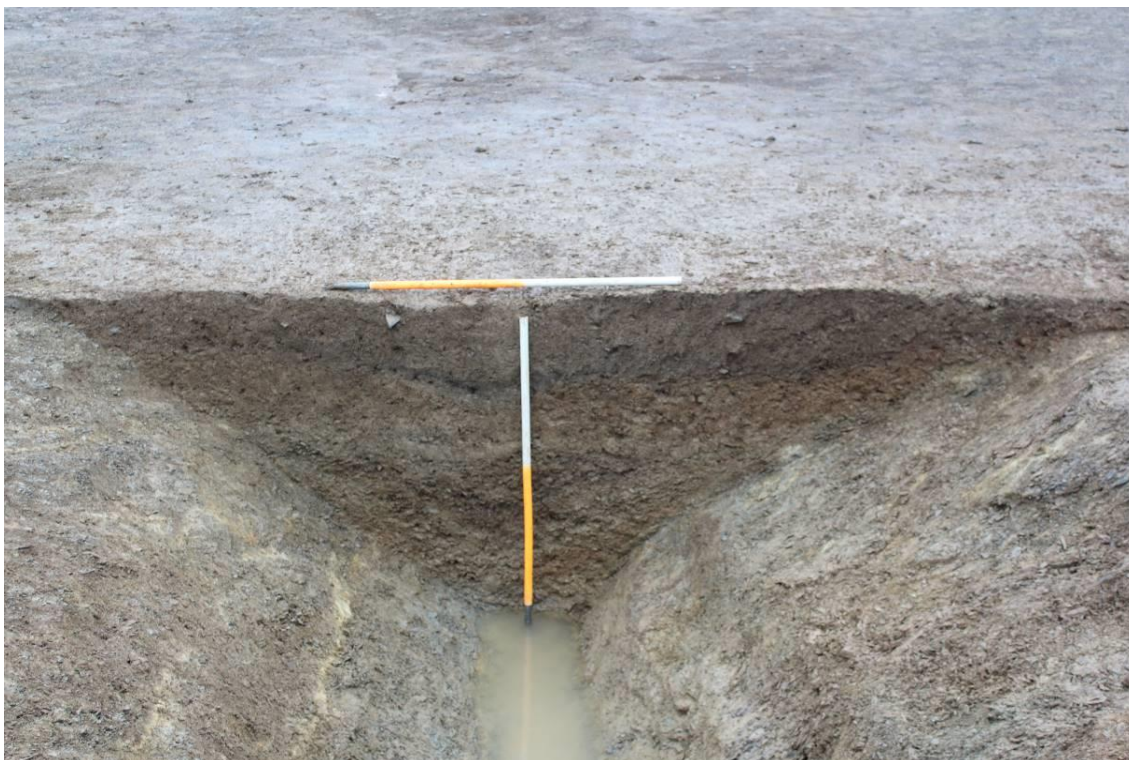


Photo 34: *South-facing section of excavated northern ditch terminus (Section A).
2 x 1m scale.*

- 4.35 **Section B** was excavated at the southern entrance terminus (Figure 10). This mirrored the northern terminus in plan, although slightly narrower at 3.6m wide, 1.1m deep (to 38.87mOD). It also largely mirrored the profile, with moderately sloping sides, slightly concave to the west (interior), slightly convex to the east (exterior), with a narrow flat base.
- 4.36 The lower 0.28m was infilled with a stony deposit (175) similar to the surrounding natural material, potentially representing a primary deposit that appears to have been washed into the ditch from the west (interior). The processed sample of this deposit produced oak charcoal, but this was considered unsuitable for accurate dating. This is overlaid by (174), a silty clay deposit 0.15m thick deposited along the east side, and then deposit (173), a 0.2m thick deposit of silty clay deposited from the west side. Fragments of mid-2nd century pottery were retrieved from this deposit, a similar vessel to that retrieved from deposit (179) in the northern ditch terminus. Overlying deposits comprised a series of silty-clays (172), (171), (170) and (169), which contained relatively large amounts of charcoal. The upper 0.28m of the ditch was infilled by (168), a stony silty-clay deposit that contained some fragments of Roman pottery, presumably residual in nature given the context.

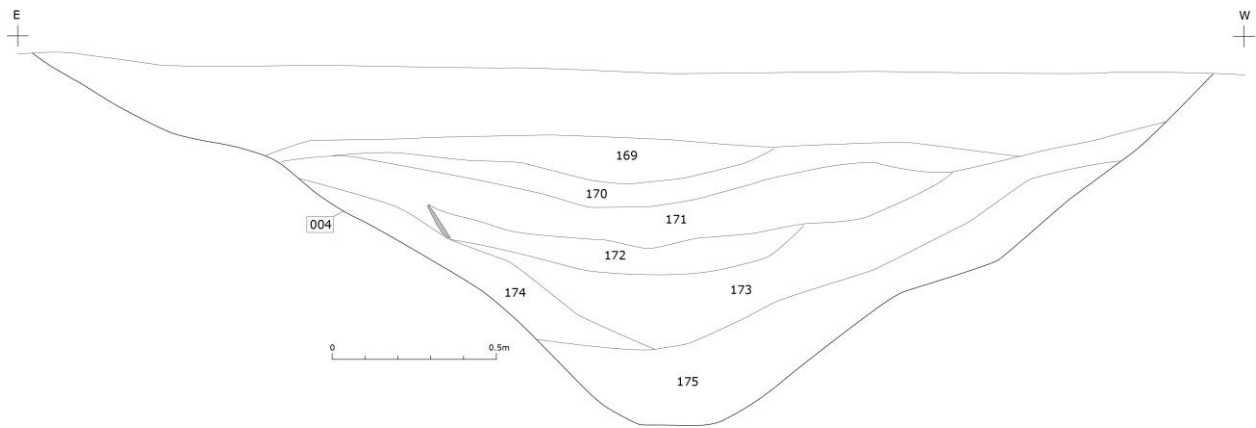


Figure 10: North facing section through Ditch [004] at the southern terminus (Section B).

- 4.37 **Sections C to F** investigated the southern side of the enclosure ditch. Unfortunately due to the continual ingress of water throughout the excavation, it proved impractical to fully excavate these sections and gain any meaningful results (Photo 33).
- 4.38 **Sections G to I** investigated the western side of the enclosure ditch. Section G was also inundated with water. **Section H** however revealed a 4.15m wide ditch cut, 1.45m deep (to 37.24mOD), with a V-shaped profile, moderately sloping sides, straight on the east (interior), slightly convex on the west (exterior), with a narrow concave base (Photo 35).
- 4.39 The lower 0.4m was infilled with (144), a stony deposit similar in nature to the surrounding natural material, therefore considered to be a primary fill collecting in the base of the ditch. Two overlying deposit of (145) and (146) were also very stony deposits, and along with overlying deposit (147) all appear to have been deposited into the ditch from the east (interior), and became indistinguishable from one another along the east side of the ditch. This was overlaid by silty-clay (148), and then stony deposit (149) and another silty clay (150), the latter two also deposited from the east. The upper deposit comprised a 0.44m thick deposit of brown-grey silty-clay (151). No artefacts were retrieved from this section.



Photo 35: Ditch Section H north facing section. The V-shaped profile with steep sloping sides to a flat narrow base was typically seen in each of the excavated sections. View south, 2x1.0m scale.

- 4.40 **Section I**, to the north of Section H, revealed a narrower section of ditch, 2.5m wide, 0.93m deep (at 37.13mOD), with a V-shaped profile, moderately sloping sides, straight on the east (interior), slightly convex towards the top on the west (exterior), with a narrow concave base (Figure 11).
- 4.41 The base of the ditch had filled with (192), a 0.24m thick stony deposit, suggesting a primary fill deposited from the east (interior). Overlying deposit (191) was a stony silty-clay, also deposited from the east. Overlying deposits (190), (189), (188) and (187) were a series of clayey-silts, including two layers of green-grey silts (189 & 187), all capped by a thin (0.02m thick) layer of yellow silty-clay (186) forming a relatively level deposit. The green-grey silts may represent layers containing organic of cess material. The upper fill was a 0.25m thick deposit of mid brown silt (185), containing some mid-1st to early 2nd century pottery.
- 4.42 During excavation a small posthole [011] was revealed at a depth of 0.6m, potentially therefore cutting into deposit (190) or (189), but potentially cutting from a higher level (Photo 36 & 37). The posthole was sub-circular, 0.4m by 0.23m, and 0.21m deep with straight sides and a concave base. It contained a single fill (010) with evidence of packing stones.

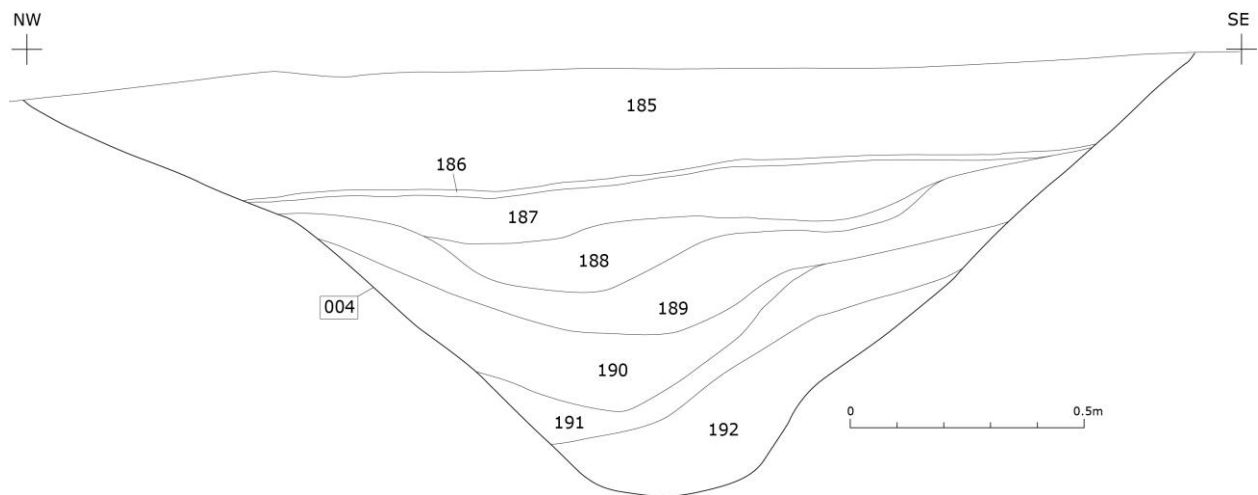


Figure 11: South-facing section through ditch [004] on the western side of the enclosure (Section I).



Photo 36: Posthole [011] found in ditch Section I. View southwest. 1x0.5m scale.



Photo 37: Post hole [011] half sectioned. View south. 1x0.5m scale.

- 4.43 **Sections J to M, and P**, investigated the northern part of the enclosure ditch. **Section P** was located on the northwest corner and investigated several intercutting ditches and gullies, discussed in more detail below (Photo 38).



Photo 38: Section P west-facing section, showing stony primary fills tipping in from the internal edge of the enclosure. View east, 2x1.0m scale.

- 4.44 **Section J** revealed a ditch cut 2.45m wide, 0.9m deep (to 37.20mOD), with a V-shaped profile with moderate straight sides, and a narrow flat base (Figure 12). The base had been infilled with (164), a stony deposit, considered to be a primary fill collecting in the base of the ditch, 0.35m thick. This was overlaid by a clayey-silt (163), 0.09m thick. Along the southern side of the ditch this was overlaid by (161), to the north by (162), both of which appeared very similar deposits of reddish-brown silty-clay, but were separated by (160), a deposit of grey-brown silty-clay, no clear cut edges to this deposit were identified. A fragment of 2nd-century pottery was recovered from deposit (161). These fills was overlaid by (158), which contained lens (159). The upper deposit was (157), 0.18m thick deposit of stony dark brown silty-clay.

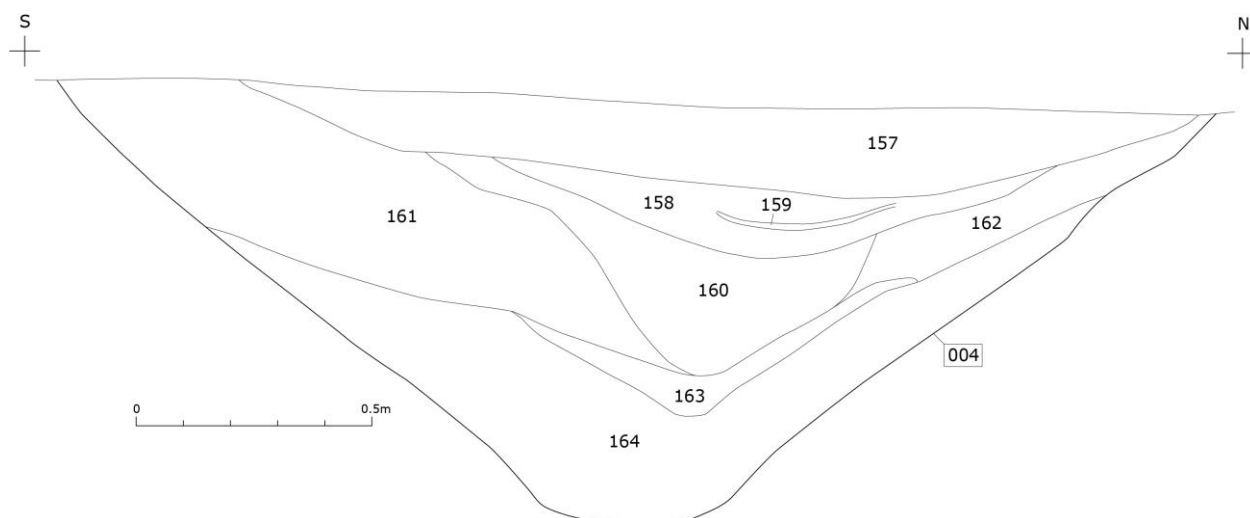


Figure 12: East-facing through Ditch [004] on the northern side of the enclosure, (Section J).

- 4.45 **Section K** revealed a ditch cut 4.7m wide, although the northern edge appeared eroded, and 1.1m deep (to 37.35mOD). It had a more irregular profile, with a moderately sloping, slightly convex southern (interior) edge, and a moderate, slightly concave, and stepped, northern (exterior) edge (Figure 13, Photo 39). The step had a shallow concave base, the lower base, along the southern side of the ditch, was flat. There was no indication from the infilling material that this profile was the result of later re-cutting, appearing instead to be of the same cutting event. The lower levels along the south side had filled with (156), a 0.3m thick deposit of stony material. This was overlaid by (155), 0.23m thick deposit of sandy-silt, which extended across the step to the north. Along the southern edge this was covered by (153), green-grey silt, along the northern edge by (154), a mid-brown silt. Deposit (152), a 0.6m thick deposit of mid brown silt, infilled the remaining upper levels of the ditch. No artefacts were recovered from these ditch fills.



Figure 13: East-facing section through Ditch [004] on the northern side of the enclosure, (Section K), showing the stepped profile.



Photo 39: Ditch Section K, view of east-facing section. 2x1.0m scale.

- 4.46 **Sections L and M** towards the eastern end of the northern side of the ditch became inundated with water and were not fully excavated (Photo 40).



Photo 40: Ditch [004] Sections L (foreground) and M (rear), during excavation.
Shot facing northeast. 2 x 1m scale.

- 4.47 **Sections N and O** investigated the eastern side of the ditch, to the north of the terminus (Section A). **Section O** revealed a ditch 3.45m wide, 1.17m deep (to 39.02mOD) (Photo 41). The eastern (exterior) edge was moderate to steep and straight, the western (interior) edge was moderate to shallow and concave, with a flat base to the east of centre. The base of the ditch had filled with (143), a 0.23m thick stony deposit, considered to be a primary fill. This was overlaid by (142), a stony clay, (141), a grey-orange clay, and (139), an orange-brown silty-clay, which contained charcoal lens (140). The upper level of (139) was relatively level, the remainder of the ditch infilled with (138), 0.3m thick deposit of mid-grey silty-clay.



Photo 41: Section O south-facing section showing stony primary fills.
View north, 1x1.0m scale.

- 4.48 The excavated sections through ditch [004] revealed a relatively consistent V-shaped ditch profile, at its shallowest, in terms of height above Ordnance Datum, around the ditch entranceway. The ditch ranged from 2.45m to 4.7m wide, increasing where a greater depth survived, and between 0.9m to 1.45m deep. There was no evidence of any re-cutting in the excavated sections, although a solitary posthole [011] was recorded within the ditch fills of the western side. A stepped profile was also revealed along the northern side of the enclosure ditch, but the subsequent infilling material suggested this was an original profile.
- 4.49 The excavated sections exhibited some similarities in their stratigraphic profile. The base of each section had become filled with a stony/shattered shale composite that was relatively silt-free. This is likely to be the same material that was originally excavated from the ditch, tip lines in some sections suggest this has re-entered the ditch from the interior side, suggesting an internal bank of up-cast material. Overlying deposits are mixed, and may be a mix of gradual deposition and deliberate backfilling. Five deposits contained artefacts of a mid-1st to mid-2nd century date, although no artefacts were recovered from primary deposits, with many from later periods of infill. From both the north and south terminus of the ditch a sherd was retrieved from a single mid-2nd century Spanish olive oil amphorae (contexts (173) and (179), indicating a contemporary link between the two deposits.

Later ditches

- 4.50 To the northwest of the main enclosure four intercutting ditches and gullies were revealed, cutting the later infilling material of the main enclosure ditch (Figure 14, Photos 42–45). Gully [135] was a linear feature on a northwest to southeast alignment, with steep straight sides and a concave base. The lower fill comprised a deposit of mid to dark grey silty-clay (134), which contained a fragment of mid to late medieval pottery. This was overlaid by dark brown silty clay (133). A 6.4m long segment of this gully was revealed, 0.6m wide. It appeared to fade out to the southeast before a definitive relationship with ditch [137] could be established, although it cut into the upper fill of the enclosure ditch. It extended beyond the area of excavation to the northwest, but was not readily identifiable in adjacent Trench 2.
- 4.51 Adjacent to the gully was a curvilinear ditch [137]. This ditch was 1.7m wide, with moderate to steep concave sides, and a wide flat base. The ditch was aligned northwest to southeast, curving round to the east at the south. It cut through the upper fill of the enclosure ditch before fading to the east. It contained deposit (136), a dark grey clayey-silt, which contained frequent flecks of charcoal. Within this deposit a single piece of roofing slate was found with a perforated hole and a sherd from a medieval jug. The line of [137] was also picked up on a NW alignment within Trench 2, as [085], which measured 2.1m wide, 0.24m deep with concave sides and a wide flat base. This was filled with blueish silty deposit (084), which also contained a fragment of medieval pottery. To the north the line was not positively identified within Trench 3, although a blueish silty deposit (076) was identified on a similar alignment. This was approximately 4.6m long and extended across the width of the trench. A box section was excavated through the deposit to confirm if it was archaeological but no evidence of definitive edges could be found.
- 4.52 Within the main trench, to the east, a short distance after the line of ditch [137] had faded, it appeared to emerge again on a continuing NE alignment as [018]. This ditch

was initially narrow and shallow, but subsequently curved to the north, and was at most 1.35m wide and 0.61m deep, but with a distinctly different V-shaped profile, and also cut the upper fills of the enclosure ditch. This was infilled by a lower deposit of light brown silt (017), 0.55m thick, overlaid with light brown silt (016), but with no further artefacts were retrieved. The line of [018] was also picked up on a north-south alignment within Trench 2. This section contained three infilling deposits as the ditch increased in depth. A sample was taken from the lowest deposit (093) of mid-grey silt, which contained some hazel and oak charcoal but no further environmental material. This was overlaid by (092) and (091), both mid-brown silt deposits. On the assumption that [137] / [085] and [018] represent the same feature, it encloses an area 18m wide, widening to the north, and over 17m long.



Photo 42: *Ditches [135] and [136] cutting into the main enclosure ditch [004] in the northwest corner. View northwest. 1x1.0m scale.*

- 4.53 Ditch [015] is a later ditch that truncates the later fills of [018] and enclosure ditch [004]. This ditch is aligned NNW to SSE, linear in plan, with moderate straight edges and a concave base. An 11m long section was revealed in the main area of excavation (Trench 1), 1.84m wide, 0.44m deep. The southern end of the ditch cut into the upper fills of ditch [004] but appeared to terminate within the confines of that ditch, not re-emerging to the south. To the north it extended beyond the excavated area, but the line was also identified within Trench 2. The ditch was filled with (013) and (014). The lower fill (014) was light brown silt, the upper fill (013) was a mid-brown coloured silt. From this upper deposit three sherds of a medieval jug rim were retrieved and three sherds from a medieval jug rim dating from the 13th–14th century.

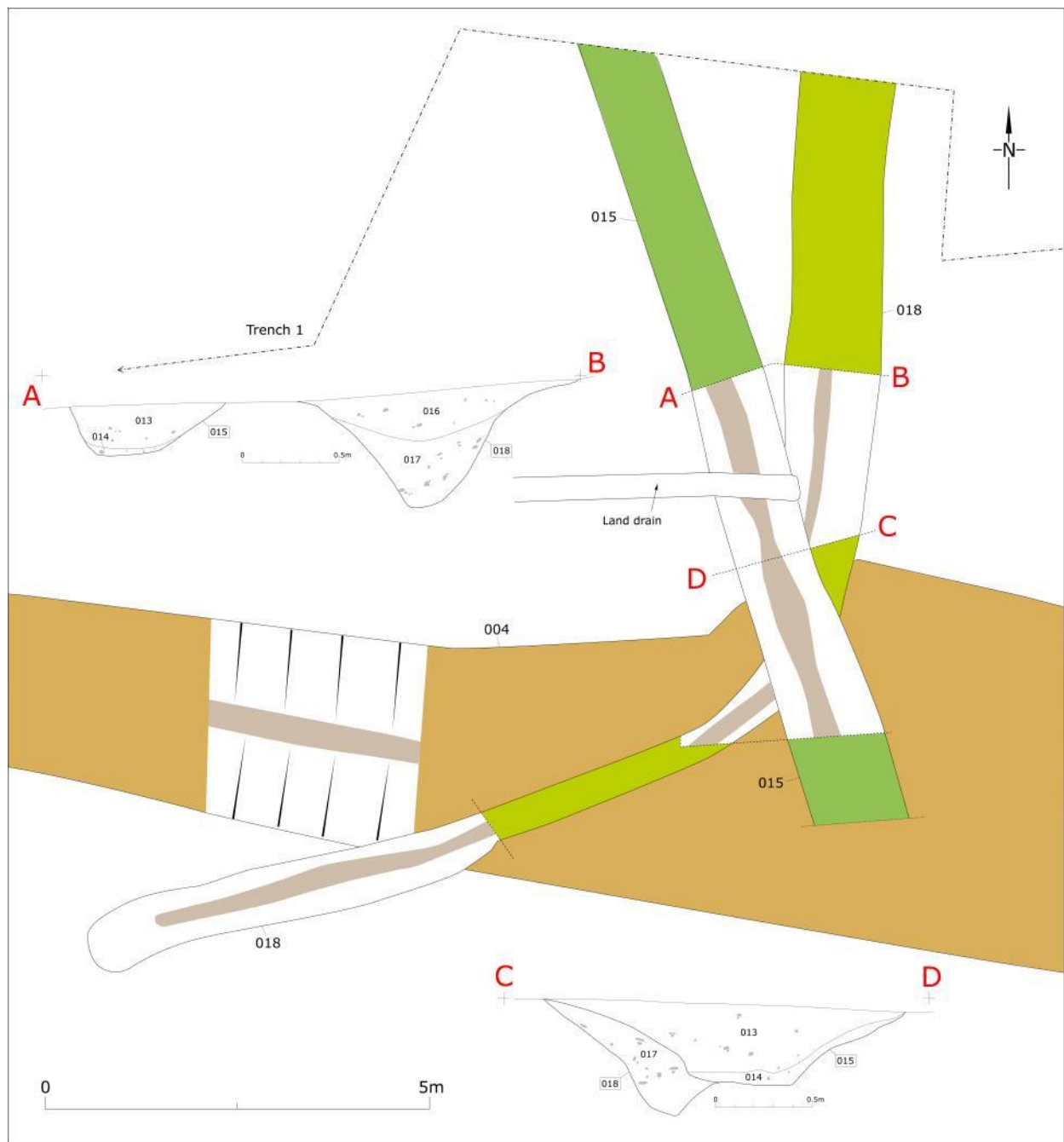


Figure 14: Detail of the intercutting ditches in the northwest corner of the excavated area.



Photo 43: Ditches [015] and [018] cutting main enclosure ditch [004].
View north. 2x1.0m scale.



Photo 44: Ditches [015] and [018] after excavation. View north. 2x1.0m scale.



Photo 45: Ditches [015] and [018]. South facing section. 1x1.0m scale.

- 4.54 Within Trench 2, at the south-western end of the trench, was a possible gully [089]. The gully was 0.62m wide and extending north-south across the trench. Excavation revealed a shallow depth of just 0.07m with gradual sloping edges. The gully was filled with (088), mid-grey silt. No dateable artefacts were retrieved. The gully extends beyond the limits of the Trench, and was picked up again in Trench 3 to the north, labelled as gully [077].
- 4.55 Within the confines of Trench 2 a shallow sub-circular pit feature [087] was excavated but no definitive edges could be observed, this is possibly just a hollow with washed in silt. A single piece of Medieval pottery was retrieved from the fill (086).

Modern features

- 4.56 A number of modern features were identified within the northern part of the investigated area. A modern trackway was exposed within Trenches 2 and 3, on a northwest to southeast alignment. The trackway was loosely constructed from stone, broken tarmac and frogged bricks (Photo 46). A section of ditch was investigated along its southwest edge within Trench 2, but as this cut into the camber of the track it too was considered to be modern in origin.
- 4.57 A series of modern land drains were recorded across the site, largely on a WNW to ESE alignment. These drains were all of a standard 0.35m width, and contained ceramic drainage pipes.



Photo 46: Trench 1. Modern trackway is visible in the foreground and deposit (076) seen towards the centre of the trench. View southwest. 2x1.0m scale.

5. POTTERY ASSESSMENT – by Peter Webster

5.1 Iron Age and later pottery

- 5.1.1 The excavation produced about 70 sherds of ceramic material, representing some 25 vessels. These fall into distinct chronological groups. Nearly all have been degraded by soil action which affects the surface and, on occasions, the entire integrity of the pot. All ceramic material is listed by context and fabric in the archive list attached.
- 5.1.2 Iron Age pottery was found in only one feature, the isolated pit 037/8. The twelve sherds all belong to a single vessel. The vesicular fabric, presumably originally with a calcitic temper, has the beaded rim of many jars of the late Iron Age. Joining sherds is problematic but the interior surface is well finished and this, together with what appears to be a single join suggests that this a shallow dish, but the fabric is that of late Iron Age jars and this is likely to be of similar date (Photo 47).
- 5.1.3 Roman pottery was, with the exception of one possible sherd from upper levels restricted to the ditches of the main enclosure (contexts 161, 173, 179, and 185 of feature 004). Fragments from the rim of the same South Spanish olive oil amphora come from the two ditch termini (Photos 48 and 49), while a very degraded North Gaulish mortarium and a Severn Valley jar (Photo 50) come from other ditch contexts. Taken together these suggest a later 1st and 2nd-century date for the ditch fill.
- 5.1.4 Medieval pottery is dominated by Dyfed Gravel Tempered Ware. It comes mainly from features other than the main ditch – the ditch 013/5, the linear feature 084/5, the pit 086/7, the gulleys 134/5 and 136/7 which were stratigraphically later than the main ditch and from unstratified levels. With no rims present, the Dyfed Gravel Tempered cannot be dated more closely. However, the glazed jug rim from 013/5 seems likely to be 13th/14th century (Photo 51).
- 5.1.5 Post-medieval pottery comes from upper or unstratified levels and is indicative of activity (probably the spreading of middens) between the later 17th and 19th centuries.

5.2 Bibliography

The Martin-Kilcher amphora classification can be found in Peacock & Williams 1986, 137-8.

Peacock, D.P.S., Williams D.F. 1986 *Amphorae and the Roman economy*,
London.

Webster, P.V. 1976 'Severn Valley Ware: a preliminary study',
*Transactions of the Bristol & Gloucestershire
Archaeological Society*, 94, 8-46.



Photo 47: The Iron Age vessel from (037).



Photo 48: The amphora from (173).



Photo 49: The amphora from (179).



Photo 50: The Severn Valley Ware jar from (161).



Photo 51: *Sherds of Medieval pottery from (013).*

6 AN INVESTIGATION INTO THE PALAEOENVIRONMENTAL POTENTIAL OF SAMPLES ORIGINATING FROM EXCAVATIONS AT SPRING GARDENS, WHITLAND (LANGDALE WESTERN LTD) (PROJECT NUMBER WHITLAND 2019) – by Rosalind McKenna

6.1 Introduction

- 6.1.1 DAT Archaeological Services were commissioned to undertake a programme of archaeological strip, map and record across an area proposed for residential development on land to the northwest of Spring Gardens, Whitland, Carmarthenshire. Part of the excavation area had been evaluated in 2007 and highlighted the presence of a large ditched rectangular enclosure, with a possible smaller rectangular annex to the North. The investigation centred on NGR SN2076216906, and was carried out between October and November 2019. Features including a ditched enclosure, a paved road surface, ditches, gullies and post holes were recorded during the excavation. Pottery from the Iron Age, Roman and Medieval periods was recorded.
- 6.1.2 A programme of soil sampling was implemented during the excavation, which included the collection of soil samples from sealed contexts. The aim of the sampling was:
- To assess the type of preservation and the potential of the biological remains
 - To record any human activities undertaken on the site – both domestic and industrial
 - To provide information on the past environment of the area
 - To provide material for radiocarbon dating.

6.2 Methods

- 6.2.1 Following selection, subsamples of raw sediment from the selected samples were processed. The samples were examined in the laboratory, where they were described using a pro forma. The subsamples were processed by staff at Brython Archaeology using their standard water flotation methods. The flot (the sum of the material from each sample that floats) was sieved to 0.25mm and double floated. They were processed once, the residues left to dry, and then the residues were floated again. This was carried out on the advice of James Rackham, to ensure that smaller charred items are not lost.
- 6.2.2 The flot (the sum of the material from each sample that floats) was sieved to 0.5mm and air dried. The heavy residue (the material which does not float) was not examined, and therefore the results presented here are based entirely on the material from the flot. The flot was examined under a low-power binocular microscope at magnifications between x12 and x40.
- 6.2.3 A four point semi quantitative scale was used, from '1' – one or a few specimens (less than an estimated six per kg of raw sediment) to '4' – abundant remains (many specimens per kg or a major component of the matrix). Data were recorded on paper and subsequently on a personal computer using a Microsoft Access database.
- 6.2.4 Identification was carried out using published keys (Jacomet 2006, Biejerinkc 1976, Jones – unpublished and Zohary & Hopf 2000), online resources

(<http://www.plantatlas.eu/za.php>), the authors own reference collection. The full species list appears in Table 1 at the end of this report. Taxonomy and nomenclature follow Stace (1997).

- 6.2.5 The flot was then sieved into convenient fractions (4, 2, 1 and 0.3mm) for sorting and identification of charcoal fragments. Identifiable material was only present within the 4 and 2mm fractions. A random selection of ideally 100 fragments of charcoal of varying sizes was made, which were then identified. Where samples did not contain 100 identifiable fragments, all fragments were studied and recorded. Identification was made using the wood identification guides of Schweingruber (1978) and Hather (2000). The full species list appears in Table 2 at the end of this report.
- 6.2.6 Taxa identified only to genus cannot be identified more closely due to a lack of defining characteristics in charcoal material.

6.3 Results

- 6.3.1 Twelve samples are the basis of this investigation. Charred plant macrofossils were present in three of the samples, and the results of this can be seen in Table 1 below. The preservation of the charred remains was poor. Indeterminate cereal grains were recorded two samples. These were identified based on their overall size and morphological characteristics, which may suggest a high degree of surface abrasion on the grains, indicative of mechanical disturbances that are common in features such as pits and ditches, where rubbish and waste are frequently discarded. There were no cereal grains that could be identified to species level.
- 6.3.2 The presence of cereal chaff may also indicate the use of cereals at the site, and this was present in one of the samples. Weeds were present in the form of grass seeds and bramble seeds. Charred hazel nut shell fragments were also present in one of the samples. Hazel-nuts are valuable nutritionally, as well as being readily available. In addition, the nut shell is hard and resistant to decay ensuring its survival in some quantities. Together with the hazel charcoal also recorded from three samples, it may indicate that they are merely representative of hazel wood trees being burnt, which could be either a natural or a man-made process.
- 6.3.3 The samples produced very small suites of plant macrofossils, both in terms of quantity and diversity. Due to this fact, other than to state their presence in the samples and therefore the surrounding environment, nothing of further interpretable value can be gained.
- 6.3.4 Charcoal fragments were present in the majority of the samples, scoring between a '1' and '4' on the semi quantitative scale. The preservation of the charcoal fragments was generally poor. The majority of the fragments were too small to enable successful fracturing that reveals identifying morphological characteristics. Where fragments were large enough, the fragments were very brittle, and the material crumbled or broke in uneven patterns making the identifying characteristics difficult to distinguish and interpret, and so only a limited amount of environmental data can be gained from the samples. Identifiable remains were however present in all twelve of the samples. The results of this analysis can be seen in Table 2 below.
- 6.3.5 The total range of taxa comprises oak (*Quercus*), willow / poplar (*Salix* / *Populus*) and hazel (*Corylus avellana*). These taxa belong to the groups of species represented in the native British flora. A local environment with an oak-ash dominant woodland is

indicated from the charcoal of the site. As seen in Table 2, oak is the most abundant identifiable recorded remain within the samples, dominating all of the samples. Willow/poplar was present in one of the samples, and hazel was present in a further three samples, in smaller numbers. It is possible that oak was the preferred fuel wood obtained from a local environment containing a broader choice of species.

- 6.3.6 Generally, there are various, largely unquantifiable, factors that effect the representation of species in charcoal samples including bias in contemporary collection, inclusive of social and economic factors, and various factors of taphonomy and conservation (Thiery-Parisot 2002). On account of these considerations, the identified taxa are not considered to be proportionately representative of the availability of wood resources in the environment in a definitive sense, and are possibly reflective of particular choice of fire making fuel from these resources.

6.4 Conclusion

- 6.4.1 The samples produced some environmental material of interpretable value, with the plant macrofossils from three samples, and the identifiable charcoal remains from all twelve of the samples.
- 6.4.2 The remains of plant macrofossils recovered from the samples showed the presence of a indeterminate cereal grains, chaff fragments, grass seeds and the most frequently recorded remain was hazel nut shell fragments. However, as they were recorded in such small quantities, other than to state their presence in the samples and therefore the surrounding environment, nothing of further interpretable value can be gained.
- 6.4.3 The charcoal remains showed the exploitation of several species native to Britain. Oak has good burning properties and would have made a fire suitable for most purposes (Edlin 1949). Oak is a particularly useful fire fuel as well as being a commonly used structural/artefactual wood that may have had subsequent use as a fire fuel (Rossen and Olsen 1985. Hazel is recorded as a good fuel wood and was widely available within oak woodlands, particularly on the fringes of cleared areas (Grogan *et al.* 2007, 30). Willow/Poplar are species that are ideal to use for kindling. They are anatomically less dense than for example, oak and ash and burn quickly at relatively high temperatures (Gale & Cutler 2000, 34, 236, Grogan *et al.* 2007, 29-31). This property makes them good to use as kindling, as the high temperatures produced would encourage the oak to ignite and start to burn.
- 6.4.4 Dryland wood species indicates the presence of an oak woodland close to the site. This would have consisted of oak, which would be the dominant large tree species (Gale & Cutler 2000, 120, 205). On the marginal areas of oak woodlands or in clearings hazel thrives. There is also evidence of carr fen woodland, which would have consisted of willow and poplar - trees that thrive in waterlogged and damp soils, particularly in areas close to streams or with a high water table (Stuijts 2005, 143 and Gale & Cutler 2000).
- 6.4.5 As asserted by Scholtz (1986) cited in Prins and Shackleton (1992:632), the "Principle of Least Effort" suggests that communities of the past collected firewood from the closest possible available wooded area, and in particular the collection of economically less important kindling fuel wood, which was most likely obtained from the area close to the site.

- 6.4.6 It is thought to be problematic using charcoal and plant macrofossil records from archaeological sites, as they do not accurately reflect the surrounding environment. Wood was gathered before burning or was used for building which introduces an element of bias. Plant remains were also gathered foods, and were generally only burnt by accident. Despite this, plant and charcoal remains can provide good information about the landscapes surrounding the sites presuming that people did not travel too far to gather food and fuel.

6.5 Recommendations

- 6.5.1 The samples have been assessed, and interpretable data has been retrieved and is the basis of this report. No further work is required on any of the samples. Any material recovered by further excavations should be processed to 0.3mm in accordance with standardised processing methods such as Kenward *et al.* 1980, and the English Heritage guidelines for Environmental Archaeology.
- 6.5.2 If radiocarbon dating is to be carried out, the following samples and material are recommended:
- Sample 2 (027) – willow / poplar charcoal
- Sample 4 (023) – hazel charcoal
- Sample 10 (037) – hazel nut shell fragments
- 6.5.3 The other samples contained only fragments of oak that would be viable for the process. However, as oak can be a residual species it is not always thought to be the best material to date, unless heart wood or twigs are present.

6.6 Archive

- 6.6.1 All extracted fossils and flots are currently stored with the site archive in the stores at Brython Archaeology, along with a paper and electronic record pertaining to the work described here.

6.7 References

- Biejerinck, W, 1976, *Zadenatlas der Nederlandsche Flora: Ten Behoeve van de Botanische, Palaeontology, Bodemcultuur en Warenkennis*. Backhuys and Meesters. Amsterdam.
- Edlin, H L, 1949. *Woodland crafts in Britain: an account of the traditional uses of trees and timbers in the British countryside*, London, Batsford
- English Heritage, 2002, *Environmental Archaeology: A guide to the theory and practise of methods, from sampling and recovery to post-excavation*. English Heritage Publications. Swindon.
- Gale, R, and Cutler, D F, 2000, *Plants in Archaeology – Identification Manual of Artefacts of plant origin from Europe and the Mediterranean*, Westbury Scientific Publishing and Royal Botanic Gardens, Kew
- Grogan, E, Johnston, P, O'Donnell, L, 2007, *The Bronze Age Landscapes of the Pipeline to the West: An Integrated Archaeological and Environmental Assessment*, Wordwell Ltd, Bray, Co Wicklow.
- Hather, J G. 2000 *The identification of Northern European woods; a guide for archaeologists and conservators*, London. Archetype Press.

Jacomet, S, 2006, *Identification of cereal remains from archaeological sites*. IPAS. Basel.

Jones, G, *Teaching Notes for Archaeobotany*. Unpublished.

Kenward, H.K., Hall, A.R. and Jones A.K.G. (1980) *A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits*. *Science and Archaeology* 22, 315.

Prins, F and Shackleton, CM 1992 Charcoal analysis and the "Principle of Least Effort" - A conceptual Model. *Journal of Archaeological Science*, 19, 631-637.

Rossen, J, and Olson, J, 1985 *The controlled carbonisation and archaeological analysis of SE US wood charcoals*, *Journal of Field Archaeology* **12**, 445-456

Scholtz, A, 1986, *Palynological and Palaeobotanical Studies in the Southern Cape*, MA Thesis of Stellenbosch, Stellenbosch, South Africa

Schweingruber, F H, 1978 *Microscopic wood anatomy*. Birmensdorf. Swiss Federal Institute of Forestry Research

Stace, C, 1997, *New flora of the British Isles*, Cambridge University Press, Cambridge

Stuijts, I, 2005, 'Wood and Charcoal Identification' in Gowen, M., O'Neill, J. and Phillips, M., *The Lisheen Mine Archaeological Project 1996-1998*, Wordwell Ltd, Bray, Co Wicklow

Thiéry-Parisot, I, 2002, 'Gathering of firewood during the Palaeolithic' in S Thiébault (ed), *Charcoal Analysis, Methodological Approaches, Palaeoecological Results and Wood Uses*, BAR International Series 1063

Zohary, D, & Hopf, M, 2000, *Domestication of Plants on the Old World*. Oxford University Press Ltd. Oxford.

<http://www.plantatlas.eu/za.php> - Online Digital Plant Atlas

Table 1: Plant Macrofossils - Complete list of taxa recovered from excavations at Spring Gardens, Whitland, Carmarthenshire (Whitland 2019) Taxonomy and Nomenclature follow Stace (1997).

Sample Number	2	5	10	
Context Number	027	028	037	
Feature Type	Curvilinear	Curvilinear	Pit	
LATIN BINOMAL				COMMON NAME
<i>Corylus avellana</i> nut shell fgts.		1	308	Hazel nut shell fgts.
<i>Rubus</i> sp.			3	Bramble
POACEAE	1	1		Grass
Indeterminate Cereal	1		62	Indeterminate Cereal
Indeterminate Cereal spikelet fork			123	Indeterminate Cereal spikelet fork
Indeterminate Cereal glume base			53	Indeterminate Cereal glume base
Indeterminate buds			2	Indeterminate buds

Table 2: Charcoal - Complete list of taxa recovered from excavations at Spring Gardens, Whitland, Carmarthenshire (Whitland 2019). Taxonomy and nomenclature follow Schweingruber (1978). Numbers are identified charcoal fragments for each sample.

Sample Number		2	4	5	10	13	14	19	20	23	31	46	50
Context Number		027	023	028	037	039	039	093	039	067	110	175	176
Feature Type		Curvi-linear	Post hole	Curvi-linear	Pit	Fire pit	Fire pit	Ditch	Fire pit	Post hole	Post hole	Enclosure ditch	Enclosure ditch
No. fgts.		100+	200+	56	3000+	10,000+	7000+	300+	3000+	39	51	100+	100+
Max. size (mm)		8	10	11	21	21	28	10	29	11	12	7	10
Latin	Vernacular												
<i>Corylus avellana</i>	Hazel		8					3			1		
<i>Salix / Populus</i>	Willow / Poplar	4											
<i>Quercus</i>	Oak	15	26	9	100	100	100	11	100	7	5	12	15
Indeterminate	Indeterminate	81	66	47				86					

7 DISCUSSION

7.1 Function and Dating

General

- 7.1.1 The rectangular area enclosed by ditch [004] contains activity represented by cut archaeological features in the form of postholes, gullies and beam slots, an area of probable road surface, and patches of heat-affected ground. With the exception of later ditches to the north this archaeological activity appears to be contained within the confines of the rectangular enclosure, as no evidence of similar activity outside the enclosure was encountered.
- 7.1.2 The internal features appeared in several relatively distinct clusters. The generally sparse spread of these clusters, the shallow nature of many of them, and the lack of evidence for associated archaeological layers would indicate a significant degree of truncation across the site, presumably through later ploughing.

Possible roundhouse / early prehistoric activity

- 7.1.3 Stratigraphically the earliest feature would appear to be the curvilinear gully to the northwest [012], which is both cut by the enclosure ditch, and would also have lain buried beneath internal up-cast material (see below). The construction of the gully would indicate it was used as a drainage feature rather than a structural feature, being more pronounced to the south where water collection would have been more significant. This would appear consistent with a drip-gully found around many prehistoric roundhouses (although later historic examples are also known), however, it appears unusual that no substantial structural element survived within the roundhouse area.
- 7.1.4 A radiocarbon date from the infill material would suggest an Early Neolithic date, if an accurate reflection of the date of the structure this would be a relatively rare find, and given the presence of cereal grain within the same sample, could indicate some of the earliest evidence of cereal cultivation in the area. However, whilst the radiocarbon date cannot be discounted, there is a lack of any supporting dating evidence. A similar puzzling radiocarbon date comes from the isolated pit [038] to the south. Radiocarbon dating of this sample also produced an Early Neolithic date, albeit a couple of centuries earlier, but throughout the sample fragments of late Iron Age pottery were recovered. The pottery has been firmly dated to the late Iron Age period, and is certainly distinct from Early Neolithic pottery. The environmental samples were obtained and processed through standard established methodologies, no potential contaminants were noted. The charcoal samples were similarly processed using established methodologies within an experienced and reputable laboratory. Therefore, the cause for potential anomalous radiocarbon dating is unclear.

Building

- 7.1.5 The clearest structural feature of beam-slot and posthole construction lies within the northeast part of the enclosure. The combination of beam-slots and postholes suggests a three-room building approximately 7.6m by 5m, with a possible veranda along the western side. An intercutting posthole and beam slot on the southern side of the building may indicate the veranda was a later addition, or at least suggest a length of use requiring some potential repair work to the structure. The size and form of the structure would suggest a domestic setting, rather than a structure designed to accommodate a larger group of people. The presence of a small quantity of hammerscale from the infill of one of the postholes would also indicate some potential semi-industrial activity, although on a relatively small-scale.
- 7.1.6 No clear dating evidence was recovered from this structure, although the hammerscale indicates an Iron Age or later date. Beam slot structures, particularly ones with a veranda, are known in Roman-era settings. The use of an open-fronted veranda, or portico, has been seen as a Romanized style of building, developing from smaller craftsmen houses and shops in urban settings, to more grand villa-style arrangements (Percival, in Barton 1996; 76-7). Similar structures, albeit on a larger barrack-size scale, are also recorded from Roman fort sites, a particular feature of auxiliary forts (Davison, in Barton 1996; 148 & 171, Rushworth 2009; 22 (Phase IV barrack blocks) & 153 (Chalet 1)). Such structures would typically develop into masonry structures, or with stone foundations. This does not appear to have been the case here, possibly because the site was not occupied for a sufficient period, or potentially because, as the environmental evidence appears to suggest, oak was in plentiful supply in the locality, providing a more readily accessible building material.

Four-post structures

- 7.1.7 The arrangements of post holes immediately to the south of the building described above do not fit a distinctive structural type. The arrangement perhaps makes more sense as two areas of activity, a four post structure to the south ([007], [008], [009], & [115]), with the two north-western postholes associated with the area of localised heating activity noted between them. As a simple four-post structure it is similar in size and layout to the four-post structure visible to the northwest ([020], [022], [024] & [026]). Both structures show a similar posthole construction with the use of stone packing.
- 7.1.8 A simple four-post structure is not necessarily typically diagnostic in style, however similar structures in an Iron Age setting are often interpreted as raised hay stores or granaries, a timber structure raised above ground on four posts to keep the material out of reach of rodents and damp. Such structures could easily have remained in use into the Roman period, particularly in a more rural setting. This potential use was not however borne out by the environmental evidence from the fill of posthole [024], which contained no evidence of cereal grains, although some was retrieved from the infill of the adjacent curvilinear gully [012]. The radiocarbon date from the infill of posthole [024] is unusual, as are all the radiocarbon dates from this site (see 7.1.4).

The radiocarbon results suggest an Early Bronze Age date, and whilst this date should not be discounted it is not in keeping with the general pottery assemblage from the site. The true nature of the four-post structure, therefore, remains uncertain.

Southern structures

7.1.9 A collection of post holes across the southern part of the enclosure is described within the main body of the report as a possible single structure, but given the alignment and spacing of the postholes it is difficult to identify a specific structural arrangement, and this may represent an area of activity, including either structures, fenced enclosures, or both. The posts themselves provide little indication as to their function, although there did appear to be a marked difference in the subsequent infilling material between the two easternmost postholes ([118] & [120]), and the remainder, potentially indicating differing functions or structures.

7.1.10 Two individual features of note found in this area are worth further discussion.. A shallow pit [044], which appears to cut into an earlier feature [126], contained distinctive high quantities of charcoal. The environmental analysis demonstrated this was exclusively oak, suggesting this wood was specially chosen to be burnt. Oak is a relatively good fire fuel, burning at high temperatures, and the environmental analysis would suggest it was locally available as it appears in most charcoal samples. The earliest deposit within the pit also contained hammerscale, slag and metallic spheroids, in greater amounts than from elsewhere on the site, and in such significant quantities that would suggest on-site metalworking. Two small iron objects were also retrieved from the processed samples, a fragment of a possible blade, and a possible nail. The iron objects are not closely dateable, and the oak charcoal was not considered likely to give an accurate radiocarbon date, but an association with activity within the enclosure would seem likely, and a Roman date therefore the most probable.

7.1.11 The possible well nearby is cut into an area that at present rapidly builds-up with water, and would not have required substantial depth. A readily-available water source would also have been important for the nearby metal working activity, and could indicate this southwest part of the enclosure was an area of semi-industrial activity. The function of the later re-cut into the top of the infilled well is uncertain, but may have been used as a temporary water source, or an area for waste disposal.

and alignment of this four-post structure on a similar axis to the main enclosure (discussed below).

Enclosure ditch

7.1.12 The main enclosure ditch [004] enclosed an internal area of approximately 0.2ha in size, which as discussed above contains features of likely late Iron Age and Roman date, as well as evidence of earlier prehistoric activity. The pottery assemblage from the site, which was largely retrieved from the enclosure ditch, suggests a general late 1st to mid 2nd-century date, but with a notable quantity of late Iron Age pottery from a single internal feature. No pottery was retrieved from the initial primary ditch deposits and

therefore the date of ditch construction cannot be tied down precisely. The pottery was spread throughout the subsequent infill material, although these deposits appear largely to be from periods of natural infill as the ditch gradually became silted up, potentially indicating a period of abandonment.

- 7.1.13 The dimensions of the ditch suggests both a major investment in its creation, and also defensive capabilities. The primary deposit at the base of the ditch largely appears to have fallen in from the interior of the enclosure, suggesting there was an internal defensive bank created from the excavated ditch fill. As mentioned in the introduction, it has long been suspected that an early (70s AD) Roman fort exists in the Whitland area, lying as it does on the Roman road roughly equidistant between the known forts at Carmarthen to the east and Wiston to the west. However, the layout of the enclosure does not easily fit a typical Roman military defensive enclosure. The known forts throughout southern and western Wales are substantially larger (typically 2ha or more in size), with a more comprehensive defensive circuit including more than a single ditch, and typically with a standard four entrances, rather than the single entrance evidenced here. Temporary marching camps are also typically larger, and follow a similar more standardised Roman layout. Practice camps, built as military training exercises, are generally smaller than this enclosure, and also lack internal features.

Enclosure as a whole

- 7.1.14 The internal features on this site, as discussed above, do not appear military in character. The recorded features are smaller in scale than structures found in military settings. The suggestion of domestic structures, small-scale industrial (metal-working) activity, potential grain stores and other enclosure appear more indicative of a rural farmstead enclosure. The general lack of intercutting features within the main enclosure, along with the presence of pottery within the infilling deposits relating to the abandonment of the ditch, suggest the site may not have been occupied for a long period of time.
- 7.1.15 Whitland shares similarities with a number of suspected Romano-British farmsteads throughout south and west Wales. Whilst Iron Age defended enclosures tend to be more curvilinear in shape, rectilinear enclosures are a particular feature of southern Ceredigion (Murphy et al 2004), and also appear to be features of late Iron Age/early Roman enclosures (Evans 2001). In particular, the site shares some notable similarities to an excavated site in Whitton, in the Vale of Glamorgan (Jarrett & Wrathmell 1981). This site was a late Iron Age farmstead that developed into a Roman villa. The notable similarities include the rectangular defensive enclosure. At Whitton a single ditch, with an internal bank, and a single entrance on the eastern side, defended an area approximately 60m by 65m. This site was in occupation over a considerable time from the 1st to the 4th century AD. The initial phase included a number of round houses, which began to be replaced by rectangular structures by the mid-2nd century. These later structures were built in stone, but shared some similarities in layout to structures visible at Whitland. As it appears Whitland was abandoned relatively early in the Roman period it may never have developed into a villa site, and remained a more functional

farmstead. A lack of bone material from the site should be noted, however. Most excavated Romano-British farmsteads, Whitton included, produced a variety of animal bones reflecting the nature of activity within. This appears lacking at Whitland, as does any significant indication of crop production. This may however be a product of the acidic soil conditions on the site that does not lend itself to the preservation of bone.

Later ditches

- 7.1.16 Initial assessments of the site, based on the crop mark evidence, and to some extent on the geophysical survey results, suggested a potential northern annex. In 2007 an archaeological evaluation identified the ditched outline of the eastern end of this 'annex' (Ramsey 2007). The current excavations identified the western end. In both case the annex was shown to be a later feature cutting into the upper fills of the enclosure ditch, with current excavations indicating these ditches are medieval in date.
- 7.1.17 The evaluation identified an ENE to WSW shallow ditch (Trench 1 - Ditch 103), which represented the northern end to the 'annex', continuing to the west as a very wide (2.5m) but shallow (0.39m) ditch (Trench 2 - Ditch 203). A NNE to SSW return was identified (Trench 1 - Ditch 108), 1.43m wide and 0.46m deep, representing the eastern end. At its southern end, although uncertain, it appeared to cut into what was later confirmed to be the main enclosure ditch [004]. The 'annex' ditches identified in the evaluation were not picked up in the subsequent geophysical survey, nor were they identified in the excavation, but there appeared to be no extension of the 'annex' ditches to the south of the main enclosure ditch.
- 7.1.18 To the west the current excavations revealed the western side of the 'annex', comprising linear and curvilinear features, of medieval date. Although cutting the main enclosure ditch, some also appeared to respect the line of the ditch. These ditches do not appear to be structural, and instead likely represent drainage or boundary features, perhaps both. The fact they partly correspond to the enclosure ditch appears deliberate, and may suggest this was utilised as part of their drainage, the softer infill of the ditch likely to act as a large soakaway. The presence of these ditches, and the concentration of medieval pottery, would however suggest some concentration of activity in the locality during the medieval period, potentially a small rural settlement just to the north of the investigated area.

7.2 Phasing

- 7.2.1 The archaeological investigation indicated four broad phases of archaeological activity on the site.
- 7.2.2 **Phase 1** is an early prehistoric phase. This is based on radiocarbon dating from the infill of three features, the curvilinear gully [012], posthole [024] and pit [038]. This could be sub-divided into two periods, with [012] and [038] returning an Early Neolithic date, and [024] an Early Bronze Age date. They are included in the same broad phase as these dates appear problematical, do not generally fit with the rest of the archaeological data, and may not, therefore, reflect an accurate date for these features.

- 7.2.3 **Phase 2** is the main phase of activity on the site. The archaeological evidence suggests the main enclosure, and most of the activity within it, belong to a late Iron Age to early Roman period, a period generally referred to as Romano-British. All the features mentioned in Phase 1 may belong to this phase. The curvilinear gully [012] could be Iron Age in form, and pit [038] contained late Iron Age pottery. Pottery of late 1st to mid 2nd-century date appears to date the abandonment of the main enclosure ditch, and potentially therefore the end of this phase of activity. There is no indication activity continued into the later Roman period.
- 7.2.4 **Phase 3** is represented by a series of linear feature to the north, with pottery indicating a medieval date for this activity. Intercutting features suggest some longevity to this activity. The pottery is generally broadly medieval in date, although one fragment could be dated to the 13th-14th century, and another mid to late medieval, which probably represents the main span of this activity. The enclosure ditch was infilled by this point, although likely still a visible feature as these later ditches generally respect the line of it.
- 7.2.5 **Phase 4** is a rather broad post-medieval phase. Several fragments of post-medieval pottery were recovered from the site, although not from specific features, suggestive, given the location of the site, of general post-medieval agricultural activity. The truncation of Phase 2 activity suggests extensive ploughing across the site.

8 CONCLUSIONS

- 8.1 Archaeological excavation, accompanied by specialist pottery and environmental analysis, and radiocarbon dating, investigated an area of archaeological remains at Whitland, Carmarthenshire.
- 8.2 Radiocarbon dating suggests an Early Neolithic and Early Bronze Age presence in the area, although this dating appears problematic and does not generally accord with the rest of the archaeological data. It is argued that the bulk of the archaeological remains represent a Romano-British farmstead, with possible late Iron Age origins. A rectangular ditched enclosure enclosed an area of approximately 0.2ha, with a single entrance to the east. Structural evidence within the enclosure suggests some domestic activity within a building of romanised style, potential hay stores or granaries, and semi-industrial activity represented by metal-working evidence. It would appear the site was falling out of use by the mid-2nd century and does not appear to have developed further.
- 8.3 Initial suggestions of a northern annex were shown to belong to later, medieval enclosures, possibly utilising the remains of the Romano-British enclosure to supplement drainage. Although a later phase of activity, this does suggest further medieval activity in the locality, potentially to the north of the development area.
- 8.4 Subsequent agricultural use of the land is likely to have truncated much of the archaeological remains on the site. No further evidence of archaeological

activity was identified beyond the outer limits of the main enclosure and northern medieval ditches.

9. SOURCES

Barton, I.M. (Ed), 1996, *Roman Domestic Buildings*. University of Exeter Press

British Geological Survey, Opengeoscience
<https://www.bgs.ac.uk/opengeoscience/home.html>

Edwards, N., 1997, *Landscape and Settlement in medieval Wales*. Oxbow Monograph 81

Evans, E., 2001, *Romano-British South East Wales Settlement Survey: Final Report*. GGAT Report No. 2001/023

Historic England, 2018, *Roman Forts and Fortresses: Introductions to Heritage Assets*. Swindon, Historic England.

Hughes, G., 1996, *The excavation of a late prehistoric and Romano-British Settlement at Thornwell Farm, Chepstow, Gwent*. BAR Brit Ser 244

Jarrett, M.G. & Wrathmell, S., 1981, *Whitton: An Iron Age and Roman farmstead in South Glamorgan*

Kaye, S., 2013, *Roman Marching Camps in Britain: GIS, statistical analysis and hydrological examination of known marching camps, resulting in the prediction of possible camp sites*.

Meek, J., Enright, C., 2018. *Ysgol Bro Teifi, Llandysul, Ceredigion: Archaeological Excavations 2014*. DAT Report number 2016/47.

Murphy, K., Mytum, H., Carver, R. & Wilson, H., 2004. *Rectangular Crop-Marked Enclosures in South Ceredigion*. Cambria Archaeology (DAT) Report No.2004/97

Murphy, K., 2018. Iron Age Settlement in Wales -
<https://intarch.ac.uk/journal/issue48/index.html>

Robinson, D.M. (Ed.), 1988, *Biglis, Caldicot and Llandough: three Late Iron Age and Romano-British sites in southeast Wales*. BAR Brit Ser 188.

Rushworth, A., 2009, *Housteads Roman Fort – The Grandest Station: Volume 1 Structural Report and Discussion*. English Heritage (Historic England) Archaeological Reports

APPENDIX I: CONTEXT REGISTER

Context Number	Cut or Deposit	Description	Dimensions	Cut by	Cuts	Findings
001	Deposit	Topsoil: Firm, mid brown-grey silty clay. Moderate small angular stone inclusions	Across site. 0.22m thick	N/A	N/A	
002	Deposit	Subsoil: Firm, mid orange-brown silty clay. Frequent, small angular stone inclusions	Across site, 0.13m thick			?Med pot
003	Deposit	Natural: Very firm, mid orange clay. Frequent, shattered shale bedrock	Across site	Multiple		
004	Cut	Enclosure ditch: Linear (forming rectangular area, squared corners), V-profile, steep straight sides, narrow flat base.			003	
005	Deposit	Fill of [006]: Moderate, mid brown silt Common, small angular stone inclusions. Post intact				
006	Cut	Posthole: Circular, steep straight edges, narrow concave base. Contains 005				
007	Cut	Posthole: Circular, steep straight sides, concave base. Contains 110	0.8m diameter, 0.45m deep			
008	Cut	Posthole: Circular, steep straight sides, concave base. Contains 033, 116	0.6m diameter, 0.3m deep		003	
009	Cut	Posthole: Circular, steep straight sides, concave base. Contains 113	0.75m diameter, 0.45m deep		003	
010	Deposit	Fill of posthole [011]: Moderate, mid grey-blue, silty-clay Rare, small & v.large sub-angular stone inclusions.			[003]	
011	Cut	Posthole, within ditch fill (section I): Sub-circular, steep straight sides, concave base. Contains 010	0.4m x 0.23m, 0.21m deep		Lower ditch fill (Section I)	
012	Cut	Gully: Curvilinear, moderate concave sides, concave base.	0.45m wide, 0.3m deep	[004]	(035), (029)	

		Contains 027, 028, 034				
013	Deposit	Upper fill of [015]: Moderate, mid brown silt Rare, small sub-angular stone inclusions. Rare charcoal flecks.	1.77m wide, 0.46m deep			Med pot. C13-14 pot.
014	Deposit	Lower fill of [015]: Firm, light brown silt. Common, small angular stone	1.9m wide, >2m long, 0.19m deep			
015	Cut	Annex ditch: Linear, moderate straight edges, concave base. Contains 014 & 013	>2m long, 1.84m wide, 0.44m deep	Modern Land drain	(019), (016)	
016	Deposit	Upper fill of ditch [018]: Moderate, light brown, silt. Rare, small angular stone inclusions	>2m long, 1.2m wide, 0.21m deep	[015]		
017	Deposit	Lower fill of ditch [018]: Loose, light brown silt. Frequent, medium shale bedrock fragments	>2m long, 0.55m wide, 0.55m deep	[015]		
018	Cut	Annex ditch: Curvilinear, rounded corner, steep straight sides, narrow pointed base. Contains 017 & 016	>2m long, 1.35m wide, 0.61m deep		Upper fill of enclosure ditch	
019	Deposit	Fillof posthole [020]: Loose, mid brown silty-clay. Frequent, small & large sub-angular stone inclusions. Rare, charcoal flecks				
020	Cut	Posthole: Sub-circular, very steep straight sides, flat base Contains 019			(003)	
021	Deposit	Fillof posthole [022]: Loose, mid brown silty-clay. Frequent, small & large sub-angular stone inclusions. Rare, charcoal flecks				
022	Cut	Posthole: Sub-circular, very steep straight sides, flat base Contains 021			(003)	
023	Deposit	Fillof posthole [024]: Loose, mid brown silty-clay. Frequent, small & large sub-angular stone inclusions. Rare, charcoal flecks				Oak & Hazel charcoal C14 dating 1623 – 1496 BC
024	Cut	Posthole: Sub-circular, very steep straight sides, flat base Contains 023			(003)	

025	Deposit	Fillof posthole [026]: Loose, mid brown silty-clay. Frequent, small & large sub-angular stone inclusions. Rare, charcoal flecks				
026	Cut	Posthole: Sub-circular, very steep straight sides, flat base Contains 025			(003)	
027	Deposit	Fill of Gully [012]: Loose, mid brown, silty-clay. Rare, small angular stone inclusions	2.1m long, 0.47m wide, 0.19m deep	[004]		Grass & cereal macrofossils Willow/poplar & oak charcoal C14 dating – 3517 -3396 BC
028	Deposit	Fill of Gully [012]: Loose, mid brown, silty-clay. Rare, small angular stone inclusions. Rare charcoal flecks	1.46m long, 0.42m wide, 0.26m deep			Fired clay Slag Hazelnut & grass macrofossils Oak charcoal
029	Deposit	Fill of pit [030]: Loose, mid orange, silty-clay. Frequent small sub-angular stone inclusions,, Frequent charcoal flecks.	2.5m long, 0.6m wide, 0.36m deep	[012]		
030	Cut	Pit/natural feature: Irregular, shallow irregular sides, flatish base Contains 029.	2.5m long, 1m wide, 0.36m deep	[012]	(003)	
031	Deposit	Fill of pit [032]: Loose, mid brown, silty-clay. Rare, small angular stone inclusions. Common charcoal flecks	1.3m diameter, 0.26m deep			
032	Cut	Pit: Sub-circular, moderate concave sides, flat base. Contains 031	1.3m diameter, 0.26m deep		(042)	
033	Deposit	Fill of [008]				
034	Deposit	Fill of Gully [012]: Loose, mid brown silty clay. Rare charcoal flecks.	0.4m wide, 0.2m deep			
035	Deposit	Fill of Pit [036]: Loose, mid orange brown, silty clay. Common, small angular stone	2.1m long	[012]		
036	Cut	Pit/Natural feature: Irregular in	2.1m long,	[012]	(003)	

		plan and profile, flattish base. Contains 035	0.35m deep			
037	Deposit	Fill of pit [038]: Loose, dark brown silty clay. Frequent small angular stone inclusions. Frequent charcoal flecks.	0.6m long, 0.4m wide, 0.2m deep			Late IA pot. Hazelnut, bramble & cereal macrofossils Oak charcoal C14 dating 3708 – 3637 BC
038	Cut	Pit: Oval, straight vertical sides, flat base. Contains 037	0.6m long, 0.4m wide, 0.2m deep		(003)	
039	Deposit	Lower fill of Pit [044]: Moderate, mid grey brown clay Common, small angular stone inclusions. Common charcoal flecks	0.05m deep			Slag. Fired clay Fe ?nail. Fe ?blade. Hammerscale Oak charcoal
040	Deposit	Fill of tree bole				
041	Cut	Tree bole				
042	Deposit	Fill of Pit [043]: Loose, mid orange brown silty clay. Common small angular stone inclusions. Rare charcoal flecks.	1.7m wide, 1.6m deep	[032]		
043	Cut	Pit/Well: Oval, straight vertical edges. Base not revealed. Contains 042	1.7m wide, 1.6m deep	[032]	(003)	
044	Cut	Pit: Sub-square, steep straight sides, concave base Contains 039, 095, 096	1.1m long, 1m wide		(125)	
045	Cut	Posthole: Sub-circular Contains 046	0.4m wide, 0.25m deep		(003)	
046	Deposit	Fill of Posthole [045]: Loose, mid brown, silty clay. Common small angular stone inclusions	0.4m wide, 0.25m deep			
047	Deposit	Fill of [048]				
048	Cut	Tree root				
049	Deposit	Fill of [050]				
050	Cut	Tree root				
051	Deposit	Fill of [052]: Loose, mid brown silty clay. Common, small sub-angular				

		stone inclusions. Rare large angular stone.				
052	Cut	?Posthole [052]: Sub-circular. Contains 051			(003)	
053	Deposit	Fill of Pit [054]: Loose, mid brown silty clay. Common, small sub-angular stone inclusions	0.35m long, 0.2m wide, 0.1m deep			
054	Cut	Pit: Sub-circular. Contains 053.	0.35m long, 0.2m wide, 0.1m deep		(003)	
055	Deposit	Fill of Posthole [056]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.	0.51m x 0.42m, 0.22m deep			
056	Cut	Posthole: Sub-circular, moderate straight sides, concave base. Contains 055	0.51m x 0.42m, 0.22m deep		(003)	
057	Deposit	Fill of posthole [058]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.	0.19m x 0.12m, 0.26m deep			
058	Cut	Posthole: sub-circular, straight moderate sides, pointed base. Contains 057	0.19m x 0.12m, 0.26m deep		(003)	
059	Deposit	Fill of Posthole [060]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.	0.31m x 0.27m, 0.18m deep			
060	Cut	Posthole: Square to sub-circular, steep straight sides, flat base. Contains 059	0.31m x 0.27m, 0.18m deep		(202)	
061	Deposit	Fill of Posthole [062]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.				
062	Cut	Posthole: Sub-circular, moderate straight sides, flat base. Contains 061	0.66m x 0.62m		(003)	
063	Deposit	Fill of Posthole [064]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.				
064	Cut	Posthole: Sub-circular, steep	0.48m x 0.55m,		(003)	

		straight sides, flat base. Contains 063	0.26m deep			
065	Deposit	Fill of Posthole [066]:				
066	Cut	?Posthole:				
067	Deposit	Fill of Posthole [068]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.				Hammerscale (small quantity) Oak charcoal
068	Cut	Posthole: Sub-circular, straight vertical sides, concave base. Contains 067	0.38m x 0.32m, 0.42m deep		(003)	
069	Deposit	Fill of posthole [070]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.				
070	Cut	Posthole: Sub-circular, straight vertical sides, concave base Contains 069	0.19m x 0.17m, 0.26m deep		(003)	
071	Deposit	Fill of posthole [072]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.				
072	Cut	Posthole: Sub-circular, moderate concave sides, concave base Contains 071	0.22m x 0.27m, 0.16m deep		(003)	
073	Deposit	Topsoil in T3 Same as (001)				
074	Deposit	Subsoil in T3 Same as (002)				
075	Deposit	Natural in T3 Same as (003)				
076	Deposit	Silt layer in T3				
077	Deposit	Fill of Gully [078]				
078	Cut	?Gully in T3				
079	Deposit	Lower fill of [080]: Loose, mid grey silt. Frequent small angular stone inclusions. Rare charcoal flecks.	>1m long, 1.09m wide, 0.43m deep.			
080	Cut	Ditch in T2: Linear, moderate to step sides, gentle concave base. Same as [015] Contains 079 & 090	>1m long, 1.04m wide, 0.43m deep		(083)	
081	Deposit	Topsoil in T2				

		(same as 001)				
082	Deposit	Subsoil in T2 Same as (002)				
083	Deposit	Natural in T2 Same as (003)				
084	Deposit	Fill of [085]: Friable, mid blue silt Common, small angular stone/shale inclusions	2.1m wide, 0.24m deep			Med pot
085	Cut	Ditch in T2: Linear, moderate concave sides, flat base. Contains 084	2.1m wide, 0.24m deep	Land drain	(083)	
086	Deposit	Fill of [087]: Friable, mid blue silt	0.87m wide, 0.12m deep			Med pot
087	Cut	Scoop in T2: Sub-circular, gentle concave sides, concave base Contains 086	0.86m wide, 0.12m deep		(083)	
088	Deposit	Fill of [089]: Friable, mid grey silt. Rare small stone inclusions.	0.62m wide, 0.17m deep			
089	Cut	?Gully in T2: Linear, gentle concave sides, concave base. Contains 088 Same as [079]	>1m long, 0.62m wide, 0.07m deep		(083)	
090	Deposit	Upper fill of ditch [080]: Friable, mid brown silt. Rare, small stone inclusions	>1m long, 0.66m wide, 0.22m deep			
091	Deposit	Upper fill of [094]: Loose, mid brown silt. Rare, charcoal fleck inclusions	>1m long, 0.67m wide, 0.21m deep			
092	Deposit	Fill of [094]: Friable, mid brown silt. Common small angular stone inclusions	>1m long, 1.36m wide, 0.21m deep			
093	Deposit	Lower fill of [094]: Loose, mid grey silt. Frequent, small angular stone/shale inclusions	>1m long, 0.94m wide, 0.54m deep			Hazel & Oak charcoal
094	Cut	Ditch in T2: Linear, moderate, straight sides, pointed base. Contains 093, 092, 091 Same as [018]	>1m long, 1.3m wide, 0.74m deep		(083)	
095	Deposit	Fill of Pit [044]: Loose, black silty-clay.				Slag/cinder

		Frequent charcoal inclusions				
096	Deposit	Fill of Pit [044]: Friable, light pink-brown clay. Frequent charcoal fleck inclusions. Rare small sub-angular stone	0.06m deep			
097	Deposit	Fill of posthole [098]: Friable, mid brown silt Common, large angular stone inclusions. Rare charcoal flecks.				
098	Cut	Posthole: Sub-circular, gentle concave sides, concave base. Contains 097	0.8m diameter, 0.16m deep		(003)	
099	Cut	Beam slot: Linear, moderate concave sides, concave base. West side Contains 202	0.2m wide, 0.15m deep		(003)	
100	Cut	Beam slot: As [099], north side				
101	Cut	Beam slot: As [099], east side				
102	Cut	Beam slot: As [099], south side.				
103	Cut	Beam slot: As [099], central cross beam				
104	Cut	Beam slot: As [099], southern dividing slot				
105	Cut	Pit: Circular, vertical sides, flat base Contains 106	1.1m diameter, 0.3m deep		(003)	
106	Deposit	Fill of Pit [105]: heat-affected clay silt. Common, charcoal flecks	1.1m diameter, 0.3m deep			
107	Deposit	Fill of Gully [108]				
108	Cut	Gully				
109	Deposit	Heat-affected deposit				
110	Deposit	Fill of Posthole [007]: Loose, mid brown-orange silty clay. Frequent large sub-angular stone inclusions. Frequent charcoal flecks	0.8m diameter, 0.45m deep			Hammerscale (small quantity) Hazel & Oak charcoal
111	Deposit	Fill of [112]: Loose, mid brown silty clay. Rare charcoal fleck inclusions. Common angular stones	0.55m diameter, 0.2m deep			
112	Cut	Posthole: Circular, shallow concave sides, concave base Contains 111	0.55m diameter, 0.2m deep		(003)	

113	Deposit	Fill of [009]: Loose, mid brown-orange silty clay. Common charcoal fleck inclusions. Frequent large angular stone.	0.75m diameter, 0.45m deep			
114	Deposit	Fill of Posthole [115]: Friable, mid brown silt. Rare, small angular stone inclusions. Common large angular stone.				
115	Cut	Posthole: Sub-circular, steep to vertical sides, concave base Contains 114	0.24m wide, 0.31m deep		(003)	
116	Deposit	Fill of [008]: Loose, mid brown silty-clay. Common, angular stone inclusions. Rare charcoal flecks	0.6m diameter, 0.3m deep			
117	Deposit	Fill of [118]: Firm, mid blue-grey silty clay. Frequent small angular stone inclusions				
118	Cut	Posthole: Circular, moderate sides, concave base. Contains 117	0.33m diameter, 0.1m deep			
119	Deposit	Fill of [120]: Firm, mid blue-grey silty clay. Frequent small angular stone inclusions				
120	Cut	Posthole: Circular, moderate sides, concave base. Contains 119	0.15m diameter, 0.1m deep			
121	Deposit	Fill of [122]: Loose, mid brown silty-clay Common, angular shale inclusions				
122	Cut	Posthole: Sub-circular, flat base Contains 121	0.48m x 0.31m, 0.12m deep		(003)	
123	Deposit	Fill of [124]: Loose, mid brown silty clay. Frequent small – large stones				
124	Cut	Posthole: Circular, steep sides, concave base. Contains 123	0.35m diameter, 0.2m deep		(003)	
125	Deposit	Fill of [126]: Friable, light brown silt Rare small angular stone inclusions	1.12m long, 0.63m wide, 0.25m deep	[044]		

126	Cut	Pit: Ovoid, gentle sides, flat base. Contains 125	1.12m long, 0.63m wide, 0.28m deep		(003)	
127	Deposit	Fill of Posthole [128]: Firm, mid brown silty clay. Rare charcoal fleck inclusions.				
128	Cut	Posthole: Sub-circular, steep straight sides, flat base. Contains 127				
129	Deposit	Fill of posthole[130]: Loose, mid brown silty clay. Common, small angular stone inclusions				
130	Cut	Posthole: Sub-circular to sub-rectangular, steep straight sides, flat base. Contains 129	0.25m x 0.5m, 0.2m deep			
131	Deposit	Fill of [132]				
132	Cut	Posthole				
133	Deposit	Upper fill of gully [135]: Friable, dark brown silty clay. Rare charcoal fleck inclusions.				
134	Deposit	Lower fill of gully [135]: Friable, mid to dark grey silty clay. Rare charcoal fleck inclusions				Mid-late Med pot
135	Cut	Gully: Linear, steep straight sides, concave base Contains 134, 135			Upper fills of main enclosure	
136	Deposit	Fill of Ditch [137]: Friable, mid to dark grey, clayey silt. Frequent charcoal fleck inclusions. Rare small angular shale				Roofing slate. Med pot.
137	Cut	Ditch: Linear, steep to moderate concave sides, flat base Contains 136	1.7m wide, 0.14m deep		(003)	
138	Deposit	Fill of [004], slot O: Friable, mid grey silty clay. Common, small angular shale inclusions. Rare charcoal flecks	4.68m wide, 0.3m deep			
139	Deposit	Fill of [004], slot O: Friable, mid orange brown silty clay. Rare, medium angular stone inclusions. Rare charcoal flecks	2.4m wide, 0.37m deep			
140	Deposit	Fill of [004], slot O: Charcoal	1.13m wide,			

		lens within (139)	0.02m deep			
141	Deposit	Fill of [004], slot O: Firm, mid grey-range clay. Common charcoal fleck inclusions.	1.58m wide, 0.16m deep			
142	Deposit	Fill of [004], slot O: Friable mid orange clay Abundant medium angular clay	1.8m wide, 0.2m deep			
143	Deposit	Primary fill of [004], slot O: Firm, mid grey fragmented shale	0.7m wide, 0.23m deep			
144	Deposit	Primary fill of [004], slot H: Firm, mid grey fragmented shale	1.85m wide, 0.4m deep			
145	Deposit	Fill of [004], slot H: Friable, mid orange brown silt Abundant, medium angular shale	>0.5m wide, 0.2m deep			
146	Deposit	Fill of [004], slot H: Firm, mid grey fragmented shale	>0.5m wide, 0.1m deep			
147	Deposit	Fill of [004], slot H: Friable, mid orange brown silty clay Common medium angular shale inclusions	>1.3m wide, 0.21m deep			
148	Deposit	Fill of [004], slot H: Friable, mid grey-brown silty clay. Common, medium angular shale inclusions	>1.35m wide, 0.22m deep			
149	Deposit	Fill of [004], slot H: Friable, mid grey brown silty clay. Frequent, medium angular shale inclusions. Rare charcoal flecks	1.7m wide, 0.13m deep			
150	Deposit	Fill of [004], slot H: Friable, mid orange brown silty-clay. Rare small-medium sub-angular shale inclusions	1.3m wide, 0.11m deep			
151	Deposit	Upper fill of [004], slot H: Friable, mid brown grey silty clay. Frequent, small angular shale inclusions	3.03m wide, 0.44m deep			
152	Deposit	Upper fill of [004], slot K: Friable, mid brown silt. Rare medium angular shale inclusions. Rare charcoal flecks	4.75m wide, 0.61m deep			
153	Deposit	Fill of [004], slot K: Friable mid green-grey silt.	1.56m Wide, 0.07m deep			

		Rare charcoal fleck inclusions.				
154	Deposit	Fill of [004], slot K: Friable, mid brown silt. Common, medium sub-angular stone inclusions.	1.55m wide, 0.23m deep			
155	Deposit	Fill of [004], slot K: Friable light grey sandy silt. Common, small-medium sub-angular stone inclusions. Rare charcoal flecks.	3.4m wide, 0.23m deep			
156	Deposit	Lower fill of [004], slot K: Friable, light grey-brown sandy silt. Frequent small-medium sub-angular stone inclusions.	1.25m wide, 0.3m deep			
157	Deposit	Upper fill of [004], slot J: Loose, dark brown silty clay. Abundant medium angular shale inclusions.	2.08m wide, 0.18m deep			
158	Deposit	Fill of [004], slot J: Friable, light yellow-brown silty clay. Rare, small angular shale inclusions	1.19m wide, 0.14m deep			
159	Deposit	Fill of [004], slot J: Friable, mid grey brown clayey-silt. Rare charcoal fleck inclusions	0.37m wide, 0.02m deep			
160	Deposit	Fill of [004], slot J: Firm mid grey-brown silty clay. Frequent, medium angular shale inclusions.	0.95m wide, 0.28m deep			
161	Deposit	Fill of [004], slot J: Friable, mid red brown silty clay. Rare, small angular shale inclusions	1.34m wide, 0.33m deep			2 nd cent. Pot
162	Deposit	Fill of [004], slot J: Friable, mid red brown silty clay. Common, small-medium angular shale inclusions	0.79m wide, 0.13m deep			
163	Deposit	Fill of [004], slot J: Firm, light yellow-grey clay silt	0.85m wide, 0.09m deep			
164	Deposit	Lower/primary fill of [004], slot J: Firm, mid grey silty clay. Frequent, medium angular shale	1.88m wide, 0.35m deep			
165	Deposit					
166	Deposit	Fill of Pit [167]: Loose, black silty clay. Frequent charcoal inclusions.				

167	Cut	Pit: Sub-rectangular, irregular shallow sides, undulating base			(003)	
168	Deposit	Upper fill of [004] terminus, slot B: Friable mid grey brown silty clay. Frequent, small-medium sub-angular stone	3.63m wide, 0.28m deep			Roman pot
169	Deposit	Fill of [004] terminus, slot B: Friable, dark grey brown silty clay	1.55m wide, 0.15m deep			
170	Deposit	Fill of [004] terminus, slot B: Friable, dark black-grey silty-clay. Abundant charcoal inclusions.	2.04m wide, 0.06m deep			
171	Deposit	Fill of [004] terminus, slot B: Friable light grey brown silty clay. Rare medium sub-angular stone inclusions. Rare charcoal flecks.	2.08m wide, 0.17m deep			
172	Deposit	Fill of [004] terminus, slot B: Friable, mid brown orange silty clay. Rare, medium sub-angular stone inclusions	1.14m wide, 0.11m deep			
173	Deposit	Fill of [004] terminus, slot B: Friable, light grey brown silty clay. Rare medium sub-angular stone inclusions.	2.18m wide, 0.2m deep			Mid 2 nd cent. pot
174	Deposit	Fill of [004] terminus, slot B: Friable light orange brown silty clay. Rare, small-medium sub-angular stone inclusions	1.08m wide, 0.15m deep			
175	Deposit	Primary fill of [004] terminus, slot B: Firm, light grey silty-clay. Abundant small-medium angular shale inclusions.	1.78m wide, 0.28m deep			Oak charcoal
176	Deposit	Upper fill of [004] terminus, slot A: Friable, mid brown silt. Rare small sub-angular stone inclusions	3.08m wide, 0.15m deep			Oak charcoal
177	Deposit	Fill of [004] terminus, slot A: Friable, dark brown silt. Rare small sub-angular stone inclusions	1.58m wide, 0.08m deep			
178	Deposit	Fill of [004] terminus, slot A: Friable dark brown silt. Frequent charcoal inclusions. Rare small sub-angular stone	2.25m wide, 0.1m deep			

		inclusions				
179	Deposit	Fill of [004] terminus, slot A: Friable light red brown silt. Common small sub-angular shale inclusions. Rare charcoal flecks	3.9m wide, 0.23m deep			Mid 2 nd cent. Pot Fired clay
180	Deposit	Fill of [004] terminus, slot A: Firm light grey clay	0.88m wide, 0.07m deep			
181	Deposit	Fill of [004] terminus, slot A: Friable, mid brown silty clay. Frequent small-medium sub- angular stone	1.37m wide, 0.17m deep			
182	Deposit	Fill of [004] terminus, slot A: Friable mid grey-brown clayey silt. Common medium angular shale inclusions	1.17m wide, 0.18m deep			
183	Deposit	Fill of [004] terminus, slot A: Firm, mid grey brown sandy clay. Abundant medium sub-angular shale inclusions	1.89m wide, 0.15m deep			
184	Deposit	Lower/primary fill of [004] terminus, slot A: Firm, light grey clayey-silt. Abundant medium-large angular shale	1.55m wide, 0.09m deep			
185	Deposit	Upper fill of [004], slot I: Friable, mid brown silt. Common medium sub-angular stone.	2.5m wide, 0.25m deep			Mid 1 st – early 2 nd cent. pot
186	Deposit	Fill of [004], slot I: Friable mid yellow silty-clay	1.84m wide, 0.02m deep			
187	Deposit	Fill of [004], slot I: Friable, mid green-grey silt	1.67m wide, 0.1m deep			
188	Deposit	Fill of [004], slot I: Friable, mid grey clayey-silt. Frequent medium sub-angular stone inclusions.	1.08m wide, 0.13m deep			
189	Deposit	Fill of [004], slot I: Friable, mid green grey silt.	1.73m wide, 0.17m deep			
190	Deposit	Fill of [004], slot I: Loose, mid grey clayey-silt. Frequent, medium angular stone inclusions.	1.08m wide, 0.18m deep			
191	Deposit	Fill of [004], slot I: Firm, light brown clayey silt. Frequent medium angular shale inclusions.	1.13m wide, 0.13m deep			

192	Deposit	Primary fill of [004], slot I: Firm, dark grey clayey-silt. Frequent medium angular shale.	0.87m wide, 0.24m deep			
193	Deposit	Fill of [194]: Firm, mid brown silty clay. Rare charcoal fleck inclusions. Rare small angular stones.				
194	Cut	Pit/Animal burrow: Sub-circular, moderate concave sides, flat base. Contains 193	0.08m deep			
195	Deposit	Fill of Pit [196]: Firm, mid brown silty clay. Frequent small angular stone inclusions. Common charcoal flecks/				
196	Cut	?Pit: Circular, steep sides, concave base. Contains 195	0.4m deep			
197	Deposit	Fill of Pit [198]: Firm, mid brown silty clay. Common small-medium angular shale inclusions. Common charcoal flecks	1.65m long, 0.68m wide, 0.28m deep			
198	Cut	Pit: Sub-oval, steep concave sides, flat base. Contains 197	1.65m long, 0.68m wide, 0.28m deep			
199	Deposit	Road surface: Firm, mid orange-brown clay. Abundant large sub-angular stone				17 th – 18 th cent. Pot Post Med pot. Roman pot.
200	Deposit	Fill of posthole [201]				
201	Cut	Posthole				
202	Deposit	Fill of beam slot [099] tp [104]: Friable, mid brown silt Rare angular stone and charcoal inclusions	0.2m wide, 0.15m deep			

APPENDIX II: RADIOCARBON DATES

.

