Making sense of heritage

Bicester A41 Park and Ride Facility Oxfordshire

Archaeological Strip, Map and Sample and Watching Brief Assessment Report

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wessexarchaeology

Bicester A41 Park and Ride Facility
Oxfordshire

Archaeological Strip, Map and Sample and Watching Brief Assessment Report

Prepared for:
Thomson Habitats Ltd
Compass House
Surrey Research Park
Guildford
Surrey
GU2 7AG

On behalf of:
Carillion Civil Engineering
192 Dawley Road
Hayes
Middlesex
UB3 1EH

Prepared by:
Wessex Archaeology
Portway House
Old Sarum Park
Salisbury
SP14 6EB

www.wessexarch.co.uk

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Bicester A41 Park and Ride Facility, Oxfordshire

Archaeological Strip, Map and Record and Watching Brief Assessment Report

Contents

Tables

Figures

Plates

Bicester A41 Park and Ride Facility, Oxfordshire

Archaeological Strip, Map and Record and Watching Brief Assessment Report

Summary

Wessex Archaeology was commissioned by Thomson Habitats Ltd, on behalf of Carillion Civil Engineering, to undertake an archaeological strip, map and record and watching brief in advance of the proposed construction of a park and ride facility at Bicester, Oxfordshire (centred on NGR 457140 221120, hereafter 'the Site'). This mitigation work followed on from a preceding archaeological evaluation of the Site that had recorded a number of archaeological features including ditches, pits and post-holes, many of which were undated, as well as a single Romano-British cremation burial.

Fieldwork was undertaken between 5th May 2015 and 14th June 2015 on the strip, map and record area and the watching brief area, with an additional three days in July 2015 to monitor the final portion of the watching brief area.

The artefacts retrieved from the investigations suggest two main periods of activity: Romano-British (mainly of 2nd–4th century AD date) and post-medieval or later (late 15th–19th century AD). Occasional artefacts found redeposited in later contexts, comprising part of a Langdale ground stone axe and an unabraded flint assemblage including tools, also suggest occupation of this landscape in early prehistory.

Assessment of the stratigraphic sequence has been able to define two phases of landscape organisation within the Romano-British period, although precise dating is hampered by the small quantity of dateable artefacts, as well as the condition and lack of diagnostic pottery sherds. There is evidence of field enclosures, a trackway and a waterhole in this period, forming part of the agricultural hinterland of the Roman town of Alchester, located approximately 600 m to the south of the Site.

None of the features or deposits suggests Romano-British settlement within the Site, though there is evidence of Romano-British mortuary activity, in the form of a small number of cremation burials and associated features. These are presently imprecisely dated and do not appear associated with any of the ditched enclosures, however further analysis has the potential to date these and, therefore, provide a link to other cemeteries known outside of the Roman town of Alchester.

A very small number of post-medieval or later features and deposits were also recorded, all likely to have been associated with farming.

In accordance with the condition attached to the planning consent for the development, a statement of potential and proposals in relation to dissemination of the results of the archaeological investigation are outlined within this report, which will lead to the production of a short article to be submitted to the county journal, *Oxoniensia*.

Bicester A41 Park and Ride Facility, Oxfordshire

Archaeological Strip, Map and Record and Watching Brief Assessment Report

Acknowledgements

The project was commissioned by Thomson Habitats Ltd, on behalf of Carillion Civil Engineering, and Wessex Archaeology would particularly like to thank Mike Rennie of Thomson Habitats Ltd and Sean McManamon of Buckingham Group Contracting Ltd. We would also like to thank Richard Oram (Planning Archaeologist, Oxford County Archaeological Service), who monitored the investigations for his help and advice during all stages of the work.

The fieldwork was undertaken by Sam Fairhead with the assistance of Sean Rice, Roy Krakowicz, Luke Jarvis, Frances Ward, Kerry Birnie and Owen Watts. Steve Thompson completed the watching brief.

This report was compiled by Gail Wakeham with contributions by Sam Fairhead, and edited by Phil Andrews. The finds were assessed by Rachael Seager Smith, Lorrain Higbee (animal bone), Jacqueline McKinley (human bone), and Matt Leivers (flint). The environmental samples were processed by Tony Scothern and assessed by Sarah Wyles and the environmental reporting was undertaken by John A Giorgi. The report graphics were prepared by Rob Goller.

The project was managed on behalf of Wessex Archaeology by Andy Crockett.

Bicester A41 Park and Ride Facility
Oxfordshire

Archaeological Strip, Map and Sample and Watching Brief
Assessment Report

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology (WA) was commissioned by Thomson Habitats Ltd, on behalf of Carillion Civil Engineering, to undertake an archaeological strip, map and sample and watching brief in advance of the proposed construction of a park and ride facility at Bicester, Oxfordshire, centred on National Grid Reference (NGR) 457140 221120 (hereafter 'the Site'; **Figure 1**).

1.1.2 Planning permission was granted, subject to conditions, on 13th January 2014 for construction of a remote park and ride facility including up to 580 car parking spaces, cycle spaces and shelter, bus laybys and shelter, fencing, landscaping, attenuation pond and drainage (ref R3.0146/13). Conditions 4 and 5 related to a staged programme of archaeological evaluation and mitigation, in order to :

'*to safeguard the identification, recording, analysis and archiving of heritage assets before they are lost and to advance understanding of heritage assets in their wider context through publication and dissemination of the evidence (National Planning Policy Framework)*'

1.1.3 Following consultation with the Oxfordshire County Archaeological Service (OCAS) – the results of a prior archaeological evaluation of the Site (Oxford Archaeology 2013) were considered, as well as the known archaeological potential for Roman remains within the vicinity – a phased programme of archaeological mitigation was agreed as follows:

- *the easternmost portion of the Site, covering an area of approximately 0.8ha, will be subject to an archaeological strip, map and sample excavation; and*
- *the westernmost portion of the Site, covering an area of approximately 1.3ha, will be subject to an archaeological watching brief during topsoil stripping.*

1.1.4 All works were undertaken in accordance with a Written Scheme of Investigation (WSI) that was approved by OCAS Planning Archaeologist (Wessex Archaeology 2014).

1.2 Scope of report

1.2.1 This document presents the results of the archaeological strip, map and sample and also the watching brief which recorded archaeological features and deposits prior to construction.

1.2.2 This document also contains a statement of potential and proposals for publication. It is anticipated that further analysis, the specific nature of which is defined within this report, will lead to the production of a short article for publication in the regional archaeological journal *Oxoniensia*.

1.3 The Site location, topography and geology

1.3.1 The Site comprises an approximately sub-rectangular 2.1 ha parcel of land located immediately north-west of the A41 trunk road, approximately 2km to the south-west of Bicester, Oxfordshire (**Figure 1**). It is bounded by the A41 to the south-east, the Alchester Road to Chesterton to the south-west, the new B4030 Vendee Drive to the north-east, and open fields (including a public footpath from Alchester Road to Bicester) to the north-west. The land use of the Site at the time of the investigations was disused farmland.

1.3.2 The Site occupies relatively flat ground at approximately 66 m above Ordnance Datum (aOD), though sloping very gently down to the south-west towards the nearby Gagle Brook.

1.3.3 Gagle Brook flows south through a network of unnamed streams and drainage features, to eventually discharge into the River Ray south-west of Merton village. In a broader context, the stream and river network forms part of the feeder system for the upper reaches of the River Thames as it flows through Oxford to the south.

1.3.4 The underlying bedrock consists of Kellaway Clay, a sedimentary mudstone formed *c.*161–165 million years ago. More recent superficial deposits of River Terrace gravel and alluvium overlying the bedrock are also recorded, primarily to the south-east of the Site (British Geological Survey on-line viewer).

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The Site was previously investigated through trial trench evaluation in August 2013 (Oxford Archaeology 2013), the results of this evaluation, and the known archaeological resource within the surrounding area from other investigations, are summarised below.

2.2 Archaeological remains known within the surrounding area

2.2.1 The archaeological background to the Site is dominated by the adjacent Roman town of Alchester, a Scheduled Monument (no. 1006365) located approximately 600 m to the south of the Site (**Figure 1**). It is known from previous investigations in the area (i.e. during road widening for the A41 in the 1990s) that the settlement extends beyond the scheduled area. The Site is also located 250 m north-west of the crossroads of two Roman roads, the east–west Akeman Street and the north–south Dorchester to Towcester road (**Figure 1**): such areas are often the focus for a variety of activity, including burial and roadside votive shrines.

2.2.2 Archaeological features relating to Alchester, and its earlier, Iron Age, settlement precursor, were recorded along the line of the A41, approximately 200 m to the north-east of the Site (Booth *et al* 1991, 27–34, Area D). These included a series of late Iron Age and Romano-British enclosure ditches, buildings and a number of pits. The density of remains suggested that occupation in this area was fairly intensive.

2.2.3 Two larger areas of archaeological features associated with settlement north of Alchester were excavated to the immediate south-west of the Site, within the area of the current crossroads (Booth *et al* 1991, 27–34, Areas B and C). These included part of the Roman cemetery for the town, as well as an extensive settlement dating from the Middle Iron Age through to the Late Roman period. Features associated with this settlement area included a number of stone footings and yard surfaces, as well as a series of enclosure ditches, all of Late Iron Age and Romano-British date.

2.2.4 More recently, archaeological features were recorded during a staged programme of investigations at Whitelands Farm carried out by Wessex Archaeology, with many separate areas of excavation spread over a large area (approximately one square kilometre) to the north-east of the Site, with varying densities and periods of archaeology present (Martin 2011; **Figure 1**). Excavation Areas 8, 9 and 10 of Whitelands Farm lie immediately north of the Bicester Park and Ride Site, yet these areas contained only one or two undated linear ditches. The main density of archaeological remains lay further north close to the north–south Roman road.

2.2.5 At Whitelands Farm, early prehistoric activity was represented by a Palaeolithic hand axe, two ploughed-out barrows and a Beaker burial (a rare discovery for this part of Oxfordshire), an isolated Early Bronze Age cremation burial, and a Middle Bronze Age palstave axe (*ibid*, 177–179). Middle Iron Age settlement comprising pits and a ditch was identified in the west of the site (area 1, **Figure 1**). The settlement may have shifted to the south-east (Area 7, **Figure 1**, but perhaps with the focus beyond) in the Late Iron Age, with abandonment seen in this perhaps watery marginal area in the early Romano-British period (*ibid*, 180). A Late Iron Age possible territorial boundary ditch or large drainage feature was recorded in Areas 13 and 15 (*ibid*, 181).

2.2.6 Areas 14–17 in the north-east corner of Whitelands near the Roman road (**Figure 1**) contained the highest density of features, predominantly dating to the Late Iron Age and early Romano-British period, with a few isolated Anglo-Saxon features (*ibid*, 182). Features comprised quarry pits, ditches and enclosures, rubbish pits, four-post structures and features associated with crop processing, evident from samples recovered from corn-driers and stone-lined features that may suggest malting and possibly brewing (*ibid*, 183–185). Extensive ridge and furrow is evident from aerial photographs across Whitelands Farm in the medieval period and two post-medieval ditches were recorded in Area 7 (*ibid*, 198).

2.3 Archaeological evaluation of the Site

2.3.1 The trial trench evaluation recorded a number of archaeological features, including ditches, pits and post-holes, but many remain undated due to the general paucity of artefacts recovered (Oxford Archaeology 2013). This rarity of artefacts led to the conclusion that the remains were more likely to represent field systems and agricultural enclosures rather than settlement *per se*. However, two possible hearths were recorded, and given the constraints of the narrow evaluation trenches prohibiting meaningful interpretation of the various post-holes encountered, it was suggested that it remained possible that domestic structures were present at the Site.

2.3.2 A single cremation burial with hobnails or tacks, probably from a box containing the cremated bone, was also discovered during the evaluation. This was almost certainly of Roman date, and may be associated with the mixed-rite cemetery discovered *c*. 50m to the south in 1992 (Booth *et al* 2001). The location of the Site on the outskirts of Alchester Roman town and adjacent to a Roman road suggested that further human burials may be present at the Site (Oxford Archaeology 2013).

3 AIMS AND OBJECTIVES

3.1 Aims and objectives

3.1.1 The aims and objectives of the investigations were outlined in the WSI (Wessex Archaeology 2014), and are repeated below.

3.1.2 With due regard to the CIfA's *Standard and Guidance for archaeological excavation* (CIfA 2014a), the aims of the strip, map and sample investigation were:

- *to examine the archaeological resource within the Site;*
- *within a framework of defined research objectives, to seek a better understanding of and compile a lasting record of that resource;*
- *to analyse and interpret the results; and*
- *disseminate them.*

3.1.3 With due regard to the CIfA's *Standard and Guidance for an archaeological watching brief* (CIfA 2014b), the aims of the watching brief were:

- *to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works; and*
- *to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.*

4 METHODOLOGY

4.1 Introduction

4.1.1 The methodology to be employed was fully detailed in the WSI (WA 2014), and all works were carried out in accordance with this, as summarised below.

4.2 Excavation

4.2.1 Topsoil or overburden was removed using a tracked 360˚ mechanical excavator equipped with toothless ditching bucket and under constant supervision of a WA experienced archaeologist. Topsoil was removed in a series of level spits down to the level of the upper archaeological horizon, or the level of the natural geology, whichever was reached first.

4.2.2 All archaeological features and deposits were surveyed using a Total Station/GPS and related to Ordnance Survey National Grid.

4.2.3 Exposed archaeological remains were cleaned by hand where necessary for the acceptable definition of deposits. The level of sampling during the investigations amounted to approximately 10% of linear features and 50% of discrete features, and was to the satisfaction of the Planning Archaeologist (OCAS).

4.3 Recording

4.3.1 All archaeological deposits were recorded using WA's pro forma recording system. The written part of this system is hierarchically based and centred on the context record. A complete drawn record of features was compiled including both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections), and with reference to the Ordnance Survey National Grid.

4.3.2 All drawings were located using a Total Station/GPS in relation to the overall Site plan. The spot height of all principal features and levels was calculated in metres relative to Ordnance Datum.

4.3.3 A full photographic record was maintained using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images are subject to managed quality control and curation processes which has embedded appropriate metadata within the image and ensure long term accessibility of the image set.

4.3.4 Metal detectors were used as appropriate to scan stripped surfaces and archaeological features prior to and during excavation as appropriate, and to scan spoil heaps where practicable.

4.4 Specialist strategies

Artefact

4.4.1 All artefacts from excavated contexts were retained, except those from features or deposits of obviously modern date. All finds were treated on site in accordance with relevant industry guidance (UKIC 2001; MGC 1992; CIfA 2014c), and taken to WA offices in Salisbury for further work.

4.4.2 Any artefacts requiring conservation or specific storage conditions were dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998). Ironwork from stratified contexts was X-rayed and stored in a stable environment along with other fragile and delicate material. The X-raying of objects and other conservation needs was undertaken by WA in-house conservation staff.

4.4.3 All retained artefacts were as a minimum, washed, weighed, counted and identified and reported on by WA specialists. They have been suitably bagged and boxed in accordance with the guidance (above).

4.4.4 All artefacts recovered during the excavations on the Site are the property of the landowner. On completion of the archaeological post-excavation programme and with the permission of the landowner it is anticipated that any artefacts will be deposited with the relevant museum.

Environmental

4.4.5 The collection and processing of environmental samples was undertaken in general accordance with *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (EH 2011).

4.4.6 Bulk samples for plant macro-fossils, small animal and fish bones and other small artefacts were taken from appropriate well-sealed and dated/datable archaeological deposits. The samples were of an appropriate size, for charred material typically from 20–40 litres, reduced to between 10–20 litres from any waterlogged deposits.

4.4.7 Where appropriate, monolith and/or contiguous column samples were taken for the recovery of molluscs.

4.4.8 Bulk environmental soil samples were processed by standard flotation methods and scanned to assess the environmental potential of deposits. The flot was retained on a 0.25/0.5 mm mesh, with residues fractionated into 4/ 5.6 mm, 2 mm, 1 mm and 0.5 mm and dried as appropriate. Coarse fraction (>4/ 5.6 mm) were sorted, weighed and

discarded, with any finds recovered given to the appropriate specialist. Finer residues will be retained until after analysis.

4.4.9 Where appropriate samples were taken and sieved to aid artefact recovery. For both inhumations and cremation related deposits, the burial deposit was sampled and processed following the specialist guidelines. In the case of samples from cremation-related deposits the flots were retained on a 0.5 mm mesh, with residues fractionated into 4 mm, 2 mm and 1 mm. In the case of samples from inhumation deposits, the samples were artefact sieved through 9.5 mm and 1 mm mesh sizes. The coarse fractions (9.5 mm) were sorted with any finds recovered given to the appropriate specialist together with the finer residues.

Human remains

4.4.10 All excavation of human remains, and post-excavation assessment, was undertaken in accordance with the WA protocols and current guidance (McKinley and Roberts 1993; McKinley 2013). Advice was provided by WA Osteoarchaeologist Jacqueline McKinley. Following analysis, the final placing of human remains will be subject to the requirements of the Ministry of Justice licence (obtained by WA).

4.5 Monitoring

4.5.1 Richard Oram, Planning Archaeologist (OCAS), monitored the investigations on behalf of the Local Planning Authority (LPA).

4.5.2 The watching brief was maintained until with the agreement of the Planning Archaeologist it was clear that the potential for significant archaeological features had been exhausted.

5 ARCHAEOLOGICAL RESULTS – STRATIGRAPHIC SEQUENCE

5.1 Introduction

5.1.1 The results of the strip, map and sample and watching brief will be discussed together by archaeological period below.

5.1.2 The relatively small finds assemblage recovered has generally provided evidence of two main phases of activity on the Site: Romano-British (mainly of 2nd–4th century AD date) and post-medieval or later (late 15th–19th century AD).

5.1.3 Some artefacts also suggest early prehistoric activity (section 6), although this material appears to be residual, that is found out of its original deposition context, and redeposited in later contexts. Of note is the Neolithic ground stone axe fragment recovered from ditch **1271**, a retouched bifacial flake tool from ditch **1266** and a scraper retouch chip from ditch **1267**, the latter particularly suggesting that some of the worked flint had not moved very far from its point of manufacture. A single abraded sherd of Middle Bronze Age pottery was also found residually in ditch **1266**, and some plain body sherds of general Iron Age date were recovered from waterhole **1116**.

5.1.4 Through assessment of the stratigraphic sequence, it has been possible to define two phases of Romano-British landscape division, although the pottery assemblage has not allowed further refinement of the dating and, therefore, these are simply called ‘Romano-British phase I’ and ‘Romano-British phase II’. It has not been possible to assign all of the discrete features (pits, post-holes and graves), dated generally by finds as Romano-British, specifically to either phase I or II and, therefore, the majority of these are defined as ‘Romano-British unphased’.

5.1.5 All archaeological features, Romano-British (phase I, phase II and unphased), post-medieval and undated are shown in **Figure 2**.

5.2 Soil sequence

5.2.1 Archaeological features were predominantly cut into the natural geological deposits, typically encountered at 0.65 m to 0.7 m below ground level (bgl). The natural geology consisted of mid brownish-yellow sandy clay; abundant gravel inclusions were noted across the northern part of the Site, but these became less common to the south. Isolated patches of light blue clay were also present across the Site.

5.2.2 A mid-brown silty clay alluvial deposit lay above the natural at between 0.5 m and 0.65 m bgl. This likely resulted from a flooding event or events and is of unknown date; and it sealed and filled the upper parts of many features, particularly those in the southern lower lying part of the Site.

5.2.3 The topsoil was relatively thick, present to a depth of 0.5 m bgl, and may have comprised two layers – a buried topsoil overlain by an introduced topsoil, although both layers were a very similar dark greyish black silty clay loam.

5.3 Romano-British phase I

5.3.1 A probable trackway is evident in the west of the Site and is represented by two parallel ditches (**1269** and **1278**) aligned north-east to south-west, located approximately 3 m apart. The northernmost ditch **1278** is not continuous, although this may be a result of truncation; overall it was mapped for 67 m before terminating in the north-east. Ditch **1269** did not extend as far as the other trackway ditch, but again this is likely the result of truncation. It was established that ditch **1269** was cut by and therefore stratigraphically earlier than phase II ditch **1277** (**Plate 1**). Small quantities of animal bone were the only artefacts recovered from these trackway ditches.

5.3.2 Trackway **1269**/**1278** also appears to form the north-west side of a field or enclosure with north-west to south-east ditch **1271** forming the north-eastern side, and a possible entranceway between them. Measuring at least 105 m by 80 m this enclosure was only partly revealed within the Site boundaries. A single small sherd of Samian pottery, animal bone and a piece of slag were retrieved from ditch **1271**, together with part of a Neolithic ground stone axe. Excavation proved that ditch **1271** was stratigraphically earlier than phase II ditch **1265**.

5.3.3 The north-western corner of another enclosure (**1270**) was uncovered near the south-eastern edge of the excavation area. The ditch measured a maximum of 1.5 m wide and 0.48 m deep with a U-shaped profile. Ditch **1270** cut ditch **1271**, although it appears to have been laid out on the same axis as the enclosure and therefore is assigned to the same phase. It is difficult to further interpret enclosure **1270** as the main focus lies beyond the edge of the Site to the south-east. Thirteen sherds of Roman greyware pottery were the only artefacts recovered, from the secondary fill of enclosure ditch **1270**.

5.3.4 In the northern part of the Site, north-east to south-west aligned ditch **1279** is also assigned to phase I. Although it only contained two sherds of Roman pottery, an iron nail and a small quantity of animal bone, its orientation is shared with the enclosures described above. It appears to terminate to the south-west after extending for some 95 m from the north-east edge of the Site. There is evidence that ditch **1279** was re-cut on one occasion and it was also seen that the ditch was cut by a field drain with modern ceramic pipe and underlying stone bedding, best illustrated in the section against the north-east baulk of the strip, map and sample area (**Plate 2**).

5.3.5 A large pit (**1116**) likely to have functioned as a waterhole was situated in the southern corner of the Site (**Plate 3**). It was oval in plan (4.25 by 3.2 m), with stepped sides. The outer area was 0.5 m deep, stepping down to a depth of at least 1.2 m in the centre (at which depth excavation ceased for health and safety reasons). The lower, primary fill (**1117**) was organic, very silty and probably built-up in standing water while the waterhole was in use, but contained no finds (**Plate 4**). The overlying deposit (**1118**) was likely to have formed through alluvial action, and also shows signs of stabilisation following the collapse of the pit's upper sides; a group of Iron Age sherds of pottery was retrieved from this context. The overlying secondary fill (**1119**), a gleyed silty clay, and the upper tertiary fill (**1120**) both contained Roman pottery, small amounts of animal bone and worked flint. The Iron Age pottery is currently considered to be residual (no other pottery of this date has been found in any other features), but it is probable that waterhole **1116** was an early feature; it likely functioned to provide water for animals within the Romano-British phase I enclosure formed by trackway **1269**/**1278** and ditch **1271**.

5.3.6 Another similar but smaller and shallower pit (**1041**/**1043**) was located on the western side of ditch **1265**, and measured 1.3 by 1.1 m and the base was reached at 0.6 m deep. Ditch **1265** was stratigraphically later, and the positioning of the two features also suggests that they are of different phases (**Plate 3**). The lower water-lain fill did not contain any artefacts, but the upper secondary/tertiary fill contained a relatively large assemblage of Roman pottery including Dressel 20 amphora and Samian as well as more generic wares, animal bone and a little shell. Pit **1041**/**1043** may also have served as a waterhole within the phase I enclosure, or may have served a drainage function, as a short section of shallow gully feeds into it.

5.4 Romano-British phase II

5.4.1 Ditch **1265** is a moderately sized drainage or boundary ditch with steep straight or convex sides and a narrow flat base; it appears to be one of the earlier elements of this phase. It extended for some 108 m on a NNE–SSW orientation and appears to have petered out to the NNE, rather than terminating. This is also suggested by its size which varied, becoming deeper and wider to the SSW (a pattern relating to topography and the truncation seen across the Site), from approximately 1.5 m wide and 0.6 m deep at its southernmost extent (cut **1033**), to 1.35 m wide and 0.78 m deep approximately half-way along (cut **1081** – **Plate 5**), 1.47 m wide and 0.43 m deep (cut **1102**), and only 0.51 m wide and 0.26 m deep in the most northerly excavated segment (cut **1134**).

5.4.2 The fills of ditch **1265** remained fairly consistent along its length. The lower part was filled with a blueish-grey silty clay primary fill, clearly deposited by alluvial action, which may suggest that the primary function was for drainage. The upper part was filled by a mid-greyish brown clay silt, representing the gradual silting of the ditch as it fell out of use (**Plate 5**). This ditch was one of only four features that contained more than 20 sherds or 100g of pottery, comprising a variety of wares from both primary and secondary fills. A quantity of animal bone was also recovered, along with part of an *imbrex* roof tile and an iron nail from the upper fill.

5.4.3 Some stratigraphic relationships were established between ditch **1265** and other ditches: ditch **1265** cut phase I ditch **1271** and possibly cut a short section of ditch near the south-east corner of the Site (**1272**); however considering the alignment of both and that ditch **1272** does not extend westwards past **1265**, they are considered to be broadly contemporary. Ditch **1265** was stratigraphically earlier than the eastern cut of **1267**, the slightly curving re-cut boundary ditch near the southern boundary of the Site (detailed below); the latter continues slightly east of ditch **1265**. Similarly aligned gully **1273** was also probably later than ditch **1265**.

5.4.4 The slightly curving ditch near the southern edge of the Site, aligned approximately WNW–ESE, had been re-cut at least twice. Variations in alignment mean the separate ditches cannot be confidently traced along its entire length, overall some 120 m, due to the similarity of the fills and profiles. As a result the boundary is grouped as: **1276** and **1277** in the west, which had no established stratigraphic relationship with each other; **1266** and **1268** in the central part where **1268** was a later re-cut which appeared to terminate in excavated segment **1134** (near where ditch **1275** intersects – **Plate 6**); and in the east as a single ditch **1267**, which may not be the same ditch as **1266** as it had a slightly differing alignment. Ditch **1267** was later than NNE–SSW ditch **1265** (**Plate 7**), and it is plausible that ditch **1267** was a segment added to close off an entrance that may have existed in this corner between the two ditches**.** The main significance is that this re-cut ditch (generally referred to as **1266**–**1268** herein) formed a boundary that was maintained.

5.4.5 The majority of the finds recovered from ditches **1266**–**1268** are of Romano-British date and comprise a variety of pottery, small quantities of animal bone and shell, an iron nail and a small piece of slag. An abraded, residual single sherd of Middle Bronze Age pottery and a worked flint tool and retouch chip were also retrieved, suggesting earlier prehistoric activity in the vicinity.

5.4.6 Considering that ditches **1266**–**1268** and ditch **1265** are aligned perpendicularly to each other, they are likely to have been broadly contemporary and together may have demarcated two sides of a reasonably large enclosure or field, over 100 m in width and over 100 m in length. The slightly variable alignment and relative longevity of ditches **1266**–**1268** may be explained by the fact that they seem to follow the alignment of Akeman Street, located over 100 m to the south of the Site. Shallow gully **1273** also shares a similar alignment, and is located some 3.5 m to the north of ditches **1266**–**1268**, and although only a single sherd of greyware was recovered from its fill, it is also considered to belong to phase II.

5.5 Romano-British unphased

5.5.1 Four cremation graves (**1149**, **1155**, **1161** and **1193**) and several cremation-related features (circular pit **1177**, rectangular pit **1181**, and stake-holes **1159** and **1165** situated adjacent to grave **1155**) were discovered towards the east of the Site. However, the location of the graves does not seem to be associated with any of the enclosures or andscape divisions present within the Site. Although these graves and features have been attributed a Romano-British date on the basis of iron nails recovered from the cremation deposits and the occasional small sherd of Roman pottery from the upper fill, which had accumulated through natural silting and were unrelated to the burials (deposit **1162** in grave **1161** and deposit **1195** in grave **1193; Plate 8** and **Plate 9**), the precise date and phasing of the graves and related features is uncertain.

5.5.2 The two cremation graves closest to the south-eastern edge of Site survived best. The northernmost grave (**1161**) was oval in plan measuring 0.59 by 0.46 m, and 0.24 m deep (**Plate 8**). The other grave (**1193**) was rectangular measuring 0.70 by 0.56 m and 0.25 m deep (**Plate 9**). Both were filled with similar black, charcoal-rich cremation deposits (**1168** and **1194** respectively), very similar to the other cremation burial deposits (below) but containing more iron nails and tacks of varying sizes. Grave **1193** also contained several fragments of a worked bone pin that might represent the remains of a pyre good. Both cremation burials were sealed by an overlying naturally accumulated fill which contained rare small sherds of Roman pottery.

5.5.3 The two more northerly and westerly cremation graves (**1149** and **1155**; **Plate 10** and **11**) were heavily truncated, only surviving to a depth of 0.05 m to 0.07 m. Both were

approximately 0.5 m in diameter and filled with identical black, very charcoal-rich deposits (**1150** and **1156** respectively) containing cremated bone and a few iron nails/tacks.

5.5.4 Two small stake-holes located either side of grave **1155** (**1159** and **1165**: **Plate 11**) were filled with similar dark black coloured deposits, but they contained only very small amounts of poorly oxidised human bone and are interpreted as cremation-related deposits with redeposited pyre debris. These may relate to a small structure erected as part of the cremation rite.

5.5.5 The other two cremation-related features were circular pit **1177** measuring 0.29 m in diameter and 0.12 m in depth (**Plate 12**) and rectangular pit **1181**, adjacent to the edge of the Site, measuring 0.64 by 0.34 m and 0.12 m in depth (**Plate 13**). The fills within both of these features were not nearly as charcoal-rich as those in the graves, but small amounts of cremated bone of a sub-adult were recovered from both as well as small quantities of charred animal bone, pottery, shell and iron nails. The interpretation of these features is presently uncertain, yet the presence of other finds and the distribution and quantity of cremated bone suggests that they were features related to the rite of cremation burial, but were not actually graves.

5.6 Post-medieval and later

5.6.1 A small number of post-medieval or later features and deposits were identified within the southern and western parts of the Site.

5.6.2 A shallow depression or small pond (**1257**; **Plate 14**) in the west of the Site contained post-medieval finds in its upper fill including roof tile, an iron socketed shovel blade and a sheep/goat animal bone group, as well as a small sherd of Roman pottery and a single Roman brick fragment, both residual. Feature **1257** was later than Romano-British phase I ditch **1279**. A small rectangular pit (**1251**) was also recorded 11 m west of the depression/pond, measuring 1.32 by 0.85 m and 0.19 m deep; it contained a single sherd of post-medieval pottery and is tentatively allocated to this phase of activity. Other gully and pit/post-hole features within this locality are undated (below).

5.6.3 During the watching brief, against the western edge of the Site (near to undated post-holes **1253** and **1255**), a layer of stone rubble (**1264**) was recorded in section only, measuring approximately 4.3 m long and 0.2 m thick (**Plate 15)**. Pottery recovered from this deposit are of 16th to 19th century date, and were found together with post-medieval roof tile fragments and animal bone.

5.6.4 A rubble layer (**1142**; **Plate 16**) was identified in the uppermost part of Romano-British phase II ditch **1267** (the latest recut of the boundary along the southern edge of the Site). It consisted of a mix of large angular stone slabs (up to a maximum of 0.4 m in size) and smaller ones lying mostly horizontally in a mid-brown clay matrix. The layer also contained a relatively large quantity of pottery (just over 800g) of 19th to 20th century date as well as brick fragments, roof tile, bottle glass, a single piece of clay pipe stem and a copper alloy button. This rubble was possibly deposited to concolidate a soft patch of ground, and gradually sank or was pressed into the upper part of the earlier ditch.

5.6.5 A single basal sherd from a 15th or 16th century jug or mug was recovered from stone-filled French drain **1221** which cut into Romano-British phase I ditch **1279**. A similar French drain cut shallow depression or pond feature **1257** (**Plate 14**). Modern ceramic field drains were also identified elsewhere within the Site.

5.7 Undated

5.7.1 A small number of features remain undated and with the exception of ditch **1274**/**1275** in the south of Site they are mainly situated in two clusters: one in the north-east and another in the north-west of the Site.

5.7.2 North-west to south-east aligned shallow ditch **1275** post-date Romano-British phase II boundary ditch **1267**, and it probably extends to the south-east of **1267** as **1274**, but a small area of modern disturbance means any stratigraphic relationship has been removed. A single sherd of Roman pottery and a residual flint flake were the only finds recovered from both **1274** and **1275**, therefore the date of this ditch is uncertain, although it is later than Romano-British phase II. It may be coincidental but the proximity of ditch **1274**/**1275** to rubble layer **1142** may be of significance.

5.7.3 The cluster of undated features in the north-east of the Site comprises two short lengths of north-east to south-west aligned gully, **1241** and **1243**, two undated post-holes (**Plate 15**), and shallow pit **1235**. An articulated group of horse bones (some of which displayed skinning marks) was recovered from gully **1243**. The proximity of post-medieval features in this area may be significant but there is no demonstrable association between the remains.

5.7.4 The second cluster of undated features in the north-east of the Site consists of a small number of postholes (**1004**, **1006** and **1008**) which do not appear to form part of a coherent structure, and a number of shallow pits, including **1010** which had a charcoal-rich fill from which 6 g of unburnt human bone were recovered. An east–west orientated gully (**1280**) is also undated; the alignment of this gully is not shared by any other linear feature on the Site.

5.8 Summary of stratigraphic sequence

5.8.1 The archaeological features and deposits recorded within the Site provide evidence of the Romano-British agricultural landscape within the vicinity of the Roman town of Alchester. It has been shown that there is evidence of two phases of landscape organisation, although the dating of these cannot be refined because of the small quantities of dateable artefacts recovered. Whilst there is no definite evidence of settlement of this period within the Site, there is evidence of mortuary practises involving the rite of cremation burial being undertaken at some (presently uncertain) stage within the Romano-British period.

5.8.2 The features and deposits uncovered within the Site also provide limited evidence of post-medieval and later activity, also likely to be associated with farming.

6 ARTEFACTUAL EVIDENCE

6.1 Introduction

6.1.1 In total 19.5 kg of artefacts were recovered from 72 contexts in 30 of the features and deposits investigated. The artefacts fall within two main periods, Romano-British (1st – 4th century AD) and post-medieval/modern (late 15th century onwards), with a small quantity of prehistoric material.

6.1.2 After cleaning, all the finds were quantified by material type within each context; this information is summarised below in **Table 1**. Most material types survived in fairly good condition, although many of the softer, more lightly fired pottery sherds had lost their original surfaces, probably as a result of post-depositional erosion in the sticky clay or abrasive, gravel-rich sandy soils of the area.

Table 1: All finds by material type (number of pieces/weight in grammes)

Material	No.	Wt.
Animal bone	776	5763
Ceramic building material	28	1124
Clay pipe	1	3
Cremated human bone	-	1136
Flint	24	191
Glass	15	834
Metalwork:		
copper alloy	3	15
iron	-	4896
Pottery	396	4849
prehistoric	*15*	*34*
Romano-British	*325*	*3520*
medieval	*1*	*4*
post-medieval/modern	*55*	*1291*
Shell	14	154
Slag	2	53
Stone	2	497

6.2 Pottery

6.2.1 Pottery was found in 22 features as well as two post-medieval rubble layers (**1142** and **1264**), the topsoil (**1001**) and subsoil (**1002** and **1098**) contexts. It has provided the primary dating evidence for activity on the site, but most of the features contained only small groups of sherds, with just four (pit **1043**, waterhole **1116** and ditches **1265** and **1267**) containing more than 20 pieces or 100 g.

6.2.2 However, to provide a basic minimum archive, sherds from each context were sub-divided into broad ware groups (e.g. sandy greywares) or known fabric types (e.g. pink grog-tempered ware) and quantified by the number and weight of pieces present. Spot-dates, used to inform the stratigraphic phasing, were then assigned to each fabric group and, in combination with any dating evidence provided by other artefact types, to the context as a whole. A breakdown of the assemblage by chronological period and ware type is shown in **Table 2**.

Table 2: Pottery totals by ware type (number of pieces/weight in grammes)

Ware	No.	Weight (g)
Prehistoric:		
Flint-tempered ware	1	16
Shell-tempered ware	14	18
Romano-British:		
Samian	26	211
Central Gaulish black slipped ware	1	3
Dressel 20 amphora	10	513
Oxon colour coated ware	1	1
Oxon whiteware mortaria	16	525
Greywares	120	695
Oxidised wares	73	524
Pink grog-tempered ware	52	892

Ware	No.	Weight (g)
Grog-tempered ware	10	121
Whitewares	8	26
Calcareous wares	8	9
Medieval:		
Brill/Boarstall ware	1	4
Post-medieval/modern:		
Redware	21	628
Pearl ware	16	65
Brill slipwares	4	238
English stonewares	4	185
Raren Stoneware	1	76
Refined whitewares	4	62
Yellow ware	4	33
Bone china	1	4
Total:	396	4849

Prehistoric

6.2.3 Prehistoric sherds were recovered from just two features. The earliest of these, a battered, abraded body flake (ON 5) from segment **1138** of ditch **1266**, is made in a variably fired fabric tempered with moderate amounts of coarse poorly-sorted (0.5–4 mm) calcined flint and rare quartz sand (<0.5 mm across). The sherd itself is probably of Middle Bronze Age date but its condition suggests it might be residual in this context.

6.2.4 A small group of plain body sherds and flakes in a highly friable fabric containing common, poorly-sorted, crushed shell (<3 mm across), came from an alluvial deposit (**1118**) in waterhole **1116**. These are likely to be of Iron Age date, their fabric falling within the range of calcareous wares seen at numerous other sites in the vicinity (e.g. Booth 1997; Brown 1999; Evans 2001, 272, fabric P02; Woodward and Marley 2000, 233, Marter Brown 2011, 203), but these, too, could be residual in this context.

Romano-British

6.2.5 Overall, the range of fabrics and forms conform to those from other Romano-British sites in the area (e.g. Evans 2001; Marter Brown 2011, 203–208). Samian accounts for 8% of the assemblage by sherd count. These sherds were not assigned to particular production centres at this stage, although the featured sherds indicate the presence of form 18/31 and 31 dishes, form 37 decorated bowls and form 45 mortaria, suggesting a 2nd to early 3rd century AD focus for this material. The single sherd from a Central Gaulish black slipped ware beaker (grave **1193**) is of similar date. The only other imported wares are Dressel 20 amphora, used to transport olive oil from the Spanish province of Baetica across the whole of the western empire from the mid-1st to mid-3rd century AD (Peacock and Williams 1996, 126), although once empty, they were also widely traded in their own right.

6.2.6 Other fine- and specialist wares comprise a single scrap from an Oxfordshire brown colour-coated ware beaker (segment **1128** of ditch **1267**) and the whiteware mortaria sherds (ditch **1265**, waterhole **1116** and residually in dump layer **1142** and the subsoil). These latter wares include rims from two vessels of late 2nd to 4th century AD date (Young 1977, 72, type M12 and 76, type M22). Other products from this industry are, however, probably included in the three unsourced catch-all fabric groups (the sandy

greywares, oxidised wares and whitewares) which dominate the rest of the assemblage, providing utilitarian food preparation, serving and storage vessels.

6.2.7 The greywares are all wheelmade and of the more 'Romanised' style, grey and blue-grey in colour, rather than darker, thicker wares following the native ceramic traditions of the area. Most are probably from the Oxfordshire kilns, which made a highly varied range of reduced wares (Young 1977, 203–203), but other potential sources include the Nene Valley, Much Hadham and the Milton Keynes area (Marney 1989 70–73). Forms comprise wide-mouthed bowls/jars (Young 1977, type R24/R38), everted rim jars (R27), triangular-rimmed dishes (R40, R43) and shallow, plain rimmed dishes (R53). The oxidised wares include all the orange/red fabrics containing variable quantities of sand and/or mica. Many of the finer, more micaceous fabrics may originally have been colour-coated (i.e. Oxfordshire red slipped ware). Just two rim fragments, both from necked jar/bowl forms, are present, while body sherds from an indented beaker (Young 1977, 195, type O23 or 24) occurred in segment **1099** of ditch **1265**. The whitewares, comprising all the pale-firing white/pink/buff fabrics, are present as small, abraded body sherds only.

6.2.8 The pink, grog-tempered wares, representing 16% of the Romano-British assemblage by sherd count, were made in kilns at Stowe Park, Buckinghamshire from the 2nd century AD onwards (Booth and Green 1989, 82; Booth 1999). This site lies within the 'outer' distribution zone of this fabric (Booth and Green 1989, fig. 3; Taylor 2004, fig.3), and as expected from its location, most sherds appear to be from large storage jars which are mainly of late 3rd to 4th century AD date fabric (Booth and Green 1989, 82).

6.2.9 The other grog-tempered wares remain unsourced and largely undated, although a shoulder sherd from a large jar with tooled, wavy line decoration from feature **1044** can be paralleled by a vessel of 2nd to 3rd century AD date from Whitelands Farm, Bicester (Marter Brown 2011, fig. 13, 23). A shell-tempered sherd, probably from Harrold in Bedfordshire (Brown 1994), was found in the subsoil (context **1098**), while the other calcareous sherds, all plain bodies in an unsourced, leeched, friable fabric, were from cremation-related feature **1177**.

6.2.10 The composition of this assemblage indicates the use of the full range of locally-produced utilitarian forms with some access to finer table- and specialist wares. The chronological focus of the assemblage lies within the 2nd to 4th centuries AD, although the more precise dating of the individual feature groups is hampered by the relatively small number of sherds recovered from each, the abraded nature of the sherds and the paucity of diagnostic pieces (just 16 rims (5% of the total number), most broken at or above the neck shoulder junction).

Medieval

6.2.11 The single Brill/Boarstall ware sherd, a jug rim of 13th to 15th century date, was intrusive within Romano-British ditch **1266**.

Post-medieval and later wares

6.2.12 A Raren stoneware pinched mug or jug base of late 15th to 16th century date was found in field drain **1221**, while a 16th to 18th century rim sherd from an internally-glazed Redware dish came from the secondary fill of ditch **1265**. Post-medieval rubble layer **1264** also contained rims from a skillet and a jar in Redware fabrics, the latter decorated with an applied thumb-strip, as well as five conjoining base sherds from an internally-glazed vessel, all of 16th to 19th century date.

6.2.13 The bulk of the sherds belonging within this period are of 19th to 20th century date and come from rubble layer **1142** (42 sherds, 829 g). Fragments from refined whiteware plates, a bone china cup, transfer printed Pearl ware and Yellow ware vessels, a Brill slipware bowl, an English stoneware colander and a blacking bottle as well as various Redware vessels including a bowl and a flower pot, were all found in this deposit. Other Redware sherds came from pit **1251**, while two Redware and one Yellow ware body sherds were recovered from the subsoil.

6.3 Ceramic building material

6.3.1 This category comprises fragments of brick and tile of Romano-British and post-medieval/modern date. All the fragments are very small (average weight 40 g) when compared with the weight of a complete brick or tile.

6.3.2 The six Romano-British pieces (319 g) include two from *imbrex* roof tiles (ditch **1265** and the subsoil) and one from a brick (pit **1257**), the remainder being undiagnostic featureless fragments. Three featureless fragments probably from post-medieval/modern bricks came from rubble deposit **1142**, while roof tile fragments belonging within this period were also found in this deposit as well as in pit **1257**, rubble deposit **1264** and the subsoil.

6.4 Worked flint

6.4.1 The worked flint was collected from 15 individual contexts. None of the flint is likely to be from a primary context; only two pieces were collected from pits (**1010** and **1022**) with the remainder predominantly from ditches. Despite the limited quantity of material, most pieces are in a mint or sharp condition indicating that they are unlikely to have moved far from their point of manufacture. This is confirmed by the presence of a scraper retouch chip from ditch **1267** (segment **1128**).

6.4.2 All the artefacts are patinated with most pieces also slightly stained light orange from the local geology. Raw material appears to have been derived from fluvial gravel or from surface deposits close to or on the Chalk. Irrespective of the source, flint does not occur locally and it must therefore have been introduced to the area.

6.4.3 Retouched tools were restricted to a well-made discoidal, bifacial flake tool from ditch **1266** (segment **1138**), but despite the lack of artefacts, the collection demonstrates a number of recurring characteristics, principally the use of soft hammers and the production of blade blanks. In view of the small quantity of material, it is impossible to rule out the possibility that the assemblage belongs to more than one period, but these attributes do indicate that some of the pieces, at least, are likely to of Mesolithic or Early Neolithic date. This assemblage provides evidence for the occupation of the site from the early prehistoric period.

6.5 Stone

6.5.1 Ditch **1271** contained a sub-oval implement (90 x 74 x 33 mm) with smoothed surfaces, battered edges and damaged ends. The material is the volcanic tuff from Langdale, Cumbria (Group VI) and the implement is clearly the mid-section of a Neolithic ground stone axe.

6.5.2 The only other worked or utilised stone consists of a small, sandy limestone fragment from ditch **1265**. Parts of two hour-glass shaped perforations survived in this piece, which is likely to be from a Romano-British polygonal roof tile.

6.6 Metalwork

6.6.1 A small, complete, copper alloy brooch was recovered from the subsoil. It survives in very good condition and is of the one-piece Colchester type of early/mid-1st century AD date (Bayley and Butcher 2004, 148–149). A flat disc (25 mm in diameter, 1 mm thick) was also found in the subsoil; it is possible that this is a coin or token, but if it was ever struck, it is now completely illegible. The only other copper alloy object, a post-medieval/modern, extensively-worn, gilded button, came from rubble deposit **1142**.

6.6.2 The vast majority of iron objects are small, highly fragmentary nails and/or tacks recovered from the samples taken from the cremation graves (**1149** – 110 g; **1155** – 67 g; **1161** – 568 g; **1193** – 1486 g) and other related features (**1177** – 304 g and **1181** – 157g). No attempt has been made to count these objects at this stage.

6.6.3 The relatively small quantities from graves **1149** and **1155** consist of nails with flat, round heads (10 mm across) and square-sectioned tapering shanks, 25 – 30 mm long overall, some with traces of mineral-replaced wood. Those from grave **1161** occur in three sizes: the 'large' (up to 50 mm long) and 'medium' (25–30 mm long) both having flat, round heads and square-sectioned tapering shanks, while the 'small' group consists of dome-headed hobnails or tacks (10–12 mm long), with their shanks clenched 8–10 mm under their heads. These perhaps indicate that this individual was placed on the pyre fully dressed and wearing hobnail boots/shoes, although similar tacks may have been used in the construction and/or decoration of a wooden box or lid containing or covering the cremated remains. The 'large-' and 'medium-' sized nails are also prevalent in grave **1193**, while those from the cremation-related deposits in features **1177** and **1181** are mainly of 'medium' size, although one or two shank fragments from larger nails also occur in **1177**. The significance of the nails (e.g. to joint coffin boards or lids/covers placed over the cremated human remains, to attach coffin fittings or as decorative elements) has not been established at this stage, although it is perhaps worth noting that the 'large' and 'medium' nails fall within the range (23–93 mm long) seen amongst the coffin nails from graves at Alchester (Mould 2001, 237–238).

6.6.4 Similar nails were also found in segment **1102** of ditch **1265** (103 g), and in segment **1185** of ditch **1276** (59 g), some of the large ones clenched about 30 mm, and the medium ones 15 mm, under their heads, indicating the thickness of the planks they were driven through. Individual nails and nail shank fragments were also found in segment **1094** of ditch **1272**, segment **1223** of ditch **1279**, in pit **1235** and the subsoil.

6.6.5 A post-medieval shovel blade with a strapped socket and two *in situ* iron rivets came from pit **1257**, while other oddments of similar date including a broken binding strip, five sheet metal fragments and two unidentifiable corroded lumps, were all found in rubble deposit **1042**.

6.7 Other finds

6.7.1 Two small pieces of undiagnostic, but probably iron smithing slag were found in ditch **1267** and gully **1271**, the former associated with pottery of Romano-British date. Oyster shells, representing imported food remains and predominantly associated with Romano-British artefacts, were found in pit **1043**, cremation-related feature **1177** and ditches **1265**, **1266**, **1267** and **1268**, while two additional pieces came from the post-medieval rubble deposit **1142**.

6.7.2 Other finds from rubble deposit **1142** include a plain stem fragment from a clay tobacco pipe and four pieces (92 g) from dark green glass wine bottles of late 18th or 19th century

date. Eleven other pieces (74 g) of glass, probably from a single wine bottle of similar date, came from pit **1257**.

6.8 Animal bone

6.8.1 The animal bone (776 fragments, 5.763 kg: **Table 1**) was collected by hand from features of Romano-British and post-medieval date and is generally well-preserved. The material is, however, quite fragmented and once conjoins are taken into account the overall count falls to just 237 fragments (**Table 3**).

Table 3: Number of identified animal bones present (or NISP) by period

Species	Romano-British	Post-medieval	Total
cattle	34	-	34
sheep/goat	15	1	16
horse	12	-	12
dog	1	-	1
Total identified	**62**	**1**	**63**
Total unidentified	**161**	**13**	**174**
Overall total	**223**	**14**	**237**

6.8.2 Where applicable, the following information was recorded: species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information.

6.8.3 Most (80%) of the animal bones came from ditches, in particular ditches **1265** and **1267**. The assemblage is dominated by bones from livestock species. Cattle account for 54% NISP (**Table 3**), followed by sheep/goat at 25%, while the only other identified species include horse (19% NISP) and dog. In all, a total of 122 fragments of animal bone were recovered from ditches **1265**, **1267**, **1268** and **1269**. This assemblage is largely composed of cattle bones, a few sheep/goat bones and two horse teeth from the upper jaw.

6.8.4 Only 101 fragments of bone were recovered from other Roman-British features and again cattle bones, including both cranial and post-cranial fragments, dominate. Butchery marks were noted on a few of the cattle bones and the pattern is generally consistent with Romano-British butchery techniques applied to large carcasses. Sheep/goat and horse are both represented by loose teeth and a few post-cranial bones. Skinning marks were noted on a distal fragment of horse tibia from ditch **1265** and an articulated group of horse bones occurred in undated gully **1243**. This associated bone group (or ABG) includes the skull, mandibles, vertebral column and ribs. The canine tooth from a dog was recovered from Roman-British ditch **1268** (segment **1200**).

6.8.5 A sheep/goat ABG was recovered from post-medieval waterhole **1257**. The remains include the skull, right mandible, cervical and thoracic vertebrae and ribs.

6.9 Human bone

6.9.1 Cremated bone from ten contexts was subject to assessment (**Table 4**), together with 6 g of unburnt human bone from one other context (**1012**, pit **1010**). The cremated bone all derived from features dispersed over a *c.* 50 x 38 m area in the south-western part of the Site and included the remains of a minimum of four unurned burials with redeposited pyre

debris. The unburnt bone was found redeposited within the charcoal-rich fill of a pit feature on the northern margins of the Site, some 53 m from the nearest cremation-related deposit.

Table 4: Summary of results from scan of cremated bone

context no.	cut no. *and depth*	deposit type	weight	age/sex	comment
1150	1149 *0.07 m*	unurned burial + rpd	190 g	subadult/adult >12 yr	quads.; poorly oxidised; little trab.; slightly eroded; bone visible at surface
1156	1155 *0.05 m*	unurned burial + rpd	136 g	adult <35 yr	quads.; poorly oxidised; some trab.; stakeholes 1159 & 1165 0.20 m to S & 0.02m to NE respectively.
1160	1159 *0.06 m*	crd inc. fuel ash	3 g	subadult/adult >15 yr	poorly oxidised; stakehole 0.20 m S of grave 1155
1162	1161	grave fill	15 g	= 1168	bone from interface; poorly oxidised
1166	1165 *0.11 m*	rpd inc. fuel ash	4 g	subadult/adult > 12 yr	poorly oxidised; no trab.; stakehole 0.02 m NE of grave 1155
1168*	1161 *0.24 m*	unurned burial + rpd	331 g	adult >25 yr	quads. & spits (8 bags) – most bone N. half ; poorly oxidised; small fragments; some trab.; bone at surface level but most of deposit sealed
1178	1177 *0.12 m*	crd	48 g	subadult/adult >12 yr	quads.; poorly oxidised; small frags.; little trab.; inc. charred animal bone
1182	1181 *0.12 m*	crd	67 g	subadult/adult > 12 yr	poorly oxidised, some only charred; small frags.; no trab.
1194*	1193 *0.25 m*	unurned burial + rpd	329 g	adult > 18 yr	quads & spits (8 bags); bone conc. N & W; poorly oxidised; small frags. *Pyre Good:* Fragments worked bone pin
1195	1193	grave fill	7 g	= 1194	poorly oxidised

KEY: * – undisturbed deposit; crd – cremation-related deposit; rpd – redeposited pyre debris; u/b – unburnt

6.9.2 The cremation graves and associated features have been attributed a Romano-British date on the basis of fragments of iron nails/tacks and residual pottery recovered from some of the deposits. The date of the pit feature containing the unburnt bone is unknown.

6.9.3 The human remains were subject to a rapid scan to assess the condition of the bone, demographic data and the presence of pathological lesions. The deposit type was assessed from the combined osteological and site context data. Assessments of age and sex were based on standard methodologies (Beek 1983; Buikstra and Ubelaker 1994; Scheuer and Black 2000).

6.9.4 There was considerable variation in the surviving depth of the features containing cremation-related deposits (0.05–0.25 m), with graves represented at both ends of the range (**1155** and **1193** respectively). Cremated bone and other archaeological components (predominantly fuel ash) were evident at surface level in several cases, and it is probable that some bone will have been lost from the shallower (<0.10 m) features. In two graves (**1161** and **1193**), the fuel ash-rich burial deposits were sealed below secondary grave fills of a form suggesting the burial remains may originally have been protected by some form of organic cover (e.g. a wooden 'lid' or possibly contained in a box).

6.9.5 There was no intercutting between features. The close proximity of stakeholes **1159** and **1165** to grave **1155**, together with the similarity in their fills (fuel-ash rich and inclusive of some cremated bone), indicates a probable connection between the features/deposits.

6.9.6 Most of the cremated bone is in relatively good visual condition, but some appears slightly eroded. Little or no trabecular bone (generally subject to preferential loss in an aggressive burial environment; here a silty clay) was observed in most of the deposits, the best representation being amongst the material from graves **1155** and **1193**. The unburnt bone fragments from pit **1010** are heavily eroded (human long bone?; femur & tibia).

6.9.7 A minimum of four cremated individuals is represented (**Table 4**) including three adults (>18 yr) and one subadult/adult (>12 yr); all, currently, of uncertain sex. The nature of two of the deposits is inconclusive, but the small quantity of bone recovered and its homogenous distribution within the respective features (**1177** and **1181**), suggests they may not represent burial remains but some other form of cremation-related deposit. Bone from any one cremation could, following recovery from the pyre site, be separated and dispersed between one or more deposit/feature (McKinley 2013). Consequently, careful consideration of numerous factors – contextual and osteological – is required in any interpretation of deposit type and potential links between the material recovered from, particularly neighbouring, contexts. It may be pertinent that both these latter features contained fragments of charred animal bone.

6.9.8 The redeposited unburnt bone from pit **1010**, whilst of unknown origin and date, clearly represents the remains of a fifth individual.

6.9.9 No pathological lesions were observed in the scan.

6.9.10 Pyre goods, in the form of several fragments of a worked bone pin, were recovered amongst the cremated remains from grave **1193**. The charred animal bone from pits **1177** and **1181** might represent the remains of pyre goods, though given the low degree of oxidation observed to the bone, it may have been linked to funeral feasting or post-cremation burial rites and only been added to the pyre/s at a late stage or not at all.

6.9.11 The cremated human bone shows inconsistent levels of oxidation, with common variations in hues of blue and grey in addition to the white colouration indicative of full oxidation of the organic components. Most of the surviving fragments are of medium size (>20 mm), but in several cases the bone appears unusually comminuted (mostly <10 mm) which might reflect deliberate post-cremation manipulation but could also be due to taphonomic factors.

6.10 Conservation

6.10.1 No immediate conservation requirements were noted in the field, but as potentially unstable material types, the iron and copper alloy objects are all stored with supportive packaging and a desiccant (silica gel) to ensure a dry environment below 35% relative humidity. Their condition is frequently monitored.

7 ENVIRONMENTAL EVIDENCE

7.1 Introduction

7.1.1 During the archaeological investigations, environmental bulk soil samples were collected from Romano-British deposits for the potential recovery of biological evidence, including charred plant remains for information on crop-husbandry, crop-processing and other human activities, and charcoal fragments for evidence on woodland resources and

management and fuel selection for domestic, economic and ritual use. A sample was also taken from a ditch fill specifically for the recovery of molluscs and possible information on the nature of the local environment within and in the immediate vicinity of this feature.

7.1.2 Forty-six samples were taken during the excavations; 40 were from eight cremations graves or cremation-related features (the individual fills of which were sampled by quadrant and in two cases also by spit, with a basal and upper sample), while the other six samples were from the fills of two stake-holes containing cremation deposits, two ditches and a pit. The sample ranged in size from 0.2 to 20 litres (the majority being between 1 and 5 litres) and were processed for charred plant remains by standard flotation methods with the flot retained on a 0.5 mm mesh and the residue on a 1 mm mesh.

7.1.3 The assessment results are described below and are listed by sample in **Appendix 1**.

7.2 Assessment methods

7.2.1 Both flots and residues were dried and the residues weighed and sorted for biological remains and other finds. All 46 processed samples produced flots, ranging in size from 2 to 400 ml, 17 of which were greater than 100 ml. The percentage of roots in individual flots was also recorded, although this was low (less than 5%) in the majority of cases.

7.2.2 The flots were scanned under a x10 to x40 stereo-binocular microscope and a record made of the presence and approximate abundance of charred grain, cereal chaff and the seeds of other plants (potential food remains and wild plants/weeds) in each flot; the frequency of remains was scored using the following scale: A* = 30–99; A =>10; B=5–9; C=<5 items. Provisional identification of dominant or important taxa was also noted, following the nomenclature of Stace (1997) for wild plants and traditional nomenclature following Zohary and Hopf (2000) for cereals.

7.2.3 The volumes of wood charcoal (potentially identifiable fragments greater than 2 mm and 4 mm) in each sample was also recorded along with the presence of any other biological remains which consisted of burnt bone fragments in virtually all the flots and snails in several samples.

7.3 Charred plant remains

7.3.1 Variable amounts of identifiable charred plant remains were present in 32 of the 46 flots, although quantities were generally low, over half of the productive samples only containing small botanical assemblages (less than 10 items).

7.3.2 Charred cereal grains in 27 of the flots made up the bulk of the identifiable remains including large amounts (30–99 items) in seven samples. The identifiable grains were mainly of hulled wheat (*Triticum dicoccum/spelta*), recorded in 21 flots, while grains of possible free-threshing wheat (*Triticum aestivum* type) were noted in one sample and barley (*Hordeum vulgare*) grains in four. Small amounts of cereal chaff in eight flots consisted of hulled wheat chaff (spikelet forks, glume bases) including evidence for *Triticum spelta* (spelt wheat). Other cereal debris consisted of culm node fragments in one sample.

7.3.3 Small to modest amounts of other charred plant remains were present in 19 samples, largely made up of wild plant/weed seeds including a number of potential arable weeds, for example *Fallopia convolvulus* (black bindweed), *Agrostemma githago* (corn cockle), *Galium* (bedstraw), *Persicaria* (knotweed), *Rumex* (dock), and *Avena*/*Bromus* (oat/brome); leguminous seeds in several samples included *Vicia*/*Lathyrus*

(vetch/tare/vetchling) which may be from wild and/or cultivated pulses. Scrub/hedgerow vegetation is suggested by occasional remains of *Crateagus* (hawthorn), while charred bud and stem fragments were noted in a few samples.

7.3.4 There follows a brief discussion of the charred plant assemblages by feature type.

Cremation graves or cremation-related features

7.3.5 Thirty of the 40 samples from the fills of eight cremations graves or cremation-related features produced charred plant remains. Two of the graves produced rich assemblages; the four samples from the fill **1150** of grave **1149** all contained large numbers of cereal grains and good amounts of weed seeds from a range of species, plus occasional chaff fragments in two samples; and the eight samples from fill **1194** of grave **1193** all of which had large numbers of grains but fewer weed seeds, albeit in virtually all the flots, plus traces of chaff in one sample.

7.3.6 The fills of the other six features only produced small amounts of charred plant remains in 18 of 28 samples associated with graves **1155, 1161** and **1193**, and cremation-related features **1177** and **1181**, with occasional cereal grains in 14 samples, chaff fragments in three samples and wild plant/weed seeds in eight samples.

Stake-holes

7.3.7 Two small cremation deposits **1160** and **1166**, filling stake-holes **1159** and **1165** respectively, contained no identifiable charred plant remains although the presence of a few charred stem fragments was noted in stake-hole **1159**.

Ditches

7.3.8 Fill **1025** of ditch **1265** (cut **1024**) produced no identifiable charred plant remains, while fill **1139** of ditch **1266** (cut **1138**) contained only traces of hulled wheat chaff.

Pits

7.3.9 Fill **1012** of pit **1010** produced occasional indeterminate cereal grain and glume base fragments.

Summary

7.3.10 Identifiable charred plant remains were present in 32 of the 46 samples and in virtually all of the sampled features, although mainly in low amounts with the notable exception of two fairly rich assemblages in cremation graves **1149** and **1193**. The remains consisted largely of cereal grains, hulled wheat including spelt being the main cereal, with a little evidence for barley and possibly traces of free-threshing wheat. Current archaeobotanical research shows that spelt wheat and hulled barley are usually the main cereals found in both Iron Age and Romano-British deposits in southern England, with occasional finds of free-threshing wheat (Greig 1991, 306–309). There were only traces of hulled wheat chaff in eight samples, which may suggest that the grains had been de-husked and ready for use when burnt.

7.3.11 Wild plant/weed seeds were present in 19 samples, but again mainly in low amounts with the notable exception of a larger number in grave **1149**, these seeds probably being mainly from arable weeds given their association with relatively large cereal grain deposits. The presence of hawthorn remains provides tentative evidence for the presence of scrub environments.

7.3.12 The charred plant remains are indicative of debris from the advanced stages of crop-processing and food preparation. The cereal grains may have been accidentally burnt

while being dried before milling, storage or use, although they may have been deliberately burnt as part of the cremation ritual as food offerings, particularly in the case of the two rich grain deposits in graves **1149** and **1193**, the latter containing little other crop-processing debris; this may also explain the paucity of cereal chaff in the samples. The small amounts of charred plant material in the other sampled features, however, may derive simply from debris associated with domestic activities taking place elsewhere.

7.4 Wood charcoal

7.4.1 The volume of wood charcoal in the flots is shown in **Appendix 1** and included both round wood and mature wood fragments. While virtually all the sampled features contained potentially identifiable fragments (i.e. greater than 2 mm), a number only contained small amounts and low concentrations of such material. The richest charcoal assemblages (> 360 ml) were from graves **1193**, **1149** and **1161**, while there was a good amount (161 ml) in grave **1155** and more modest amounts (50–100 ml) in cremation-related pit features **1177** and **1181**.

7.5 Molluscs

7.5.1 Fill **1025** of ditch **1265** (cut **1024**) was specifically sampled for the recovery of molluscs and produced a good number of largely freshwater snails, particularly *Anisus leucostoma* and *Planorbis planorbis*, plus a few terrestrial species. The flot from the bulk sample taken from the same ditch fill also contained a large number of similar snails. Occasional land snails including *Vallonia*, were noted in samples from grave **1193**.

8 FURTHER POTENTIAL

8.1 Stratigraphic

8.1.1 There is no potential for any further break down of the periods/phases. The limited artefactual data obtained from the feature groups will not allow a greater understanding of their sequence and function(s) than that presented in this report. However, there is the potential to place the archaeological remains uncovered within the Site within their wider setting, therefore helping to build up a picture of the hinterland around the Roman town of Alchester.

8.2 Artefacts

8.2.1 There is limited potential for most artefact types due to the small quantity of finds. There is negligible potential for the pottery assemblage to provide more precise dating of the individual feature groups because of the relatively small number of sherds recovered from each, the abraded nature of the sherds and the paucity of diagnostic pieces.

8.2.2 Of more importance, however, is the human bone relating to the Romano-British cremation burials. Further analysis has the potential to help establish associations between this mortuary area and others around the Roman town of Alchester, the longevity of use of the mortuary landscape, and enable the different forms of cremation-related deposit to be viewed within their wider regional setting.

8.3 Environmental

Charred plant remains

8.3.1 The charred plant remains from the samples may provide information on crop husbandry and processing, with the large number of grains and the few chaff fragments providing evidence on the range of cereals used and probably locally cultivated during Romano-

British period. Initial indications are that hulled wheats (including spelt) were the main cereals with some evidence for barley and possibly free-threshing wheat.

8.3.2 Other aspects of crop husbandry, such as the range of soils used for cultivation, sowing times and possibly harvesting methods, may be investigated through the study of the weed seed assemblages, with a good species range in the samples from grave **1149**. The charred plant remains may also be used for information on crop-processing activities, the few larger assemblages mainly dominated by cereal grains indicative of almost fully cleaned crops, with less evidence for debris (weed seeds, chaff) from the earlier stages of cereal processing.

8.3.3 These results of this analysis may be compared with archaeobotanical data from other Iron Age and Romano-British sites in the area including from Alchester (eg Pelling 2002).

Wood charcoal

8.3.4 The analysis of the identifiable wood charcoal in the samples may provide information on species composition, management and exploitation of the local woodland resource. The presence of large amounts of charcoal in several cremation graves also presents an opportunity to establish the range of species used as fuel for this ritual.

9 RECOMMENDATIONS

9.1 Introduction

9.1.1 This section describes the further analysis that is recommended in order to lead to dissemination (via publication) of the evidence from the archaeological investigations, the proposals and resources for which are outlined in the following section (section 10).

9.2 Stratigraphic sequence

9.2.1 No further analysis of the stratigraphic sequence is required.

9.2.2 The results of this assessment report will be edited for publication and considered in their broader archaeological context, with particular reference to other investigations of similarly dated remains in the local area (i.e. Roman Alchester). Therefore, this will require some time allocation for research.

9.3 Artefacts

9.3.1 The finds have all been recorded to fairly detailed levels (e.g. animal species/anatomical element, pottery ware types). The metalwork will require x-radiography to provide a permanent record of these inherently unstable material types, with one item (the brooch) likely to require additional cleaning and stabilisation treatment. The fragmentary nails and/or tacks from the cremation graves (**1149**, **1155**, **1161** and **1193**) and other related features (**1177** and **1181**), will require additional examination, quantification and consideration in an attempt to establish their significance within the mortuary rite.

9.3.2 No further analysis is proposed for any of the other material types, except the cremated bone. For the Romano-British finds, brief summaries should be included in any future publication, enhanced and augmented where applicable by more detailed considerations of the material in its feature groups and further reference to published data from the area, e.g. for animal bone, reference will be made to Higbee 2011 and Powell and Clark 2001.

9.3.3 Provision should be made for the illustration of the stone axe and the brooch.

9.3.4 Full analysis is recommended for the cremated bone. Analysis will follow WA's standard procedures (McKinley 1994, 5–6; 2004). The unsorted <4 mm residues will be subject to a rapid scan at this stage to extract any identifiable material, osseous or artefactual.

9.3.5 Taphonomic factors potentially affecting differential bone preservation will be assessed. The age of individuals will be further assessed using standard methodologies (Beek 1983; Buikstra and Ubelaker 1994; Scheuer and Black 2000). Sex will assessed from the sexually dimorphic traits of the skeleton (Bass 1987; Buikstra and Ubelaker 1994; Gejvall 1981). Pathological lesions will be recorded in text and via digital photography.

9.3.6 The form and nature of some of the deposits is currently uncertain and will be further considered in light of the osteological and other finds data together with the context data. Aspects of pyre technology and the cremation mortuary rite will be discussed in their temporal, regional and, where appropriate, national context.

9.3.7 It is further recommended that bone samples (or possibly fuel ash if suitable samples cannot be secured) from at least two of the cremation-related deposits are submitted for radiocarbon dating:

- **1168** and/or **1194** (potentially boxed burials); and
- **1156** and/or **1150**.

9.3.8 This will help establish the link between the mortuary areas, the longevity of use of the mortuary landscape, and enable the different forms of cremation-related deposit to be viewed within their wider regional setting.

9.4 Environmental

Charred plant remains

9.4.1 On the basis of the assessment results it is recommended that further analysis should be carried out on the 12 rich charred plant assemblages in the four samples from the fill **1150** of grave **1149** and in the eight samples from the fill **1194** of grave **1193**.

9.4.2 All identifiable charred plant remains will be sorted from the flots (together with any charred plant macrofossils from the residues) and identified using a stereo-binocular microscope with a magnification of up to x40 together with reference material and reference manuals where appropriate, nomenclature for the wild plants following Stace (1997) and Zohary and Hopf 2000) for the cereals. The remains will be quantified and the results tabulated followed by the preparation of a report. The charred plant remains recorded during the assessment of the other sampled features should also be considered in the discussion of these results.

Wood charcoal

9.4.3 It is recommended that further analysis is carried out on the rich wood charcoal assemblages from graves **1149**, **1161**, **1193**, the fairly large quantity in grave **1155** and the more modest amounts in cremation-related features **1177** and **1181**. Potentially identifiable charcoal fragments may be extracted from both the 2mm residue and the flot (>2 mm) with a selection of between 25 and 30 fragments from individual samples. It is suggested that the advice of a charcoal specialist should be sought in this selection process.

10 RESOURCES AND PUBLICATION

10.1 Proposed publication

10.1.1 It is proposed that, following the further analyses outlined above, the results of the strip, map and sample and watching brief will be reported on in the form of a short illustrated article of approximately 12 pages in the regional journal *Oxoniensia*.

10.1.2 Once this report and the proposals has been approved, the programme for further analysis and likely publication timetable will be confirmed.

10.2 Management structure

10.2.1 Wessex Archaeology operates a project management system. The team will be headed by a Post-Excavation Manager who will assume ultimate responsibility for the implementation and execution of the project.

10.2.2 The Post-Excavation Manager will ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines.

10.3 Task list

10.3.1 The following Wessex Archaeology staff are scheduled to undertake the work for post-excavation analysis and publication, as outlined below in **Table 5**.

Table 5: Task list

Task no.	Description	Grade	WA staff	Days
Management and support				
	Project management, and editing	PM	Phil Andrews	1.5
	QA and report submission	SPM	Pippa Bradley	1
Stratigraphy				
	Stratigraphic reporting and background research	SPO	Gail Wakeham	3
Finds analysis and reporting				
	Human bone analysis and reporting	SPM	Jacqueline McKinley	5
	Pottery and other finds no further analysis but reporting	PM	Rachael Seager Smith	2.5
	Animal bone reporting	SPO	Lorrain Higbee	0.5
	Finds illustration (stone axe and brooch)	SPO	Graphics Office	1.5
Radiocarbon dating				
	2 samples	ext	SUERC	
Conservation				
	X radiography to provide record of unstable material types & cleaning & stabilisation of one brooch for long term storage	PO	Lynn Wootton	2
Environmental analysis and reporting				
	Extraction, of charred plant remains and charcoal from graves 1149 & 1193 (12 samples)	PS	Nicki Mulhall	2
	ID & quantification of charred plant remains (8 samples + assessment data from other samples)	SPO	Ines Lopez Doriga	4

Task no.	Description	Grade	WA staff	Days
	Analysis and reporting of charred plant remains	SPO	Ines Lopez Doriga	1
	ID & quantification of wood charcoal from graves & related features 1149, 1155, 1161, 1177, 1181 and 1193 (selection from a possible 32 samples)	ext	Dana Challinor	2
	Analysis and reporting of wood charcoal	ext	Dana Challinor	1
Illustration				
	Site illustration	PO	Graphics Office	1.5
Publication				
	Journal cost (12 pages @ £50.00)		External	£600
Archiving				
	Archive preparation	PS	Jenny Cronin	1
	Archive deposition	PS	Jenny Cronin	1
	Finds archiving and discard	PS	Sue Nelson	1
	Environmental archiving	PS	Nicki Mulhall	0.5
	Box storage grant (25 boxes paper archive/finds)		External	£250

11 STORAGE AND CURATION

11.1 Preparation of the archive

11.1.1 The complete site archive, which will include paper records, photographic records, graphics and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by the local museum, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014d; Brown 2011; ADS 2013).

11.1.2 All archive elements will be marked with the project code **103851** and a full index will be prepared. The physical archive comprises the following:

- 1 A4 lever arch file of paper records
- 1 A3 folder of graphics
- 22 boxes of finds

11.2 Museum

11.2.1 With the full agreement of the landowner, the project archive resulting from the archaeological investigations will be deposited with Oxford Museums Resource Centre and an accession code **OXCMS: 2014.196** has been obtained.

11.3 Discard policy

11.3.1 WA follows the guidelines set out in *Selection, Retention and Dispersal* (Society of Museum Archaeologists 1993), which allows for the discard of selected artefact and ecofact categories which are not considered to warrant any future analysis. The discard of

environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2011).

11.3.2 With the agreement of the Oxford Museums Resource Centre and the landowner, the clay tobacco pipe, ceramic and stone building materials, fired clay, glass, oyster shell and post-medieval metalwork (iron and copper alloy) should be targeted for discard prior to the deposition of the archive.

11.4 Security copy

11.4.1 In line with current best practice (e.g. Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

11.5 OASIS

11.5.1 An OASIS online record (http://oasis.ac.uk/pages/wiki/Main) will be initiated and key fields completed on Details, Location and Creators Forms. All appropriate parts of the OASIS online form will be completed for submission and this will include an uploaded .pdf version of the entire report (a paper copy will also be included with the archive). Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service 'ArchSearch' catalogue.

11.6 Copyright

11.6.1 The full copyright of the written/illustrative archive relating to the site will be retained by Wessex Archaeology under the Copyright, Designs and Patents Act 1988 with all rights reserved. The HER, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profitmaking, and conforms to the Copyright and Related Rights Regulations 2003.

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13 APPENDICES

13.1 Appendix 1: Environmental assessment results

Key: A* = 30–99, A = >10, B = 9–5, C = <5; Moll-t = terrestrial molluscs; Moll-f = freshwater molluscs; Analysis: C = charcoal, P = plant, m=molluscs

Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
	1010	1012	1	10	40	5	C	C	Indet grain frag, glume base frag	-	-	5/10 ml			
	1149	1150	2	2	325	1	A	-	Hulled wheat grain frag	A	*Avena/Bromus Fallopia, Persicaria, Agrostemma, Rumex*	75/100 ml	Burnt bone	PC	mature + round wood frags
	1149	1150	3	3	225	1	A*	C	Hulled wheat grain frags, spikelet fork + glume base frags, culm node	B	*Avena/Bromus Fallopia, Medicago/ Trifolium, Rumex*	65/70 ml	Burnt bone	PC	mature + round wood frags
	1149	1150	4	3	375	1	A*	C	Hulled wheat grain frags, spikelet fork + glume base frags	A	*Avena/Bromus Chenopodium, Rumex, Poa/Phleum, Stellaria*	75/100 ml	Burnt bone	PC	mature + round wood frags

Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
	1149	1150	5	3	375	1	A*	-	Hulled wheat grain frag	A	*Avena/Bromus Vicia/lathyrus Galium Rumex*	60/100 ml	Burnt bone	PC	mature + round wood frags
	1155	1156	6	1	80	1	-	-	-	-	-	15/20 ml	Burnt bone	C	mature + round wood frags
	1155	1156	7	1	25	2	C	-	Indet. grain frags	-	stems	3/3 ml	Burnt bone		
	1155	1156	8	2	150	2	-	-	-	C	*Medicago/ Trifoilum, Chenopodium,* stems	20/40 ml	Burnt bone	C	mature+ round wood frags
	1155	1156	9	1	150	1	C	-	Hulled wheat grain frag	-	-	30/30 ml	Burnt bone	C	mature+ round wood frags
	1159	1160	10	0.5	10	2	-	-	-	-	stems	3/2 ml	Burnt bone		mature+ round wood frags
	1165	1166	11	0.2	2	20	-	-	-	-	-	-	Burnt bone		
	1169	1162	12	4	15	35	C	-	Hulled wheat grain	-	-	1/2 ml	Burnt bone		
	1169	1162	13	4	15	35	-	C	Glume base frag	-	-	2/2 ml	Burnt bone		

Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
	1169	1162	14	4	20	25	-	-	-	-	-	3/3 ml	Burnt bone		
	1169	1162	15	4	10	25	-	-	-	-	stems	2/1 ml	Burnt bone		
	1161	1168	16	2	50	2	C	-	Hulled wheat grain	C	*Rumex, Vicia/Lathyrus*	10/10 ml	Burnt bone	C	
	1161	1168	17	2	75	5	C	-	Hulled wheat grain	-	-	15/15 ml	Burnt bone	C	mature + round wood frags
	1161	1168	18	2	30	2	B	-	Hulled wheat grain frags	C	*Vicia/Lathyrus, Medicago/ Trifolium*	7/5 ml	Burnt bone		
	1161	1168	19	3	225	3	C	-	Indet. grain frags	-	-	75/40 ml	Burnt bone	C	mature + round wood frags
	1161	1168	20	3	135	1	C	-	Hulled wheat grain	C	Rumex	20/30 ml	Burnt bone	C	mature + round wood frags
	1161	1168	21	3	150	1	C	-	Hulled wheat grain	C	Rumex	20/30 ml	Burnt bone	C	mature + round wood frags
	1161	1168	22	2	50	3	-	-	-	-	-	10/15 ml	Burnt bone	C	mature + round wood frags

Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
	1161	1168	23	5	125	3	B	C	Hulled wheat grain frags, spikelet fork frags	-	-	30/30 ml	Burnt bone	C	mature + round wood frags
	1177	1178	24	1	10	25	-	-	-	-	-	1/2 ml	Burnt bone		
	1177	1178	25	1	35	20	-	-	-	-	-	10/5 ml	Burnt bone	C	mature + round wood frags
	1177	1178	26	2	15	10	-	-	-	-	-	2/2 ml	Burnt bone		
	1177	1178	27	2	60	10	-	-	-	C	bud	35/5 ml	Burnt bone	C	mature + round wood frags
	1181	1182	28	4	40	2	C	-	Indet. grain frags	-	-	5/10 ml	Burnt bone		mature + round wood frags
	1181	1182	29	4	60	3	-	-	-	-	-	10/15 ml	Burnt bone	C	mature + round wood frags
	1181	1182	30	3	40	2	-	-	-	-	-	5/10 ml	Burnt bone	C	mature + round wood frags

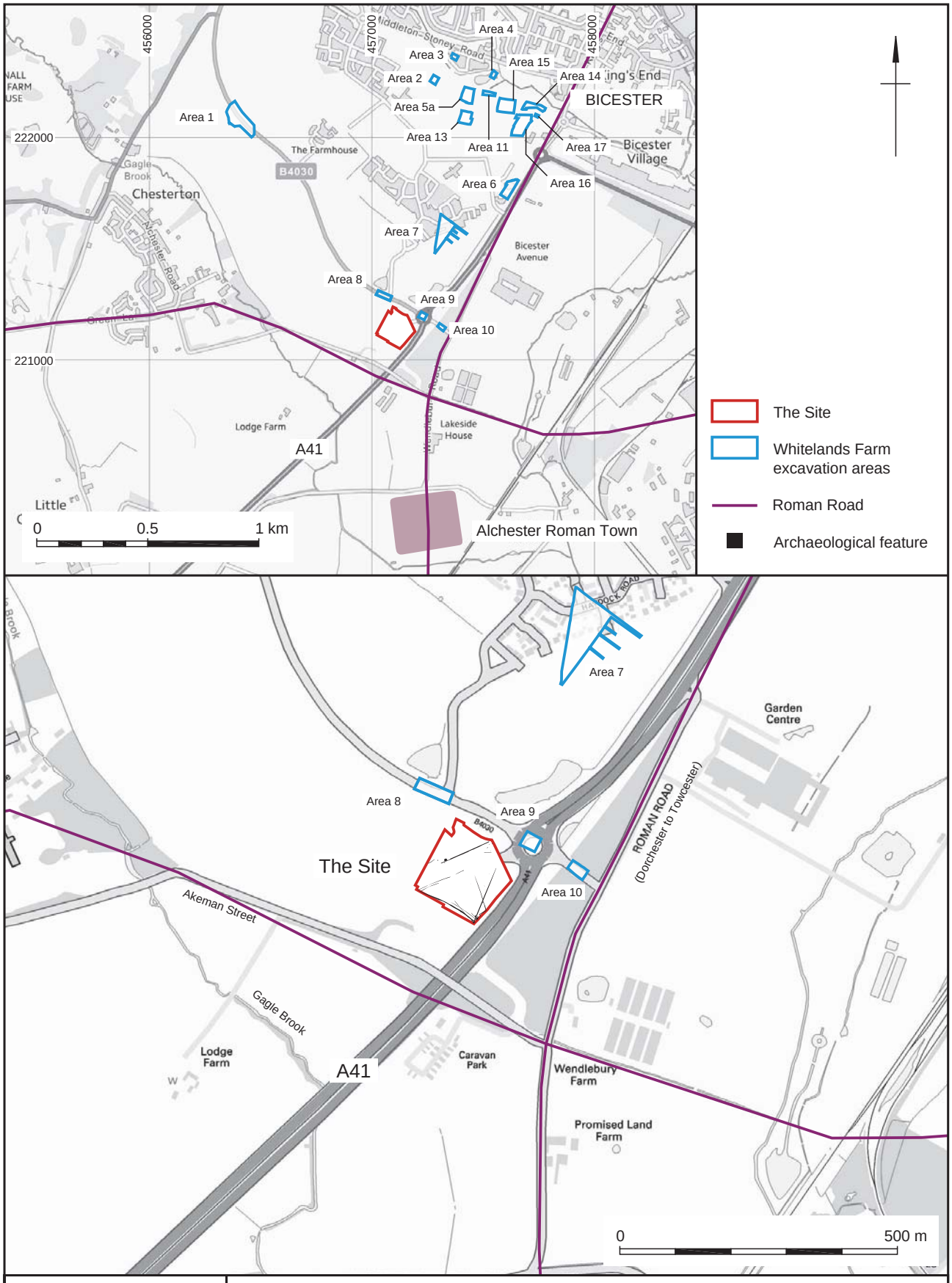
Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
	1181	1182	31	5	60	2	C	-	Hulled wheat +?free-threshing wheat grain frags	-	-	7/15 ml	Burnt bone	C	mature + round wood frags
1265	1024	1025	32	20	10	5	-	-	-	-	-	0/<1 ml	Moll-t (C), Moll-f (A*)	M	molluscs include Trochulus, Cepaea, Planrobis planorbis, Anisus leucostoma, Gyraulus crista, Galba truncatula

Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
1265	1024	1025	32m	1	15	2	-	-	-	-	-	0/<1 ml	Moll-t (C), Moll-f (A)	M	c. 30 molluscs, Vertigo (C), Trochulus (C), Limax (C), Cepaea (C), Pisidium (C), Radix balthica (C), Planorbis planorbis (B), Anisus leucostoma (A), Gyraulus crista (C), Bithynia operculum
1266	1138	1139	33	10	3	20	-	C	Spikelet fork frag	-	-	0/<1 ml	-		
	1193	1195	34	10	10	40	-	C	Glume base frags inc. spelt	C	Vicia/Lathyrus	<1/1 ml	-		
	1193	1195	35	11	15	35	-	-	-	-	-	1/1 ml	-		
	1193	1195	36	11	30	35	C	-	Indet. grain frags	C	Vicia/Lathyrus	2/2 ml	Moll-t (C)		molluscs include Vallonia

Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
	1193	1195	37	12	25	35	C	-	Indet. grain frags	-	-	2/2 ml	-		
	1193	1194	38	5	175	1	A	-	Hulled wheat grain frags	C	Vicia/Lathyrus	30/55 ml	Moll-t (C), Burnt bone	PC	mollusc include Vallonia, Charcoal = mature + round wood frags
	1193	1194	39	5	250	1	A*	-	Hulled wheat + barley grain frags	C	Crataegus	40/80 ml	Burnt bone	PC	mature + round wood frags
	1193	1194	40	5	90	1	A	-	Hulled wheat grain frags	C	Rumex	20/25 ml	Burnt bone	PC	mature + round wood frags
	1193	1194	41	5	250	1	A	-	Hulled wheat grain frags	C	Vicia/Lathyrus	70/85 ml	Burnt bone	PC	mature + round wood frags
	1193	1194	42	5	120	1	A	-	Hulled wheat grain frags	C	*Medicago/Trifolium*, bud	20/30 ml	Burnt bone	PC	mature + round wood frags
	1193	1194	43	5	325	1	A*	-	Hulled wheat + barley grain frags	-	-	75/100	Burnt bone	PC	mature + round wood frags

Group no.	Cut no.	Context no.	Sample no.	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis	Comments
	1193	1194	44	5	125	1	A*	C	Hulled wheat + barley grain frags, glume frags inc. spelt	C	*Vicia/Lathyrus, Medicago/Trifolium,* stems	20/40 ml	Burnt bone	PC	mature + round wood frags
	1193	1194	45	5	400	1	A*	-	Hulled wheat + barley grain frags	C	Avena/Bromus	50/150 ml	Burnt bone	PC	mature + round wood frags

Key: A* = 30−99, A = >10, B = 9-5, C = <5; Moll-t = terrestrial molluscs Moll-f = freshwater molluscs; Analysis: C = charcoal, P = plant, m=molluscs



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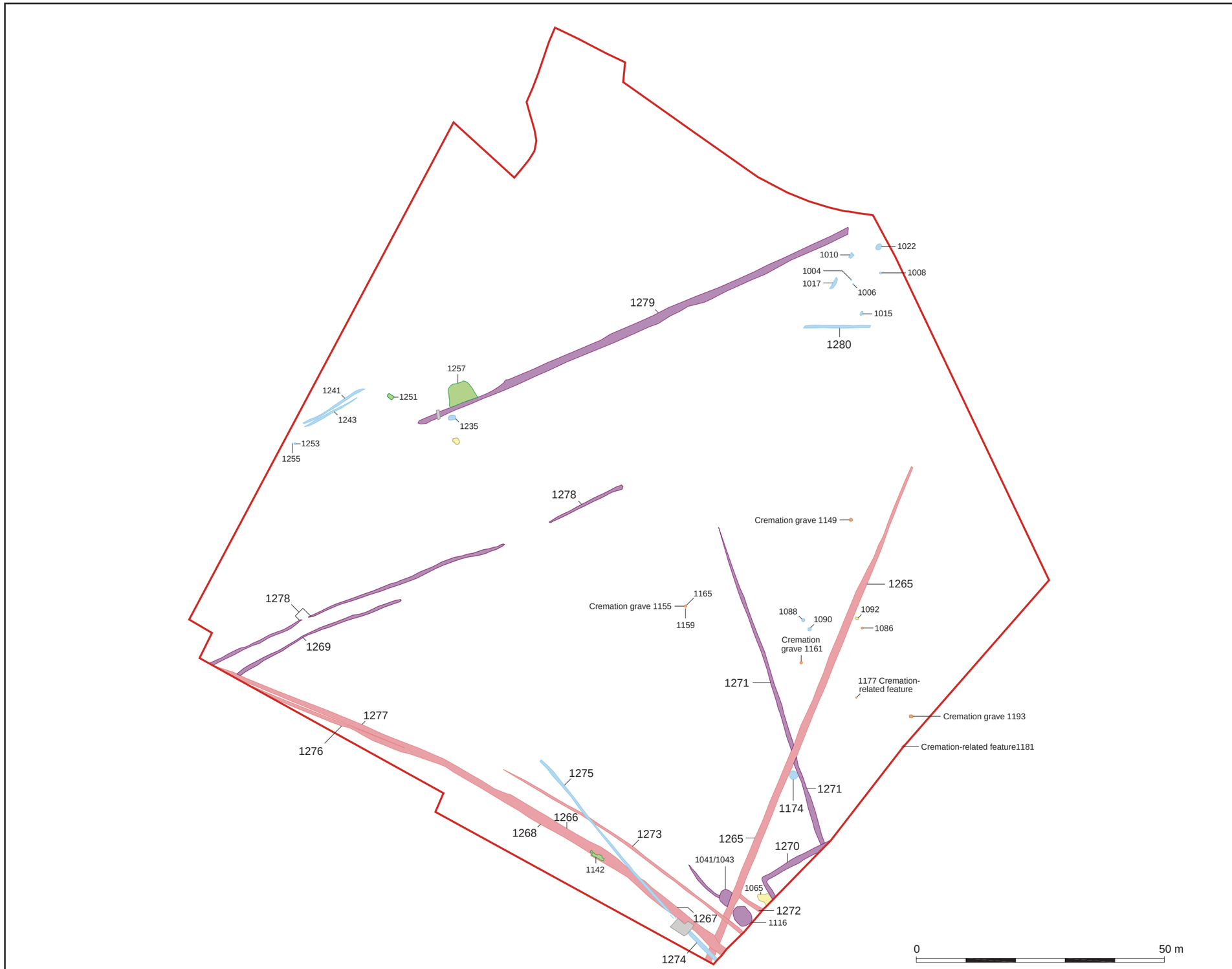
Site location

Figure 1



Romano-British phase I
Romano-British phase II
Romano-British unphased
Post-medieval
Undated
Disturbance
Tree throw hole

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All archaeological features

Figure 2

Plate 1: North-west facing section of ditch 1277 cutting ditch 1269 (1m scale)

Plate 2: Field drain cutting re-cut ditch 1279 (2m scale)

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Plate 3: Plan view of excavated waterhole 1116, with ditch 1265 cutting pit 1041/1043 beyond (2m scale)

Plate 4: Detail of water-lain deposits in waterhole 1116 (2m scale)

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Plate 5: NNE facing section of ditch 1265 showing water-lain fills (cut 1081) (2m scale)

Plate 6: South-east facing section of ditch 1268 cutting ditch 1266 and then terminating within excavated segment 1124, with undated gully 1275 to right (2m scale)

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Plate 7: South-west facing section of ditch 1267 cutting ditch 1265 (2m and 1m scale)

Plate 8: South facing section of grave 1161 showing cremation burial 1168 with overlying fill 1162 (0.3m scale)

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Plate 9: South facing section of grave 1193 showing cremation burial 1194 with overlying fill 1195 (0.3m scale)

Plate 10: South facing section of grave 1149 (0.3m scale)

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Plate 11: Pre-excavation view of grave 1155 with stake-holes 1159 and 1165 (0.2m and 0.5m scale)

Plate 12: South facing section of cremation-related feature 1177 (0.2m scale)

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Plate 13: South-east facing section of cremation-related feature 1181 (0.3m scale)

Plate 14: North-west facing section of post-medieval depression or pond 1257 cut by French drain (2m scale)

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Plate 15: Post-medieval rubble layer 1264 underlying topsoil in section with undated post-holes 1253 and 1255 in foreground (2m scale)

Plate 16: View from north-west of post-medieval rubble layer 1142 in Romano-British phase 2 ditch 1268, which in turn cuts ditch 1266 to left (2m scale)

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wessex archaeology

Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk

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