

WSTG/01



WHEATPIECES SOUTH, TEWKESBURY, GLOUCESTERSHIRE PHASE 2

POST-EXCAVATION ANALYSIS REPORT

on behalf of Bloor Homes

May 2019

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PROJECT SUMMARY

Headland Archaeology (UK) Ltd was commissioned by Bloor Homes Ltd to undertake a programme of archaeological investigation on an area of land south of John Moore Primary School and west of Rudgeway Lane, Wheatpieces Tewkesbury.

The excavation was undertaken over an area of 4141m² (c 80m x 60m) and followed on from a geophysical survey by Bartlett Clarke Consultancy (Bartlett, 2016) and subsequent trial trench evaluation by Headland Archaeology (Thompson, 2016).

The excavation identified a small, broadly penannular enclosure ditch with its entrance orientated to the north and two parallel post-hole construction trenches situated within the enclosure entrance. There was also a cluster of at least seven intercutting pits to the south-west of the enclosure.

Assessment of the excavated material identified several areas that required further analysis (Dixon, 2018). This report presents the results of that further work.

Radiocarbon dating confirmed that the enclosure dated to the third century BC. Subsequent research focussed on the anatomy of the enclosure which was then compared with sites of the period in the locality. This helped to place Wheatpieces in its wider landscape context at a regional level.

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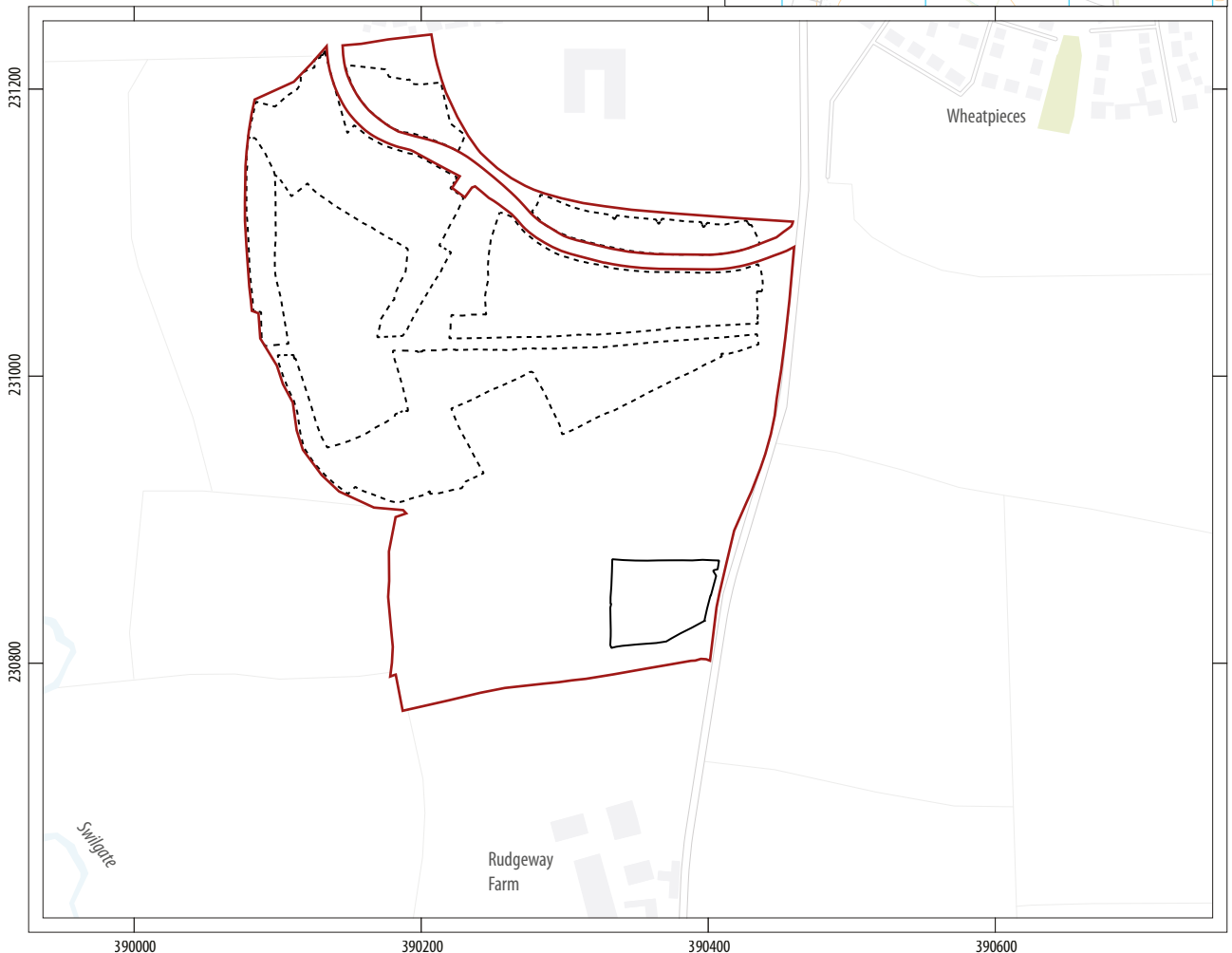
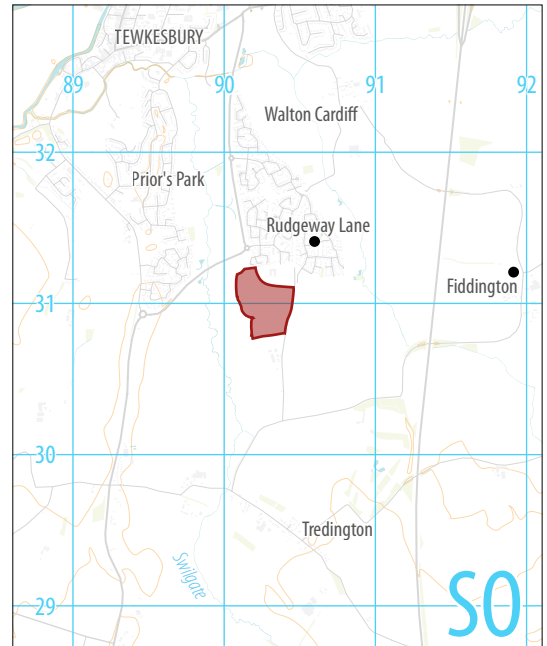
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Wheatpieces South
 Wheatpieces
 Tewkesbury
 Gloucestershire

0 200km
 1:10,000,000 @ A4



0 100m
 1:5,000 @ A4

- development boundary
- Wheatpieces phase 2 excavation
- Wheatpieces phase 1 excavation
- previous archaeological investigations



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ILLUS 1 Site location

WHEATPIECES SOUTH, TEWKESBURY, GLOUCESTERSHIRE PHASE 2

POST-EXCAVATION ANALYSIS REPORT

1 INTRODUCTION

An archaeological excavation was carried out by Headland Archaeology (UK) Limited at land south of John Moore Primary School and west of Rudgeway Lane, Wheatpieces, Tewkesbury, Gloucestershire (Centred on SO 90358 30822) (Illus 1). The works were undertaken between 19th February and 29th March 2018.

The scope of the work was agreed in a written scheme of investigation (WSI) produced by Headland Archaeology (Craddock-Bennett 2018) and approved by Mr Charles Parry, the archaeological advisor to Tewkesbury Borough Council. The works followed the Standard and Guidance for archaeological excavation issued by the Chartered Institute for Archaeologists (2014).

1.1 LOCATION, GEOLOGY AND TOPOGRAPHY

The excavation site was located approximately 14m Above Ordnance Datum (AOD) and comprised an area of land measuring 4141m² (c 80m x 60m) centred on SO 90358 30822. The excavation area was located in the south-eastern corner of a larger development site known as Wheatpieces. The southern and eastern limit of the excavation area were delineated by mature hedgerows separating the site from an unclassified country lane to the east and Rudgeway Farm located approximately 200m to the south.

The solid geology of the site comprised interbedded mudstone and limestone formed in the Jurassic period when the local area was dominated by shallow seas and fluctuating sea levels. Other types of mudstones were recorded in bands to the east and west, broadly reflecting the line of the River Severn. Deposits of alluvium within the flood zone are recorded to the west of the site, but no superficial deposits have been mapped (NERC 2019).

1.2 ARCHAEOLOGICAL BACKGROUND

The site has been subject to a desk-based assessment (Richards 2015) and prior geophysical survey by Bartlett Clark Consultancy (Bartlett 2016). The site was subsequently evaluated by trial trench (Thomson 2016). The results of this evaluation informed the mitigation strategy, which was split into two phases of work, determined by the construction programme of the client.

The Phase 1 excavations targeted 4.2ha of the northern part of the Wheatpieces development site. The excavation identified a Romano-British field system overlain by two successive Medieval field systems. Superimposed on these earlier systems was an extensive post-medieval field system (Cochrane 2018).

The Phase 2 excavations identified a subcircular enclosure ditch with its entrance orientated to the north and two parallel post-hole bedding trenches situated within the enclosure entrance. There was also a cluster of at least seven intercutting pits to the south-west of the enclosure.

This report represents the fulfilment of the updated objectives presented in the Assessment Report and Updated Project Design that followed the conclusion of the Phase 2 Excavations (Dixon 2018).

2 OBJECTIVES

The original objectives of the work, outlined in the WSI, were to determine and understand the nature, function and character of any remains on the site, disseminating the results of that work and archiving the material and paper records.

Post-excavation assessment of the data recovered from the excavations was undertaken with regard to the South West

Archaeological Research Framework (Somerset Heritage Services 2012). Areas where the site data set was pertinent to the regional research framework were identified and an updated project design was prepared (Dixon 2018).

The need for improved scientific dating of Iron Age sites has been identified, as existing dating is over reliant of pottery typologies. The Framework also identifies the need for tighter chronologies of different monument categories to be achieved through the harvesting of scientific dates and interrogation of archaeological data (Somerset Heritage Services, 2012, 25 and 31).

The following updated objectives were set out in the assessment report (Dixon 2018) to provide a framework for further analysis and to fulfil the potential of the site data. The results of the analysis presented in this report addresses these three stated objectives:

Objective 1 Identify the purpose of the sub-circular (hereafter referred to as penannular) enclosure and whether this belongs to any existing monument category through researching possible parallel examples.

Objective 2 To utilise scientific dating techniques to resolve the dating of the enclosure and if possible, the chronology of its constituent parts.

Objective 3 Place the site within its wider landscape context on a local and regional level.

Upon completion of all reporting stages, the site archive will be organised and deposited with The Wilson Museum, Cheltenham to facilitate access for future research and interpretation for public benefit.

3 METHODOLOGY

3.1 MECHANICAL REMOVAL OF OVERBURDEN AND SUBSOIL

The excavation area was targeted on a penannular enclosure that had initially been identified by geophysics and subsequently confirmed by trial trench.

It was envisaged that an area of 4141m² (c 60m x 80m) needed to be stripped to achieve this. It was decided that, if archaeological features were found to extend beyond the excavated area, the excavation area was to be extended (in the direction of the continuation of features) until:

- › an area of 20m across and devoid of archaeological features had been established, or if,
- › the archaeological features were considered of low value and therefore not worth investigating further. This decision was to be made following consultation with the archaeological advisor.

When the initial overburden strip was completed, it was clear that it would not be necessary to extend the excavation area as the only features within 20m of the enclosure were post-medieval furrows and land drains.

The excavation area was stripped of overburden using a 360°, tracked excavator fitted with a bladed ditching bucket. Soil stripping was carried out under the constant supervision of an appropriately qualified archaeologist. Topsoil and subsoil were stripped and stockpiled separately, and all machinery was prevented from tracking on stripped areas.

To mitigate against heavily waterlogged ground conditions and potential damage to buried archaeology, the decision was taken that no wheeled plant machinery was to be used. Tracked excavators and dump trucks were used during the stripping phase.

3.2 EXCAVATION

Features were hand-cleaned prior to excavation, to better define their form and extent.

In line with the WSI, the penannular ditch and associated post-hole structure were excavated in their entirety (100%). This was to enhance the understanding of the form and function of the feature and to discern stratigraphic relationships.

Prior to 100% excavation, the post-hole trenches were half-sectioned longitudinally, and the enclosure was excavated in alternate slots ranging from 1m–3m wide.

Opposing quadrants of a pit cluster were excavated equating to a 50% sample of the feature. Other potential discrete features were half-sectioned.

3.3 RECOVERY OF FINDS

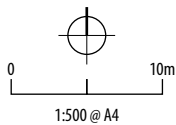
All artefacts and other finds from significant archaeological deposits were collected, identified by stratigraphic unit, catalogued and retained. Stripped areas were scanned with a metal detector to aid the recovery of metalwork finds. Any finds considered to be typologically distinct or significant were assigned a small find (SF) number and the location of the find was recorded three dimensionally.

3.4 PALAEO-ENVIRONMENTAL SAMPLING

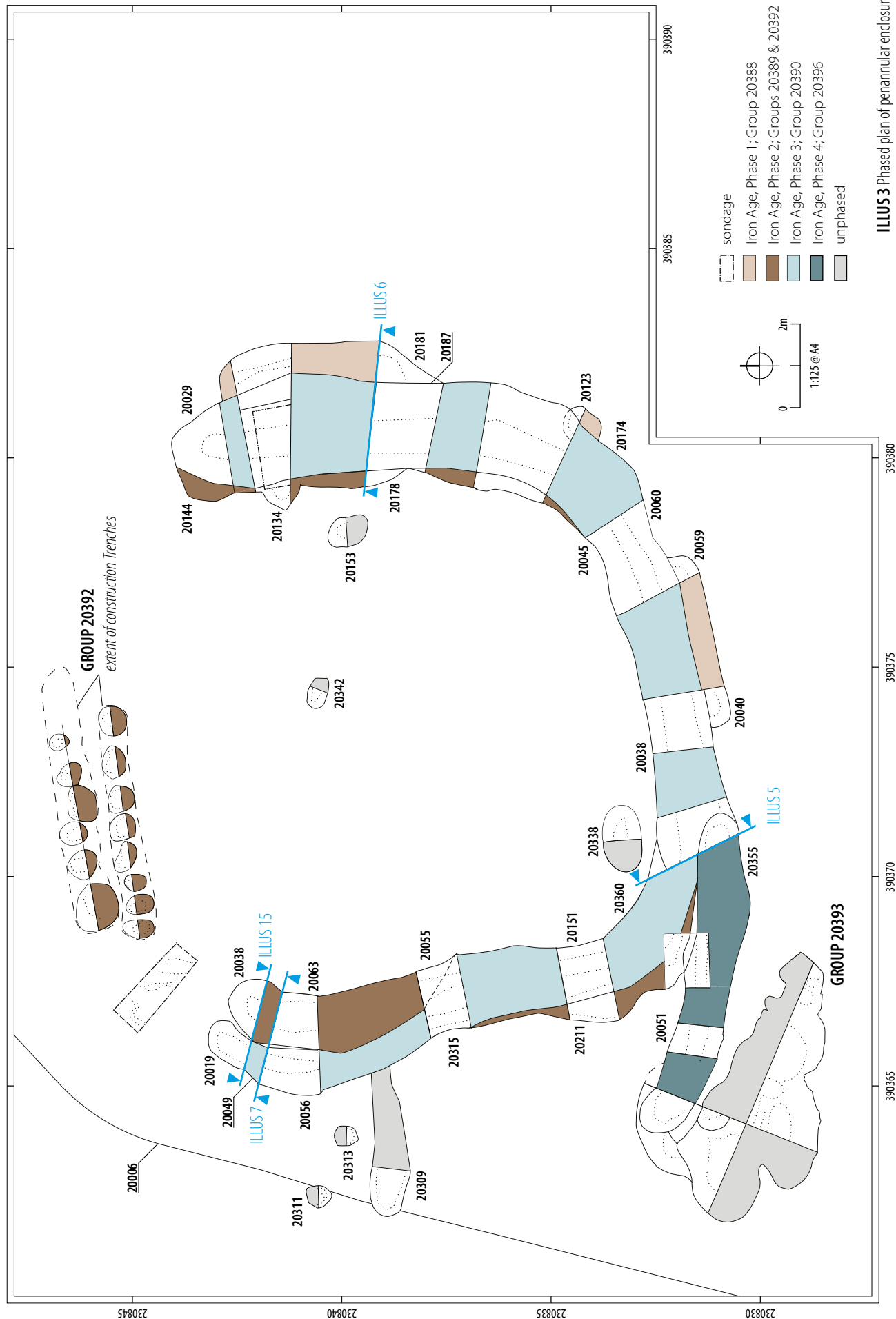
Bulk samples were collected from all archaeologically significant deposits to recover environmental material and finds. Where appropriate, a bulk sample measured between 10 and 20 litres, with sample size varying depending on the amount of material available for sampling.

3.5 RECORDING

All recording followed the Cifa Standard and Guidance for conducting archaeological excavations (2014) and the Headland manual.



- development boundary
- archaeological feature
- ridge and furrow
- limit of excavation
- natural features



ILLUS 3 Phased plan of penannular enclosure

- › All context, sample and drawing numbers began with 20000 (to avoid the duplication of evaluation and Phase 1 excavation numbers)
- › A pro-forma context record was completed for each stratigraphic unit.
- › A digital plan of the excavated area was produced using a Trimble dGPS unit.
- › Sections through stratigraphic units were hand-drawn at a scale of 1:10.
- › A photographic record of all stratigraphic units comprised black-and-white prints supplemented by digital photographs.
- › A diary record of the progress of the archaeological work was maintained, including details of liaison and monitoring meetings, visits, and a record of the staff on site.

4 RESULTS

Results are presented by phase following analysis with a preceding description of the general stratigraphy recorded on the site. Results of finds and environmental analysis are also given with full data tables presented as appendices.

4.1 GENERAL SITE STRATIGRAPHY

The investigation area (see Illus 1–2) was sealed by 0.20m–0.30m plough-soil (20001), a mid-brown grey silty clay. This sealed a light brown silty clay subsoil (20002) 0.10m–0.20m thick.

The predominant geological horizon was composed of heavily compacted, light yellow-brown sandy clay with gritty inclusions (20003), which was encountered at a depth of between 0.40m and 0.50m below ground level. In addition, an extensive band of mottled blue-grey and light brown heavily compacted clay (20006), 58m long and 35m wide, divided the site on a north-east/south-west alignment.

Unless otherwise stated, archaeological features were cut through the natural substrate (20003/20006) and their uppermost fills were overlain by subsoil (20002).

4.2 ARCHAEOLOGICAL REMAINS

The predominant feature on site was a penannular ditch (Illus 2, 3 & 16). This was approximately 'horseshoe shaped' in plan with two rounded terminal ends forming a north-facing entrance. There were two, parallel post-hole construction trenches offset from the entrance (see Illus 3–4).

The pottery assemblage recovered from the fills of the ditch comprised three local fabric types (Finds - below) dating the feature broadly to the Iron Age, which was then refined further by AMS dating of two samples which returned dates in the third century BC.

The archaeological features identified by the excavation were arranged into five chronological phases, listed as follows:

- › possible Iron Age 1
- › Iron Age 2
- › Iron Age 3
- › Iron Age 4
- › post-medieval

A number of features were undated.

Iron Age 1

The earliest activity identified on the site was a sequence of potential cut features that appeared to suggest a possible semi-circular arc opening to the northwest (Group 20388) (Illus 3).

The arc had an outer diameter of 15m and was comprised of a minimum of three possible cut features.

Due to a large degree of truncation by the later penannular ditch, these features were fragmentary and only partially survived (Illus 6 & 12). Two of the features measured between 4 and 4.7m in length, whilst a possible third was mostly obscured by later phases of ditch. The inner sides of all three were entirely truncated and their full extent unknown.

The features measured no more than 0.30m deep and were filled with an homogeneous light grey-blue, well sorted, silty clay sediment (eg 20062, 20124, 20182) characteristic of repeated waterlogging and gleying of the deposits. The material was devoid of any charcoal with a paucity of finds. A single animal bone fragment was recovered from fill (20179).

Where bases of the features survived, they were generally slightly uneven, though the degree of truncation precludes unequivocal interpretation of overall form. It is possible that the features represented deliberate pit cuts but they may equally be natural in origin. Stratigraphically, the features were all cut by the Phase 3 redefinition of the penannular ditch (Group 20390) and as such are assumed to predate both Phases of ditch cut, but this cannot be positively attested.

Iron Age 2

A broadly penannular ditch cut (Group 20389), defining an internal area measuring approximately 11 x 12.5m, some 138m², with a north facing opening and represented the first positively attestable occupation and use of the site.

Based on the surviving sections, the ditch averaged 1.40m wide and 0.60m deep with a U-shaped profile and a shallow rounded base. The fills of the ditch suggested low energy, gradual accumulation of material, with limited disposal of waste

and evidence of gleying, probably indicative of seasonal silting, typical of a floodplain environment.

Within the upper fill of the western terminal end of the ditch [20049] a dumped deposit (20050), contained a relative density of heat affected stones, animal bone fragments and a quantity of pottery sherds, with Malvernian Types 1, 2 & 3 all being represented and suggesting a later prehistoric date and dumping of domestic material within the ditch terminal.

Slightly off-set from the entrance were two parallel rows of post-holes set within narrow construction trenches (Group 20392) (Illus 3, 4, 8 & 13). The northern-most trench contained six post-holes, with eight post-holes in the southern, the post-holes suggesting formerly vertically set posts. The fills of these trenches evidenced stone packing material and a quantity of Iron Age pottery sherds. The trenches were spaced 0.50m apart, orientated east-west and were approximately 5.60m long and c 0.20m deep. The upper fill of the northern post row was truncated by later ploughing, suggesting a Medieval jetton (SF:20002) recovered from the deposit was a later intrusion.

An area of disturbance potentially caused by trample (20218) in the northwest corner of the enclosure occupied an area between the post-holes and the north-western enclosure terminus, implying that the posts and ditches may be contemporary, the area representing a possible access/egress point. The function of the post-trenches can only be speculative but they may represent some form of wind-break across the opening to the area defined by the ditch.

The absence of any physical or stratigraphical relationship between the post trenches and the phases of ditch cuts precludes any unequivocal phasing of the post trenches but it seems likely that the two sets of posts across the northern opening relate to one or the other of the ditch phases, each representing a phase of construction, probably associated with initial establishment of occupation and subsequent redefinition of the penannular ditch.

A cow astralagus bone, recovered from (20167) in the northern post-trench returned an AMS date of 2186± 25BP (GU49278), placing this in the 3rd to 2nd century BC (263–177cal BC).

Iron Age 3

Phase 3 represented the re-definition of the penannular ditch in the form of re-cutting the entire length, largely within the existing footprint. In part, the re-cut (Group 20390) entirely obscured the original ditch (Illus 3).

This re-worked ditch measured 13.20m north to south and 16.70m east to west and enclosed a slightly smaller area of approximately 122m². The ditch was approximately 1.30m wide and 0.60m deep, displaying a shallow U-shaped profile with irregular sides and a shallow rounded base (Illus 6 & 12). The fills of the re-worked ditch appeared to be formed through similar processes to those of the earlier ditch, representing largely low energy, gradual sedimentation, combined with limited ingress of cultural material.

The finds assemblage recovered was of a similar character to that from the initial ditch cut, with later prehistoric pottery sherds, fired clay, slag and animal bone represented within the ditch fills.

Several artefacts may have been deliberately placed in some form of structured deposition within the ditch. A longbone belonging to an indeterminate large mammal (eg cow/horse) (20028) was recovered from the eastern terminal end [20029] (Illus 9) and a large stone had potentially been placed along with some animal bone in the basal fill (20175) of the southern section of the ditch (Illus 14).

An AMS date taken from a sheep/goat tooth (20030) associated with the re-cut ditch returned a date of 2246± 25BP (GU49277) and date this phase of the enclosure's construction to 316–208ca IBC.

Located immediately south-west of the penannular ditch, a cluster of irregular, intercutting pits and probable post-holes (Group 20393) were identified (Illus 11). The pits measured between 1m and 1.4m in diameter and were 0.60m to 0.70m deep with irregular shallow sides and rounded bases.

The fills of the pit cluster were broadly homogenous and difficult to differentiate from each other with little recoverable finds which could assist determination of function. The size and irregular character of the larger pit cuts and the nature of the clay geology may suggest the pits were for the extraction of clay, potentially for use associated with occupation of the site.

Pottery sherds recovered from the fill of a probable post-hole [20376] and pit [20386] were of broadly of later prehistoric date and suggested contemporaneity with occupation.

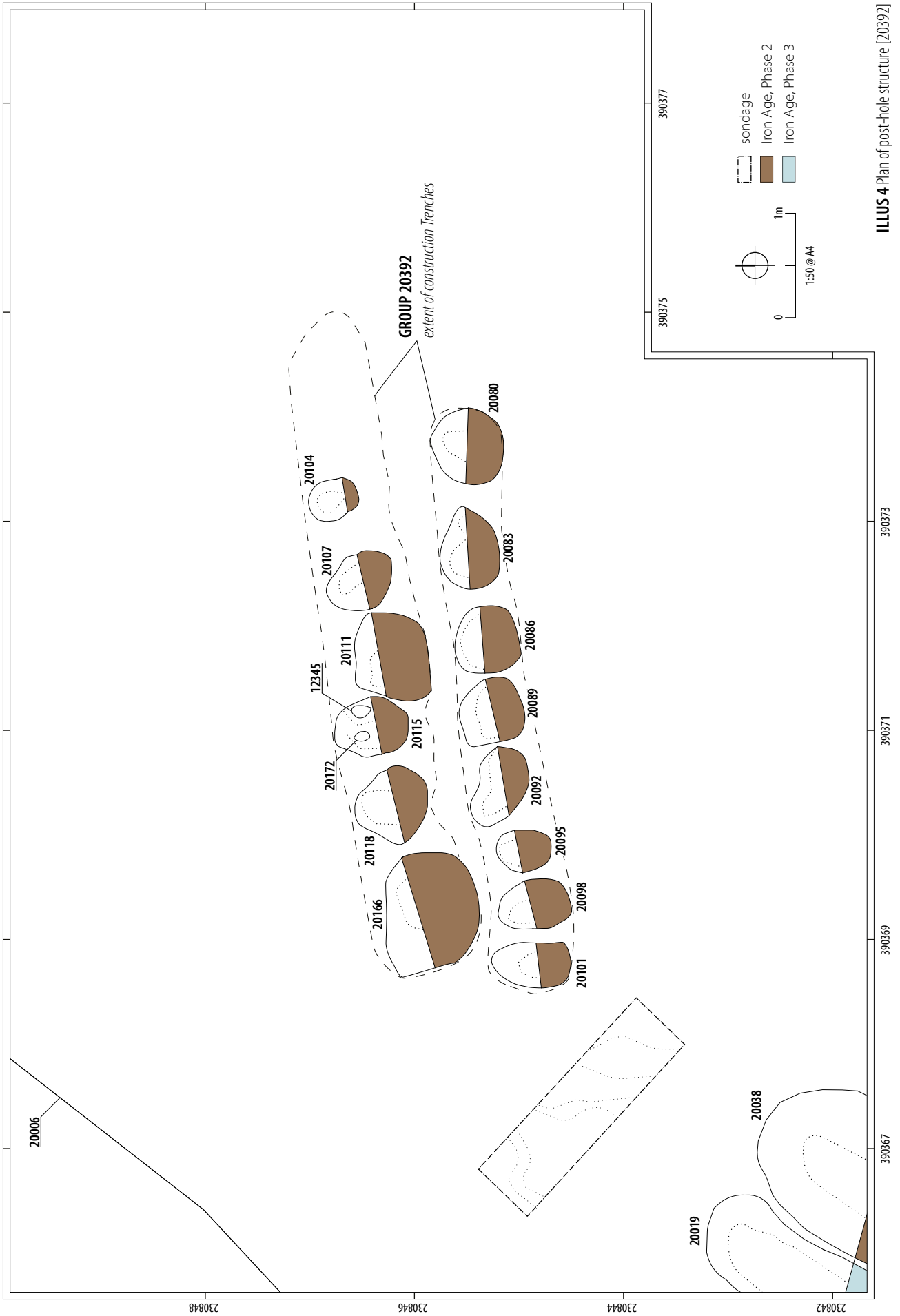
Iron Age 4

A final phase of activity was represented by the addition of a further ditch (Group 20396), appended to the south-west edge of the existing penannular ditch (Illus 3 & 5). This was an east-west aligned, slightly curving ditch, measuring 6m in length and terminating at its western extent.

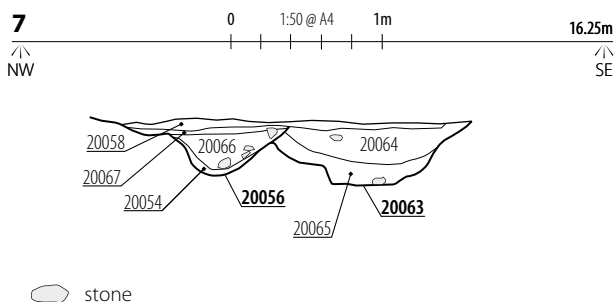
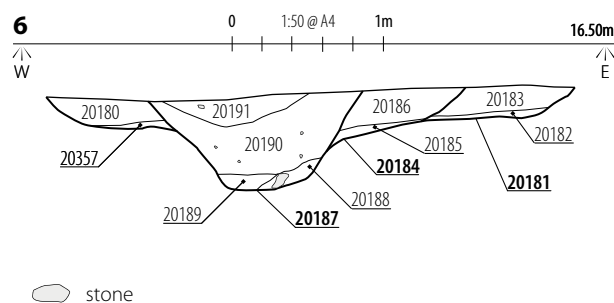
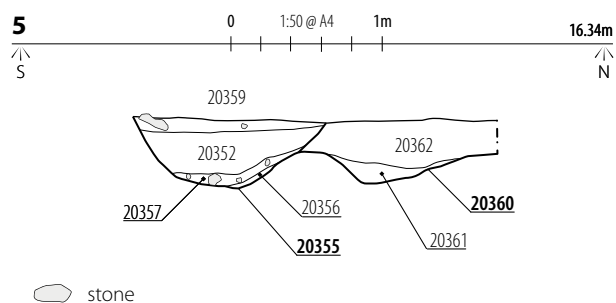
The ditch was approximately 1m wide and 0.55m deep, with a rounded terminal end [20022]. Within the terminal area, four fills were identified, a secondary fill of which (20024) contained a dumped deposit with a large amount of fired clay, pottery sherds and fragments of burnt and unburnt animal bone. The pottery sherds were too small and fragmented to positively identify a fabric type but were believed to be of later prehistoric date. Pottery recovered from the primary fill (20043) of a further section through the ditch [20044] was of a Malvernian fabric, indicating a later prehistoric, probable middle Iron Age date, consistent with the dating and material recovered from the penannular ditches.

4.3 POST-MEDIEVAL

Oriented east-west, eight furrows were identified crossing the excavation area (see Illus 2). The furrows measured 2.10–2.90m wide and test excavation indicated they survived to 0.15m in depth. They were regularly spaced 5–7m apart and continue beyond both the eastern and western limit of excavation. The furrows were observed



ILLUS 4 Plan of post-hole structure [20392]



ILLUS 5 East facing section of ditches [20360] and [20355] **ILLUS 6** South-west facing section of pits [20178] and [20181] and ditches [20184] and [20187] **ILLUS 7** South-west facing section of ditches [20063] and [20056]

to be cut through the subsoil (20002) and their fills were in turn sealed by the modern ploughsoil (20001).

Oriented broadly north-south, a heavily truncated linear cut [20015] measuring 0.41m wide and 0.11m was recorded. The feature appeared cut by ridge and furrow remains at both its northern and southern ends, with a single pottery sherd of medieval or post-medieval date was recovered from its single fill. The cut was interpreted as a heavily truncated field drainage ditch.

4.4 UNDATED

A scatter of features was identified externally to the penannular ditch from which no immediately dateable material was recovered.

Located in the north-west of the site, two probable post-holes [20017] and [20031] (Illus 2) contained single fills. A fragment of animal bone was recovered from [20017]. A further probable post-hole [20121] was located south of the penannular ditch (Illus 2).

Immediately to the west of the enclosure were a pair of post-holes [20311] and [20313] (Illus 3). Their proximity suggested possible association with each other and possibly the penannular enclosure but no specific structure or further function could be ascribed. No dateable material was recovered from either post-hole.

Located immediately south of these and seemingly cut by the Phase 2 penannular ditch cut, a 3.50m long feature was recorded [20309] and interpreted as a possible truncated ditch. The feature measured 0.93m wide and 0.12m deep. No dateable or cultural material was recovered from its single fill.

Three discrete cuts were located within the enclosure itself [20153], [20338] and [20342] (Illus 3). The features were generally irregular in

shape, measuring between 0.70m and 1.20m in length. No dateable or cultural material was recovered from any of the fills of the features. Whilst their possible association with occupation of the penannular feature was noted, no function or purpose could be determined and the features may equally have been natural in origin.

Oriented east west, a probable field drainage ditch [20011] was identified extending beyond the western limit of excavation. The feature appeared to terminate at its eastern end but this may equally have been as a result of truncation. The ditch measured 0.39m wide and 0.12m deep. No dateable material was recovered from its single fill.

A second, shallow, truncated linear [20007] was oriented north-west/south-east and was cut by later ridge and furrow at its north-east extent. Interpreted as a drainage ditch, the feature measured 0.55m wide and 0.15m deep containing a single fill. A single fragment of fired clay was recovered from its single fill.

Several potential archaeological features were identified, test excavated and found to be natural in origin, including a curvilinear geological anomaly on the eastern edge of the excavation area. The features were recorded and their positions recorded digitally on the site plan (Illus 2).

4.5 FINDS ASSEMBLAGE

by Harriet Bryant-Buck, Amy Koonce, Julie Lochrie, Jane Timby

The finds assemblage numbered 125 sherds (604g) of pottery, 150 sherds (1.221kg) of fired clay, two lithics, two stone finds, one copper alloy find, one sherd of tile and 1.762kg of industrial waste. These were found in 44 separate features. The late prehistoric, medieval and post-medieval periods are represented. The finds are summarised by feature in Table 1 and a complete catalogue is given as Appendix 2.

TABLE 1 Summary of finds assemblage by feature with spot dating

FEATURE	POTTERY						LITHICS	COPPER ALLOY	STONE	FIRED CLAY		TILE	IND WASTE	SPOT DATE		
	(PH)		(MEDI)		(PM)					COUNT	COUNT				COUNT	WGT (G)
	COUNT	WGT (G)	COUNT	WGT (G)	COUNT	WGT (G)										
Unstrat	4	35	-	-	-	-	-	-	-	4	32	-	-	PH		
ploughsoil (20001)	-	-	2	89	-	-	-	-	1	-	-	-	-	Medi?		
subsoil (20002)	-	-	3	26	-	-	-	-	-	-	-	-	84	Medi?		
furrow [20005]	-	-	3	38	-	-	-	-	-	-	-	-	-	Medi		
natural feature [20009]	-	-	-	-	2	5	-	-	-	-	-	1	-	PM?		
deposit (20011)	-	-	-	-	-	-	-	-	-	1	7	-	-	?		
linear [20015]	-	-	1	1	-	-	-	-	-	-	-	-	-	Medi/PM		
ditch terminal [20019]	11	42	-	-	-	-	-	-	-	-	-	-	-	LPH		
Ditch terminal [20022]	3	1	-	-	-	-	-	-	-	44	67	-	-	PH		
ditch terminus [20029]	20	69	-	-	-	-	-	-	1	5	14	-	-	LPH		
curvilinear [20038]	1	4	-	-	-	-	-	-	-	3	4	-	1,304	LPH		
curvilinear [20044]	13	23	-	-	-	-	-	-	-	6	57	-	-	LPH		
curvilinear [20045]	-	-	-	-	-	-	-	-	-	1	5	-	-	?		
penannular terminal [20049]	4	27	-	-	-	-	-	-	-	4	22	-	<0.5g	LPH		
ditch [20055]	1	14	-	-	-	-	-	-	-	-	-	-	-	LPH		
ring feature [20056]	-	-	-	-	-	-	-	-	-	2	56	-	-	?		
layer (20058)	20	97	-	-	-	-	-	-	-	15	72	-	-	LPH		
ditch [20059]	-	-	-	-	1	1	-	-	-	-	-	-	-	PM?		
ditch [20060]	2	18	-	-	-	-	-	-	-	-	-	-	-	LPH		
intersection [20071]	-	-	-	-	-	-	-	-	-	1	14	-	-	?		
post-hole [20089]	-	-	-	-	-	-	-	-	-	11	11	-	-	PH		
post-hole [20096]	1	2	-	-	-	-	-	-	-	-	-	-	-	LPH		
post-hole [20101]	2	11	-	-	-	-	-	-	-	-	-	-	-	LPH		
post-hole [20104]	-	-	-	-	-	-	1	-	-	2	24	-	-	PH?		
post-hole [20110]	-	-	-	-	-	-	-	-	-	1	14	-	-	PH		
post-hole [20114]	11	5	-	-	-	-	-	-	-	-	-	-	-	LPH		
post-hole [20115]	-	-	-	-	-	-	1	-	-	-	-	-	-	PH?		
post-hole [20116]	1	18	-	-	-	-	-	-	-	-	-	-	-	LPH		
post-hole [20118]	-	-	-	-	-	-	-	-	-	1	1	-	-	?		
post-hole [20120]	-	-	-	-	-	-	-	-	-	1	70	-	-	PH		
pit [20157]	-	-	-	-	-	-	-	-	-	1	19	-	-	?		
post-hole [20166]	3	8	-	-	-	-	-	1	-	-	-	-	-	LPH, 16th		
post-hole [20168]	-	-	-	-	-	-	-	-	-	12	66	-	-	?		
post-hole [20169]	2	<0.5	-	-	-	-	-	-	-	-	-	-	-	LPH?		
ditch [20174]	1	13	-	-	-	-	-	-	-	1	13	-	-	LPH		

FEATURE	POTTERY						LITHICS	COPPER ALLOY	STONE	FIRED CLAY		TILE	IND WASTE	SPOT DATE					
	(PH)		(MEDI)		(PM)					COUNT	COUNT				COUNT	COUNT	WGT (G)	COUNT	WGT (G)
	COUNT	WGT (G)	COUNT	WGT (G)	COUNT	WGT (G)													
ditch [20184]	5	17	-	-	-	-	-	-	-	9	62	-	-	LPH					
ditch [20187]	5	24	-	-	-	-	-	-	-	12	445	-	-	LPH					
curvilinear [20212]	-	-	-	-	-	-	-	-	-	7	64	-	-	PH					
furrow [20307]	-	-	-	-	1	1	-	-	-	-	-	-	-	PM?					
layer [20354]	-	-	-	-	-	-	-	-	-	1	12	-	85	?					
ditch [20355]	-	-	-	-	-	-	-	-	-	2	52	-	289	?					
ditch [20360]	-	-	-	-	-	-	-	-	-	3	18	-	-	?					
pit [20376]	1	8	-	-	-	-	-	-	-	-	-	-	-	LPH					
pit [20386]	1	7	-	-	-	-	-	-	-	-	-	-	-	LPH					
TOTAL	112	443	9	154	4	7	2	1	2	150	1,221	1	1,762						

Methodology

The report includes both hand-collected finds and those from sample retents. The finds were collected, processed and packaged for long term storage in accordance with professional guidelines (ClfA 2014; Watkinson & Neal 1998). The finds were each assessed and recorded by appropriate specialists. The resultant data was then drawn together into one MS Access database. A copy of this data is given as Appendix 2.

The pottery was examined visually, using x20 magnification where necessary. It was recorded according to standards set out by specialist bodies (Barclay et al 2016). To this end, it was examined macroscopically and sorted into fabrics based on inclusions present, the frequency and grade of the inclusions and the firing colour. The handmade material was coded using the format outlined in PCRG (1997), where letters denote the main fabric inclusions. The medieval wares are cross-referenced to the Gloucester City museum fabric series (Vince 1983). Rims were additionally coded to form. Pieces which showed evidence of fresh breaks were counted as single sherds where they occurred in single contexts.

Prehistoric pottery

The prehistoric pottery assemblage amounted to 112 sherds (443g) which were retrieved from 21 separate features. Overall the assemblage was in moderately poor condition, with very small pieces from soil samples being too small to identify to fabric (OO). The assemblage can be allocated to the later prehistoric period; however, the individual quantities are very low, which has some ramifications on the accuracy of the dating. An additional problem is the complete absence of any featured sherds amongst the prehistoric material to allow close dating.

TABLE 2 Prehistoric pottery type series (Barclay et al 2016 & PCRG 1997)

FABRIC CODE	FABRIC	DATING	SHERDS	WGT (G)
LISH	Limestone and shell	Late prehistoric	13	115
MALV	Malvernian	Late prehistoric	19	10
MALV1	Malvernian - sandy	Late prehistoric	3	17
MALV2	Malvernian – igneous rock	Late prehistoric	12	86
MALV3	Malvernian – sparse weathered inclusions	Late prehistoric	45	168
OO	Crumbs	Late prehistoric?	17	6
SAFE/GR	Sandy with iron/ iron-rich grog	Late prehistoric	3	41
TOTAL			112	443

Three main fabrics could be discerned: a fossil shell and limestone tempered ware (LISH); a sandy ware with fragments of ferruginous inclusions or iron-rich grog (SAFE/GR) and a fabric with various inclusions of mixed geology which are likely to derive from rock types outcropping in the Malvern area (MALV1-3) (Peacock 1968).



ILLUS 8 Parallel post-hole construction Trenches [20392] facing west

Vessels are handmade and plain and, apart from a very slight body carination on a sherd from ditch [20060] (20142) and a shallow tooled horizontal line on a sherd from penannular terminal [20049] (20050), there are no distinguishing features. Provisionally, the fabrics are probably typical of the later Bronze Age or early Iron Age in this area exploiting both the Jurassic series of the Cotswolds to the south and the more complex geological series to the north-west.

FABRIC CODE	FABRIC	DATING	REFERENCE	SHERDS	WGT (G)
PMGRE	Post-medieval glazed earthenware	Post-medieval	–	2	5
TOTAL				13	161

Medieval to post-medieval pottery

The medieval to post-medieval pottery assemblage numbers 13 sherds (161g) which were retrieved from seven separate contexts.

TABLE 3 Medieval to post-medieval pottery type series

FABRIC CODE	FABRIC	DATING	REFERENCE	SHERDS	WGT (G)
MED	Medieval Malvernian	Medieval	(Vince 1983)	3	38
MED52	Medieval Glos TF 52	13th–15th?	(Vince 1983)	5	115
M/PM	Medieval/post-medieval	Medieval/post-medieval	(PCRG 1997)	1	1
PM?	Post-medieval?	Post-medieval?	(PCRG 1997)	2	2

The medieval pottery assemblage includes two jug handles from ploughsoil (20001) and a jar rim from subsoil (20002) in Malvernian glazed ware (MED52), probably spanning the 13–15th centuries. A further three sherds of medieval Malvernian ware (MED) came from furrow [20005] (20004). Medieval or post-medieval sherds (M/PM & PM?) were collected from linear [20015] (20016), ditch [20059] (20062) and furrow [20307] (20308) and two sherds of post-medieval glazed earthenware (PMGRE) came from natural feature [20009] (20010).

Metalwork

One Nuremburg jetton made of copper alloy was retrieved from post-hole [20166] (20169). The token is of the rose and orb issue, of master Hans Shultes, and dates to the 16th century (Mitchiner 1988, 402, no.1360). These are relatively common in Britain. The piece itself has significant damage with the clipping of one edge and a fragment of it missing. It is in fair to moderate condition but has some surface wear, resulting in some illegibility with the legend on both sides. The



ILLUS 9 Bone deposit within eastern terminal end [20029]

obverse has three crowns and three fleurs-de-lis in an alternating pattern surrounding a central rose, all within an inner circular frame. The obverse legend reads '...CHVLTES...N...'. The reverse has an imperial orb topped with a cross within a double trefoil, surrounded by a circle, and a legend reading 'EM..O..CM..'

Lithics

Two pieces of burnt debitage were retrieved from post-holes [20104] (20105) and [20115] (20116). Their forms are undiagnostic, but likely to be prehistoric in date.

Coarse stone

Two stone objects were retrieved and comprised a possible loom weight and a stone working surface from ditch terminus [20029] (20027). The possible loom weight is part of a flattish piece of stone with a broken perforation at one end. It was found in ploughsoil (20001). It may be a prehistoric triangular loom weight, though may also be a sherd of later stone roofing material.

The working surface was found in ditch terminus [20029] (20027) and consists of a large oval-shaped stone with a flat surface, slightly smoothed through wear, and a gently convex underside. It was associated with a few sherds of prehistoric pottery and fired clay and is potentially of similar date. It may have had a number of domestic or industrial uses.

Tile

A single probable fragment of post-medieval tile was recovered from natural feature [20009] (2010).

Fired Clay

The fired clay assemblage consists of 150 sherds (1.221kg), which were retrieved from 25 separate features, with the largest concentration (445g) from ditch [20187] in (20191) and (20285). A few pieces have a curved profile, suggesting structural components, most notably from curvilinears [20212] (20213) and [20044] (20042), post-hole [20120] (20260) and ditch [20187] (20285); whilst one piece from ditch [20187] (20285) has a circular shape and a smoothed exterior. Some fragments are tempered with grog. The material might be related to wattle and daub structures, industrial furnaces or kilns

or to domestic ovens, hearths or pit linings. There is no particular correlation between the distribution of the fired clay and that of the industrial waste (detailed below).

Industrial waste

Seven fragments (1.762kg) of iron slag and <0.5g of magnetic residues were retrieved from five features. This consists of a possible smelting base from curvilinear [20038] (20036), five possible fragments of plano-convex slag cake from layer [20354] and ditch [20355] (20359) and an indeterminate piece from subsoil (20002). Their density is an indication of smithing as opposed to smelting and indicates there may have been industrial activity on the site at some point. The magnetic residues were retrieved from penannular terminal [20049] (20050) and consist of possible hammerscale, possibly indicating industrial activity.

Discussion

Dating for the majority of the assemblage is rather vague (Bronze Age-Iron Age), due to the lack of diagnostic finds. Most of the pottery and the lithics are prehistoric and the stone finds and fired clay may be of similar date. These are distributed through various ditches and post-holes and imply that these features represent prehistoric activity. The nature of this appears to be largely domestic, with some evidence of ironworking. The stone working surface and possible loomweight are distinctive finds, though their function and date is unclear.

There is evidence for low level domestic activity during the medieval and post-medieval periods in the form of pottery, a fragment of tile and a copper alloy jetton. The majority of the assemblage is in too poor of a condition to provide accurate dating, though the jetton is clearly of 16th century date.

4.6 ENVIRONMENTAL ASSEMBLAGE

by Laura Bailey and Angela Walker

Fourteen bulk sediment samples, ranging in volume from 10 to 20 litres, were extracted during archaeological mitigation work on land at Rudgeway Lane, Wheatpieces, Tewkesbury. The samples were taken from a range of features including pits, post-holes and ring-ditches dating from the later prehistoric to early post-



ILLUS 10 Section through eastern terminal end [20029 and 20144] facing south-west

medieval period. In addition to the bulk samples, animal bone was hand collected from a further forty-nine contexts. The aims of the assessment were to assess the presence, preservation and abundance of any environmental remains and to determine the potential of the material for indicating the character and significance of the deposit.

Method

Bulk samples were subjected to flotation and wet sieving in a Siraf-style flotation machine. The floating debris (the flot) was collected in a 250 µm sieve and once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. For waterlogged samples a 250ml subsample was manually processed following the procedures of Kenward et al (1980), and the resulting washover was recorded wet. All samples were scanned using a stereomicroscope at magnifications of x10 and up to x100. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers et al. (2006) and Zohary et al. (2012); nomenclature for wild taxa follows Stace (1997).

Faunal remains were examined by eye or under low magnification and, as far as possible, identified to species and skeletal element, with reference to Schmid (1972), and Hillson (1992), and any marks of butchery were noted.

Results of the assessment are presented in Appendix 3: Tables A3.1 (Environmental sample results) and A3.2 (Animal remains).

Plant remains

Charred 'weed seeds', (here used to include seeds, fruits, achene, caryopses etc.) were recovered from three features, the fill (20191) of ditch [20187], the fill (20254) of post-hole [20114] and the fill (20264) of post-hole [20169]. These features all contained finds dating to the late prehistoric period.

The small charred weed assemblage comprised poorly preserved, abraded, seeds of grasses (Poaceae), fat hen (*Chenopodium* sp.) and a possible orache (cf *Atriplex* sp.) seed. No cereal grains were recovered.

Snail shell

A small number of snail shells were recovered from six samples. They are likely to be modern, given the abundance of modern roots.

Animal bone

Unburnt bone

A moderate assemblage of fragmented animal bone was recovered. Fifty-three MNI (Minimum Number of Individuals) were recovered from thirty-five features (Table A3.2). The majority of the bone was recovered from features dating to the late prehistoric period.



ILLUS 11 North-west quadrant of pit cluster [20393] facing east

The bone was fragmented and demonstrated mixed levels of preservation ranging from good to poor. Although some of the bone is abraded, gnawing and butchery marks are clearly visible on some of the limb bones. The gnaw marks suggest that the bones lay exposed and that dogs had access to the carcasses before disposal.

The most commonly represented species across the site was horse, identified in twenty-one contexts. Several worn, loose horse teeth dominated the assemblage. Other identifiable bones included long bone fragments, phalanges and occasional rib and pelvis fragments. The majority of horse bones present, though fragmentary, had fused epiphyses suggesting that they were kept into adulthood.

Elements of cow, including teeth, metapodial fragments, phalanges, proximal radius, ulna and astragalus were present. Elements of sheep/goat, including teeth and long bone fragments were recovered from ten contexts. A single, worn, dog tooth and mandible fragment was recovered from the fill (20213) of curvilinear ditch [20212].

The abraded nature of the bone, together with the evidence of canid gnawing suggests that the assemblage must have been exposed prior to burial.

Burnt bone

A small assemblage of burnt bone was recovered from five contexts. The bone was heavily fragmented and lacked diagnostic features required for identification.

Discussion

The charred plant assemblage does not offer any significant information relating to site economy. The seeds are probably from weeds and grasses charred during a conflagration event and incidentally incorporated into negative features. The materials have no direct relationship to the features themselves.

The animal bone assemblage exhibits a narrow range of species dominated by domestic mammals. Four taxa; horse, cow, sheep/goat and dog, were positively identified. The dominance of horse elements is interesting. Horses generally have a long working life and are usually not raised for meat (Hamilton-Dyer 2003). Butchery of horse bones has been noted at other sites and has been used to suggest that the consumption of horse meat was not uncommon during the Iron Age (Cussans and Bond 2015). However, the quantity of butchered bone suggests that it was a minority food source, possibly consumed on special occasions (Cross 2011).

The cattle bone assemblage was dominated by footbones and teeth. Few high utility, meat-bearing bones were recovered, suggesting that the remains represent less desirable elements discarded during the butchery process.

Despite the number of remains very few metrical data are available. Very few mandibular elements survive. The bone is generally heavily fragmented and canid gnawing is common and is likely to have obscured any epiphyseal fusion data and distorted measuring points.



ILLUS 12 East facing section through ditches [20045] and [20060] and pit [20059]

4.7 RADIOCARBON DATING

In accordance with the Objective 2 proposed in the Post Excavation Assessment and Updated Project Design (Dixon, 2018), two samples were selected for AMS dating (Appendix 5). This was primarily to date the relative stages of the enclosure’s construction, but it also greatly refined the broad dating derived from the ceramic evidence.

TABLE 4 Radiocarbon dates

CONTEXT	LABORATORY REF.	MATERIAL	C:N RATIO	CONVENTIONAL RADIOCARBON AGE BP	CALIBRATED DATE AT 95.4% CONFIDENCE	CALIBRATED DATE AT 68.2% CONFIDENCE
20030	SUERC-82850 (GU49277)	Tooth : Sheep/Goat	3.2	2246 +/- 25	391 – 348calBC	379 – 355calBC
					316 – 208calBC,	288 – 233calBC
20167	SUERC-82851 (GU49278)	Astragalus :Cow	3.2	2186 +/- 25	360 – 272calBC,	354 – 292calBC
					263 – 177calBC	231 – 199calBC

The two samples selected were a sheep/goat tooth from the re-cut ditch dating to between 316–208calBC and a cow astragalus from the post-hole structure which dated to 360–177calBC. The tolerance of these two date ranges means that the Iron Age 2 and

Iron Age 3 Phases cannot be dated relative to one another with any certainty but a third century BC date for the enclosure as a whole is most probable.

5 DISCUSSION

The focus of activity on the site is related to the middle Iron Age and use of a small, broadly penannular or ‘horseshoe’ shaped enclosure.

An initial phase of possible cut features (Group 20388) suggested the presence of a potential semi-circular pit arrangement which was later redefined by ditches. The evidence for the extent of these features was, however, fragmentary and their precise nature and function unclear. Neither did the potential features display regularity with which to imply contemporaneity or association, nor any density of dateable material to indicate an anthropogenic function.

The second phase of construction was suggested to represent consolidation of the pits into a continuous ditch (Group 20389) and the additional construction of alignments of posts across a north facing opening or entrance (Group 20392). Phase three represented the re-definition and re-cutting of the ditch (Group 20390).

It is likely that the initial digging of a ditch represented the establishment of the feature and the relationship with the earlier potential features is unlikely to be associated with the focus of occupation of the site.



ILLUS 13 Post-holes [20170] and [20172] within bedding trench

ILLUS 14 Deposit of animal bone and natural stone within the basal fill (20175) of ditch [20174] **ILLUS 15** Heat effected stones and animal bone (20058) within western terminal end [20049]

The post alignments were set within two separate construction trenches. The absence of any stratigraphic relationship, or distinctly diagnostic recovered finds, precludes definitive interpretation as to whether the two lines of posts were contiguous. However, it would seem more likely that they relate to two separate phases, one representing a reconstruction or replacement of the other. Radio carbon dating indicated a middle Iron Age date for the northernmost group of posts and overall contemporaneity with the Phase 2 and 3 ditches, each construction trench likely to be associated with one or the other of the ditch phases redefining the feature.

Artefactual evidence from the ditches was limited but quite mixed, with a small pottery assemblage, animal bone, some fragments of burnt bone, heat affected stone and slag. A flat 'working' stone was also recovered from the Phase 3 ditch terminal. The material did not reflect a density of occupational detritus but was in keeping with a domestic type assemblage. Concentrations of heat affected stone were observed within the western terminal end upper fills. Possible esoteric or structured deposition was also identified in the Phase 3 terminal end of the ditch, with a large mammal bone (cow/horse) recovered. Structured deposits of such type are known from both domestic and non-domestic sites and, on their own, do not significantly add to understanding or interpretation of the feature.

The pottery assemblage was largely undiagnostic, with a generally late prehistoric date range based on fabric types known within the wider region. However, the middle Iron Age radiocarbon dates, support the indication that the pottery fabric types are likely to derive from this period, with no definitively variable types or chronologies suggested in the recovered assemblage.

The final phase (Phase 4) of redefinition of the feature, appears to be a slightly curving, broadly east-west ditch (Group 20396), extending west from the Phase 3 ditch. The precise function of this additional 'arm' to the feature cannot be positively attested but given the nature of the gleyed fills which were evidenced in all phases of ditches, additional drainage of the area may have motivated the extension of the ditch.

Finds from the Phase 4 ditch evidenced the same pottery typology, with fired clay and iron-working slag, probably indicative of smithing, also recovered. The nature of the finds suggested no definitive change in function or nature of occupation with the alteration to the form or addition of the ditch.

A number of undated features may have been associated with occupation of the period. Post-holes to the immediate west of the penannular ditch and to the south and north-west could hint at peripheral activity but this can only be speculative with no dateable evidence recovered. Similarly three features located internally may have some function associated with occupation but may equally have been natural in origin, the level of truncation of the features and lack of any cultural material precluding definitive understanding.

Penannular type ditches are common on both Bronze-Age and Iron-Age sites on the Upper Thames gravels and the Severn Valley, with suggested variable entrance orientations and their average dimensions varying from site to site. Whilst the feature at Wheatpieces is slightly more 'horseshoe' in shape, it is broadly of the same characteristic as small middle Iron Age penannular type features. Further, broadly similarly shaped features were excavated



ILLUS 16 Penannular enclosure [20389] looking north

at Coln Gravels (Stansbie et al 2008) and West Hill, Uley (Woodward and Leach, 1993), though both of these were part of more complex sites and not located in relative isolation as is the site at Wheatpieces.

Evidence suggesting small scale, dispersed settlement activity of the later prehistoric period has been recorded north-east of the site at Fiddington (Illus 1), where a series of small penannular or circular 'enclosures' were confirmed as of probable middle Iron Age date and evidenced similar finds assemblages of Malvernian ware, quantities of slag, animal bone and fired clay (Hughes 2014).

Further excavation on the Rudgeway Lane development to the north and north-east of the Wheatpieces site (Illus 2) also identified a small middle Iron Age ditched enclosure, which evidenced potential continuous occupation and development into the Roman period (Hart and McSloy 2008). The feature at Rudgeway, also evidenced a possible extension to the ditch, oriented north-south and protruding as an arm from the west, rear of the penannular ditch. The Phase 4 extension at Wheatpieces appears to have taken a similar form.

Many of the 'enclosures' are interpreted as domestic in nature, though often no internal features are identified suggesting the presence of structural remains. Similarly, no suggestions of any internal features were identified at Wheatpieces which could indicate the presence of a structure such as a roundhouse. However, the finds and environmental assemblage do suggest probable low-level domestic occupation, with an element of industrial activity in the form of iron-smithing.

The general lack of density of artefactual material within the phases of ditches may support a suggestion that the site was seasonally occupied, with no need for a permanent structure or 'house'. Perhaps related to seasonal agriculture on the flood plain, unsuitable for occupation during wetter periods. The redefinition of the encircling ditch and nature of lower energy, gradual sedimentation and elements of gleying of the ditch fills, supports the interpretation that they were constructed to drain the area.

The Wheatpieces site would appear to fit within a broader pattern of unenclosed, middle Iron Age settlement in the wider region. In this case, potentially seasonal on the River Severn flood plain and possibly associated with sites such as Rudgeway and Fiddington. Moore (2007) describes a wider pattern in the Severn Valley and Upper Thames Gravels, of enclosing settlement sites in the later Iron Age, with unenclosed settlement becoming more of a rarity. The lack of evidence suggesting any use of the Wheatpieces site after the middle Iron Age, suggests the site would fit this wider pattern and was abandoned after a relatively short-lived period of occupation and use.

Three heavily truncated field drainage ditches were identified, of which two stratigraphically pre-dated the ridge and furrow remains on the site. A single, fragmentary pottery sherd indicated a medieval or post-medieval date for the north-south oriented ditch, the other two were undated. The ditches were reminiscent of field ditches identified during the first phase of excavation (Cochrane 2018) and may represent fragmentary remnants of similar field systems, potentially variable orientations from similar periods.

Post medieval remains were comprised of ridge and furrow field system remains reflecting the site's later use as agricultural fields. These furrows were part of a wider system also evidenced during the earlier trial trenching (Thomson, 2016) and the Phase 1 excavation (Cochrane, 2018). The ridge and furrow agriculture, combined with extensive modern ploughing, is likely to have contributed to extensive truncation of the identified middle Iron Age remains.

6 CONCLUSION

By way of conclusion the three objectives laid out in the Assessment Report (Dixon, 2018) will be addressed directly:

Objective 1 Identify the purpose of the penannular enclosure and whether this belongs to any existing monument category through researching possible parallel examples.

Limited artefactual material was present and recovered from the excavation but the assemblage does suggest low-level domestic activity with elements of iron working. Similar penannular and circular type enclosures within the immediate locale, at Rudgeway and Fiddington, returned similar artefactual assemblages and suggest the Wheatpieces site is likely to represent occupation and activity associated with wider disperse, unenclosed settlement of the period.

Objective 2 To utilise scientific dating techniques to resolve the dating of the enclosure and if possible, the chronology of its constituent parts.

The radiocarbon dates from the two samples place the third phase of the site in the third century BC. The poor quality of the bone assemblage meant it was not possible to obtain dates from the earlier phases.

Objective 3 Place the site within its wider landscape context on a local and regional level.

The site appears to represent part of a pattern of unenclosed, disperse settlement and occupation during the middle Iron Age and compares with previously excavated sites such as Rudgeway and Fiddington in the immediate locale. A pattern of enclosing settlement sites in the later Iron Age has been discussed and the lack of later or continuous occupation at Wheatpieces suggest that the site was abandoned and would fit the model of later Iron Age occupation in the Severn Valley and Upper Thames Gravels.

7 STORAGE AND CURATION

The archive is currently held by Headland Archaeology (UK), Midlands and West. Upon completion of the project and with the legal agreements in place, the full archive will be deposited with The Wilson Museum, Cheltenham.

8 PUBLICATION

Penannular enclosures of this type are rare and are poorly understood and as such the results from the excavations at Wheatpieces Phase 2 are of archaeological significance.

A summary of the work including a phased plan of the enclosure is to be submitted to the Transactions of the Bristol and Gloucestershire Archaeological Society. A copy of this publication note is included in Appendix 4.

This report will be disseminated to a wider audience via OASIS and the Gloucestershire HER.

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10 APPENDICES

APPENDIX 1 CONTEXT REGISTER

CONTEXT	CONTEXT TYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20000	Deposit	–	–	–	Unstratified finds
20001	Deposit	Throughout area	Throughout area	0.26-0.30	Present ploughsoil
20002	Deposit	Throughout area	Throughout area	0.20-0.40	Subsoil
20003	Deposit	–	–	L.O.E.	Geological deposit
20004	Fill	>80	1.2–1.8	>0.35/0.40	Fill of [20005]
20005	Cut	>80	1.2-1.8	>0.40	Furrow system
20006	Deposit	>45	15.00	L.O.E.	Geological deposit
20007	Cut	0.75	0.55	0.15	Cut of Linear feature
20008	Fill	0.75	0.55	0.15	Fill of [20007]
20009	Cut	–	1.50	0.10	Cut of natural feature
20010	Fill	–	–	–	Fill of [20009]
20011	Cut	0.62	0.39	0.12	Cut of probable natural deposit W L.O.E.
20012	Fill	0.62	0.39	0.12	Fill of [20011]
20013	Cut	0.89	0.56	0.24	Cut of Sub-circular feature along W L.O.E.
20014	Fill	0.89	0.56	0.24	Fill of [20013]
20015	Cut	0.79	0.41	0.11	Cut of linear in SW corner of L.O.E.
20016	Fill	0.79	0.41	0.11	Fill of [20015]
20017	Cut	0.72	0.42	0.13	Cut of sub-circular feature near N-E corner
20018	Fill	0.72	0.42	0.13	Fill of [20017]
20019	Cut	>0.98	0.34	0.32	Cut of NW terminal end of large unidentified feature
20020	Fill	>0.78	>0.30	0.13	Fill of [20019] primary
20021	Fill	>0.98	>0.34	0.19	Fill of [20019] secondary
20022	Cut	0.50	0.50	0.48	Cut of burnt feature central trench
20023	Fill	0.50	0.50	0.10	Fill of [20022]
20024	Fill	0.50	0.50	0.10	Fill of [20022]
20025	Fill	0.50	0.50	0.12	Fill of [20022]
20026	Fill	0.50	0.50	0.10	Fill of [20022]
20027	Fill	–	–	0.13	Fill of [20029]
20028	Fill	–	–	0.17	Fill of [20029]
20029	Cut	1.11+	1.51	0.50	N.E terminal end cut
20030	Fill	–	–	0.27	Fill of [20029]
20031	Cut	0.53	0.47	0.13	Cut of probable natural feature NW corner
20032	Fill	0.53	0.47	0.13	Fill of [20031]
20033	Fill	–	–	0.31	Fill of [20034]
20034	Cut	1.50	1.25	0.31	Cut of tree throw
20035	Fill	>1.50	1.45	0.12	Fill [20038]
20036	Fill	1.48+	0.82	0.27	Fill [20038]

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20037	Fill	1.48+	0.82	0.18	Fill [20038]
20038	Cut	>1.50	0.97	0.50	Slot in curvilinear
20039	Fill	1.06+	0.64	0.30	Fill of [20040]
20040	Cut	1.06+	0.64	0.30	Slot in linear/ditch
20041	Fill	1.06+	0.77	0.30	Fill of ditch
20042	Fill	1.14+	1.94	0.34	Fill of [20044]
20043	Fill	1.14+	1.94	0.11	Fill of [20044]
20044	Cut	1.14+	1.94	0.45	Slot in curvilinear
20045	Cut	3+	1.24-1.35	0.48-0.55	Slot in curvilinear re-cut
20046	Fill	-	-	0.17	Fill of [20045]
20047	Fill	-	-	0.30	Fill of [20045]
20048	Fill	-	-	0.19	Fill of [20045]
20049	Cut	0.68	0.63	0.47	Cut of NE terminal end of large unidentified feature on west side of feature
20050	Fill	0.68	0.63	0.47	Fill of [20049]
20051	Cut	1.07	0.80	0.42	Cut in extension on W side of ring feature
20052	Fill	1.07	0.80	0.08	Fill of [20051]
20053	Fill	1.07	0.80	0.34	Fill of [20051]
20054	Fill	-	-	-	Fill of [20049]
20055	Cut	1.06+	0.77	0.30	Cut in penannular feature
20056	Cut	-	-	-	Cut of ring feature on W side
20057	Fill	-	-	-	Fill of [20056]
20058	Fill	-	-	-	Domestic dump layer [20054/63]
20059	Cut	0.45+	0.59+	0.27	Outer cut of segment @ S side inc. terminus
20060	Cut	2.5+	1.70	0.47	Inner cut of ditch @ S side- 1st cut
20061	Fill	-	-	0.17	Fill of [20059]
20062	Fill	-	-	0.10	Fill of [20059]
20063	Cut	-	1.43	-	Cut of penannular feature on W side (inner)
20064	Fill	-	-	-	Fill of [20063]
20065	Fill	-	-	-	Fill of [20063]
20066	Fill	-	-	-	Fill of [20056]
20067	Fill	-	-	-	Tertiary fill of [20056]
20068	Cut	1.48+	0.40	0.42	Cut in curvilinear
20069	Fill	1.48+	0.40	0.18	Fill in [20068]
20070	Fill	1.48+	0.40	0.16	Fill in [20068]
20071	Cut	1.02	0.48	0.27	Cut of intersection between ring ditch
20072	Fill	1.02	0.48	0.27	Fill of [20071]
20073	Cut	0.39	1.24	0.10	Cut of tree throw
20074	Fill	0.39	1.24	0.10	Fill of [20073]
20075	Cut	0.73+	0.70+	-	Cut of 1st ditch

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20076	Fill	0.73+	-	0.16	Fill of [20075]
20077	Cut	0.73+	1.65+	0.40	Cut of ditch recut
20078	Fill	-	-	0.08	Primary fill of [20077]
20079	Fill	-	-	0.38	Fill of [20077]
20080	Cut	>0.32	0.58	0.14	PH- post hole cut S row, 1st E side
20081	Fill	>0.20	0.48	0.10	PH- primary fill of [20080]
20082	Fill	>0.32	0.58	0.04	PH- secondary fill of [20080]
20083	Cut	>0.29	0.68	0.14	PH- post hole cut- S row, 2nd E side
20084	Fill	-	-	-	PH- primary fill of [20083]
20085	Fill	-	-	-	PH- secondary fill of [20083]
20086	Cut	>0.62	>0.24	0.80	PH- post hole cut S row- 3rd E side
20087	Fill	-	-	-	PH- primary fill [20086]
20088	Fill	-	-	-	PH- secondary fill [20086]
20089	Cut	0.38	0.58	0.19	PH- cut of post-hole, S row, 4th E side
20090	Fill	0.39	0.52	0.12	PH- primary fill of [20089]
20091	Fill	-	-	-	PH- secondary fill of [20089]
20092	Cut	0.22	0.28	0.12	PH- cut of post hole, S row, 4th W side
20093	Fill	-	-	-	PH- primary fill [20092]
20094	Fill	-	-	-	PH- secondary fill [20092]
20095	Cut	>0.30	0.36	0.16	PH- cut of post hole, S row, 3rd W side
20096	Fill	-	-	-	PH- primary fill of [20095]
20097	Fill	-	-	-	PH- secondary fill of [20095]
20098	Cut	>0.40	0.36	0.11	PH- cut of post hole, S row 2nd W side
20099	Fill	-	-	-	PH- primary fill [20098]
20100	Fill	-	-	-	PH- secondary fill [20098]
20101	Cut	>0.40	0.49	0.18	PH- cut of post-hole, S row, 1st W side
20102	Fill	-	-	-	PH- primary fill of [20101]
20103	Fill	-	-	-	PH- secondary fill of [20101]
20104	Cut	>0.29	0.49	0.39	PH- cut of post-hole, N row, 1st E side
20105	Fill	-	-	-	PH- primary fill of [20104]
20106	Fill	-	-	-	PH- secondary fill of [20104]
20107	Cut	-	-	-	PH- cut of post hole, N row, 2nd E side
20108	Fill	-	-	-	PH- primary fill of [20107]
20109	Fill	-	-	-	PH- secondary fill of [20107]
20110	Fill	-	-	-	PH- tertiary fill of [20107]
20111	Cut	-	-	-	PH- cut of post hole, N row, 3rd E side
20112	Fill	-	-	-	PH- primary fill of [20111]
20113	Fill	-	-	-	PH- secondary fill of [20111]
20114	Fill	-	-	-	PH- tertiary fill of [20111]
20115	Cut	-	-	-	PH- cut of post hole N row, 4th side

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20116	Fill	-	-	-	PH- primary fill [20115]
20117	Fill	-	-	-	PH secondary fill of [20115]
20118	Cut	-	-	-	PH- cut of post hole, N row, 4th W side
20119	Fill	-	-	-	PH- primary fill of [20118]
20120	Fill	-	-	-	PH- secondary fill of [20118]
20121	Cut	-	0.61	0.10	Cut of post hole
20122	Fill	-	0.61	0.10	Fill of [20121]
20123	Cut	-	0.60	0.35	Cut of pit
20124	Fill	>2	0.60	0.35	Fill of [20124]
20125	Fill	0.20	0.53	0.30	Fill of [20124]
20126	Cut	>2	1.00	0.50	Cut of ditch
20127	Fill	>2	1.00	0.50	Fill of [20126]
20128	Fill	>2	0.95	0.45	Fill of [20126]
20129	Cut	-	1.50	0.70	Cut of ditch
20130	Fill	2.00	0.90	0.20	Fill of [20129]
20131	Fill	>2	1.40	0.50	Fill of [20129]
20132	Fill	-	1.50	0.08	Backfill
20133	Fill	-	-	-	Fill of [20077]
20134	Cut	-	-	-	Cut of pit/ditch on interior of ditches
20135	Fill	-	-	-	Fill of [20134]
20136	Cut	-	-	-	Cut of segment?
20137	Fill	-	-	-	Fill of [20136]
20138	Cut	-	-	-	Cut of poss. Features to outside of ditches
20139	Fill	-	-	-	Fill of [20138]
20140	Fill	-	-	-	Fill of [20136]
20141	Fill	-	-	<0.24	Primary fill of ditch [20060]
20142	Fill	-	-	<0.17	Fill of ditch [20060]
20143	Fill	-	-	0.08	Primary fill of ditch [20045]
20144	Cut	1.1+	0.43	0.29	Cut of NE ditch terminus- 1st
20145	Fill	-	-	0.28	Fill of [20144]
20146	Fill	-	-	<0.10	Fill of [20029]
20147	Fill	-	-	0.10	Fill of [20029]
20148	Fill	-	-	0.10	Fill of [20029]
20149	Cut	1.34	0.35	0.30	Second cut within/beside [20070]
20150	Fill	1.34	0.35	0.30	Fill of [20149]
20151	Cut	1.22	1.13	0.34	Cut in ring feature
20152	Fill	1.22	1.13	0.34	Fill of [2051]- not relationship slot. Between arm
20153	Cut	0.92	0.70	0.21	Circular ditch cut in NE area (Inside/ W of ring feature)
20154	Fill	0.92	0.70	0.21	Fill of [20153]

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20155	Cut	-	-	-	Cut of pit
20156	Fill	-	-	-	Fill of [20155]
20157	Cut	-	-	-	Cut of pit
20158	Fill	-	-	-	Fill of [20157]
20159	Fill	-	-	-	Fill of [20157]
20160	Fill	-	-	-	Primary fill of [20157]
20161	Cut	>0.73	0.77	0.26	Cut of pit
20162	Fill	>0.73	0.77	0.26	Fill of pit [20161]
20163	Cut	>0.57	0.40	0.37	Cut of pit
20164	Fill	>0.73	0.23	0.12	Fill of [20163]
20165	Fill	>0.57	0.40	0.37	Fill of [20163]
20166	Cut	-	-	-	Cut of post hole, N row, 1st W side
20167	Fill	-	-	-	Primary fill of [20166]
20168	Fill	-	-	-	Secondary fill of [20166]
20169	Fill	-	-	-	Tertiary fill of [20166]
20170	Cut	-	-	-	Cut of stake hole E within [20115]
20171	Fill	-	-	-	Fill of [20170]
20172	Cut	-	-	-	Cut of stokehole W within [20115]
20173	Fill	-	-	-	Fill of [20170]
20174	Cut	-	-	-	Cut in ditch
20175	Fill	-	-	-	Fill of [20174]
20176	Cut	-	-	-	100%ing cut [20129]- next to
20177	Fill	-	-	-	All same as (20131) fill of [20129]
20178	Cut	0.80	0.80	0.22	Cut of pit
20179	Fill	0.80	0.63	0.07	Fill of [20178]
20180	Fill	0.80	0.78	0.22	Fill of [20178]
20181	Cut	>2	0.80	0.26	Cut of pit
20182	Fill	>2	0.76	0.07	Fill of [20181]
20183	Fill	>2	0.74	0.20	Fill of [20181]
20184	Cut	>2	0.42	0.34	Cut of ditch
20185	Fill	>2	0.60	0.11	Fill of [20184]
20186	Fill	>2	0.84	0.26	Fill of [20184]
20187	Cut	>2	1.42	0.63	Cut of ditch
20188	Fill	>2	0.69	0.22	Fill of [20187]
20189	Fill	>2	0.40	0.11	Fill of [20187]
20190	Fill	>2	1.34	0.51	Fill of [20187]
20191	Fill	>2	0.96	0.19	Fill of [20187]
20192	Fill	-	-	-	Fill of [20174]
20193	Fill	-	-	-	Fill of [20174]
20194	Cut	-	-	-	Cut in curvilinear

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20195	Fill	-	-	-	Fill of [20194]
20196	Fill	-	-	-	Fill of [20194]
20197	Cut	-	-	-	Cut in curvilinear
20198	Fill	-	-	-	Fill of [20197]
20199	Fill	-	-	-	Fill of [20197]
20200	Cut	-	-	-	Recut in curvilinear
20201	Fill	-	-	-	Fill of [20200]
20202	Fill	-	-	-	Fill of [20200]
20203	Fill	-	-	-	Fill of [20200]
20204	Fill	-	-	-	Fill of [20200]
20205	Cut	-	-	-	Cut of curvilinear
20206	Fill	-	-	-	Fill of [20205]
20207	Cut	0.90+	0.46	0.08	Cut of segment
20208	Fill	0.90+	0.46	0.08	Fill of [20207]
20209	Deposit	-	-	-	Layer deposit
20210	Fill	-	-	-	Fill of [20211]
20211	Cut	-	-	-	Cut of ditch adjacent to [20151]
20212	Cut	-	-	-	Cut of curvilinear
20213	Fill	-	-	-	Fill of [20212]
20214	Fill	-	-	-	Fill of [20212]
20215	Fill	-	-	-	Fill of [20155] upper
20216	Fill	-	-	-	Secondary fill in [20151]
20217	Fill	-	-	-	Primary fill of [20022]
20218	Deposit	2.32	0.84	0.15	Deposit- NW end
20219	Deposit	2.32	0.84	0.09	Yellow glacial geology
20220	Cut	-	-	-	Cut of post-hole
20221	Cut	-	-	-	PH = [20080]
20222	Fill	-	-	-	PH = (20082)
20223	Cut	-	-	-	PH = [20083]
20224	Fill	-	-	-	PH = (20084)
20225	Fill	-	-	-	PH = (20085)
20226	Cut	-	-	-	PH = [20086]
20227	Fill	-	-	-	PH = (20087)
20228	Fill	-	-	-	PH = (20088)
20229	Cut	-	-	-	PH = [20089]
20230	Fill	-	-	-	PH = (20090)
20231	Fill	-	-	-	PH = (20091)
20232	Cut	-	-	-	PH = [20092]
20233	Fill	-	-	-	PH = (20093)
20234	Fill	-	-	-	PH = (20094)

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20235	Cut	-	-	-	PH = [20095]
20236	Fill	-	-	-	PH = (20096)
20237	Fill	-	-	-	PH = (20097)
20238	Cut	-	-	-	PH = [20098]
20239	Fill	-	-	-	PH = (20099)
20240	Fill	-	-	-	PH = (20100)
20241	Cut	-	-	-	PH = [20101]
20242	Fill	-	-	-	PH = (20102)
20243	Fill	-	-	-	PH = (20103)
20244	Cut	-	-	-	PH = [20104]
20245	Fill	-	-	-	PH = (20105)
20246	Fill	-	-	-	PH = (20106)
20247	Cut	-	-	-	PH = [20107]
20248	Fill	-	-	-	PH = (20108)
20249	Fill	-	-	-	PH = (20109)
20250	Fill	-	-	-	PH = (20110)
20251	Cut	-	-	-	PH = [20111]
20252	Fill	-	-	-	PH = (20112)
20253	Fill	-	-	-	PH = (20113)
20254	Fill	-	-	-	PH = (20114)
20255	Cut	-	-	-	PH = [20115]
20256	Fill	-	-	-	PH = (20116)
20257	Fill	-	-	-	PH = (20117)
20258	Cut	-	-	-	PH = [20118]
20259	Fill	-	-	-	PH = (20119)
20260	Fill	-	-	-	PH = (20120)
20261	Cut	-	-	-	PH = [20166]
20262	Fill	-	-	-	PH = (20167)
20263	Fill	-	-	-	PH = (20168)
20264	Fill	-	-	-	PH = (20169)
20265	Cut	-	-	-	PH = [20170]
20266	Fill	-	-	-	PH = (20171)
20267	Cut	-	-	-	PH = [20172]
20268	Fill	-	-	-	PH = (20173)
20272	Cut	-	-	-	Same as [20184] South of [20019]
20273	Fill	-	-	-	Same as (20185)
20274	Fill	-	-	-	Same as (20186)
20275	Cut	-	-	-	Same as [20187]
20276	Fill	-	-	-	Same as (20188)

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20277	Fill	-	-	-	Same as (20189)
20278	Fill	-	-	-	Same as (20190)
20279	Cut	-	-	-	Same as [20191]
20280	Cut	-	-	-	Same as [20178] N of [20019]
20281	Cut	-	-	-	Same as [20181]
20282	Cut	-	-	-	Same as [20184]
20283	Cut	-	-	-	Same as [20187]
20284	Fill	-	-	-	Same as (20184)
20285	Fill	-	-	-	Same as (20191)
20286	Cut	-	-	-	Cut of pit/terminus (SW pits) NW quad
20287	Fill	-	-	-	Fill of [20286]
20288	Fill	-	-	-	Fill of [20286]
20289	Cut	-	-	-	Cut of pit in NW quad SW pits
20290	Fill	-	-	-	Fill of [20289]
20291	Fill	-	-	-	Top fill of [20286]
20292	Fill	-	-	-	Primary fill of [20289]
20293	Fill	-	-	-	Top fill of [20289]
20294	Cut	-	-	-	Cut in curvilinear
20295	Fill	-	-	-	Fill of [20294]
20296	Cut	-	-	-	Cut in curvilinear
20297	Fill	-	-	-	Fill of [20296]
20298	Fill	-	-	-	Fill of [20296]
20299	Fill	-	-	-	Fill of [20296]
20300	Fill	-	-	-	Fill of [20296]
20301	Fill	-	-	-	Fill of [20296]
20302	Fill	-	-	-	Fill of [20296]
20303	Cut	-	-	-	Cut of ridge and furrow slot
20304	Fill	-	-	-	Fill of [20303]
20305	Cut	-	-	-	Cut of ditch
20306	Fill	-	-	-	Fill of [20307]
20307	Cut	-	-	-	Cut of furrow
20308	Fill	-	-	-	Fill of [20307]
20309	Cut	-	-	-	Cut of furrow
20310	Fill	-	-	-	Fill of [20309]
20311	Cut	-	-	-	Cut of post hole
20312	Fill	-	-	-	Fill of [20311]
20313	Cut	-	-	-	Cut of post-hole
20314	Fill	-	-	-	Fill of [20313]
20315	Cut	-	-	-	Cut of penannular feature [2055]
20316	Fill	-	-	-	Primary fill of [20055]

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20317	Fill	-	-	-	Secondary fill of [20055]
20318	Deposit	-	-	-	Layer over (20318) & (20321)
20319	Cut	-	-	-	Cut to main ditch
20320	Fill	-	-	-	Primary fill of [20319]
20321	Fill	-	-	-	Secondary fill of [20319]
20322	Cut	-	-	-	Cut = [20055]
20323	Fill	-	-	-	Primary fill = (20316)
20324	Fill	-	-	-	Secondary fill = (20317)
20325	Cut	-	-	-	Cut parallel to ditch = [20319]
20326	Fill	-	-	-	Primary fill = (20320) [20325]
20327	Fill	-	-	-	Secondary fill = (20321) [20325]
20328	Fill	-	-	-	Primary fill of [20315]
20329	Cut	-	-	-	Cut = [20056]
20330	Fill	-	-	-	Primary fill = (20057) [20329]
20331	Fill	-	-	-	Secondary fill = (20066) [20329]
20332	Fill	-	-	-	Tertiary fill = (20067) [20329]
20333	Cut	-	-	-	Cut = [20063]
20334	Fill	-	-	-	Primary fill = (20065) [20333]
20335	Fill	-	-	-	Secondary fill = (20064) [20333]
20336	Fill	-	-	-	Domestic dump layer = (20058)
20337	Cut	-	-	-	Cut of stake hole (large)
20338	Cut	-	-	-	Cut of pit inside NW end of penannular
20339	Fill	-	-	-	Fill of [20338]
20340	Cut	-	-	-	Geological cut inside penannular feature
20341	Fill	-	-	-	Fill of [20340]
20342	Cut	-	-	-	Small pit inside penannular feature
20343	Fill	-	-	-	Fill of [20342]
20344	Cut	-	-	-	Cut of furrow outside NW extension of penannular
20345	Fill	-	-	-	Fill of [20344]
20346	Fill	-	-	-	Pits fill with packing stones of [20338]
20347	Cut	-	-	-	Cut (original) = [20211]
20348	Fill	-	-	-	Fill of [20347]
20349	Fill	-	-	-	Fill of [20347]
20350	Fill	-	-	-	Fill of [20347]
20351	Cut	-	-	-	Recut = [20151]
20352	Fill	-	-	-	Fill of [20351]
20353	Fill	-	-	-	Fill of [20351]
20354	Deposit	-	-	-	Layer
20355	Cut	-	-	-	Cut of ditch
20356	Fill	-	-	-	Fill of [20355]

CONTEXT	CONTEXTTYPE	LENGTH	WIDTH	DEPTH	SUMMARY DESCRIPTION
20357	Fill	-	-	-	Fill of [20355]
20358	Fill	-	-	-	Fill of [20355]
20359	Fill	-	-	-	Fill of [20355]
20360	Cut	-	-	-	Cut of ditch
20361	Fill	-	-	-	Fill of [20360]
20362	Fill	-	-	-	Fill of [20360]
20363	Cut	-	-	-	Same as [20355]
20364	Cut	-	-	-	Cut of ditch
20365	Fill	-	-	-	Fill of [20364]
20366	Cut	-	-	-	Cut E of [20022] West of [20151]
20367	Fill	-	-	-	Fill of [20368]- burnt material
20368	Cut	-	-	-	Cut of small pit/post-hole
20369	Fill	-	-	-	Primary fill of [20368]
20370	Fill	-	-	-	Fill of [20368]
20371	Cut	-	-	-	Cut of pit
20372	Fill	-	-	-	Fill of [20371]
20373	Fill	-	-	-	Fill of [20371]
20374	Fill	-	-	-	Fill of [20371]
20375	Fill	-	-	-	Fill of [20289]
20376	Cut	-	-	-	Cut of pit [PH?]
20377	Fill	-	-	-	Fill of [20376]
20378	Fill	-	-	-	Fill of [20376]
20379	Fill	-	-	-	Fill of [20376]
20380	Fill	-	-	-	Fill of [20337]
20381	Cut	-	-	-	Cut of poss. post-hole
20382	Fill	-	-	-	Fill of [20381]
20383	Fill	-	-	-	Fill of [20376] [20337]
20384	Cut	-	-	-	Cut of pit
20385	Fill	-	-	-	Fill of [20384]
20386	Cut	-	-	-	Cut of pit
20387	Fill	-	-	-	Fill of [20386]
20388		-	-	-	Group of pits
20389		-	-	-	Group of Iron age enclosure ditch
20390		-	-	-	Group of re-cut of IA enclosure
20391		-	-	-	Final infilling group of deposits
20392		-	-	-	Post-holes
20393	Cut	-	-	-	Pit
20394	Fill	-	-	-	PH = (20081)

APPENDIX 2 FINDS CATALOGUE

CONTEXT	SAMPLE	QTY	WGT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
unstrat	-	4	32	CBM	fired clay	abraded	-
unstrat	-	3	30	Pottery (PH)	MALV2	-	LPH
unstrat	-	1	5	Pottery (PH)	MALV3	-	LPH
20001	-	1	45	Pottery (Medi)	MED52	round cross-section, handle	13th-15th?
20001	-	1	44	Pottery (Medi)	MED52	handle	13th-15th?
20001	-	1	160	Stone	loom weight?	possible triangular-type loom weight, fragmentary, most of hole present	PH?
20002	-	3	26	Pottery (Medi)	MED52	jar, rim sherd	13th-15th?
20002	-	1	84	Industrial Waste	slag	indeterminate type	-
20004	-	3	38	Pottery (Medi)	MED	-	Medi
20010	-	1	6	CBM	tile?	-	PM?
20010	-	2	5	Pottery (PM)	PMGRE	-	PM
20012	-	1	7	CBM	fired clay	abraded	-
20016	-	1	1	Pottery (Medi/PM)	M/PM	-	Medi/PM
20020	-	1	4	Pottery (PH)	LISH	-	LPH
20021	-	10	38	Pottery (PH)	MALV3	-	LPH
20024	-	4	33	CBM	fired clay	abraded	-
20024	20001	40	34	CBM	fired clay	abraded	-
20024	20001	3	1	Pottery (PH)	OO	-	LPH
20027	20019	4	9	CBM	fired clay	abraded	-
20027	-	1	5	CBM	fired clay	-	PH
20027	-	1	59	Pottery (PH)	LISH	-	LPH
20027	-	3	2	Pottery (PH)	MALV	-	LPH
20027	-	1	6500	Stone	working surface	possible working surface	-
20028	20019	16	8	Pottery (PH)	MALV	crumbs	LPH
20035	-	1	4	Pottery (PH)	LISH	-	LPH
20036	-	3	4	CBM	fired clay	no surfaces	PH
20036	-	1	1304	Industrial Waste	slag	possible smithing base	-
20041	-	1	14	Pottery (PH)	LISH	-	LPH
20042	-	4	50	CBM	fired clay	abraded, curved profile, one burnt	-
20042	-	1	1	Pottery (PH)	MALV3	-	LPH
20043	-	2	7	CBM	fired clay	abraded	-
20043	-	12	22	Pottery (PH)	MALV3	or fired clay - no surfaces	LPH
20047	-	1	5	CBM	fired clay	abraded	-
20050	-	4	22	CBM	fired clay	-	PH
20050	-	1	7	Pottery (PH)	LISH	-	LPH
20050	-	1	9	Pottery (PH)	MALV2	-	LPH
20050	-	1	11	Pottery (PH)	MALV3	with shallow horizontal groove	LPH
20050	20005	1	0	Pottery (PH)	OO	-	LPH

CONTEXT	SAMPLE	QTY	WGT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
20050	20005	-	0	Industrial Waste	mag res	possible hammerscale	-
20058	-	15	72	CBM	fired clay	abraded	-
20058	-	2	9	Pottery (PH)	MALV1	-	LPH
20058	-	8	47	Pottery (PH)	MALV2	-	LPH
20058	20003	3	2	Pottery (PH)	MALV3	-	LPH
20058	-	7	39	Pottery (PH)	MALV3	-	LPH
20062	-	1	1	Pottery (PM)	PM?	-	PM?
20067	-	2	56	CBM	fired clay	abraded	-
20071	-	1	14	CBM	fired clay	abraded	-
20090	-	11	11	CBM	fired clay	-	PH
20096	-	1	2	Pottery (PH)	LISH	-	LPH
20102	-	2	11	Pottery (PH)	LISH	x1 burnt	LPH
20105	-	2	24	CBM	fired clay	abraded, possible stick impression	-
20105	-	1	2	Lithics	debitage	burnt flake	-
20116	-	1	3	Lithics	debitage	burnt flake	-
20119	-	1	1	CBM	fired clay	abraded	-
20142	-	2	18	Pottery (PH)	SAFE/GR	very slight carination	LPH
20159	-	1	19	CBM	fired clay	abraded, slight curving profile	-
20167	-	3	8	Pottery (PH)	MALV3	no surfaces	LPH
20169	-	1	1	Copper Alloy	jetton	fair to moderate surface wear, some illegibility of the legend on both sides; Nuremburg jetton of master Hans Shultes; obverse legend reads '...CHVLTES...N', reverse legend reads 'EM..O..CM.'	16th
20191	-	5	111	CBM	fired clay	abraded	-
20191	20014	4	1	Pottery (PH)	LISH	-	LPH
20192	-	1	13	Pottery (PH)	LISH	-	LPH
20193	-	1	13	CBM	fired clay	abraded	-
20213	-	2	24	CBM	Fired Clay	structural	PH
20214	-	5	40	CBM	fired clay	abraded	-
20250	-	1	14	CBM	fired clay	grog-tempered	PH
20254	20018	11	5	Pottery (PH)	OO	-	LPH
20256	-	1	18	Pottery (PH)	MALV3	-	LPH
20260	-	1	70	CBM	fired clay	structural, curved, irreg interior	PH
20263	-	12	66	CBM	fired clay	abraded	-
20264	20016	2	0	Pottery (PH)	OO	-	LPH
20277	-	1	23	Pottery (PH)	SAFE/GR	-	LPH
20284	-	9	62	CBM	fired clay	-	PH
20284	-	5	17	Pottery (PH)	MALV3	-	LPH
20285	-	6	106	CBM	fired clay	circular shape, smooth exterior	PH
20285	-	1	228	CBM	fired clay	shaped with finger smoothed exterior	PH
20308	-	1	1	Pottery (PM)	PM?	-	PM?

CONTEXT	SAMPLE	QTY	WGT (G)	MATERIAL	OBJECT	DESCRIPTION	SPOT DATE
20354	-	1	12	CBM	fired clay	abraded	-
20354	-	4	85	Industrial Waste	slag	possible fragments of plano-convex slag cake; very dense	-
20359	-	2	52	CBM	fired clay	abraded, thick with two possible surfaces, lining?	-
20359	-	1	289	Industrial Waste	slag	possible fragments of plano-convex slag cake; very dense	-
20362	-	3	18	CBM	fired clay	abraded	-
20379	-	1	8	Pottery (PH)	MALV1	2=1 fresh break	LPH
20387	-	1	7	Pottery (PH)	MALV3	-	LPH

APPENDIX 3 ENVIRONMENTAL DATA TABLES

TABLE A3.1 Environmental sample results

Context	20020	20024	20027	20050	20058	20152	20175	20180	20191	20213	20254	20257	20264	20298
Sample	20002	20001	20019	20005	20003	20012	20010	20013	20014	20015	20018	20017	20016	20020
Context type	Fill of Pit [20019]	Fill of [20022]	Fill of NE terminal [20029]	Fill of NE terminal [20049]	Deposit	Fill of [20149]	Fill of Ditch [20174]	Fill of Pit [20178]	Fill of Ditch [20187]	Fill of Curvilinear [20212]	Fill of Post-hole [20114]	Fill of Post-hole [20117]	Fill of Post-hole [20169]	Fill of Curvilinear [20296]
Group	10	10	20	10	10	10	10	20	20	10	10	10	10	10
Sample Vol (l)	0.4	0.5	0.4	0.7	0.9	0.1	0.2	0.3	0.6	0.16	0.25	0.6	0.1	0.2
Retent Vol (l)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Flot Vol (ml)	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sufficient for AMS?														
PLANT REMAINS														
weed seeds	-	-	-	-	-	-	-	-	-	-	+	-	+	-
ANIMAL REMAINS														
Burnt bone	+	-	+	-	++	-	-	-	-	-	-	-	-	-
Unburnt bone	+	-	++	+++	++++	-	+++	-	+++	+	+	+++	+	-
Earthworm egg capsule	u	-	-	-	-	-	-	-	+	+	++	+	+	-
Insect remains	u	-	-	-	-	-	-	-	-	+	-	-	-	-
Snail shell	u	-	+	-	-	+	-	-	+	+	-	-	-	+

Key: + = rare (0-5), ++ = occasional (6-15), +++ = common (15-50) and ++++ = abundant (>50)

ch = charred, w/l = waterlogged, u = uncharred

NB charcoal over 10mm is sufficient for identification and AMS dating

34 **TABLE A3.2** Animal remains

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	UNBURNT BONE						BURNT BONE						COMMENTS
				SPOT DATE	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MINI)	WEIGHT (G)	NO. OF FRAGMENTS	LARGE MAMMAL (E.G. COW/HORSE)	MEDIUM SIZED MAMMAL (E.G. PIG/SHEEP/GOAT)	SMALL ANIMAL (E.G./DOG/CAT/RABBIT)	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MINI)	WEIGHT (G)	NO. OF FRAGMENTS	
20020	-	x	NW terminal end [20019]	LPH	poor	2	127	42	cow teeth (x3)	Indeterminate long bone fragment	-	-	-	-	Heavily fragmented indeterminate long bone. Possible gnaw marks	
20020	20002	-	NW terminal end [20019]	LPH	poor	-	2	-	-	-	-	-	-	-	Indeterminate fragmented bone	
20021	-	x	NW terminal end [20019]	LPH	good	1	9	1	-	Indeterminate canine	-	-	-	-	-	
20024	20001	-	Fill of ditch [20022]	PH	poor	-	1	2	-	-	poor	1	2	Indeterminate fragmented bone		
20027	-	x	NE terminal [20029]	LPH	moderate	2	32	12	worn horse tooth	Rib fragments and indeterminate long bone fragments	-	-	-	-	-	
20027	20019	-	NE terminal [20029]	LPH	poor	-	9	5	-	Indeterminate long bone fragments	-	poor	3	7	Indeterminate fragmented bone	
20028	2000	x	NE terminal [20029]	LPH	poor	-	228	19	Indeterminate long bone fragments	-	-	-	-	-	-	
20028	2001	x	NE terminal [20029]	LPH	poor	-	56	14	Indeterminate pelvis and long bone fragments	-	-	-	-	-	-	
20028	-	x	NE terminal [20029]	LPH	poor	2	30	2	Indeterminate scapula fragments	Sheep/goat tooth and long bone fragments	-	-	-	-	-	
20030	-	x	NE terminal [20029]	LPH	good	1	5	1	-	Sheep/goat tooth	-	-	-	-	-	
20035	-	x	slot [20038] in curvilinear	LPH	poor	1	91	13	Indeterminate vertebral fragment. Cow deciduous premolar	-	-	-	-	-	Indeterminate skull fragments	
20036	-	x	slot [20038] in curvilinear	LPH	moderate	1	82	9	Horse ulna fragments	-	-	-	-	-	-	
20037	-	x	slot [20038] in curvilinear	LPH	good	1	51	2	Indeterminate metatarsal fragments	-	-	-	-	-	-	
20041	-	x	[20055] curvilinear ditch feature	-	moderate	-	36.8	2	-	-	-	-	-	-	-	

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	UNBURNT BONE						BURNT BONE						COMMENTS	
				SPOT DATE	PRESERVATION	MINIMUM INDIVIDUALS	WEIGHT (G)	NO. OF FRAGMENTS	LARGE MAMMAL (E.G. COW/HORSE)	MEDIUM SIZED MAMMAL (E.G. PIG/SHEEP/GOAT)	SMALL ANIMAL (E.G./DOG/ CAT/ RABBIT)	PRESERVATION	MINIMUM INDIVIDUALS	WEIGHT (G)	NO. OF FRAGMENTS		
20042	-	x	slot [20044] in curvilinear	LPH	moderate	1	66	8	Worn horse teeth (x3) and mandible fragments	-	-	-	-	-	-	-	-
20043	-	x	slot [20044] in curvilinear	LPH	poor	1	132	9	Horse; mandible and tooth. Indeterminate long bone fragments	-	-	-	-	-	-	-	Horse tooth very worn.
20046	-	x	curvilinear [20045]	?	poor	1	59	2	Proximal metatarsal fragment	-	-	-	-	-	-	-	-
20047	-	x	curvilinear [20045]	?	poor	1	97	11	Possible vertebral fragment	Indeterminate long bone fragment	-	-	-	-	-	-	indeterminate mammal bone fragments
20048	-	x	curvilinear [20045]	?	poor	-	53	5	-	-	-	-	-	-	-	-	Heavily fragmented large mammal bone
20050	-	x	NE terminal end [20049]	LPH	moderate	2	146	14	Cow; Astragalus and phalanx. Horse tooth. Indeterminate long bone and rib fragments.	-	-	-	-	-	-	-	-
20050	20005	-	NE terminal end [20049]	LPH	poor	-	33	>40	-	Heavily fragmented Indeterminate long bone and rib fragments	-	-	-	-	-	-	-
20053	-	x	[20051] Cut in extension on W side of ring feature	?	moderate	1	103.4	3	Indeterminate long bone fragment	-	-	-	-	-	-	-	Possible gnaw marks. Long bone vertically split
20058	-	x	Deposit	LPH	moderate/ poor	4	651	84	Horse Phalanges (x2) (Phalanx 1). Cow; Phalanx and calcaneum. Indeterminate rib, long bone and tooth fragments.	Sheep/goat teeth (x5). Indeterminate long bone fragments and rib fragments	-	-	-	-	-	-	Long bones vertically split
20058	20003	-	Deposit	LPH	poor	2	-	>40	Horse teeth (x3). Indeterminate scapula fragments	Sheep teeth (x7) and mandible fragments.	Rib fragments	poor	-	13	10	-	Indeterminate fragmented bone
20067	-	x	Fill of ring ditch [20056]	?	good	1	171	4	Horse distal tibia and tooth	-	-	-	-	-	-	-	-

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	UNBURNT BONE						BURNT BONE						COMMENTS	
				SPOT DATE	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MINI)	WEIGHT (G)	NO. OF FRAGMENTS	LARGE MAMMAL (E.G. COW/HORSE)	MEDIUM SIZED MAMMAL (E.G. PIG/SHEEP/GOAT)	SMALL ANIMAL (E.G. /DOG/ CAT/ RABBIT)	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MINI)	WEIGHT (G)	NO. OF FRAGMENTS		
20071	-	x	Cut of intersection between ring ditch	?	poor	1	238	35	Horse teeth (x2). Indeterminate mandible and scapula fragments	-	-	-	-	-	-	-	-
20083	-	x	Cut of post hole	-	poor	-	25	5	Indeterminate long bone fragments	-	-	-	-	-	-	-	-
20085	-	x	Fill of post hole [20083]	?	poor	2	508	35	Worn horse tooth. Cow; phalanx and proximal and distal metacarpal fragments	-	-	-	-	-	-	-	-
20090	-	x	post hole [20089]	PH	poor	1	16	4	-	Possible scapula fragment	-	-	-	-	-	-	-
20102	-	x	post hole [20101]	?	moderate	1	65	2	Horse distal metacarpal	-	-	-	-	-	-	-	-
20105	-	x	post hole [20104]	PH	moderate	1	17	1	Indeterminate shaft fragments	-	-	-	Good	1	3	1	Gnaw marks
20119	-	x	post hole [20118]	?	moderate	1	5	1	-	Sheep/goat tooth.	-	-	-	-	-	-	-
20130	-	x	ditch [20129]	?	poor	-	44	3	-	-	-	-	-	-	-	-	Indeterminate long bone fragments, longitudinally split
20132	-	x	Backfill	?	moderate	1	353	9	Cow distal humerus. Indeterminate scapula and pelvis fragments	-	-	-	-	-	-	-	-
20142	-	x	ditch [20060]	LBA?	moderate	1	19	2	-	Sheep/goat teeth (x2)	-	-	-	-	-	-	-
20152	-	x	ring feature [20151]	-	poor	-	29	4	Indeterminate long bone fragments	-	-	-	-	-	-	-	-
20158	-	x	pit [20157]	?	poor	-	9	2	-	-	-	-	-	-	-	-	-
20159	-	x	pit [20157]	?	poor	-	2	4	-	-	-	-	-	-	-	-	-
20162	-	x	pit [20161]	?	poor	1	51	6	Cow tooth. Indeterminate scapula fragments	-	-	-	-	-	-	-	-

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	UNBURNT BONE						BURNT BONE						COMMENTS						
				SPOT DATE	PRESERVATION	MINIMUM INDIVIDUALS	WEIGHT (G)	NO. OF FRAGMENTS	LARGE MAMMAL (E.G. COW/HORSE)	MEDIUM SIZED MAMMAL (E.G. PIG/SHEEP/GOAT)	SMALL ANIMAL (E.G./DOG/ CAT/RABBIT)	PRESERVATION	MINIMUM INDIVIDUALS	WEIGHT (G)	NO. OF FRAGMENTS							
20167	-	x	post hole [20166]	LPH	good	1	42	1	42	1	Cow astragalus	-	-	-	-	-	-	-	-			
20175	-	x	ditch [20174]	LPH	poor	1	307	40	307	40	Cow; teeth (x6) and jaw fragments; Phalanx 1 (x1). Indeterminate long bone fragments.	-	-	-	-	-	-	-	-	Long bone longitudinally split		
20175	20010	-	ditch [20174]	LPH	poor	-	12	>40	-	-	-	-	-	-	-	-	-	-	-	Indeterminate fragmented bone		
20186	-	x	ditch [20184]	LPH	poor	-	30	1	30	1	-	-	-	-	-	-	-	-	-	Indeterminate long bone fragment, longitudinally split		
20190	-	x	ditch [20187]	LPH	poor	1	103	3	103	3	Horse proximal radius fragments	-	-	-	-	-	-	-	-	Gnaw marks		
20191	-	x	ditch [20187]	?	poor	1	458	10	458	10	Horse; distal metacarpal (x1), distal metatarsal (x2), possible metacarpal shaft. Rib fragments	Indeterminate pelvis fragments	-	-	-	-	-	-	-	-	Possible knife cut marks on proximal metatarsal	
20191	20014	-	ditch [20187]	?	moderate	1	89	7	89	7	Proximal radius and ulna fragments (possibly cow)	-	-	-	-	-	-	-	-	-	Radius vertically split	
20192	-	x	ditch [20174]	LPH	moderate-poor	1	246	15	246	15	Horse; proximal metacarpal. Indeterminate long bone fragments	-	-	-	-	-	-	-	-	-	Indeterminate long bone fragments, longitudinally split	
20196	-	x	curvilinear [20194]	?	moderate	1	51	5	51	5	Horse teeth (x5). Indeterminate long bone fragments	-	-	-	-	-	-	-	-	-	-	
20213	-	x	curvilinear [20212]	PH	poor	3	55	47	55	47	Worn horse tooth. Cow calcaneum	Indeterminate long bone fragments; possible femur	Possible fragmented, worn, dog tooth and skull fragments	-	-	-	-	-	-	-	-	Gnaw marks on some of the bones

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	UNBURNT BONE						BURNT BONE						COMMENTS
				SPOT DATE	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MNI)	WEIGHT (G)	NO. OF FRAGMENTS	LARGE MAMMAL (E.G. COW/HORSE)	MEDIUM SIZED MAMMAL (E.G. PIG/SHEEP/GOAT)	SMALL ANIMAL (E.G. /DOG/ CAT/ RABBIT)	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MNI)	WEIGHT (G)	NO. OF FRAGMENTS	
20213	20015	-	curvilinear [20212]	PH	moderate	-	5	6	-	-	Sheep/goat teeth (x2) and mandible fragments	-	-	1	3	Indeterminate heavily calcined bone fragments
20214	-	x	curvilinear [20212]	PH	moderate	2	185	16	Worn horse teeth (x4). Indeterminate long bone fragments	Indeterminate long bone fragment	-	-	-	-	-	-
20217	-	x	[20022]Cut of burnt feature (central trench)	PH	moderate	1	58	4	Horse distal tibia	-	-	-	-	-	-	-
20240	-	x	post hole [20100]	?	poor	1	40	2	Possible horse pelvis fragments	-	-	-	-	-	-	-
20253	-	x	post hole [20113]	?	poor	-	29	6	Indeterminate skull fragments	-	-	-	-	-	-	-
20254	20018	x	post hole [20114]	LPH	moderate	-	9	13	-	Indeterminate long bone fragments	-	-	poor	2	2	Indeterminate heavily calcined bone fragments
20257	20017	-	post hole [20117]	?	moderate	-	43	32	Indeterminate long bone fragments	-	-	-	-	-	-	-
20259	-	x	post hole [20119]	?	poor	-	25	6	Rib fragments	-	-	-	-	-	-	-
20260	-	x	post hole [20120]	PH	moderate	1	84	4	Cow; teeth (x2) and distal metapodial fragment	-	-	-	-	-	-	-
20263	-	x	post hole [20168]	?	poor	3	157	10	Cow; tooth and distal metatarsal. Horse tooth	Sheep tooth	-	-	-	-	-	Possible gnaw marks on metatarsal
20264	20016	x	post hole [20169]	LPH?	moderate	-	2	3	-	-	Indeterminate bone fragments	-	-	-	-	-
20273	-	x	ditch [20185]	?	poor	1	22	3	-	Indeterminate long bone fragments	-	-	-	-	-	-
20279	-	x	ditch [20187]	LPH	moderate	2	283	16	Horse; distal metacarpal. Cow metacarpal shaft. Indeterminate pelvis and long bone fragments	-	-	-	-	-	-	Indeterminate long bone fragments. Gnaw marks on metacarpals.

CONTEXT	SAMPLE	HAND COLLECTED	FEATURE	UNBURNT BONE						BURNT BONE						COMMENTS
				SPOT DATE	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MNI)	WEIGHT (G)	NO. OF FRAGMENTS	LARGE MAMMAL (E.G. COW/HORSE)	MEDIUM SIZED MAMMAL (E.G. PIG/SHEEP/GOAT)	SMALL ANIMAL (E.G./DOG/CAT/RABBIT)	PRESERVATION	MINIMUM NUMBER OF INDIVIDUALS (MNI)	WEIGHT (G)	NO. OF FRAGMENTS	
20284	-	x	ditch [20184]	PH- LPH	moderate	2	43	5	Cow tooth	Sheep tooth. Indeterminate long bone fragments	-	-	-	-	-	-
20306	-	x	furrow [20307]	?	poor	1	25	3	Indeterminate long bone fragments	-	-	-	-	-	-	-
20354	-	x	Layer	?	moderate	3	1231	63	Cow; distal Femur, Calcaneum. Horse teeth (x15). Indeterminate scapula, mandible and long bone fragments.	Scapula fragment	-	-	-	-	-	Horse teeth very worn. Gnaw marks on end of scapula.
20367	-	x	pit/ post hole [20368]	-	poor	-	15	3	Rib fragments	-	-	-	-	-	-	-
20379	-	x	pit [20376]	-	poor	-	68	9	Indeterminate long bone fragments	-	-	-	-	-	-	-
20383	-	x	pit [20376]	-	poor	-	14	3	-	Indeterminate skull and rib fragments. Sheep/goat tooth.	-	-	-	-	-	-
22052	-	x	-	-	poor	1	80	8	-	Sheep/goat metacarpal	-	-	-	-	-	Possible gnaw marks
22541	-	x	-	?	moderate	1	96	1	-	-	-	-	-	-	-	-
U/S	-	x	-	?	poor	1	28	1	Possible pelvis fragment	-	-	-	-	-	-	-

APPENDIX 4 EXTENDED PUBLICATION NOTE

Wheatpieces South, Tewkesbury, Gloucestershire. SO90358 30822

Oasis Ref: headland3-347476

Appendix 4.1 Introduction

Archaeological excavations were undertaken by Headland Archaeology on land to the west of Rudgeway Lane in the Wheatpieces suburb of Tewkesbury, Gloucestershire (Fig 1). The excavation, which took place between 19th February and 29th March 2018 was targeted upon a small, penannular enclosure previously identified through geophysical survey and archaeological evaluation. The enclosure was broadly 'horseshoe shaped' or penannular in plan, with two rounded terminal ends forming a north-facing entrance with slightly off-set post-hole structures (see Fig. 1). Excavation identified that there were four potential phases of archaeological activity associated with occupation and use.

The following note summarises the key themes emerging from the excavations. The full analysis report can be accessed through the Archaeological Data Service and the Gloucestershire HER.

Appendix 4.2 Results

A group (20388) of truncated potential pit-like features were identified suggesting a possible first phase of a semi-circular arc opening to the northwest. The features were heavily truncated and fragmentary with no positively dateable artefactual material recovered to unequivocally confirm their nature or function.

The establishment of a continuous penannular ditch cut (Group 20389) formed the 2nd phase on the site and is likely to represent the establishment of occupation. The ditch defined an internal area of approximately 12 to 12.5m diameter with a north facing opening. Slightly offset from the opening, two construction trenches (Group 20392) measuring 5.5m and 6.3m long were evidenced to contain a series of tightly packed, vertical post-settings. Stone packing material and a quantity of Iron Age pottery sherds were recovered from the features. A cow bone recovered from the northernmost post-trench returned an AMS date of $2186 \pm 25\text{BP}$ (GU49278).

The 3rd phase of activity related to the complete re-cutting and definition of the penannular ditch (Group 20390). A sheep/goat tooth from a lower fill provided an AMS date of $2246 \pm 25\text{BP}$ (GU49277).

The absence of any physical or stratigraphic relationship between the post trenches and the phases of ditch cuts precludes any unequivocal phasing of the post trenches but it seems likely that the two sets of posts across the northern opening relate to one or the other of the ditch phases, each representing a phase of construction contemporary with the establishment and redefinition of the penannular ditch. The AMS dates obtained do indicate broad contemporaneity and a probable 3rd century BC focus of occupation.

Artefactual evidence from the ditches was limited but quite mixed, with a small pottery assemblage, animal bone, some fragments of

burnt bone, heat affected stone and slag; the latter suggestive of iron smithing. A flat 'working' stone was also recovered from the Phase 3 ditch terminal. The material did not reflect a density of occupational detritus but was in keeping with a generally domestic type assemblage. Concentrations of heat affected stone were observed within the western terminal end upper fills. Possible esoteric or structured deposition was also identified in the Phase 3 terminal end of the ditch, with a large mammal bone (cow/horse) having been placed on the base of the terminus. Structured deposits of such type are known from both domestic and non-domestic sites and, on their own, do not significantly add to understanding or interpretation of the feature.

The pottery assemblage was largely undiagnostic, with a generally late prehistoric date range based on fabric types known within the wider region. However, the middle Iron Age radiocarbon dates support the indication that the pottery fabric types are likely to derive from this period, with no definitively variable types or chronologies suggested in the recovered assemblage.

The final phase (Phase 4) of redefinition of the feature, took the form of a slightly curving, broadly east-west ditch (Group 20396), extending west from the Phase 3 ditch. The precise function of this additional 'arm' to the feature cannot be positively attested but given the nature of the gleyed fills which were evidenced in all phases of ditches, additional drainage of the area may have motivated the extension of the ditch.

Finds from the Phase 4 ditch evidenced the same pottery typology, with fired clay and iron-working slag, probably indicative of smithing, also recovered. The nature of the finds suggested no definitive change in function or nature of occupation with the alteration to the form of the ditch.

A cluster of probable clay quarrying pits were identified lying immediately south-west of the ditch and may have been associated with the feature, with a few sherds of later prehistoric pottery recovered. Features internal to the penannular ditch were limited to three irregular indeterminate function cuts which yielded no dateable material.

Appendix 4.3 Discussion

Penannular type ditches are common on both Bronze-Age and Iron-Age sites on the Upper Thames gravels and the Severn Valley, with suggested variable entrance orientations and their average dimensions varying from site to site. Whilst the feature at Wheatpieces is slightly more 'horseshoe' in shape, it is broadly of the same characteristic as small middle Iron Age penannular type features. Further, broadly similarly shaped features were excavated at Coln Gravels (Stansbie et al 2008) and West Hill, Uley (Woodward and Leach, 1993), though both of these were part of more complex sites and not located in relative isolation as is the site at Wheatpieces. In addition, the Uley enclosure differs in being located within the upland Cotswolds as opposed to the lowland locations of the other comparative sites.

Evidence suggesting small scale, dispersed settlement activity of the later prehistoric period has been recorded north-east of the site at

Fiddington, where a series of small penannular or circular 'enclosures' were confirmed as of probable middle Iron Age date and evidenced similar finds assemblages of Malvernian ware, quantities of slag, animal bone and fired clay (Hughes 2014).

Excavation on the Rudgeway Field development to the north and north-east of the Wheatpieces site also identified a small middle Iron Age ditched enclosure, which evidenced potential continuous occupation and development into the Roman period (Hart and McSloy 2008). The original middle Iron Age feature at Rudgeway, also evidenced a possible extension to the ditch, oriented north-south and protruding as an arm from the west, rear of the penannular ditch. The Phase 4 extension at Wheatpieces appears to have taken a similar form, though variable orientation.

Many of the 'enclosures' are interpreted as domestic in nature, though often no internal features are identified suggesting the presence of structural remains. Similarly, no suggestions of any internal features were identified at Wheatpieces which could indicate the presence of a structure such as a roundhouse. However, the finds and environmental assemblage do suggest probable low-level domestic occupation, with an element of industrial activity in the form of iron-smithing.

The general lack of density of artefactual material within the phases of ditches may support a suggestion that the site was seasonally occupied, with no need for a permanent structure or 'house'. The site may have related to seasonal agriculture on the flood plain, unsuitable for occupation during wetter periods. The redefinition of the encircling ditch and nature of lower energy, gradual sedimentation and elements of gleying of the ditch fills, supports the interpretation that they were constructed to drain the area.

The Wheatpieces site would appear to fit within a broader pattern of unenclosed, middle Iron Age settlement in the wider region. In this case, potentially seasonal on the River Severn flood plain and possibly associated with sites such as Rudgeway and Fiddington. Moore (2007) describes a wider pattern in the Severn Valley and Upper Thames Gravels, of enclosing settlement sites in the later Iron Age, with unenclosed settlement becoming more of a rarity. The lack of evidence suggesting any use of the Wheatpieces site after the middle Iron Age, suggests the site would fit this wider pattern and was abandoned after a relatively short-lived period of occupation and use.

Post medieval remains were limited to ridge and furrow field system remains, reflecting the site's later use as agricultural fields. These

furrows were part of a wider system also evidenced during the earlier trial trenching (Thomson, 2016) and the Phase 1 excavation (Cochrane, 2018). The ridge and furrow agriculture, combined with extensive modern ploughing, is likely to have contributed to extensive truncation of the identified middle Iron Age remains.

Appendix 4.4 References

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APPENDIX 5 RADIOCARBON DATING CERTIFICATES



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Director: Professor F M Stuart Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc



RADIOCARBON DATING CERTIFICATE
20 November 2018

Laboratory Code SUERC-82850 (GU49277)

Submitter Laura Bailey
Headland Archaeology
13 Jane Street
Edinburgh
EH6 5HE

Site Reference WSTG
Context Reference 20030

Material Tooth : Sheep/goat

$\delta^{13}\text{C}$ relative to VPDB -21.5 ‰
 $\delta^{15}\text{N}$ relative to air 6.4 ‰
C/N ratio (Molar) 3.2

Radiocarbon Age BP 2246 \pm 25

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

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

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

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

Conventional age and calibration age ranges calculated by :

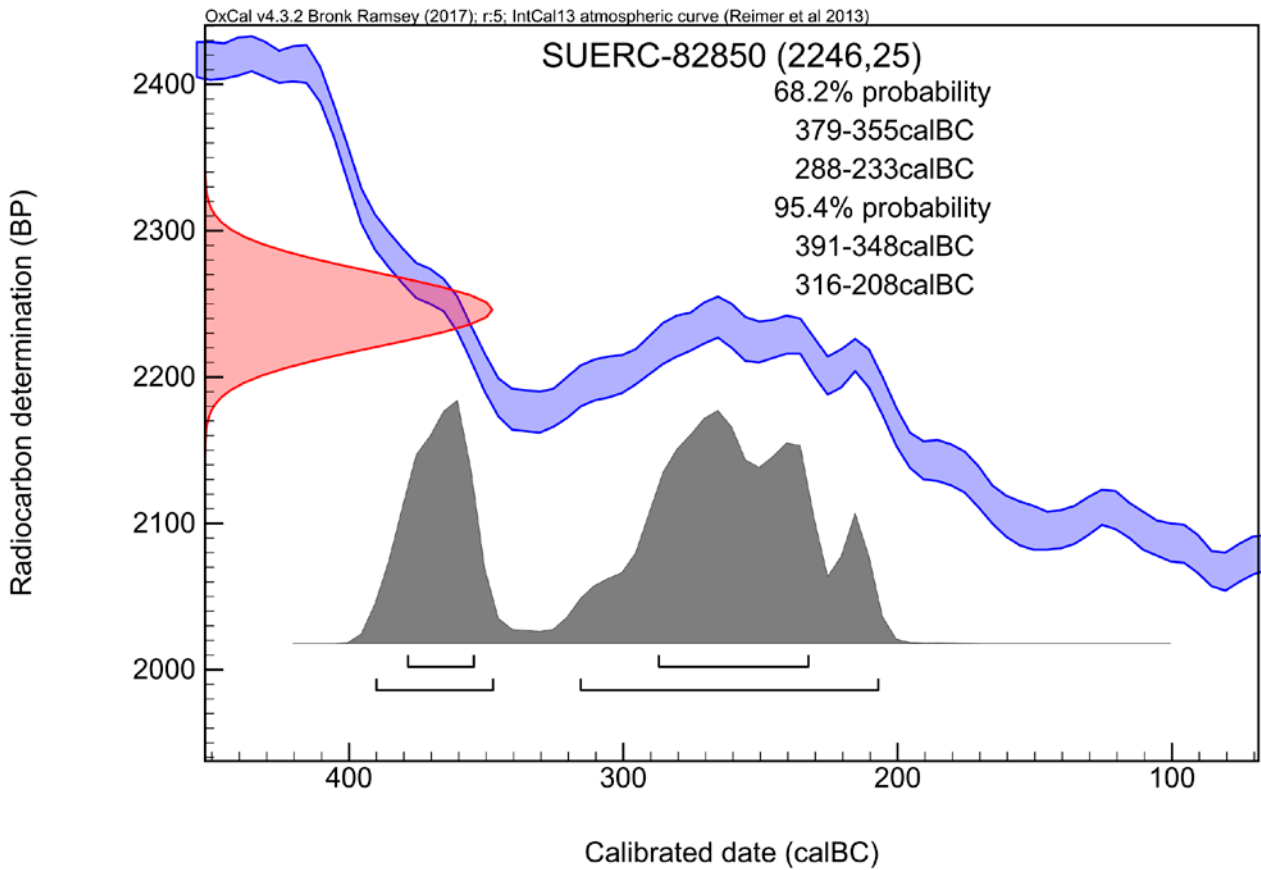
Checked and signed off by :



The University of Glasgow, charity number SC004401



The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336



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

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

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

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

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



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RADIOCARBON DATING CERTIFICATE
20 November 2018

Laboratory Code SUERC-82851 (GU49278)

Submitter Laura Bailey
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Edinburgh
EH6 5HE

Site Reference WSTG

Context Reference 20167

Material Astragalus : Cow

$\delta^{13}\text{C}$ relative to VPDB -22.0 ‰

$\delta^{15}\text{N}$ relative to air 6.4 ‰

C/N ratio (Molar) 3.2

Radiocarbon Age BP 2186 \pm 25

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

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

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

Conventional age and calibration age ranges calculated by :

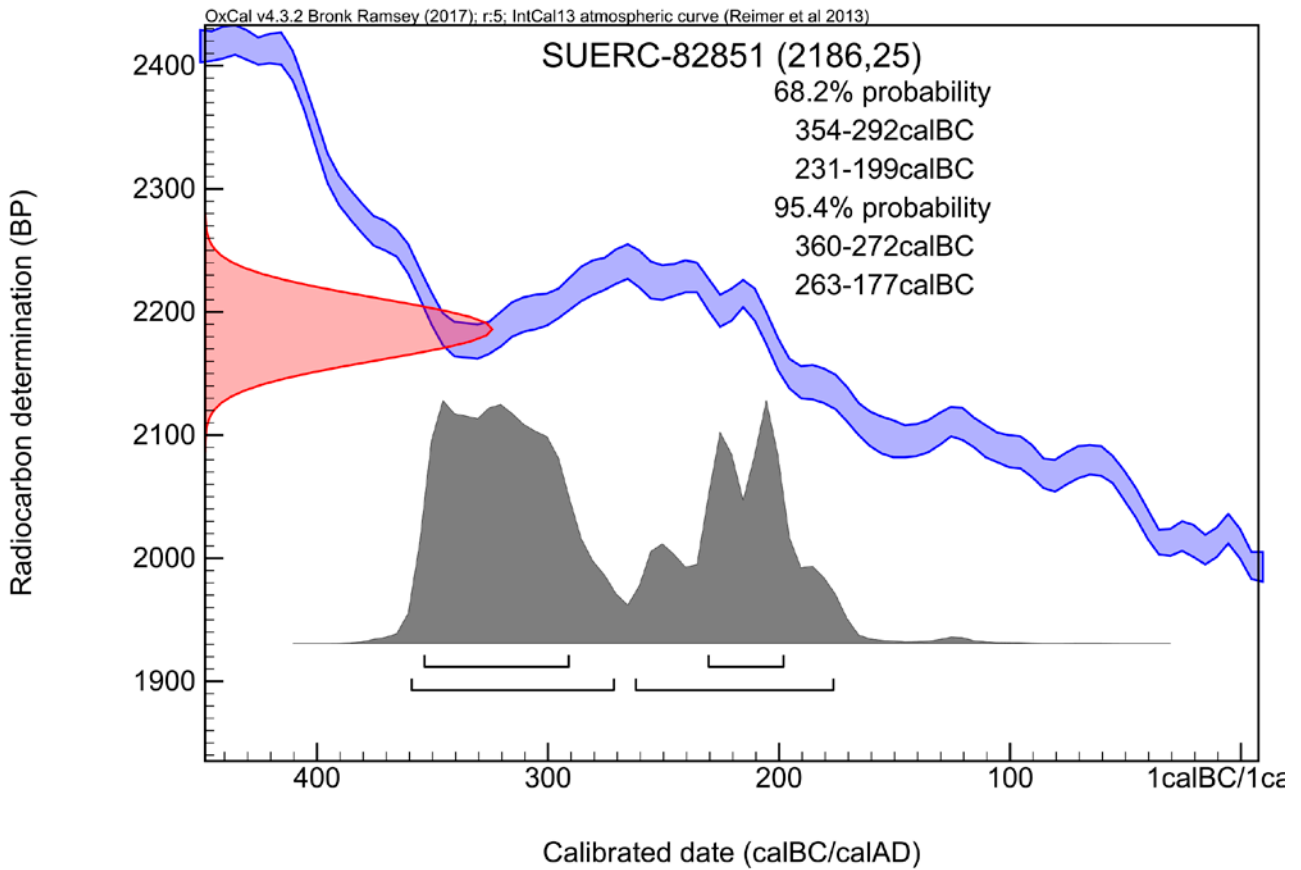
Checked and signed off by :



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

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



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